



The Endangered Species Act (ESA) in the 111th Congress: Conflicting Values and Difficult Choices

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Summary

The Endangered Species Act (ESA; P.L. 93-205, 16 U.S.C. §§ 1531-1543) has been one of the more contentious environmental laws. This may stem from its strict substantive provisions, which can affect the use of both federal and nonfederal lands and resources. Under ESA, species of plants and animals (both vertebrate and invertebrate) can be listed as endangered or threatened according to assessments of their risk of extinction. Once a species is listed, powerful legal tools are available to aid its recovery and protect its habitat. ESA may also be controversial because dwindling species are usually harbingers of broader ecosystem decline. The most common cause of species listing is habitat loss. ESA is considered a primary driver of large-scale ecosystem restoration issues.

The 111th Congress has considered whether to revoke ESA regulations promulgated in the waning days of the Bush Administration that would alter when federal agency consultation is required. In addition, legislation related to global climate change includes provisions that would allocate funds to the U.S. Fish and Wildlife Service's endangered species program and/or to related funds to assist species adaptation to climate change. Other major issues concerning ESA in recent years have included the role of science in decision-making, critical habitat (CH) designation, protection by and incentives for property owners, and appropriate protection of listed species, among others.

The authorization for spending under ESA expired on October 1, 1992. The prohibitions and requirements of ESA remain in force, even in the absence of an authorization, and funds have been appropriated to implement the administrative provisions of ESA in each subsequent fiscal year. Proposals to reauthorize and extensively amend ESA were last considered in the 109th Congress, but none was enacted. No legislative proposals were introduced in the 110th Congress to reauthorize the ESA.

This report discusses oversight issues and legislation introduced in the 111th Congress to address ESA implementation and management of endangered and threatened species.

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Most Recent Developments

On October 30, 2009, President Obama signed P.L. 111-88 (H.R. 2996), providing about \$281 million in appropriations for FWS endangered species and related programs for FY2010.

Introduction

Increasing numbers of animal and plant species face possible extinction. Endangered and threatened species—and the law that protects them, the 1973 Endangered Species Act (ESA, P.L. 93-205, as amended; 16 U.S.C. §§ 1531-1543)—are controversial, in part, because dwindling species are often harbingers of resource scarcity. The most common cause of species' decline is habitat loss or alteration. Habitat loss occurs due to development, climate change, changes in land management practices, competition from invasive species, and other factors, nearly all related to economic, political, or social interests.¹

ESA has been among the most contentious environmental laws because of its strict substantive provisions, which can affect the use of both federal and nonfederal lands and resources. Congress faces the issue of how to balance these interests (which may fall on various sides of any given species controversy) with the protection of endangered and threatened species and, as stated in ESA, “the ecosystems upon which endangered species and threatened species depend.” Because of strong support and strong opposition, ESA has not been reauthorized since the last authorization expired in 1992. In the 109th Congress, there were several unsuccessful attempts to enact comprehensive legislation that would have reauthorized ESA.² Consequently, congressional efforts in the 110th Congress focused on addressing specific controversial features of ESA and on oversight of concerns such as the science used for making decisions and designation of critical habitat.³

Background and Analysis

Overview

The 1973 ESA was a comprehensive attempt to protect species at risk of extinction and to consider habitat protection as an integral part of that effort. A stated purpose of ESA is to protect the ecosystems of which listed species are a part. Under ESA, species of plants and animals (both vertebrate and invertebrate) may be listed as either endangered or threatened according to assessments of the risk of their extinction. More flexible management can be provided for species listed as threatened. Distinct population segments of vertebrate species may also be listed as threatened or endangered. Consequently, some populations of Chinook, coho, chum, and sockeye

¹ For example, see CRS Report RL34326, *Apalachicola-Chattahoochee-Flint (ACF) Drought: Federal Water Management Issues*, coordinated by Nicole T. Carter.

² For a review of action by the 109th Congress on ESA, see CRS Report RL33468, *The Endangered Species Act (ESA) in the 109th Congress: Conflicting Values and Difficult Choices*, by Eugene H. Buck et al.

³ For a review of action by the 110th Congress on ESA, see CRS Report RL33779, *The Endangered Species Act (ESA) in the 110th Congress: Conflicting Values and Difficult Choices*, by Eugene H. Buck et al.

salmon in Washington, Oregon, Idaho, and California have been listed under ESA, even as other healthy populations of these same species in Alaska are not listed and may be commercially harvested. More limited protection is available for plant species under ESA. Once a species is listed, powerful legal tools, including penalties and citizen suits, are available to aid species recovery and protect habitat. Use of these tools, or the failure to use them, has led to conflict.⁴

ESA is administered by the U.S. Fish and Wildlife Service (FWS, Department of the Interior) for terrestrial and freshwater species and some marine mammals, and by the National Marine Fisheries Service (NMFS; also referred to as NOAA Fisheries) in the Department of Commerce's National Oceanic and Atmospheric Administration for the remaining marine and anadromous⁵ species.⁶ The U.S. Geological Survey's Biological Resources Division conducts research on species for which FWS has management authority; NMFS conducts research on the species for which it is responsible.

As of August 13, 2009, a total of 1,143 species of animals and 750 species of plants were listed as either endangered or threatened under the ESA, of which the majority (573 species of animals and 747 species of plants) occur in the United States and its territories; the remainder occur only in other countries.⁷ Of the 1,320 U.S. species, 1,134 (85.9%) are covered in recovery plans.⁸ Of the U.S. species, 544 (41.2%) have designated critical habitat (CH) in some portion of their range.⁹ In the most recent data available, FY2006 federal and state expenditures on endangered and threatened species totaled \$1,701,555,843, of which \$1,647,783,646 was reported by federal agencies and \$53,772,197 was reported by the states.¹⁰ The top 10 species with the most total FY2006 expenditures (excluding land acquisition costs) included pallid sturgeon (almost \$39 million), seven subpopulations of steelhead and Pacific salmon (altogether, more than \$209 million), Steller sea lion (almost \$25 million), and bull trout (almost \$24 million).

However, species do not exist in isolation, but evolve and fluctuate in abundance because of their relationships with other species and the physical environment. Conservationists increasingly are talking about ecosystems as the units of interest, rather than species. At times, efforts to protect and recover listed species are controversial; declining species often function like the proverbial canary in the coal mine, by flagging larger issues of resource scarcity and altered ecosystems. Past resource debates in which ESA-listed species were part of larger issues include Tennessee's Tellico Dam (water storage and construction jobs versus farmland protection and tribal graves, as

⁴ For additional background, see CRS Report RL31654, *The Endangered Species Act: A Primer*, by M. Lynne Corn, Kristina Alexander, and Eugene H. Buck.

⁵ Anadromous refers generally to fish that hatch in fresh water, migrate to the ocean to grow and mature, and then migrate back to fresh water to reproduce.

⁶ For background on ESA programs of the two administering agencies, see FWS programs at <http://www.fws.gov/endangered/> and NMFS programs at <http://www.nmfs.noaa.gov/pr/species/>.

⁷ For comparison, the International Union for Conservation of Nature and Natural Resources (IUCN; World Conservation Union) announced in 2008 that it considered 16,928 species to be threatened with extinction—an increase of 622 species since 2007. In addition, the IUCN identifies 869 species that have become extinct or are extinct in the wild (i.e., found only in captivity or in cultivation), with an additional 257 species identified as possibly extinct. For more information, see http://cmsdata.iucn.org/downloads/state_of_the_world_s_species_factsheet_en.pdf.

⁸ Statistics are updated daily at http://ecos.fws.gov/tess_public/Boxscore.do.

⁹ A list of species with designated CH is available at http://ecos.fws.gov/tess_public/CriticalHabitat.do?listings=0&nmfs=1.

¹⁰ U.S. Fish and Wildlife Service, *Federal and State Endangered and Threatened Species Expenditures, Fiscal Years 2005-2006*; available at http://www.fws.gov/endangered/pdfs/expenditures/Expenditures_Report_FY05-06.pdf.

well as snail darters); Pacific Northwest timber harvest (protection of logging jobs and communities versus commercial and sport fishing, recreation, and ecosystem protection, including salmon and spotted owls); and the management of the Apalachicola Basin in Alabama, Florida, and Georgia (allocation of water among metropolitan, agricultural, and industrial users along with commercial and recreational fishing interests, as well as one listed fish and three mussel species).

Major Provisions of Domestic Law

Listing

Species may be listed on the initiative of the appropriate Secretary or by petition from an individual, group, or state agency. By law, the Secretary must decide whether to list the species based only on the best available scientific and commercial information, after an extensive series of procedural steps to ensure public participation and the collection of scientific information.¹¹ In deciding whether a species warrants the protections of ESA, the Secretary may not take into account the economic effects that listing may have; economic and other considerations may be taken into account in structuring alternatives for assisting the species after listing.¹²

In addition, FWS and NMFS may identify selected species by adding them to a list of candidate species that are believed to be at sufficient risk to warrant protection, but whose protection is precluded by work to protect species already listed. As of August 13, 2009, there were 248 species on the list of candidate species.¹³

Critical Habitat

With certain exceptions, if a species is listed, the Secretary must designate critical habitat (CH) in areas where the species is currently found or which might provide additional habitat for the species' recovery.¹⁴ However, if the publication of this information is not prudent (e.g., might encourage vandals or collectors), the Secretary may decide not to designate CH. In addition, the Secretary may postpone designation for up to one year after listing, if the information is not determinable (16 U.S.C. § 1533). As of August 13, 2009, FWS had designated CH for slightly more than 41% of listed domestic species.

