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Endangered Species Act (ESA) Section 7 Consultation and Infrastructure Projects

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Endangered Species Act (ESA) Section 7 Consultation and Infrastructure Projects

Section 7 of the Endangered Species Act (ESA; 16 U.S.C. §§1531 et seq.) requires federal agencies (often referred to as *action agencies*) to ensure that actions they undertake, authorize, or fund are not likely to jeopardize threatened or endangered species (i.e., listed species) or adversely modify designated critical habitat of listed species. To satisfy this mandate, Section 7 generally requires action agencies to consult with the U.S. Fish and Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS) (together, the Services) when their proposed actions may affect listed species or critical habitat. Actions subject to Section 7 may include infrastructure projects that are undertaken by action agencies or by nonfederal entities with federal authorization or funding. Section 7 has frequently been of interest to Congress, in part, because it can affect infrastructure projects.

Section 7 consultation is a multistep process (see **Figure**) generally used to evaluate the effects of agency actions on listed species and critical habitat and to consider alternatives to minimize those effects, as needed. The action agency must assess whether listed species or critical habitat may be present in the area affected by the action (known as the *action area*) and, if present, whether the action may affect any such resources. The action agency or relevant nonfederal entity may opt to enter into *informal consultation* with the Services. The process may conclude if the Services and action agency agree that listed species or critical habitat are not in the action area or that the action is not likely to adversely affect listed species or critical habitat. If the action may adversely affect listed species or critical habitat, the action agency generally must enter into *formal consultation* with the relevant Services to assess the action. Formal consultation concludes with the Services issuing an opinion on the effects of the action referred to as a *biological opinion* (BiOp).

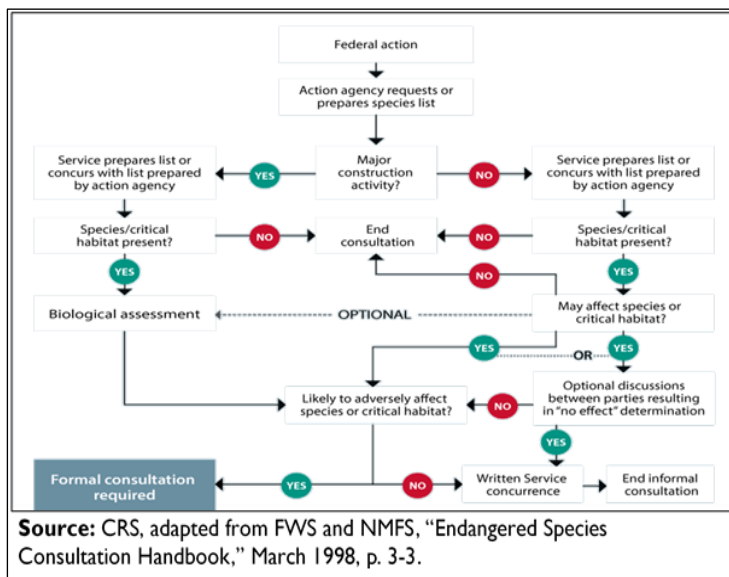
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A BiOp contains analyses of the likely effects of the action on listed species and critical habitat and a statement of a Service's opinion as to whether the action is likely to *jeopardize* listed species or *adversely modify* critical habitat. The Service may issue a *no jeopardy* or *jeopardy* BiOp. For jeopardy BiOps, the ESA requires the Service to suggest any *reasonable and prudent alternatives* (RPAs) to the proposed action that would avoid causing jeopardy or adverse modification. A BiOp generally also includes an *incidental take statement* authorizing certain actions that otherwise would be prohibited by Section 9 of the ESA.

The Section 7 consultation process may be expedited or waived under certain circumstances, some of which may apply to infrastructure projects. Action agencies may pursue programmatic consultations for repeated types of projects to streamline future

individual action consultations. In certain emergency situations, regulations allow federal agencies to undertake an alternative consultation process in an expedited time frame. For actions that receive a jeopardy BiOp for which there are no RPAs, the action agency can seek an exemption from the ESA requirements. The President may waive the Section 7 requirements for certain types of projects in declared natural disaster areas. Congress may also include a waiver of Section 7 requirements directly in legislation for specific projects or types of projects.

Many actions, including infrastructure projects, may comply with Section 7 without requiring informal or formal consultation if the action agency or nonfederal entity finds that either no listed species or critical habitat are present in the action area or that such species or critical habitat will not be affected by the action. Section 7 consultation, however, may delay an infrastructure project or induce project modifications (either required or voluntary) to reduce its effect on listed species. In addition, litigation over the final BiOp may delay the project.

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Introduction

Section 7 of the Endangered Species Act (ESA) requires federal agencies (referred to as *action agencies*) to ensure that actions they undertake, authorize, or fund are not likely to jeopardize threatened or endangered species (i.e., listed species) or adversely modify designated critical habitat for listed species.¹ To satisfy this mandate, Section 7 generally requires federal agencies to consult with the U.S. Fish and Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS) (together, the Services) when their proposed actions may affect listed species or critical habitat.² Actions subject to Section 7 may include infrastructure projects that are undertaken by action agencies or by nonfederal entities with federal authorization or funding. Section 7 has frequently been of interest to Congress, in part, because it can affect the implementation and cost of infrastructure projects. This report provides an overview of the Section 7 process as well as examples of how compliance with Section 7 may affect actions or be expedited or waived in certain circumstances. Although this report specifically addresses infrastructure projects at times, the Section 7 overview generally applies to any type of agency action.

Section 7 consultation is a multistep process generally used to evaluate the effects of agency actions on listed species and critical habitat and to consider alternatives to minimize those effects, as needed. Unless the Services and action agency determine that the action is not likely to adversely affect listed species or critical habitat, the process concludes with the Services' opinion on the effects of the action (referred to as a *biological opinion* or *BiOp*), which may authorize certain effects on listed species that would otherwise violate the ESA. Section 7 and its implementing regulations outline procedures for this consultation process.³

¹ 16 U.S.C. §1536(a)(2). 16 U.S.C. §1532 defines *critical habitat*, *endangered species*, and *threatened species*:

(5)(A) The term “critical habitat” for a threatened or endangered species means- (i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 1533 of this title, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 1533 of this title, upon a determination by the Secretary that such areas are essential for the conservation of the species.

...

(6) The term “endangered species” means any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this chapter would present an overwhelming and overriding risk to man.

(20) The term “threatened species” means any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Other definitions related to Section 7 are found in 16 U.S.C. §1532 and 50 C.F.R. §402.02. For more information on the ESA in general, see CRS Report R46677, *The Endangered Species Act: Overview and Implementation*, by Pervaze A. Sheikh, Erin H. Ward, and R. Eliot Crafton.