As a practical matter, CH has not been designated for most listed species largely because FWS prefers to allocate its resources to listing new species, based on its regulation (50 C.F.R. § 402.02) that takes away much of the legal value of designating CH for the recovery of the species. Yet FWS consistently loses legal challenges for failure to designate CH, and several courts have found the regulation in question to be an erroneous interpretation of the law because it does not

¹¹ For a more detailed discussion of the listing process, see <http://www.fws.gov/endangered/pdfs/listing/listing.pdf> and <http://www.fws.gov/endangered/bulletin/99/11-12/6-9.pdf>.

¹² For an analysis of when and how ESA allows consideration of economic factors, see CRS Report RL30792, *The Endangered Species Act: Consideration of Economic Factors*, by Pamela Baldwin.

¹³ The list of candidate species is available at http://ecos.fws.gov/tess_public/SpeciesReport.do?listingType=C.

¹⁴ For additional background on CH, see CRS Report RS20263, *Designation of Critical Habitat under the Endangered Species Act (ESA)*, by Pamela Baldwin.

take into account the duty to avoid adverse modification of CH.¹⁵ Others have asserted the value of CH; for example, scientists with the Center for Biological Diversity published a study in April 2005 concluding that CH designation enhances species recovery.¹⁶ As for timing of the designation, the Keystone Center’s ESA Working Group on Habitat released a report on April 28, 2006, on habitat protection and ESA.¹⁷ One conclusion of this study was that identifying the habitat that species require to recover is better done in the context of recovery planning, after more rigorous analysis and deliberation have been completed, rather than at the time of listing. Although recovery plans are not enforceable, preventing adverse modification of CH is enforceable.

CH is frequently misunderstood by the public as posing a significant direct restriction on private landowners’ authority to manage their land. While a landowner may experience some additional procedures and possible restrictions on land management because of the presence of an ESA-listed species (through ESA’s prohibitions on taking a listed species), and the presence of CH may shed light on whether “harm” has occurred, the duty to avoid adverse modification of CH is an express obligation only for federal agencies and actions, and may affect private (nonfederal) actors only where and when actions involve a federal nexus (i.e., involve any federal funding, permit, or license).

Prohibitions and Penalties

ESA contains prohibitions on the “take” of endangered animal species; take means to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct” (16 U.S.C. § 1532; harassment and harm are further defined by regulation at 50 C.F.R. § 17.3). There has been controversy over the extent to which habitat modification is prohibited. A 1995 Supreme Court decision held that significant habitat modification was a reasonable interpretation of the term “harm” in ESA.¹⁸ ESA provides civil and criminal penalties for violations.

Permits and Consultation

FWS and NMFS do not initiate the permitting process—agencies and individuals wishing to avoid ESA violations contact FWS or NMFS to initiate consultation that may conclude with permit issuance. Proposed actions that may have adverse impacts on listed species may be permitted in two ways. First, under Section 7 of ESA, if federal agency actions (or actions of a nonfederal party that require an agency’s approval, permit, or funding) may affect a listed species, the federal agency must ensure that those actions are “not likely to jeopardize the continued existence” of any endangered or threatened species, nor to destroy or adversely modify CH. This does not apply in those instances where a law requires a federal agency to take only certain

¹⁵ *Sierra Club v. FWS*, 245 F. 3d 434 (5th Cir. 2001), cited with approval in *New Mexico Cattle Growers Ass’n v. FWS*, 248 F. 3d 1277 (10th Cir. 2001); *Gifford Pinchot Task Force v. FWS*, 378 F. 3d 1059 (9th Cir. 2004).

¹⁶ See <http://www.biologicaldiversity.org/swcbd/programs/policy/ch/bioscience2005.pdf>.

¹⁷ Available at <http://208.72.156.157/~keystone/files/file/about/publications/ESA-Report-FINAL-4-25-06.pdf>.

¹⁸ *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, 515 U.S. 687 (1995). See CRS Report 95-778, *Habitat Modification and the Endangered Species Act: The Sweet Home Decision*, by Pamela Baldwin.

specific actions in order to satisfy the law, according to a 2007 decision by the U.S. Supreme Court.¹⁹

To review the possible effects of their actions on listed species and CH, federal agencies are to consult with the appropriate Secretary. If the Secretary finds that an action would jeopardize a listed species or destroy or adversely modify CH, the Secretary is to suggest any reasonable and prudent alternatives that would avoid these harms. Pending completion of the consultation process, agencies may not make irretrievable commitments of resources that would foreclose any alternatives. The Secretary issues a written statement, called a biological opinion (BiOp), that may allow the agency or the applicant to take individuals of a species incidental to otherwise lawful activities without triggering ESA's penalties, subject to terms and conditions specified in the BiOp (16 U.S.C. § 1536), or may conclude that jeopardy cannot be avoided, in which case the agency, a governor, or an affected permit or license applicant may seek an exemption for the action from the Endangered Species Committee.²⁰

For actions without a federal nexus (i.e., no federal funding, permit, or license), the appropriate Secretary may issue permits under Section 10(a) of ESA to allow the incidental take of species during otherwise lawful actions.²¹ An applicant for a permit is to submit a habitat conservation plan (HCP) that shows the likely impact of the planned action; steps taken to minimize and mitigate the impact; funding for the mitigation; alternatives considered and rejected; and any other measures the Secretary may require. The use of this section has been vastly expanded, and streamlined procedures are provided for activities with minimal impacts (50 C.F.R. § 17.22).

On December 16, 2008, FWS published final regulations allowing federal action agencies, in some circumstances, to decide independently whether agency projects might harm ESA-listed species, eliminating consultation with FWS and/or NMFS scientists.²² These regulations took effect on January 15, 2009. Critics questioned this regulation, fearing that it provided federal agencies, some with little scientific expertise, with an unacceptable degree of discretion in deciding whether or not to comply with ESA.²³ A lawsuit against these regulations was filed by various interest groups and the State of California.²⁴ On April 28, 2009, Secretary of Commerce Gary Locke and Secretary of the Interior Ken Salazar jointly announced that the two departments were revoking the December 16, 2008, rule.²⁵

In May 2009, the Government Accountability Office (GAO) released a report on FWS Section 7 consultations, concluding that FWS lacks a systematic means of tracking the monitoring reports it requires in BiOps and does not know the extent of compliance with these requirements.²⁶ GAO

¹⁹ National Association of Home Builders v. Defenders of Wildlife, 127 S. Ct. 1258 (2007).

²⁰ An exemption may also be sought if an eligible party rejects the alternatives. For a detailed discussion of the exemption process, see CRS Report R40787, *Endangered Species Act (ESA): The Exemption Process*, by M. Lynne Corn, Kristina Alexander, and Betsy A. Cody.

²¹ For additional background on FWS's permitting program, see <http://www.fws.gov/endangered/pdfs/permits.pdf>.

²² 73 *Federal Register* 76272-76287 (December 16, 2008).

²³ Juliet Eilperin, "Endangered Species Act Changes Give Agencies More Say," *Washington Post*, August 12, 2008, p. A1.

²⁴ For additional information, see CRS Report RL34641, *Changes to the Consultation Regulations of the Endangered Species Act (ESA)*, by Kristina Alexander and M. Lynne Corn.

²⁵ Text of the official news release is available at <http://www.fws.gov/home/feature/2009/042809Section7.pdf>.

²⁶ U.S. Government Accountability Office, *Endangered Species Act: The U.S. Fish and Wildlife Service Has Incomplete Information about Effects on Listed Species from Section 7 Consultations*, GAO-09-550 (May 21, 2009). (continued...)

determined that reliance on individual FWS biologists leaves FWS with incomplete institutional knowledge of the extent of action agency compliance with reporting requirements as well as with incomplete information on species' response to the actions under consultation. GAO also concluded that FWS lacks a systematic method for tracking the cumulative take of most listed species.

Exemptions

Certain proponents of a federal action may apply for an exemption from the prohibition against jeopardy for that action (not for a species).²⁷ Under ESA, an Endangered Species Committee (ESC, often referred to as the "God Squad") decides whether to allow a federal action project to proceed despite likely jeopardy to a species. The requirement that an exemption applicant must pay for mitigation may deter potential applicants. To date, this process has been little used and only one exemption (Grayrocks Dam, WY) has been granted and carried out. The ESC is required to accept the President's determination (under specified circumstances) on an exemption in declared disaster areas. The committee must also grant an exemption if the Secretary of Defense determines that it is necessary for national security (16 U.S.C. § 1536). From time to time, the Department of Defense (DOD) has claimed that requirements under ESA conflict with its readiness activities, but DOD has not requested any exemptions to date.²⁸ In the 111th Congress, H.R. 672 would restrict the use of military and national security exemptions to ESA restrictions on the taking of listed species or modification of their habitat.