² 16 U.S.C. §1536(a)(2). The U.S. Fish and Wildlife Service (FWS) is an agency within the Department of the Interior; the National Marine Fisheries Service (NMFS), also called NOAA Fisheries, is an office within the National Oceanic and Atmospheric Administration (NOAA), which is in the Department of Commerce. This report uses *Services* to refer to FWS, NMFS, or both agencies.

³ This report uses “consultation” to refer to the process and generally qualifies consultation with either “direct,” “informal,” or “formal” to refer to components of the process when action agencies or nonfederal entities directly interact with one or both of the Services.

Depending on the nature of the action, compliance may require varying levels of resources. For some actions, the action agency may be able to demonstrate Section 7 compliance by confirming with the Services that no listed species or critical habitat are present in the area affected by the action (referred to as the *action area*). For other actions, the action agency may need to consult with the Services to assess the potential effects of the action. In addition, litigation related to the consultation process for the action also may delay the project.

Complying with Section 7 also may affect the nature and design of the project itself. During the Section 7 process or as a result of it, an action agency or nonfederal entity may modify its proposed action to reduce the effect on listed species or critical habitat. For example, a water infrastructure project such as a dam may need to change the proposed amount of water it delivers to irrigators to provide more instream flow for listed fish species for spawning or migration. Further, to mitigate the effect of the water project on listed species, additional infrastructure features may need to be built, such as fish ladders. Alternatively, an action agency may decide not to proceed with an action if there are no viable alternatives that would not violate the ESA.

Section 7 Overview

When Is a Federal Agency Action, Including an Infrastructure Project, Potentially Subject to Section 7 of the ESA?

Section 7 of the ESA generally requires federal agencies to ensure that “any action authorized, funded, or carried out by such agency” does not jeopardize listed species or adversely modify critical habitat.⁴ The Services’ implementing regulations for the ESA interpret the term *action* to include “all activities or programs of any kind” that federal agencies authorize, fund, or carry out “in whole or in part.”⁵ These include

- federal projects;
- granting federal permits, licenses, contracts, rights-of-way, leases, or funding (including grant awards) to nonfederal entities; and
- promulgation of federal regulations.⁶

Actions subject to Section 7 requirements may include certain infrastructure projects. There is not a single, universal definition of *infrastructure*, though the term may generally be used for long-lasting, resource-intensive systems and facilities.⁷ Infrastructure may refer any number of projects and project types that are undertaken, authorized, or funded by a wide variety of federal agencies. For example, infrastructure could include water resource and water supply projects undertaken by the U.S. Army Corps of Engineers or the Bureau of Reclamation; or energy projects undertaken by federal energy cooperatives such as the Tennessee Valley Authority or the Bonneville Power Administration. Certain operations and maintenance activities may also be considered agency actions. Infrastructure projects also could include projects subject to federal authorization, such as interstate natural gas pipelines, liquid natural gas import/export terminals, and nonfederal

⁴ 16 U.S.C. §1536(a)(2).

⁵ 50 C.F.R. §402.02.

⁶ 50 C.F.R. §402.02.

⁷ For additional background on infrastructure, see CRS In Focus IF10592, *Infrastructure Investment and the Federal Government*, by William J. Mallett.

hydropower projects subject to authorizations by the Federal Energy Regulatory Commission and nuclear power plants subject to licensing by the Nuclear Regulatory Commission. Infrastructure projects funded by federal agencies include state highway projects funded by the Federal Highway Administration (FHWA) from the Highway Trust Fund.⁸

As interpreted by the Services, not all agency actions are subject to Section 7 requirements. Section 7 generally applies to *discretionary* actions.⁹ Nondiscretionary federal actions may not require Section 7 consultation (see text box below).¹⁰ For example, if Congress mandates that a reservoir provide specified flows of water for certain users, those flow requirements may not be subject to Section 7 consultation. However, if Congress mandates that an agency provide water for certain users, but leaves how water flow should be partitioned among users to the discretion of the agency, Section 7 requirements may apply.¹¹ Evaluating whether a federal action is discretionary is an initial step in determining whether Section 7 consultation is required.

Additionally, Section 7 consultation requirements may be superseded in certain circumstances by other statutory provisions. (See “Can the Consultation Process Be Waived for Particular Infrastructure Projects?”) Other situations, such as emergencies, may not exempt or waive federal action agencies’ Section 7 obligations but may affect the consultation process. (See “How Could an Emergency Affect the Consultation Process for Infrastructure Projects?”) Even if consultation is not legally required, an action agency may choose to undertake consultation voluntarily.¹²

**Mandatory Agency Actions and Section 7 Consultation:
*National Association of Home Builders v. Defenders of Wildlife***

The Supreme Court has considered whether Section 7 ESA requirements apply to federal agency actions that are mandated by statute. Specifically, in *National Association of Home Builders v. Defenders of Wildlife* (NAHB), the Court addressed how the ESA consultation requirement interacts with a Clean Water Act (CWA) requirement that the U.S. Environmental Protection Agency (EPA) transfer certain permitting authorities to states. The CWA requires the transfer when states request permitting authority and meet nine statutory criteria.

In NAHB, Arizona had applied to administer a CWA permitting program in the state. EPA initiated consultation pursuant to Section 7 with FWS. Although the two agencies had to resolve whether the consultation could include consideration of the state’s possible future permitting actions, FWS ultimately issued a no jeopardy biological opinion, concluding that any effect on listed species from permits issued by the state was part of the statutory scheme created by Congress under the CWA. EPA determined that Arizona had met the nine statutory criteria and transferred permitting authority.

Defenders of Wildlife challenged the transfer, alleging that EPA had failed to comply with its ESA obligations under Section 7. Among other arguments, Defenders contended that the BiOp was inadequate because it failed to consider the effects of losing Section 7 review over future permitting decisions made by the Arizona state authorities. Defenders argued that EPA violated ESA by relying on the deficient BiOp. The U.S. Court of Appeals for the Ninth Circuit agreed, holding that Section 7 applied to the transfer and required EPA to consider the effect of approving the transfer on listed species and critical habitat, effectively creating a tenth requirement for transferring permitting authority to states.

The Supreme Court reversed. In the Court’s view, the Ninth Circuit’s interpretation would result in the ESA implicitly amending (i.e., repealing and replacing with a requirement added) not only the CWA but numerous other statutory provisions. The Court noted that later-enacted legislation (e.g., the ESA in this case) is not

⁸ For additional background on federally funded highways, see CRS Report R46323, *Reauthorization of Federal Highway Programs*, by Robert S. Kirk and CRS Report R45350, *Funding and Financing Highways and Public Transportation*, by Robert S. Kirk and William J. Mallett.

⁹ 50 C.F.R. §402.03.