Other statutes may provide for waivers of ESA provisions; for example, Section 102(c) of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996²⁹ provides for a waiver from ESA and the National Environmental Policy Act (NEPA) to the extent the Attorney General determines necessary to ensure expeditious construction of barriers and roads at borders. Also, the Secretary of Homeland Security has the authority to waive ESA (and other laws) "to ensure expeditious construction of the barriers and roads" at the border.³⁰ Secretary Chertoff invoked this waiver for different portions of the Mexican border fence once in 2005 and twice in 2007.

Emergencies

ESA has provisions for emergencies; they apply when a species is in danger, not when a project needs to be rushed.³¹ In Section 4, which describes the process for listing species, ESA provides

(...continued)

Available at <http://www.gao.gov/new.items/d09550.pdf>.

²⁷ See CRS Report R40787, *Endangered Species Act (ESA): The Exemption Process*, by M. Lynne Corn, Kristina Alexander, and Betsy A. Cody.

²⁸ However, Section 318(a) of the National Defense Authorization Act for FY2004 (P.L. 108-136) authorizes the Secretary of the Interior to exempt military lands from designation as critical habitat under ESA, if the Secretary determines "in writing" that an Integrated Natural Resource Management Plan (INRMP) for such lands provides a "benefit" to the species for which critical habitat is proposed for designation. For additional information, see CRS Report RS22149, *Exemptions from Environmental Law for the Department of Defense (DOD)*, by David M. Bearden.

²⁹ Division C of P.L. 104-208; 110 Stat. 3009-554.

³⁰ P.L. 109-13, 119 Stat. 231.

³¹ In case of certain specified emergencies such as acts of God, casualties, etc., 50 C.F.R. § 402.05 provides for ESA procedures, requiring only very informal consultations during the emergency with more complete consultation after the emergency has passed.

shortened timelines for listing species where an emergency poses “a significant risk to the wellbeing of any species.” The best available scientific and commercial data must still be used. A shortened period for obtaining an exemption or permit is also available, “where the health or life of an endangered animal is threatened and no reasonable alternative is available to the applicant.”³²

According to FWS, any hurricane-related federal activities in presidentially declared disaster areas would trigger the emergency consultation provisions of ESA. Specifically, for the 2005 Gulf of Mexico hurricanes, FWS stated that “restoring any infrastructure damaged or lost due to the hurricane back into the original footprint **does not require consultation** with the Service” (emphasis in the original).³³

In the 111th Congress, Section 1(b) of H.R. 996, Section 306(a) of H.R. 1431/S. 570, and Section 503(a) of S. 1333 would, on the declaration of an emergency by a state governor, require the Secretary of the Interior and the Secretary of Commerce, for the duration of the emergency, to temporarily exempt actions necessary to address the impact of the emergency from the ESA’s prohibitions against taking and adverse modification of critical habitat. H.R. 1914 would amend ESA to provide for suspension of ESA provisions during droughts for federal and state agencies that manage river basins within regions affected by drought.

Recovery Plans

The appropriate Secretary generally must develop a recovery plan for the survival and conservation (defined in Section 3(3) of ESA as “to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary”—i.e., recovery) of a listed species. These plans are not binding on federal agencies or others, but rather serve as guidelines. Species with recovery plans are reported to Congress every two years. At first, recovery plans tended to cover popular species, like birds or mammals, but a 1988 amendment forbade the Secretary from favoring particular taxonomic groups (16 U.S.C. § 1533).

On July 31, 2008, FWS published guidance on the use of a crediting framework in carrying out recovery measures, allowing federal agencies to offset adverse effects on listed species on federal lands by beneficial actions taken elsewhere.³⁴ Under this guidance, federal agencies would create conservation “banks” by paying private landowners to conserve species, allowing federal agencies to offset activities (e.g., military training exercises, oil and gas exploration and development, federal timber sales) on public land that could harm species. Critics of this guidance question whether the trade (conservation damage in one federal area offset by conservation benefit in another area) would still maintain the same level of accountability and enforcement. Actions on private land to protect listed species might not achieve the level federal agencies are required to provide on public lands.

³² 16 U.S.C. § 1539(c).

³³ Letter from Jackie Parrish, Acting Regional Director, Southeast Region, U.S. Fish and Wildlife Service, Sept. 13, 2005, available at <http://www.fws.gov/southeast/katrina/hurricane%20response%20memo905v2.pdf>.

³⁴ 73 *Federal Register* 44761-44772.

Land Acquisition and Cooperation

The federal government may acquire land to conserve or recover listed species, and ESA authorizes money from the Land and Water Conservation Fund for land acquisition (16 U.S.C. § 1534). By law, the appropriate Secretary must cooperate with the states in conserving protected species and must enter into cooperative agreements to assist states in their endangered species programs, if the programs meet certain specified standards.³⁵ If there is a cooperative agreement, the states may receive federal funds to implement the program, but must normally provide a minimum 25% match. Under the 1988 amendments, the Cooperative Endangered Species Conservation Fund was created to provide state grants. While the annual authorization level for this fund is set by a formula (16 U.S.C. § 1535(i)(1)), spending from the fund requires annual appropriation.

Miscellaneous

Other provisions specify exemptions for certain captive raptors and their progeny, regulate subsistence activities by Alaskan Natives, prohibit interstate transport and sale of listed species and parts, control trade in parts or products of endangered species owned before ESA went into effect, and specify rules for establishing experimental populations (16 U.S.C. § 1539).

Implementation of Wildlife Treaties

ESA is the domestic implementing legislation for the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES; TIAS 8249), signed by the United States on March 3, 1973; and the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (the Western Hemisphere Convention; 50 Stat. 1354; TS 981), signed by the United States on October 12, 1940. CITES parallels ESA by dividing its listed species into groups according to the estimated risk of extinction, but uses three major categories (called appendices), rather than two.³⁶ In contrast to ESA, CITES classifies species based solely on the risk that trade poses to their survival. ESA makes violations of CITES violations of U.S. law if committed within U.S. jurisdiction (16 U.S.C. § 1538). ESA also regulates import and export of controlled products and provides some exceptions.³⁷

ESA and CITES also address the illegal trade in wildlife. International illegal wildlife trade is estimated to be worth more than \$10 billion annually and has been associated with the decline of species, spread of disease, and proliferation of invasive species, among other things.³⁸ In the 110th Congress, the House Committee on Natural Resources held hearings on the effects of illegal wildlife trade on endangered and threatened species.

In addition, FWS's Multinational Species Conservation Fund (MSCF) benefits tigers, the six species of rhinoceroses, Asian and African elephants, marine turtles, and great apes (gorillas,

³⁵ Information on the NMFS program can be found at <http://www.nmfs.noaa.gov/pr/conservation/states/>.

³⁶ For additional information on CITES, see <http://www.cites.org/>.

³⁷ For more information on CITES, see CRS Report RL32751, *The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Background and Issues*, by Pervaze A. Sheikh and M. Lynne Corn.

³⁸ For more information on illegal wildlife trade, see CRS Report RL34395, *International Illegal Trade in Wildlife: Threats and U.S. Policy*, by Liana Sun Wyler and Pervaze A. Sheikh.

chimpanzees, bonobos, orangutans, and the various species of gibbons). This fund supports conservation efforts benefitting these species, often in conjunction with efforts under CITES.³⁹

The 111th Congress is considering several bills related to international aspects of endangered species:

- Several bills would expand species eligible for assistance from the MSCF by creating a Great Cats and Rare Canids Conservation Fund (H.R. 411 and S. 529) and a Crane Conservation Fund (H.R. 388 and S. 197). The House passed H.R. 411, as amended, and H.R. 388 on April 21, 2009. On July 20, 2009, the Senate Committee on Environment and Public Works reported S. 529 (S.Rept. 111-52) and H.R. 388 (S.Rept. 111-54).
- H.R. 509 would reauthorize the Marine Turtle Conservation Act of 2004 through FY2014; the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on this bill on May 5, 2009, and on July 10, 2009, the House Committee on Natural Resources reported this measure, amended (H.Rept. 111-200). The House passed H.R. 509 (amended) on July 28, 2009.
- H.R. 1454 and S. 1567 would authorize the issuance of a Multinational Species Conservation Fund semipostal stamp; the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on this bill on May 5, 2009, and on June 10, 2009, the House Committee on Natural Resources ordered H.R. 1454 reported (amended).

Are Species Protection and Restoration Working?