¹⁰ See, for example, *National Association of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 670-73 (2007). See text box for more information on this case.

¹¹ See, for example, *American Rivers v. U.S. Army Corps of Engineers*, 271 F. Supp. 2d 230, 251-53 (D.D.C. 2003).

¹² See *National Association of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 659 (2007).

presumed to repeal earlier statutory provisions implicitly (e.g., the CWA in this case) unless that intent is clear. Interpreting Section 7's scope, the Court observed that the Services had already addressed this tension in 1986 by adopting regulations interpreting Section 7 to apply only to *discretionary* federal actions. Concluding that this interpretation was reasonable given the ESA's "text and the overall statutory scheme," the Court held that Section 7 applies only to discretionary agency actions and not ones an agency is "required to undertake once certain specified triggering events have occurred."

Accordingly, agency actions are not subject to Section 7 when they are taken pursuant to statutory provisions that do not afford the agency discretion to consider the effect on listed species or critical habitat (i.e., mandatory actions). However, statutory mandates that give the agency discretion over implementing an action may be subject to Section 7.

Sources: National Association of Home Builders v. Defenders of Wildlife, 551 U.S. 644 (2007); 16 U.S.C. §1536(a)(2); 33 U.S.C. §1342(b); 50 C.F.R. §402.03; 51 *Federal Register* 19926 (June 3, 1986).

Who Is Responsible for Compliance with Section 7 of the ESA?

Section 7 of the ESA requires the Services, action agencies, and certain nonfederal entities to undertake certain activities to ensure that no listed species are jeopardized or critical habitat is adversely modified by an agency action.

As noted above, infrastructure projects (and other actions) subject to Section 7 include projects action agencies undertake and projects nonfederal entities undertake with federal authorization or funding. In the case of a direct action by a federal agency, the action agency is responsible for undertaking activities to comply with Section 7. In the case of an action undertaken by a nonfederal entity with federal authorization or funding, the authorizing or funding action agency may delegate responsibility for certain activities for complying with Section 7 to the nonfederal entity, which is known as the *designated nonfederal representative*.¹³

Under the ESA regulations, a designated nonfederal representative may undertake several of the initial activities related to compliance with Section 7 (see "How Does the Consultation Process Work?") in lieu of or in connection with the action agency. For example, the designated nonfederal representative can determine whether listed species or critical habitat are present in the action area, evaluate any impacts of the action on listed species or critical habitat, and initiate informal consultation with the Services. In some cases, the designated nonfederal representative may demonstrate to the action agency that consultation is not required for Section 7 compliance.

Although a designated nonfederal representative may be allowed to undertake certain activities, the implementing regulations for Section 7 state that "the ultimate responsibility for compliance with section 7 remains with the Federal agency."¹⁴ Only the action agency may initiate formal consultation with the Services. However, the designated nonfederal representative may participate in the formal consultation process—for example, by providing information to the Services or assisting in developing alternatives to mitigate the effects on listed species or critical habitat. In practice, designated nonfederal representatives often may assume such duties when seeking federal approvals or funding.

The Services are responsible for administering the ESA, including consulting with action agencies under Section 7. FWS is responsible for consulting on terrestrial and freshwater listed species and their critical habitat, and NMFS is responsible for marine and anadromous listed species and their critical habitat.

¹³ 50 C.F.R. §402.08.

¹⁴ 50 C.F.R. §402.08.

How Does the Consultation Process Work?

Consultation is a multistep process for determining whether, and if so, how, an action may affect listed species or critical habitat (see **Figure 1**).¹⁵ For a proposed action, the federal agencies, and nonfederal entities as applicable, must first determine whether listed species or critical habitat may be present in the action area.¹⁶ The ESA requires action agencies to request information from the Services as to whether listed or proposed species or critical habitat may be present.¹⁷ Under the ESA implementing regulations, an action agency may either request a list of listed or proposed species and designated or proposed critical habitat from the Service or prepare a list itself and request the Service’s concurrence.¹⁸ If the action agency or nonfederal entity determines that listed species or critical habitat are not present in the action area, consultation with the Services generally is not required.

For those actions—including infrastructure projects or components thereof—that occur in an action area in which listed species or critical habitat is or may be present, action agencies or designated nonfederal representatives generally must determine whether the proposed action may affect the listed species or critical habitat that is present. The process of evaluating possible effects of the action is generically referred to as a biological evaluation.¹⁹ If the project constitutes a major construction activity, the action agency or designated nonfederal representative must conduct a statutorily specified type of evaluation known as a *biological assessment* (BA), which assesses the anticipated impact of the action on the species and critical habitat.²⁰ The BA must be completed “before any contract for construction is entered into and before construction is begun with respect to such action.”²¹

¹⁵ Although compliance with Section 7 is statutorily mandated under the ESA, action agencies may choose to incorporate and document compliance as part of the National Environmental Policy Act (NEPA; 42 U.S.C. §§4321 et seq.) process, which “requires federal agencies to identify and evaluate impacts of ‘major Federal actions significantly affecting the quality of the human environment.’” See CRS In Focus IF11549, *The Legal Framework of the National Environmental Policy Act*, by Nina M. Hart and Linda Tsang.

¹⁶ 16 U.S.C. §1536(c)(1). Per 50 C.F.R. §402.02, “*action area* means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.”

¹⁷ 16 U.S.C. §1536(c)(1).

¹⁸ 50 C.F.R. §402.12(c)–(d). To request a list, the action agency, or the designated nonfederal entity for the action, may contact the local Service office directly or, for species administered by FWS, request an official species list through FWS’s Information for Planning and Consultation (IPaC) online mapping system. FWS, Consultations: Frequently Asked Questions, <https://www.fws.gov/endangered/what-we-do/faq.html>; FWS, Information for Planning and Consultation, <https://ecos.fws.gov/ipac/>. NMFS offers several online mapping systems as well for specific regions. See NMFS, The Greater Atlantic Region ESA Section 7 Mapper, <https://www.fisheries.noaa.gov/resource/map/greater-atlantic-region-esa-section-7-mapper>; NMFS, Alaska Protected Resources Division, Species Distribution Mapper, <https://alaskafisheries.noaa.gov/portal/apps/webappviewer/index.html?id=446543503a2e4660b0f5ee55e6407d27>; NMFS, West Coast Region, Protected Resources App, <https://www.webapps.nwfsc.noaa.gov/portal/apps/webappviewer/index.html?id=7514c715b8594944a6e468dd25aaacc9>; NMFS, Resources: Science & Data, <https://www.fisheries.noaa.gov/resources/maps>. Action agencies may also use IPaC or NMFS’s various online mapping systems for different regions to prepare their own lists.

¹⁹ FWS, Consultations: Frequently Asked Questions, <https://www.fws.gov/endangered/what-we-do/faq.html>. Agency guidance may identify predetermined no effect activities that preempt the need for further evaluation.