The answer to this question depends on what is measured. Since a major goal of ESA is the recovery of species to the point at which ESA protection is no longer necessary, this may be a useful starting point. In the 36 years since the ESA was enacted in 1973, 47 U.S. and foreign species or distinct population segments thereof have been delisted.⁴⁰ The reasons cited by FWS are (a) recovery (21 species); (b) extinction (9 species; however, some may have been extinct when listed); and (c) original data in error (17 species). Recovered species include the American alligator, Yellowstone grizzly bear, bald eagle, brown pelican, peregrine falcon (two subspecies), and three species of kangaroo. Extinct species include the dusky seaside sparrow, Guam broadbill (a bird), and two small fish living in desert springs. However, it can be quite difficult to prove whether extraordinarily rare species are simply that or, in fact, are already extinct. For example, the ivory-billed woodpecker, thought by many to be extinct, may have been rediscovered in a remote area of Arkansas a few years ago. Rare species are, by definition, hard to find.

Some have asserted that ESA is a failure since only 21 species have been delisted as recovered; however, only 9 species have been delisted because of extinction. Others note that full recoveries are relatively few because the two principal causes of extinction—habitat loss and invasive non-native species—continue to increase. In addition, “only those species whose situations are known to be the most desperate will receive priority,”⁴¹ thereby making recovery difficult.

³⁹ For more information on the MSCF, see CRS Report RS21157, *International Species Conservation Funds*, by Pervaze A. Sheikh and M. Lynne Corn.

⁴⁰ For updated information, see http://ecos.fws.gov/tess_public/DelistingReport.do.

⁴¹ National Research Council Commission on Life Sciences, *Science and the Endangered Species Act*, National (continued...)

Another measure of “success” might be the number of species that have stabilized or increased their populations, even if the species are not actually delisted; for example, 35 species have been reclassified (downlisted) from endangered to threatened.⁴² Under this standard, ESA could be considered a success, since a large number (41%, according to one study)⁴³ of listed species have improved or stabilized their population levels after listing. Other species (e.g., red wolves and California condors) might not exist at all without ESA protection, and this too might be considered a measure of success, although these species are still rare.⁴⁴

On May 17, 2005, the Majority Staff of the House Committee on Resources released an oversight report entitled *Implementation of the Endangered Species Act of 1973*.⁴⁵ It reviewed and critiqued various ways that recovery might be measured. One approach is to look at what proportion of the recovery objectives identified in species recovery plans have been achieved. **Table 1** indicates how the rate of achievement of recovery objectives changes with the increasing length of time after species are listed.

Table 1. Percent Recovery Achieved Versus Time Listed

(data as of September 30, 2006)

Recovery Plan objectives	% of 48 species listed 5 years or less	% of 279 species listed 6-10 years	% of 940 species listed 11 years or more
0%-25% recovery achieved	100	95.0	67.8
26%-50% recovery achieved	0	3.9	22.8
51%-75% recovery achieved	0	0.4	6.2
76%-100% recovery achieved	0	0.7	3.2

Source: FWS, *Report to Congress on the Recovery of Threatened and Endangered Species: Fiscal Years 2005-2006*, p. 1-53.

An April 2005 study by the Government Accountability Office (GAO) found that, although FWS spends almost half of its recovery funds on the highest-priority species, factors other than a species’ priority ranking (e.g., regional office workload and opportunities for partnerships to maximize scarce recovery funds), in practice, determine how funding is allocated.⁴⁶ GAO found that FWS does not have a process to routinely assess funding decisions to ensure that they are

(...continued)

Academy Press (Washington, DC: 1995), p. 169.

⁴² Krishna Gifford and Deborah Crouse, “Thirty-Five Years of the Endangered Species Act,” *Endangered Species Bulletin*, v. 34, no. 1 (Spring 2009):4-7.

⁴³ U.S. Dept. of the Interior, Fish and Wildlife Service, *Endangered Species Bulletin*, Washington, DC, Sept. 2007. Available at http://www.fws.gov/endangered/bulletin/2007/ES_Bulletin_09-2007.pdf.

⁴⁴ See CRS Report 98-32, *Endangered Species List Revisions: A Summary of Delisting and Downlisting*, by Robert J. Noecker.

⁴⁵ Available at http://republicans.resourcescommittee.house.gov/archives/ii00/issues/more/esa/ESA_Implementation_Report5.17.05.pdf.

⁴⁶ U.S. Government Accountability Office, *Endangered Species: Fish and Wildlife Service Generally Focuses Recovery Funding on High-Priority Species, but Needs to Periodically Assess Its Funding Decisions*, GAO-05-211 (April 6, 2005). Available at <http://www.gao.gov/new.items/d05211.pdf>.

appropriate. In 2006, GAO examined federal efforts to recover 31 selected species.⁴⁷ GAO determined that, while many factors affected the recovery of species, recovery plans played an important role in the recovery of all but one of the species examined. Critics claimed the GAO study was biased to reflect positively on the recovery planning process by the selection of species examined.

A December 2008 study by the Government Accountability Office (GAO) found that, although FWS, NMFS, and other federal agencies had implemented a majority of GAO recommendations to strengthen ESA implementation during the previous 10 years, almost one-third of GAO recommendations had not been implemented.⁴⁸ For example:

- FWS has not clarified the role of critical habitat and how and when it should be designated;
- FWS has not periodically assessed expenditures on species in relation to their relative priority; and
- FWS and NMFS are not tracking the amount of time spent by federal agencies preparing for consultation before the process officially begins.

Issues in the 111th Congress

ESA reauthorization has been on the legislative agenda since the funding authorization expired in 1992, and bills have been introduced in each subsequent Congress to address various aspects of endangered species protection. Below are descriptions of some of the issues that may receive attention in the current Congress.

Revised Regulations for Consultation

On August 15, 2008, FWS and NMFS (i.e., Services) issued proposed revisions to the Section 7 consultation regulations.⁴⁹ The final version was published December 16, 2008, and took effect January 15, 2009.⁵⁰ However, P.L. 111-8, § 429, authorized withdrawal of the regulations, which was done May 4, 2009.⁵¹

⁴⁷ U.S. Government Accountability Office, *Endangered Species: Many Factors Affect the Length of Time to Recover Select Species*, GAO-06-730 (Washington, DC: GPO, September 8, 2006). In this report, GAO acknowledged that results from nonprobability (i.e., non-random) samples cannot be used to make inferences about a population (i.e., all ESA-listed species). However, in the view of GAO, review of the selected species provides valuable, case-level insights into their progress toward recovery and the role that recovery plans have played in that progress.

⁴⁸ U.S. Government Accountability Office, *Endangered Species Act: Many GAO Recommendations Have Been Implemented, but Some Issues Remain Unresolved*, GAO-09-225R (December 19, 2008). Available at <http://www.gao.gov/new.items/d09225r.pdf>.

⁴⁹ 73 *Federal Register* 76272 (Dec. 16, 2008).

⁵⁰ Comments were originally due within 30 days, but that was extended to 60 days. 73 *Federal Register* 52942, 52943 (Sept. 12, 2008). Although no specific number of comments was given in the final notice, as usually is done, reportedly more than 200,000 comments were received. See, for example, Erika Dimmler, "Environmentalists Blast Changes to Endangered Species Rules," CNN.com (Dec. 12, 2008).

⁵¹ 74 *Federal Register* 20421 (May 8, 2009).

The regulations would have revised the consultation process by (1) allowing already prepared documents to be used as a BA; (2) allowing action agencies greater discretion to determine whether consultation applies; (3) clarifying certain definitions; and (4) making procedural changes to informal consultations.⁵² The revised regulations also addressed climate change. The Services said that the modifications would “reinforce the Services’ current view that there is no requirement to consult on [greenhouse gas] emissions’ contribution to global warming and its associated impacts on listed species.”⁵³

Critical Habitat Designation

With limited exceptions, by law FWS or NMFS must designate CH at the time a species is listed. However, some critics argue that CH designation places undue burdens on landowners or that it has little conservation benefit. Others argue (and the courts have largely agreed) that FWS and NMFS have misinterpreted and failed to enforce the current statute. There are also disagreements over the value and timing of CH designation.⁵⁴ (See “Critical Habitat,” above.)

“Sound Science” and ESA

ESA requires that determinations of a species’ status be made “solely on the basis of the best scientific and commercial data available.”⁵⁵ In several recent situations, legal, economic, and social disputes have resulted from actions under ESA. Examples of these controversies include the Florida panther, Klamath River Basin suckers and coho salmon, gray wolf, and Sonoran Desert bald eagles.⁵⁶ Critics in some of these disputes suggest that the science supporting ESA action has been insufficiently rigorous or mishandled by the agencies.

Many rare and endangered species are little studied because they are hard to find or because it is difficult to locate enough of them to support definitive scientific research. There may be little information on many species facing extinction, and only limited personnel or funds available to conduct studies on many of the less charismatic species, or those of little known economic import. What should be done in such instances? Some suggest that considerations other than species conservation should prevail; others seek to change the current posture of the law by changing the role of science. These considerations are complicated by the cost and time required to acquire more complete data, particularly in connection with many lesser-known species.

ESA does not elaborate on this question, but some assert that, given the protective purpose of ESA—to save and recover species—and the wording of “best scientific ... data available,” species that may be dwindling are to be given the benefit of the doubt and a margin of safety. This is the position taken on pages 1-7 of the joint FWS/NMFS Endangered Species Consultation Handbook, which states that efforts should be made to develop information, but if a BiOp must be

⁵² 73 *Federal Register* 47869.