²⁰ 16 U.S.C. §1536(c)(1); 50 C.F.R. §402.12. The statutory provision states that biological assessments (BAs) are required if listed species may be present. 16 U.S.C. §1536(c)(1). The Services have interpreted this requirement to apply only to major construction activities, and to be triggered when critical habitat may be present as well—not just listed species. 50 C.F.R. §402.12. The Services’ regulations define “major construction activities” to mean projects with physical impacts that are major federal actions “significantly affecting the quality of the human environment” as the term is used in NEPA. 50 C.F.R. §402.02.

²¹ 16 U.S.C. §1536(c)(1).

The contents of a BA are left to the discretion of the action agency and depend on the nature of the action.²² A BA may include

- a description of the proposed action;
- information from on-site inspections for listed species;
- expert opinions;
- reviews of scientific literature;
- analyses of the effects of the action on species and critical habitat, including cumulative effects and any studies conducted to assess the effects; and
- analyses of the effects of any alternative actions the action agency considered.²³

An action agency may conduct a BA if the project is not a major construction activity.²⁴

Through the biological evaluation, whether a BA or otherwise, the action agency or nonfederal entity may find that the action either has *no effect* on listed species or critical habitat or *may affect* listed species or critical habitat. If the evaluation supports that there will be *no effect*, further consultation is generally not required.²⁵ Alternatively, if the action agency or designated nonfederal representative determines that a project *may affect* listed species or critical habitat, action agencies generally must initiate informal or formal consultation with the Services.

²² 50 C.F.R. §402.12(f). Courts have observed that “there are no strict requirements for what the biological assessment should include.” *Bays’ Legal Fund v. Browner*, 828 F. Supp. 102, 110 n.19 (D. Mass. 1993). BAs generally do not constitute final agency action under the Administrative Procedure Act to subject them to judicial review. *Alliance for the Wild Rockies v. U.S. Forest Service*, 504 F. Supp. 3d 1162, 1189 (E.D. Wash. 2020). However, a court may review a BA when a final agency action such as a letter of concurrence of no effect from one of the Services relies on the BA to reach its conclusion. See, for example, *Alliance for the Wild Rockies v. U.S. Forest Service*, 504 F. Supp. 3d 1162, 1189 (E.D. Wash. 2020); *Oregon Wild v. U.S. Forest Service*, 193 F. Supp. 3d 1156, 1164 (D. Ore. 2016).

²³ 50 C.F.R. §402.12(f).

²⁴ The ESA implementing regulations state that the procedures outlined for BAs are required for major construction activities and that any person *may* prepare a BA consistent with those procedures. 50 C.F.R. §402.12(b). The Services’ ESA Section 7 Consultation Handbook states that a BA is not required for actions that are not major construction activities, but that the action agency “must provide the Services with an account of the basis for evaluating the likely effects of the action” if listed species or critical habitat is likely to be affected by the action. FWS and NMFS, “Endangered Species Consultation Handbook: Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act,” March 1998, pp. 3-11, at https://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf. However, courts have disagreed whether the plain language of the ESA requires action agencies to prepare BAs for all agency actions—including actions that are not major construction activities—if listed species or critical habitat may be present. For example, district courts for the District of Idaho, District of Montana, and District of Hawaii have concluded that all agency actions that may affect listed species or critical habitat require a BA—regardless of whether the action is a major construction activity. *Friends of the Clearwater v. Higgins*, 472 F. Supp. 3d 859, 871 (D. Idaho 2020); *Native Ecosystems Council v. Marten*, 2020 WL 1479059, at *4 (D. Mont. Mar. 26, 2020); *Center for Food Safety v. Johanns*, 2006 WL 2927121, at *1 (D. Haw. Oct. 11, 2006). The U.S. Court of Appeals for the Eighth Circuit and a district court for the District of Nevada have concluded that BAs are only required for major construction activities. *Newton County Wildlife Association v. Rogers*, 141 F.3d 803, 810-11 (8th Cir. 1998); *Western Watersheds Project v. Bureau of Land Management*, 552 F. Supp. 2d 1113, 1139-40 (D. Nev. 2008).

²⁵ In some cases, action agencies have prepared Section 7 consultation guidance documents that include a list of actions determined in advance to have “no effect” on listed species. For example, Federal Highway Administration (FHWA) New York Division, *Endangered Species Act, Section 7, Essential Fish Habitat, and Marine Mammal Protection Act: Process for Compliance and Consultation*, June 2020, p. 55, https://www.dot.ny.gov/divisions/engineering/environmental-analysis/manuals-and-guidance/epm/repository/4.4.9.3_AppG_FHWA_ESA_Section_7.pdf; HUD, *Endangered Species Act: No Effect Guidance for Idaho*, p. 3, <https://www.hud.gov/sites/documents/IDNOEFFECT.pdf>.

Informal consultation is an optional process that can help action agencies determine whether formal consultation is required. During informal consultation, the action agency or designated nonfederal representative may correspond and meet with one or both of the Services about a proposed action.²⁶ Informal consultation may be initiated before or after the biological evaluation is complete. Informal consultation gives the Services an opportunity to suggest ways the action agency or designated nonfederal representative could modify the proposed action to avoid any anticipated adverse effects on listed species or critical habitat.²⁷ Informal consultations have significantly outnumbered formal consultations under the ESA. In a 2015 study that analyzed Section 7 consultations from 2008 to 2015, 81,461 informal consultations were completed, compared with 6,829 formal consultations.²⁸ This study also reported that informal consultations took an average of 13 days and formal consultations took an average of 62 days.²⁹

If the action agency concludes from the biological evaluation or during informal consultation that the action *is not likely to adversely affect* listed species or critical habitat, and the Service concurs in writing, the consultation process ends.³⁰ If the action agency concludes that the action *is likely to adversely affect* listed species or critical habitat, or if the Service does not concur with the action agency's assessment that the action will not adversely affect listed species or critical habitat, the action agency generally must initiate formal consultation.³¹ Once the action agency initiates formal consultation, neither the action agency nor any nonfederal entity may irretrievably or irreversibly commit any resources that would have "the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures."³²

Although either an action agency or nonfederal entity may initiate and participate in an informal consultation, only action agencies may initiate formal consultations. However, under the ESA regulations, a nonfederal entity may request that an action agency enter into *early consultation* before the entity applies for a federal permit or license if the nonfederal entity believes the action may affect listed species or critical habitat.³³ This process generally requires submission of the same information as a formal consultation and follows the same procedures.³⁴

To initiate formal consultation, the action agency submits a written request to one or both of the Services, as appropriate, that describes the proposed action and the anticipated effects of the action on listed species (including a BA, if applicable), along with any other relevant information.³⁵ The Services review the information and discuss the analysis and any potential *reasonable and prudent alternatives* (RPAs) with the action agency (and nonfederal entity, if applicable).³⁶ RPAs "refer to alternative actions identified during formal consultation that can be implemented in a manner consistent with the intended purpose of the action, that can be

²⁶ 50 C.F.R. §402.13.

²⁷ 50 C.F.R. §402.13(b).

²⁸ J. W. Malcom and Ya-Wei Li, "Data Contradict Common Perceptions About a Controversial Provision of the U.S. Endangered Species Act," *Proceedings of the National Academy of Sciences*, vol. 112, no. 52 (December 29, 2015). Hereinafter cited as Malcom and Li, "Data Contradict Common Perceptions."

²⁹ Malcom and Li, "Data Contradict Common Perceptions."

³⁰ 50 C.F.R. §402.13(c).

³¹ 50 C.F.R. §402.14.

³² 16 U.S.C. §1536(d).

³³ 50 C.F.R. §402.11. In early consultation, the nonfederal entity is referred to as the prospective applicant.

³⁴ 50 C.F.R. §402.11.

³⁵ 50 C.F.R. §402.14(c).

³⁶ 50 C.F.R. §§402.12(k), 402.14.

implemented consistent with the scope of the Federal agency's legal authority and jurisdiction, that is economically and technologically feasible.”³⁷

At the end of a formal consultation, the Service issues a *biological opinion* (BiOp).³⁸ A BiOp is a detailed statement of the Service’s opinion as to whether the proposed action is likely to jeopardize listed species or adversely modify critical habitat. BiOps contain scientific information and analysis of the likely effects of the action on listed species and critical habitat.³⁹ The analyses and results in the BiOp must be based on the “best scientific and commercial data available.”⁴⁰

The BiOp may find that the proposed action is not likely to jeopardize listed species or adversely modify critical habitat, known as a *no jeopardy opinion*, or that it may jeopardize listed species or adversely modify critical habitat, known as a *jeopardy opinion*. In the case of a jeopardy opinion, the ESA directs the Services to suggest any RPAs to the action that could alter the implementation of the action to avoid jeopardizing listed species or adversely modifying critical habitat.⁴¹ If the Services issue a jeopardy BiOp with an RPA, the action agency and any related nonfederal entity may decide whether to proceed with a proposed RPA in lieu of the original action, to proceed with the original action at risk of violating the ESA, or not to proceed with the action.

If the Service concludes that the proposed action, either as proposed or with an RPA, may affect listed species or critical habitat but would not jeopardize listed species or adversely modify critical habitat, the Service includes an *incidental take statement* (ITS) in the BiOp.⁴² The ITS states the anticipated impact of incidental take on the species from the action or, as applicable, an RPA and provides *reasonable and prudent measures* (RPMs) the Service considers to be appropriate and necessary to minimize that impact.⁴³ The ITS includes terms and conditions that require the agency and any involved nonfederal entity to implement the RPMs.⁴⁴ The action agency and any related nonfederal entity may take listed species pursuant to the ITS in compliance with these terms and conditions without violating the ESA’s prohibitions on take.⁴⁵ Most consultations result in “no jeopardy” opinions, and nearly all of the rest identify RPAs for the project that allow the agency to move forward.⁴⁶

³⁷ 50 C.F.R. §402.02.

³⁸ 16 U.S.C. §1536(b); 50 C.F.R. §402.14(h).

³⁹ 16 U.S.C. §1536(b)(3); 50 C.F.R. §402.14(h).

⁴⁰ 16 U.S.C. §1536(a)(2); 50 C.F.R. §402.14(d), (g)(8).

⁴¹ 16 U.S.C. §1536(b)(3)(A).

⁴² 16 U.S.C. §1536(b)(4). If take is anticipated with the implementation of an RPA, an incidental take statement (ITS) must also be developed to exempt take from prohibitions under the ESA. The ESA defines take to mean “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct,” and incidental take is take that is incidental to and not the purpose of an otherwise lawful action. 16 U.S.C. §1532(19).

⁴³ 16 U.S.C. §1536(b)(4).

⁴⁴ 16 U.S.C. §1536(b)(4)(iv).

⁴⁵ 16 U.S.C. §1536(o).

⁴⁶ Malcom and Li, “Data Contradict Common Perceptions.”

Adaptive Management in Biological Opinions

Section 7 consultations for infrastructure projects and activities sometimes result in BiOps with provisions that allow action agencies or nonfederal entities to manage their activities adaptively to address RPMs within a BiOp. The Department of the Interior has described *adaptive management* as a decision process that “promotes flexible decision making that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood.” An adaptive management measure, for example, might allow an agency to monitor the effectiveness of its precautions and make changes if appropriate or necessary as it implements the action. This type of provision provides agencies with flexibility to modify their operations under variable or uncertain circumstances to maximize their objectives, while not violating Section 7.

For example, a BiOp for operations and maintenances of dams in stretches of the Columbia River included an adaptive management program. The action agencies in this BiOp use an adaptive management process to manage operations and guide the implementation of habitat and ecosystem measures to benefit the populations of listed salmon and steelhead, coordinating with NMFS and other partners when implementing adaptations to the operations or mitigation strategies. Adaptive management techniques may also be used to account for changes in environmental conditions that the Services did not contemplate when formulating the BiOp. In these cases, the action agencies may seek concurrence from either FWS or NMFS to implement temporary modifications of the implementation of the BiOp.