⁵³ 73 *Federal Register* 47872.

⁵⁴ For details on how legislation in the 109th Congress sought to address this issue, see CRS Report RL33468, *The Endangered Species Act (ESA) in the 109th Congress: Conflicting Values and Difficult Choices*, by Eugene H. Buck et al.

⁵⁵ 16 U.S.C. § 1533(b)(1)(A).

⁵⁶ See CRS Report RL32992, *The Endangered Species Act and “Sound Science,”* by Eugene H. Buck, M. Lynne Corn, and Kristina Alexander.

rendered promptly, it should be based on the available information, “giving the benefit of the doubt to the species,” with consultation possibly being reinitiated if additional information becomes available.⁵⁷ This phrase is drawn from H.Rept. 96-697, p. 12 (1979),⁵⁸ which states that the “best information available” language was intended to allow FWS or NMFS to issue BiOps even when information was incomplete, rather than being forced to issue negative BiOps for lack of data. The report also states that if a BiOp is rendered on the basis of inadequate information, the federal agency proposing an action has the duty to show that its actions will not jeopardize a species and a continuing obligation to make a reasonable effort to develop information, and that the statutory language “continues to give the benefit of the doubt to the species.”

Information Quality

Section 515 of P.L. 106-554, known as the Information Quality Act or the Data Quality Act, directs the Office of Management and Budget (OMB) to issue government-wide guidelines to federal agencies to ensure and maximize the quality, objectivity, utility, and integrity of information disseminated by federal agencies. OMB published final guidelines on February 22, 2002.⁵⁹ The Department of the Interior and FWS have both issued additional guidelines that are available through their websites,⁶⁰ and have established a process for interested persons to seek correction of information. Even before these latest guidelines were issued, FWS had promulgated guidance on information quality and peer review procedures—issues that also have been addressed in recent legislation.

FWS and NMFS developed an Interagency Cooperative Policy on Information Standards Under the Endangered Species Act.⁶¹ Under this policy, FWS and NMFS are to receive and use information from a wide variety of sources, including individuals. Submitted information may range from the informal—oral, traditional, or anecdotal—to peer-reviewed scientific studies, and hence the reliability of the information can vary widely. Agency biologists are to review and evaluate all information impartially for purposes of listing, CH designation, consultation, recovery, and permitting actions, and to ensure that any information used by the agencies to implement ESA is “reliable, credible, and represents the best scientific and commercial data available.” Agency biologists are to document their evaluations of all information and, to the extent consistent with the use of the best scientific and commercial data available, use primary and original sources of information as the basis for recommendations. In addition, agency managers are to review the work of FWS and NMFS biologists to “verify and assure the quality of the science used to establish official positions, decisions, and actions.”

Additionally, a companion document, the Interagency Cooperative Policy for Peer Review in Endangered Species Act Activities,⁶² notes that, in addition to the public comments received on proposed listing rules and draft recovery plans, the Services are also to formally solicit expert opinions and peer review to ensure the best biological and commercial information. For listing

⁵⁷ Available at http://www.nmfs.noaa.gov/pr/pdfs/laws/esa_section7_handbook.pdf.

⁵⁸ Conference report on S. 1143 in the 96th Congress, which subsequently became P.L. 96-159, reauthorizing and amending ESA.

⁵⁹ 67 Federal Register 8452.

⁶⁰ For example, see http://www.fws.gov/stand/standards/process_WWW.html.

⁶¹ 59 Federal Register 34271, July 1, 1994.

⁶² 59 Federal Register 34270, July 1, 1994.

decisions, the agencies are to solicit the expert opinions of at least three specialists and summarize these in the record of final decision. Special independent peer review can also be used when it is likely to reduce or resolve an unacceptable level of scientific uncertainty.

Court Cases on ESA and Science⁶³

Courts, in considering the “best data available” language, have held that an agency is not obliged to conduct studies to obtain missing data,⁶⁴ but cannot ignore available biological information,⁶⁵ especially if the ignored information is the most current.⁶⁶ Nor may an agency treat one species differently from other similarly situated species,⁶⁷ or decline to list a dwindling species and wait until it is on the brink of extinction in relying on possible but uncertain future actions of an agency.⁶⁸ “Best scientific and commercial data available” is not a standard of absolute certainty, reflecting Congress’s intent that FWS take conservation measures before a species is conclusively headed for extinction.⁶⁹ If FWS does not base its listings on speculation or surmise or disregard superior data, the imperfections of the studies upon which it relies do not undermine those studies as the best scientific data available—“the Service must utilize the best scientific ... data available, not the best scientific data possible.”⁷⁰

Judicial review can also help ensure that agency decisions and their use of scientific data are not arbitrary or capricious and that regulations are rationally related to the problems causing the decline of a species, especially when other interests are adversely affected.⁷¹ In *Arizona Cattle Growers Association v. United States Fish and Wildlife Service*,⁷² the court stated that the evidentiary bar FWS must clear is very low, but it must at least clear it. In the context of issuing incidental take permits under Section 10(a), this ruling means the agency must demonstrate that a species is or could be in an area before regulating it, and must establish the causal connection between the land use being regulated and harm to the species in question. Mere speculation as to the potential for harm is not sufficient. An agency must consider the relevant facts and articulate a rational connection between these facts and the choices made.⁷³

⁶³ For more information, see CRS Report RL32992, *The Endangered Species Act and “Sound Science,”* by Eugene H. Buck, M. Lynne Corn, and Kristina Alexander.

⁶⁴ *Southwest Center for Biological Diversity v. Babbitt*, 215 F. 3d 58 (D.C. Cir. 2000).

⁶⁵ *Connor v. Burford*, 848 F. 2d 1441 (9th Cir. 1988).

⁶⁶ *Southwest Center for Biological Diversity v. Babbitt*, 926 F. Supp. 920 (D.C. Ariz. 1996).

⁶⁷ *Id.*

⁶⁸ *Biodiversity Legal Foundation v. Babbitt*, 943 F. Supp. 23 (D. D.C. 1996).

⁶⁹ *Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 679-680 (D. D.C. 1997).

⁷⁰ *Building Industry Ass’n of Sup. Cal. v. Norton*, 247 F. 3d 1241, 1246-1267 (D.C. Cir. 2001), cert. denied 2002 U.S. LEXIS 479.

⁷¹ See *Connor v. Andrus* (453 F. Supp. 1037 (W.D. Tex. 1978)) (striking down regulations totally banning duck hunting in an area to protect one listed species of duck).

⁷² 273 F. 3d 1229 (9th Cir. 2001).

⁷³ *Pacific Coast Federation of Fishermen’s Associations, Inc. v. NMFS*, 265 F.3d 1028, 1034 (9th Cir. 2001).

Endangered Species and Climate Change

In the absence of federal regulatory action on climate change,⁷⁴ environmental groups are eyeing use of the Endangered Species Act (among other approaches) as a means of restricting greenhouse gas emissions. This approach is still in the embryonic stage. The idea, as spearheaded by the Center for Biological Diversity (CBD), is to petition FWS and NMFS to list as endangered or threatened various animals whose habitat is or will be adversely affected by climate change. (CBD has already done so for several species, including the polar bear.)⁷⁵ Once the species is listed, the argument would be made that sources of substantial greenhouse gas emissions, such as coal-fired power plants, cause an unlawful “take” of these species under ESA Section 9 by the effect such emissions have, via climate change, on the species’ habitat. This could force negotiation of an incidental take permit for the source with greenhouse gas-limiting terms and conditions. Note that “take” is defined in the ESA to include “harm” to a member of a listed species, and “harm,” in turn, is defined by regulation to include certain “significant habitat modification[s] or degradation[s].” As a result, federal agencies proposing to issue permits for the construction or modification of greenhouse gas sources would be required, the argument runs, to initiate Section 7 consultation.⁷⁶

Any effort to address climate change through the ESA will encounter several obstacles, chief among them whether the causal link between greenhouse gas emissions and habitat harm is too attenuated to fall within the ESA’s prohibitions and requirements. The ESA also provides federal agencies with various tools to minimize ESA/climate change conflicts, such as Section 4(d) “special rules” for threatened species.⁷⁷

In May 2008, FWS listed the polar bear as threatened, catapulting the above Section 7, Section 9, and 4(d)-rule mechanisms to the fore. In connection with the listing, FWS opposed using the ESA to address climate change. First, it issued a 4(d) rule for the polar bear specifically excluding from the Section 9 take prohibition “any taking of polar bears that is incidental to, but not the purpose of ... an otherwise lawful activity.” An effect of the exclusion appears to be that a coal-fired power plant could not be deemed to “take” polar bears through its greenhouse gas (GHG) emissions. Second, FWS argued in the listing preamble that current scientific understanding has not established a causal connection between specific sources of GHG emissions and specific impacts to polar bears or their habitat, concluding that the Section 7 consultation mechanism would not be triggered by federal actions leading to greater GHG emissions (e.g., permitting of fossil-fuel-fired power plants).