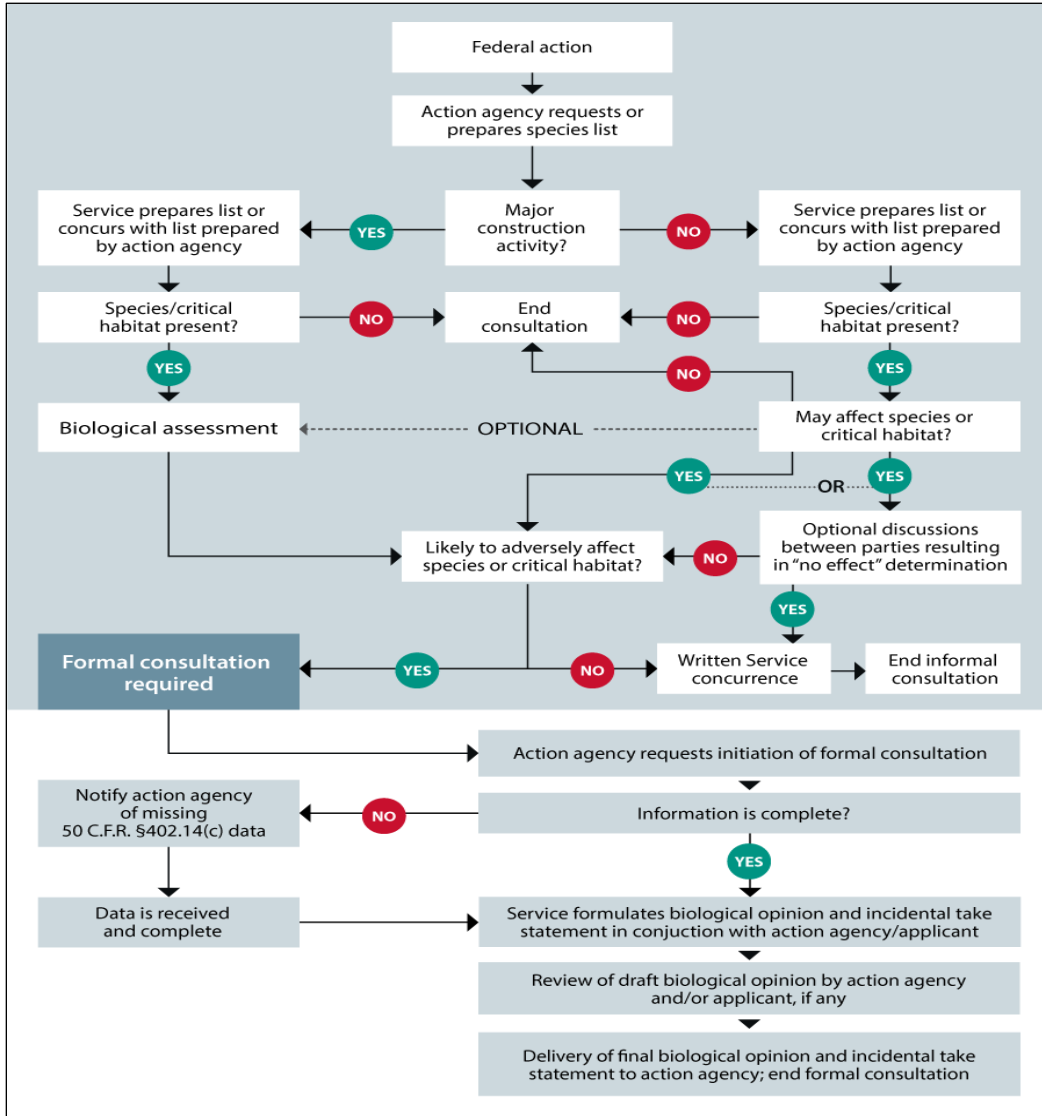
Adaptive management may also lower the likelihood of needing to reinitiate consultation. Under certain circumstances, action agencies may be required to reinitiate a Section 7 consultation to obtain a new or amended BiOp for certain types of actions. The Services interpret an action to continue, and as such may require reinitiating consultation, so long as “discretionary Federal involvement or control over the action has been retained or is authorized by law.” Such continuing actions are also known as *ongoing actions*. An ongoing action may take place over shorter time periods (e.g., the actual construction phase of an infrastructure project) or longer time periods (e.g., an action agency could be responsible for operations and maintenance of an existing project). An action agency must generally reinitiate consultation on an ongoing action if one of four circumstances occurs:

- the action exceeds the incidental take specified in the ITS;
- new information reveals effects on listed species or critical habitat that were not previously considered;
- the action is modified in a manner that affects listed species or critical habitat in a way that the BiOp did not consider; or
- a new species is listed or critical habitat is designated that may be affected by the action.

Adaptive management may make it less likely that the action exceeds the incidental take specified in the ITS or that the action needs to be modified in an unanticipated manner. However, adaptive management does not preclude reinitiation if one or more of the four conditions do arise.

Sources: Dennis D. Murphy and Paul S. Weiland, “Guidance on the Use of the Best Available Science under the Endangered Species Act,” *Environmental Management*, vol. 58 (2016), pp. 1-14; Byron K. Williams et al., *Adaptive Management: The U.S. Department of the Interior Technical Guide*, Department of the Interior, 2009, p. v, <https://www.doi.gov/sites/doi.gov/files/uploads/TechGuide-WebOptimized-2.pdf>; 50 C.F.R. §402.16; NMFS, *ESA Section 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response*, Portland, OR, July 24, 2020.

Figure 1. ESA Section 7 Informal and Formal Consultation Process



Source: CRS, adapted from FWS and NMFS, “Endangered Species Consultation Handbook: Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act,” March 1998, pp. 3-3 and 4-3, at https://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf.

Notes: The informal consultation process is depicted in the top section (gray background); the formal consultation process is depicted in the bottom section (white background). During the informal consultation process, either the action agency or the nonfederal entity undertaking the action that requires federal authorization or funding may prepare the species/critical habitat list, enter into optional discussions with the Service, or prepare the biological assessment.

Streamlining, Expediting, and Waiving ESA Section 7 Requirements

How Can the Consultation Process Be Streamlined for Infrastructure Projects?

In some circumstances, action agencies and the Services can work together to streamline compliance with Section 7 for some types of agency actions, including infrastructure projects. For example, for many infrastructure projects, the action agencies may meet their Section 7 obligations by determining that no listed species or critical habitat are present or that the action will not affect listed species or critical habitat as noted above.⁴⁷ In some cases, agencies' guidance on Section 7 compliance include a list of predetermined "no effect" actions that are not expected to affect listed species or critical habitat and accordingly do not require further Section 7 consultation.⁴⁸

Another potential option for streamlining Section 7 consultation is the use of *programmatic consultations*. Programmatic consultations allow federal agencies to consult with the Services on multiple, frequently occurring, or routine actions in a particular geographic area or on proposed programs, policies, or regulations that would provide a framework for future actions.⁴⁹ Individual projects conducted under a program covered by a programmatic consultation generally require a separate consultation under Section 7, but this separate consultation would generally be limited to the distinct effects of the individual project. Several programs that oversee the construction and operation of infrastructure comply, at least in part, with Section 7 under programmatic consultations.

For example, FHWA, Federal Railroad Administration, Federal Transit Authority, and FWS completed a range-wide programmatic consultation that concluded with the publication of a BiOp for the endangered Indiana bat, *Myotis sodalis*, and the threatened northern long-eared bat, *M. septentrionalis*, in 2016 (later revised in 2018).⁵⁰ The aim of the programmatic consultation was

⁴⁷ For example, FHWA and the Department of Housing and Urban Development have prepared guidance on when actions may not require further consultation. FHWA New York Division, *Endangered Species Act, Section 7, Essential Fish Habitat, and Marine Mammal Protection Act: Process for Compliance and Consultation*, June 2020, https://www.dot.ny.gov/divisions/engineering/environmental-analysis/manuals-and-guidance/epm/repository/4.4.9.3_AppG_FHWA_ESA_Section_7.pdf; HUD, *Endangered Species Act: No Effect Guidance for Idaho*, <https://www.hud.gov/sites/documents/IDNOEFFECT.pdf>.