⁷⁴ For access to current CRS reports on climate change, see http://apps.crs.gov/cli/cli.aspx?PRDS_CLI_ITEM_ID=2645&from=3&fromId=2522.

⁷⁵ For additional information on the polar bear, see CRS Report RL33941, *Polar Bears: Listing Under the Endangered Species Act*, by Eugene H. Buck, M. Lynne Corn, and Kristina Alexander.

⁷⁶ For additional information, see CRS Report RS22906, *Use of the Polar Bear Listing to Force Reduction of Greenhouse Gas Emissions: The Legal Arguments*, by Robert Meltz, and CRS Report RL34573, *Does the Endangered Species Act (ESA) Listing Provide More Protection of the Polar Bear?: A Look at the Special Rule*, by Kristina Alexander.

⁷⁷ John Kostyack and Dan Rohlf, “Conserving Endangered Species in an Era of Global Warming,” *Environmental Law Reporter*, vol. 38, no. 4 (2008): 10203-10213.

On October 22, 2009, the U.S. Fish and Wildlife Service proposed protecting more than 200,000 square miles of critical habitat for polar bear along the Alaska coast.⁷⁸

In the 111th Congress, Section 429 of P.L. 111-8 (H.R. 1105) authorized the Secretary of the Interior to withdraw or reissue the December 2008 special rule that outlined protections afforded polar bears within 60 days of this measure's enactment; the Obama Administration took this action on May 4, 2009.⁷⁹ The 111th Congress is considering several additional bills related to climate change and endangered species:

- Section 11 of H.R. 2192; Title IV, Subtitle E, Part 1, Subpart C, Section 480, of H.R. 2454/H.R. 2998; Division A, Title III, Subpart C, Section 370, of S. 1733; and S. 1933 would allocate funds to endangered species programs and to related funds to assist species adaptation to climate change.⁸⁰ On May 18-21, 2009, the House Committee on Energy and Commerce held hearings on H.R. 2454 and, on June 5, 2009, the House Committee on Energy and Commerce reported (amended) H.R. 2454 (H.Rept. 111-137, Part I). The House passed H.R. 2454 (amended) on June 26, 2009. On October 27-29, 2009, the Senate Committee on Environment and Public Works held a hearing on S. 1733.
- H.R. 1054/S. 1395 would amend the Marine Mammal Protection Act to allow imports of polar bear trophies taken in sport hunts in Canada before the polar bear was listed as a threatened species under ESA; on September 22, 2009, the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 1054.
- Section 306(b) of H.R. 1431/S. 570, Section 503 of H.R. 2846, and Section 503(b) of S. 1333 would prohibit the impacts of greenhouse gases to be considered in ESA implementation.
- S. 724 would amend ESA to temporarily prohibit the Secretary of the Interior from considering global climate change as a natural or manmade factor in determining whether a species is threatened or endangered.

Regional Resource Conflicts

One express purpose of ESA is to “provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved” (16 U.S.C. § 1531(b)). As open space dwindles and increasing human populations put pressures on wildlands and natural resources, efforts to conserve species and their habitats may highlight underlying resource crises and economic conflicts. Public values and affected economic interests may be complex and sometimes at odds. The situations described below have been the subject of recent congressional oversight and legislative interest.

⁷⁸ For more information, see <http://www.fws.gov/home/feature/2009/pdf/PBCritHabPropNRFINAL.pdf>.

⁷⁹ 74 *Federal Register* 20421 (May 8, 2009).

⁸⁰ For additional information see CRS Report R40911, *Comparison of Climate Change Adaptation Provisions in S. 1733 and H.R. 2454*, coordinated by Melissa D. Ho.

Klamath River Basin

Controversy erupted in 2001 when the Bureau of Reclamation announced it would not release water from part of its Klamath irrigation project to approximately 200,000 acres of farm and pasture lands within the roughly 235,000-acre project service area. The operational change sought to make more water available for three fish species under ESA protection—two endangered sucker species, and a threatened coho salmon population. The Klamath Project straddles the Oregon/California border and has been the site of increasingly complex water management conflicts involving several tribes, fishermen, farmers, environmentalists, and recreationists. Upstream farmers point to their contractual rights to water from the Klamath Project and to hardships for their families if water is cut off. Others assert that the downstream salmon fishery is more valuable and that farmers could be provided temporary economic assistance, while salmon extinction would be permanent. Still others assert that there are ways to serve all interests, or that the science underlying agency determinations is simply wrong.

Specifically at issue is how to operate the Bureau's project facilities to meet irrigation contract obligations without jeopardizing the three listed fish. The Trinity River diversion from the Klamath basin to central California also has ramifications for the Bureau's role in the Central Valley Project. Ten-year and annual operation plans, and associated biological assessments (by the Bureau) and BiOps (by FWS and NMFS) have been variously criticized and defended.⁸¹ On July 31, 2007, the House Natural Resources Committee held an oversight hearing on allegations of political intervention influencing scientific and policy decisions at the Department of the Interior, with respect to Klamath River salmon.

A draft agreement was negotiated by 29 Klamath River stakeholders and signed on September 30, 2009, to address conflicting water management objectives, including removal of four dams that block salmon and steelhead from historic spawning areas.⁸² The parties to this agreement have indicated that they will seek legislative support from Congress.

Pacific Salmon Restoration

Salmon protection in the Pacific Northwest presents many difficult choices, especially because of recent droughts and the connection between regional hydropower facilities and fishery management decisions. NMFS officials have listed a total of 26 distinct population segments (called *evolutionarily significant units* or ESUs) of Pacific salmon and steelhead trout as either threatened or endangered, and are working with state, local, and tribal officials, as well as the public, to implement recovery measures addressing habitat restoration and other concerns. Recent controversies and litigation have focused on three issues: (1) BiOps on operation of the many dams on the Columbia and Snake Rivers (Federal Columbia River Power System), including the decision to retain (or remove) four dams on the lower Snake River, and how properly to factor the presence of the dams into evaluations of jeopardy; (2) whether salmon produced in hatcheries should be included in listed ESUs of Pacific salmon; and (3) the role and extent of CH designation in the recovery of Pacific salmon. In 2007, the hatchery listing policy of NMFS was ruled invalid by a federal court, in part because the court found it scientifically questionable to

⁸¹ For more information, see CRS Report RL31098, *Klamath River Basin Issues: An Overview of Water Use Conflicts*, by Betsy A. Cody, Pamela Baldwin, and Eugene H. Buck.

⁸² See <http://www.doi.gov/documents/DraftKlamathHydroelectricSettlementAgreement.pdf>.

include hatchery-raised fish under an act designed to protect wild fish.⁸³ Decisions of the federal district court for Oregon have invalidated NMFS's approach to evaluating jeopardy to salmon from dam operations on the Columbia and Snake Rivers, and ordered increased spills of water to assist transit of juvenile salmon to the sea.⁸⁴ The Obama Administration is currently reviewing federal salmon and water management options for the Columbia River Basin before the federal court makes a decision on the most recent BiOp. On October 7, 2009, NMFS announced availability of its Draft Central Valley Salmon and Steelhead Recovery Plan for public comment.⁸⁵

In the 111th Congress, Title X, Subtitle A, of P.L. 111-11 (H.R. 146) authorized the implementation of the San Joaquin River Restoration Settlement,⁸⁶ providing for the reintroduction of Chinook salmon. On March 31, 2009, the House Committee on Natural Resources held an oversight hearing on the California drought and actions by federal and state agencies to address impacts on lands, fisheries, and water users. Several bills have been introduced:

- H.R. 1672 and S. 668 would direct county marine resources committees to assist in identifying local implications, needs, and strategies associated with the recovery of Puget Sound salmon; on October 21, 2009, the Senate Committee on Commerce, Science, and Transportation reported (amended) S. 668 (S.Rept. 111-90). S. 817 and H.R. 2055 would establish a Salmon Stronghold Partnership program to protect wild Pacific salmon.
- H.R. 3503 would require a scientific analysis of federal salmon recovery efforts by the National Academy of Sciences and authorize removal of the four lower Snake River dams by the Army Corps of Engineers.
- H.R. 2977 would direct the Bureau of Reclamation to enter into an agreement with the National Academy of Sciences to study sustainable water and environmental management in the Sacramento-San Joaquin Delta, California. H.R. 3794 would amend the Central Valley Project Improvement Act to assist in efforts to avoid losses of juvenile anadromous fish. H.R. 3999 would direct the Commissioner of the Bureau of Reclamation to initiate ESA consultations on the Central Valley Project and the California State Water Project.

Delta Smelt

Delta smelt (*Hypomesus transpacificus*) is a small, slender-bodied fish found only in the San Francisco Bay and Sacramento-San Joaquin Rivers Delta in California (Bay-Delta), where they were once abundant. The species was listed as threatened under ESA in 1993 and, in recent years, its abundance has declined to the lowest ever observed. The decline has been attributed to a combination of several factors, including entrainment (i.e., entrapment) in water export pumps,

⁸³ Trout Unlimited v. Lohn, No. CV06-0483-JCC, 2007 WL 1795036 (W.D. Wash. June 13, 2007).

⁸⁴ For details on how legislation in the 109th Congress proposed to address this issue, see CRS Report RL33468, *The Endangered Species Act (ESA) in the 109th Congress: Conflicting Values and Difficult Choices*, by Eugene H. Buck et al.

⁸⁵ Available at <http://swr.nmfs.noaa.gov/recovery/centralvalleyplan.htm>.

⁸⁶ For additional information on this settlement, see CRS Report RL34237, *San Joaquin River Restoration Settlement*, coordinated by Betsy A. Cody and Pervaze A. Sheikh.

competition and predation from exotic fish species, toxic contaminants, changes in habitat size and quality, and changes in food supply.⁸⁷ The contribution of each factor in causing the species decline is controversial. Some contend that entrainment in water pumps is the primary cause, whereas others argue that all causes might be more or less equally responsible for the observed decline.⁸⁸

The delta smelt decline has significant consequences for the operation of the federal Central Valley Project (CVP) and the State Water Project (SWP), which supply water to much of California. If entrainment and/or adverse modification of delta smelt critical habitat by water pumps is largely responsible for the decline of delta smelt, changes in how these pumps are operated might be required to satisfy ESA requirements. These requirements could result in reduced pumping and less water for users. In 2004, the Bureau of Reclamation, which operates the CVP, issued a biological assessment (BA) of its proposal to increase pumping as part of a revised coordinated operational plan with the SWP, known as OCAP.

To address the impact of OCAP on delta smelt, an ESA Section 7 consultation between FWS and the Bureau was conducted. FWS initially issued a no-jeopardy BiOp with regard to impacts on delta smelt by the operations of the CVP and SWP in 2004, and re-issued the BiOp in 2005 to address potential critical habitat issues of the delta smelt brought up by the Bureau. In May 2007, the FWS BiOp was found not to comply with ESA with regard to delta smelt.⁸⁹ The Bureau and FWS reinitiated consultation based on new information on the delta smelt in 2007. While the consultation process was underway, the Bureau implemented interim protective measures required by a court order issued in December 2007.⁹⁰ A revised BiOp was issued December 15, 2008.⁹¹ FWS determined that the continued operation of water projects in the Bay-Delta as described in the OCAP BA is likely to jeopardize the continued existence of the delta smelt and adversely modify its critical habitat. Along with the revised BiOp, FWS outlined reasonable and prudent alternatives (RPAs) intended to protect each life-stage and critical habitat of the delta smelt.

In the 111th Congress, H.R. 856 would authorize support for establishing a fish hatchery program for delta smelt in the Sacramento-San Joaquin Delta and temporarily exempt two pumping plants from ESA take restrictions. On March 31, 2009, the House Committee on Natural Resources held an oversight hearing on the California drought and actions by federal and state agencies to address impacts on lands, fisheries, and water users. H.R. 2977 would direct the Bureau of Reclamation to enter into an agreement with the National Academy of Sciences to study sustainable water and environmental management in the Sacramento-San Joaquin Delta, California. H.R. 3105 would provide that operations of the CVP not be restricted by any ESA

⁸⁷ Testimony of Bob Johnson, Commissioner of the Bureau of Reclamation, at House Resources, Subcommittee on Water and Power, hearing on “The Immediate Federal and State Role in Addressing Uncertain Water Deliveries for California and the Impacts on California Communities,” 110th Cong., 2nd sess., January 29, 2008.

⁸⁸ In 2005, the Pelagic Organism Decline working group was created to address the decline in fish and zooplankton populations in the Bay-Delta. They hypothesized that pelagic fish decline could be a result of three factors acting individually or together. These factors included (1) toxic contaminants, (2) exotic species, and (3) water project effects. Based on this hypothesis, the group developed a set of conceptual models to explain pelagic fish decline. Their results have so far been inconclusive and more research is planned for 2008. See *Pelagic Organism Decline Progress Report: 2007 Synthesis of Results*, at http://www.fws.gov/sacramento/es/documents/POD_report_2007.pdf.

⁸⁹ *NRDC v. Kempthorne*, 506 F. Supp. 2d 322 (E.D. Cal. 2007).

⁹⁰ *NRDC v. Kempthorne*, 2007 U.S. Dist. LEXIS 91968 (E.D. Cal. December 14, 2007).

⁹¹ Available at http://www.fws.gov/sacramento/es/documents/SWP-CVP_OPs_BO_12-15_final_OCR.pdf.

BiOp, if such restrictions would result in water exports less than their historical maximum. H.R. 3999 would direct the Commissioner of the Bureau of Reclamation to initiate ESA consultations on the CVP and the California State Water Project.

Counterpart Regulations: Pesticides and Fire Management Projects

ESA regulations found at 50 C.F.R. Section 402.30 and Section 402.40 are referred to as counterpart regulations. These regulations allow certain action agencies to determine whether their actions jeopardize a listed species without having to consult as required by ESA Section 7.

Counterpart pesticide regulations were promulgated by the U.S. Environmental Protection Agency (EPA) for regulatory actions on pesticides.⁹² Under the regulations, when EPA took action under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA; P.L. 80-104; 7 U.S.C. §§ 136, et seq.), EPA decided whether a proposed FIFRA action was likely to adversely affect a listed species or critical habitat. EPA made this determination without consultation with, or written concurrence from, the FWS Director, once an alternative consultation agreement was executed. FWS did not review the determination for consistency with ESA.

On August 24, 2006, a federal court overturned the pesticide counterpart regulations, ruling that these regulations did not conform to the plain language or intent of ESA Section 7 because they excused federal action agencies from engaging in consultation.⁹³ The court let stand the “optional formal consultation” process, in which NMFS or FWS can adopt EPA effects determinations as their own.

National Fire Plan (NFP) counterpart regulations were promulgated by the Forest Service, Bureau of Land Management, Bureau of Indian Affairs, National Park Service, FWS, and NMFS.⁹⁴ The alternative consultation process contained in these counterpart regulations eliminates the need to conduct informal consultation with FWS or NMFS, and eliminates the requirement to obtain written concurrence from FWS or NMFS for those NFP actions that the action agency determines are “not likely to adversely affect” any listed species or designated CH. The District Court for the District of Columbia held that the Alternative Consultation Agreement did not improperly bypass ESA Section 7.⁹⁵ In contrast to the pesticide counterpart regulations, the Services must determine that the action agencies’ actions are consistent with ESA Section 7. However, a report by the Services of the NFP counterpart regulations found that all 10 projects reviewed by NMFS were deficient in 5 or 6 criteria, and 44 out of 50 projects reviewed by FWS missed at least 1 of 6 criteria, with 19 missing all of them.⁹⁶

⁹² 69 *Federal Register* 47732 (August 5, 2004); 50 C.F.R. Part 402, Subpart D.

⁹³ *Washington Toxics Coalition v. U.S. Department of the Interior*, 457 F. Supp. 2d 1158 (W.D. Wa. 2006); see <http://www.eswr.com/latest/selfconsultationorder.pdf>.

⁹⁴ 68 *Federal Register* 68254 (December 8, 2003); 50 C.F.R. Part 402, Subpart C.

⁹⁵ *Defenders of Wildlife v. Kempthorne*, No. 04-1230, 2006 WL 2844232 (D.D.C. September 29, 2006).

⁹⁶ NMFS, FWS, FS, and BLM, *Use of the ESA Section 7 Counterpart Regulations for Projects that Support the National Fire Plan, Program Review: Year One* (Jan. 11, 2008), 24 p.; Available at <http://www.nmfs.noaa.gov/pr/pdfs/laws/fireplanreview.pdf>. See also Appendix A of CRS Report RL34641, *Changes to the Consultation Regulations of the Endangered Species Act (ESA)*, by Kristina Alexander and M. Lynne Corn.

In the 111th Congress, H.R. 585 would direct the President to enter into an arrangement whereby the National Academy of Sciences would determine the impact of P.L. 108-148 (Healthy Forests Restoration Act of 2003) on ESA protection relative to forest fire protection.

Private Property and Fifth Amendment Takings

The prohibitions in Section 9 (private actions) and Section 7 (federal nexus) at times frustrate the economic desires of owners of land or other property. This has long been a rallying cry for ESA's detractors, who assert that restrictions under ESA routinely "take" property in the constitutional sense of the term.⁹⁷ Conflicts between ESA and property owners come about despite the existence of ESA mechanisms intended to soften its impact on property owners.

Under the Fifth Amendment, property cannot be "taken" by the United States without just compensation. The Supreme Court has long tried, with limited success, to define which government actions affect private property so severely as to effect such a "taking." In briefest outline, government actions usually are deemed a taking when they cause either a permanent physical occupation of private property or, through regulation, a *total* elimination of its economic use. When the government regulation removes only part, but not all, of the property's use or value, a three-factor balancing test is used to determine whether a taking has occurred.⁹⁸ Although these factors have been little explicated by the courts, it is clear that for a taking to occur, the property impact must be severe. Moreover, except for physical takings, the property impact is assessed with regard to the property as a whole, not just the regulated portion.