⁴⁸ For example, FHWA New York Division, *Endangered Species Act, Section 7, Essential Fish Habitat, and Marine Mammal Protection Act: Process for Compliance and Consultation*, June 2020, p. 55, https://www.dot.ny.gov/divisions/engineering/environmental-analysis/manuals-and-guidance/epm/repository/4.4.9.3_AppG_FHWA_ESA_Section_7.pdf; HUD, *Endangered Species Act: No Effect Guidance for Idaho*, p. 3, <https://www.hud.gov/sites/documents/IDNOEFFECT.pdf>.

⁴⁹ 50 C.F.R. §402.13(l). See also, FWS and NMFS, "Endangered Species Consultation Handbook: Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act," March 1998, Chapter 5, at https://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf. Hereinafter *Section 7 Handbook*.

⁵⁰ The range of the Indiana bat and the Northern long-eared bat covers 22 and 37 states, respectively, and therefore has the potential to require Section 7 consultation for numerous transportation projects. FWS, Midwest Regional Office, *Programmatic Biological Opinion for Transportation Projects in the Range of the Indiana Bat and Northern Long-Eared Bat*, FWS, Programmatic Biological Opinion, February 2018, pp. 1-157, https://www.fws.gov/midwest/endangered/section7/fhwa/pdf/BORRevised02052018forIbatNLEB_FHWA_FRA_%20FTA.pdf. Hereinafter FWS, *Programmatic Biological Opinion*.

to streamline the environmental review process, improve conservation of bats, standardize the assessment of effects on the bats across their range, and reduce the workload for project applicants, action agencies, and the Services.⁵¹ As a result of the programmatic consultation, a range-wide conservation strategy for the bats was developed and a Programmatic Consultation Working Group was formed to oversee implementation and recommend changes.⁵² Information provided by this consultation and conservation strategy allowed action agencies to avoid projects with high impacts or modify projects to minimize impacts on species. The BiOp also contained a compensatory mitigation strategy that identifies priority conservation areas to offset and minimize the effects on listed species caused by large-scale projects or activities.⁵³ According to the FHWA, as of 2018, the programmatic consultation reduced the time frames for related formal consultations from approximately 135 days to 30 days.⁵⁴

How Could an Emergency Affect the Consultation Process for Infrastructure Projects?

The consultation process can be expedited for infrastructure projects during certain emergency situations.⁵⁵ Certain infrastructure activities may be undertaken during, or precipitated by, an emergency, such as replacing a road washed out by a hurricane. Under certain emergency circumstances, action agencies must undertake activities to respond to the emergency,⁵⁶ and federal agencies “may not have the time for the administrative work required by the consultation regulations under non-emergency conditions.”⁵⁷ Situations involving emergencies may affect the Section 7 consultation requirements by altering whether or how federal action agencies are required to consult with the Services. In these emergency situations, the Services’ regulations allow action agencies to follow an alternate consultation procedure.⁵⁸ For example, an action agency may initially contact and engage in informal consultation before the agency action but complete formal consultation, if needed, only after the emergency conditions have subsided (**Figure 2**).

⁵¹ FWS, *Programmatic Biological Opinion*, p. 1 and FHWA, *Updates to the Indiana Bat and Northern Long-Eared Bat Programmatic Consultation Accelerate Project Delivery and Improve Mitigation Outcomes*, 2018, Environmental Review Toolkit, https://www.environment.fhwa.dot.gov/pubs_resources_tools/publications/newsletters/mar18nl.aspx. Hereafter, FHWA, *Updates to the Indiana Bat and Northern Long-Eared Bat*.

⁵² FWS, *Programmatic Biological Opinion*.

⁵³ FWS, *Programmatic Biological Opinion*.

⁵⁴ FHWA, *Updates to the Indiana Bat and Northern Long-Eared Bat*.

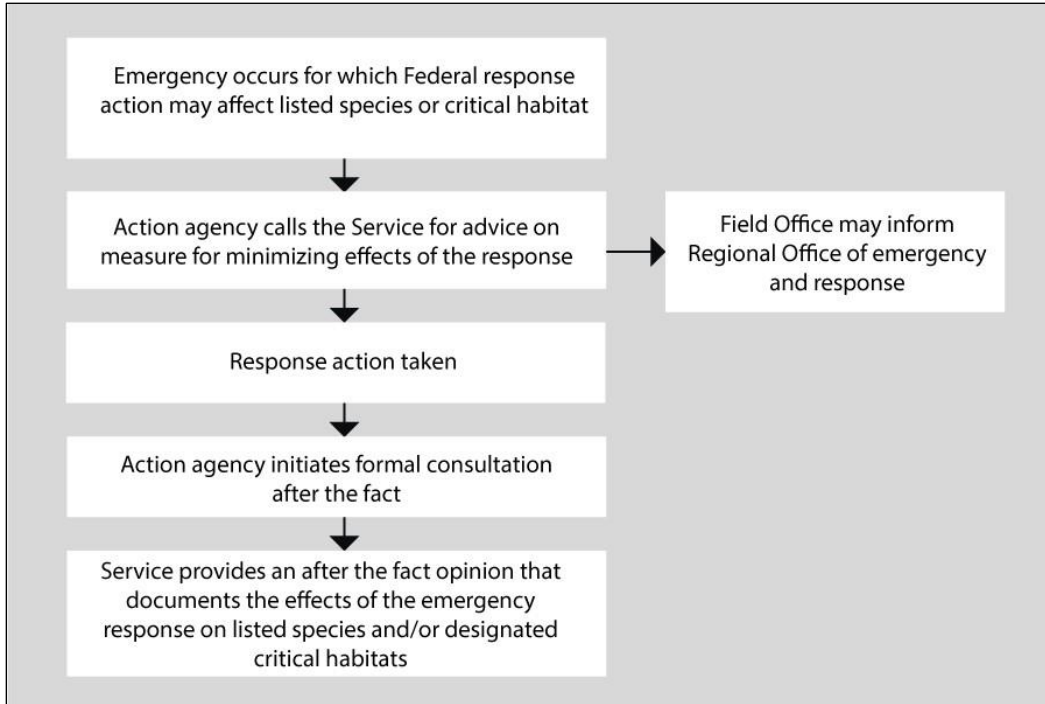
⁵⁵ Per regulation, emergencies may include “acts of God, disasters, casualties, national defense or security emergencies.” 50 C.F.R. §402.05(a).

⁵⁶ 50 C.F.R. §402.05.

⁵⁷ *Section 7 Handbook*.