Approximately 20 court decisions have addressed takings challenges to ESA restrictions on land or other property, with all but two finding no taking. These cases have involved restrictions on timber cutting, reductions in water delivery to preserve instream flows needed by listed species (a particularly active area now), restrictions on shooting marauding animals that were responsible for loss of livestock, and prohibitions on the transport or sale of endangered species. In several of these cases, the taking claim failed because it was filed in the wrong court or was not "ripe." Where taking claims were reached by the court, they were rejected principally because the economic impact was insufficient as to the property as a whole, or because of the longstanding principle that the government is not responsible for the actions of wild animals. Of the two decisions favoring the property owner, one, involving reduced water delivery to a water district owing to the need to maintain in-stream flows for listed fish, has been repudiated by the judge who wrote it.⁹⁹ The other, however, instructs that when government requires water subject to appropriative water rights to be physically diverted to a fish ladder (here, for the use of a listed species), the diversion must be analyzed under a physical rather than regulatory taking theory.¹⁰⁰

⁹⁷ See CRS Report RL31796, *The Endangered Species Act (ESA) and Claims of Property Rights "Takings"*, by Robert Meltz.

⁹⁸ The three factors, announced by the Supreme Court in *Penn Central Transp. Co. v. New York City* in 1978 and reaffirmed by the Court many times since, are (1) the economic impact of the government action on the property owner; (2) the extent to which the government action interferes with the owner's reasonable investment-backed expectations; and (3) the "character" of the government action. These are vague guideposts only; the Court stresses that every case is to be decided ad hoc. Indeed, many question whether it is even appropriate to call the three factors a test.

⁹⁹ See *Casitas Municipal Water Dist. v. United States*, 76 Fed Cl. 100 (2007), *aff'd* in part, reversed in part on other grounds, 543 F.3d 1276 (Fed. Cir. 2008), holding to the contrary of *Tulare Lake Basin Water Storage Dist. v. United States*, 49 Fed. Cl. 313 (2001).

¹⁰⁰ *Casitas Municipal Water Dist.*, 543 F.3d 1276.

Under such a theory, as noted, the holder of water rights is likely to win its taking claim—unless the government can show that “background principles” of state water law never gave the plaintiff the right to be free of the complained-of diversion. This case is now headed back to the trial court where the United States likely will attempt such a showing.

Critics want ESA amended to afford compensation for a broader range of property impacts than the Constitution provides—perhaps by specifying a fixed percentage of ESA-related property value loss, above which compensation must always be paid. Provisions to that effect have been included in bills of previous Congresses, although not in recent ones. Opponents of an explicit compensation standard counter that ESA should not be singled out for a more property owner-friendly standard than other statutes or the Constitution. More fundamentally, they note that property rights have never been absolute, and that regulation has long been noncompensable as long as the impact on the property owner is not severe.

Additional Legislative Initiatives

In the 111th Congress, Section 9107 of P.L. 111-11 (H.R. 146) amended P.L. 106-392 to extend the authorizations for the Upper Colorado and San Juan River Basin endangered fish recovery programs through FY2023. Other measures relating to ESA include:

- H.R. 762 would validate the final patent for Nevada lands beneficial for desert tortoise recovery; on May 14, 2009, the House Natural Resources Subcommittee on National Parks, Forests, and Public Lands held a hearing on this measure and, on June 23, 2009, the House Committee on Natural Resources reported the measure (H.Rept. 111-178). The House passed this measure on July 15, 2009.
- S.Res. 121 would designate May 15, 2009, as “Endangered Species Day.” The Senate agreed to this measure on May 12, 2009.
- H.R. 556 and S. 1748 would establish a research program for recovery of the southern sea otter; the House Natural Resources Subcommittee on Insular Affairs, Oceans, and Wildlife held a hearing on H.R. 556 on May 5, 2009. On June 23, 2009, the House Committee on Natural Resources reported H.R. 556, amended (H.Rept. 111-175); the House passed this measure (amended) on July 28, 2009.
- H.R. 2288/S. 1453 would amend P.L. 106-392 to maintain annual base funding for the Upper Colorado and San Juan fish recovery programs through FY2023. The Senate Energy and Natural Resources Subcommittee on Water and Power held a hearing on S. 1453 on July 23, 2009. The House Natural Resources Subcommittee on Water and Power held a hearing on H.R. 2288 on September 22, 2009.
- H.R. 672 would restrict the use of military and national security exemptions to permit the taking of ESA-listed species.
- Section 30 of H.R. 1108 would direct the Secretary of the Interior to establish regional Outer Continental Shelf (OCS) Joint Permitting Offices, with expertise in ESA Section 7 consultations and preparation of BiOps. Section 3 of S. 995/H.R. 2362 would direct the Secretary of the Interior to establish a pilot project to improve federal renewable energy permit coordination, with expertise in ESA Section 7 consultations and preparation of BiOps. Section 1713 of H.R.

2300/H.R. 2828 would direct the Secretary of the Interior to establish regional offices to coordinate review of federal permits for oil and gas projects on federal lands onshore and on the OCS, with expertise in ESA Section 7 consultations and preparation of BiOps.

- Section 106 of S. 684 would authorize the Coast Guard and NOAA to identify U.S. waters where special navigational measures are warranted to reduce the risk of oil spills and potential damage to natural resources, including ESA critical habitat. H.R. 2455 would amend the Whale Conservation and Protection Study Act to promote international whale conservation, protection, and research.
- H.R. 1901 and S. 805 would provide for a comprehensive study by the National Academy of Sciences to assess the water management, needs, and conservation of the Apalachicola-Chattahoochee-Flint River System.
- Section 123 of H.R. 3086 would establish a Center for International Wildlife Recovery Partnerships to facilitate long-term investment in captive breeding, reintroduction, rehabilitation, release, habitat protection, and research activities concerning species listed as threatened or endangered.
- H.R. 3480 would increase protection afforded eight species of bears by prohibiting trade in bear viscera.
- S. 1601 would provide for the release of water from the Ruedi Reservoir for the benefit of endangered fish habitat in the Colorado River.

FWS Appropriations

Appropriations play an important role in the ESA debate, providing funds for listing and recovery activities as well as financing consultations that are necessary for federal projects.¹⁰¹ In addition, appropriations bills have served as vehicles for some changes in ESA provisions.

On May 7, 2009, the Obama Administration released its detailed budget request for FY2010, including about \$279 million for FWS endangered species and related programs. **Table 2** summarizes recent ESA and related funding for FWS. The Administration's FY2010 request for endangered species and related funding within FWS's Ecological Services Account is \$26.183 million (10.4%) more than funding enacted for FY2009, with much of this coming in the recommended \$20 million increase for the Cooperative Endangered Species Fund.

On June 23, 2009, the House Committee on Appropriations reported H.R. 2996, recommending more than \$283 million in FY2010 appropriations for FWS endangered species and related programs (H.Rept. 111-180). The House recommendation is about 14.1% greater than the FY2009 enacted level and about 1.6% larger than the FY2010 Administration request. The House passed this measure (amended) on June 26, 2009. On July 7, 2009, the Senate Committee on Appropriations reported H.R. 2996 (amended), recommending more than \$276 million in FY2010 appropriations for FWS endangered species and related programs (S.Rept. 111-38). The Senate recommendation is about 11.3% greater than the FY2009 enacted level, about 1.0% less than the FY2010 Administration request, and about 2.5% less than the House FY2010 recommendation.

¹⁰¹ For an overview of FWS appropriations, see CRS Report R40776, *Fish and Wildlife Service: Appropriations and Policy*, by M. Lynne Corn.

The Senate passed H.R. 2996 (amended) on September 24, 2009. On October 28, 2009, a conference report was filed on H.R. 2996 (H.Rept. 111-316), recommending about \$281 million for FWS endangered species and related programs for FY2010. The conference recommendation is about 13.2% greater than the FY2009 enacted level and about 0.7% larger than the FY2010 Administration request. On October 30, 2009, President Obama signed H.R. 2996 into law as P.L. 111-88.

Table 2. Funding for FWS Endangered Species and Related Programs, FY2009-FY2010

(\$ in thousands)

	FY2009 Request	FY2009 Enacted	FY2010 Request	FY2010 Enacted
Endangered Species Program				
Candidate Conservation	8,659	10,670	10,592	12,592
Listing	18,188	19,266	20,103	22,103
Consultation	51,577	53,462	56,863	59,363
Recovery	68,417	74,575	76,599	85,399
<i>Subtotal</i>	<i>146,841</i>	<i>157,973</i>	<i>164,157</i>	<i>179,457</i>
Related Programs				
Cooperative Endangered Species Fund	75,501	75,501	100,000	85,000
Multinational Species Fund	4,256	10,000	10,000	11,500
Neotropical Bird Fund	3,960	4,750	4,750	5,000
Total FWS	230,558	248,224	278,907	280,957

Sources: Annual budget justifications, House and Senate committee and conference reports.

Earlier in the 111th Congress, P.L. 111-8 (H.R. 1105, omnibus appropriations for FY2009) provided more than \$248 million for FWS's ESA and related programs.

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