⁵⁸ 50 C.F.R. §402.05(a).

Figure 2. ESA Section 7 Emergency Consultation Process



Source: FWS and NMFS, “Endangered Species Consultation Handbook: Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act,” March 1998, p. 8-3, at https://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf; reformatted by CRS.

Note: Field and regional offices referenced in this figure refer to those of either FWS or NMFS, as applicable.

Even if required formal consultation is not conducted until after the action agency has responded to an emergency, the Services still complete a BiOp to document any effects of the action on listed species and critical habitat and to advise on future conservation recommendations.⁵⁹ The BiOp describes the emergency, the recommendations given to the action agency through informal consultation during the emergency, and the effect on listed species and/or critical habitat.⁶⁰ The BiOp also includes an ITS authorizing any take that may have occurred due to the emergency action.⁶¹ Because the formal consultation occurs after the agency action, the ITS does not include reasonable and prudent measures or terms and conditions unless elements of the agency’s emergency action will continue after the BiOp is issued.⁶²

Can the Consultation Process Be Waived for Particular Infrastructure Projects?

The ESA and other statutory provisions allow the Section 7 consultation requirement to be waived in certain circumstances. For example, subsection 7(p) of the ESA provides that in a

⁵⁹ *Section 7 Handbook*, chapter 8.

⁶⁰ 50 C.F.R. §402.05; FWS and NMFS, *Endangered Species Conservation Handbook: Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act*, March 1998, at https://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf, p. 8-4.

⁶¹ *Section 7 Handbook*, p. 8-5.

⁶² *Section 7 Handbook*, pp. 8-4–8-5.

presidentially declared major disaster area,⁶³ the President may exempt federal agency actions related to the “repair or replacement of a public facility substantially as it existed prior to the disaster” from the consultation requirements under Section 7 if other conditions are met.⁶⁴ An exemption from the consultation requirements granted pursuant to the subsection also constitutes an exemption from the prohibition against takings under Section 4(d) and Section 9 of the act.⁶⁵

Congress has specified that the Section 7(p) exemption authority applies in specific situations. For example, the exemption authority under Subsection 7(p)—along with the alternative emergency consultation authority described above—was cited in legislation relating to reconstructing “any road, highway, railway, bridge, or transit facility that is damaged by an emergency that is...declared as an emergency by the President pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act.”⁶⁶

Congress also has elected to alter Section 7 consultation requirements for certain activities in other situations, which may include actions related to infrastructure. In some instances, Congress has waived consultation requirements directly for specific projects or specific areas of public land.⁶⁷ In other instances, Congress has delegated the authority to waive consultation requirements to certain federal agencies. For example, Section 102 of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, as amended, allows the Secretary of Homeland Security to “take such actions as may be necessary to install additional physical barriers and roads...in the vicinity of the United States border to deter illegal crossings in areas of high illegal entry into the United States.”⁶⁸ Subsection 102(c) further provided that “the Secretary of Homeland Security shall have the authority to waive all legal requirements such Secretary, in such Secretary’s sole discretion, determines necessary to ensure expeditious construction of the barriers and roads under this section.”⁶⁹ The Secretary of Homeland Security has on multiple occasions used this authority to waive ESA requirements, among other legal requirements, for activities related to projects along the U.S.-Mexico border.⁷⁰ For example, the Secretary of Homeland Security waived the ESA for activities within specified project areas in Texas for “the construction of roads (including, but not limited to, accessing the project areas, creating and using staging areas, the conduct of earthwork, excavation, fill, and site preparation, and installation and upkeep of the roads, drainage, erosion controls, and safety features)” in August 2020.⁷¹

⁶³ This refers to disaster declarations pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act, also known as the Stafford Act (42 U.S.C. §§5121 et seq.).

⁶⁴ 16 U.S.C. §1536(p). Specifically, the project must also be needed to prevent another such disaster from occurring and reduce the potential loss of human life, and the President must determine that an emergency exists that does not allow the federal agency to follow the standard procedures. 16 U.S.C. §1536(p).

⁶⁵ 16 U.S.C. §1536(o). Sections 4(d) and 9 are 16 U.S.C. §1533(d) and 16 U.S.C. §1538, respectively.

⁶⁶ Fixing America’s Surface Transportation (FAST) Act, P.L. 114-94, §1432(a).

⁶⁷ See, for example, 43 U.S.C. §2606; P.L. 96-69, Title IV in section related to the Tennessee Valley Authority (93 Stat. 449-450).

⁶⁸ 8 U.S.C. §1103 note; P.L. 104-208, div. C, title I, §102(a)–(c), as amended by P.L. 109-13, div. B, title I, §102, P.L. 109-367, §3, and P.L. 110-161, div. E, title V, §564(a).

⁶⁹ P.L. 104-208, div. C, title I, §102(c), as amended.

⁷⁰ P.L. 104-208, div. C, title I, §102(c), as amended requires the Secretary of Homeland Security to publish use of the waiver authority in the *Federal Register*. For more information on this authority, see CRS Report R43975, *Barriers Along the U.S. Borders: Key Authorities and Requirements*, by Michael John Garcia.

⁷¹ Department of Homeland Security, “Determination Pursuant to Section 102 of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, as Amended,” 85 *Federal Register* 43593, July 17, 2020.

What If an Infrastructure Project May Jeopardize Listed Species or Adversely Affect Critical Habitat and There Are No Viable Reasonable and Prudent Alternatives?

If the action may jeopardize listed species or adversely modify critical habitat, the action agency may apply to the Endangered Species Committee (also referred to as the “God squad”) for an exemption from the ESA requirements.⁷² To receive an exemption, the action agency must have carried out its consultation responsibilities in good faith, made a reasonable effort to develop and consider modifications or RPAs, conducted a BA if required, and refrained from making any prohibited irreversible or irretrievable commitments of resources.⁷³ To grant the exemption, the Committee must determine that there are no RPAs, that the benefits of proceeding with the action outweigh the benefits of alternative courses of action consistent with conserving species and their habitat, that the action is in the public interest and of national or regional significance, and that there was no prohibited irretrievable or irreversible commitment of resources before the exemption.⁷⁴ There have been three completed applications for an exemption under this process (two granted) and three other instances in which applications were filed but the applications were withdrawn or abandoned.⁷⁵

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⁷² 16 U.S.C. §1536(e)-(h). For more information about ESA exemptions, see CRS Report R40787, *Endangered Species Act (ESA): The Exemption Process*, by Pervaze A. Sheikh.

⁷³ 16 U.S.C. §1536(g)(3).

⁷⁴ 16 U.S.C. §1536(h)(1)(A).

⁷⁵ For more information on the exemption process, see CRS Report R40787, *Endangered Species Act (ESA): The Exemption Process*, by Pervaze A. Sheikh.

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