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The Endangered Species Act (ESA) in the 109th Congress: Conflicting Values and Difficult Choices

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The Endangered Species Act (ESA) in the 109th Congress: Conflicting Values and Difficult Choices

SUMMARY

The 109th Congress is likely to consider various proposals to amend the Endangered Species Act of 1973 (ESA; P.L. 93-205; 16 U.S.C. §§1531-1543). Major issues in recent years have included changing the role of science in decision-making, modifying critical habitat procedures, reducing conflicts with Department of Defense activities, incorporating further protection and incentives for property owners, and increasing protection of listed species, among others. In addition, many have advocated enacting as law some ESA regulations promulgated during the Clinton Administration.

The ESA 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 non-federal lands and resources. Under the 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. The ESA may also be controversial because dwindling species are usually harbingers of broader ecosystem decline: the most common cause of listing species is habitat loss.

The authorization for spending under the ESA expired on October 1, 1992. The prohibitions and requirements of the ESA remain in force, even in the absence of an authorization, and funds have been appropriated to implement the administrative provisions of the ESA in each subsequent fiscal year.

In the 108th Congress, two bills were reported by the House Committee on Resources, but not enacted, that would have amended the ESA to modify scientific peer review and critical habitat procedures. Interior appropriations measures funded Fish and Wildlife Service programs related to endangered species (P.L. 108-108 provided \$265 million for FY2004; P.L. 108-447 provided \$262 million for FY2005). P.L. 108-136 (Defense authorization) included an ESA amendment to direct that critical habitat not be designated on military lands under certain conditions when Integrated Natural Resources Management Plans are in effect.

P.L. 108-137 (Energy and Water appropriations) prohibited use of FY2004 or earlier funds to reduce water deliveries under existing contracts for ESA compliance for the silvery minnow on the Middle Rio Grande River unless water is obtained from a willing seller or lessor; this prohibition appears to have been made permanent by §205 of Div. C of P.L. 108-447. P.L. 108-148 (Healthy Forests Act) authorized hazardous fuels reduction projects on BLM and national forest lands, including those containing habitat for listed species; directed establishment of a healthy forests reserve program to promote recovery of listed species; and directed the Secretary of the Interior to provide property rights assurances to landowners enrolled in the healthy forests reserve program.

MOST RECENT DEVELOPMENTS

On April 30, 2005, the House Committee on Resources has scheduled an oversight field hearing in Jackson, Mississippi, on “Lessons Learned Protecting and Restoring Wildlife in the Southern United States under the ESA.” On April 13, 2005, the Senate Committee on Commerce, Science, and Transportation reported S. 362 (with amendment), proposing to establish NOAA and Coast Guard programs to manage marine debris and address its adverse impacts on endangered species. On April 6, 2005, the Senate Committee on Environment and Public Works reported S. 732, within which §1505 would authorize state programs for mitigating highway and surface transportation impacts, including those affecting endangered and threatened species.

BACKGROUND AND ANALYSIS

Overview

The 1973 ESA (P.L. 93-205, as amended; 16 U.S.C. §§1531-1543) is 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 the ESA is to protect the ecosystems of which listed species are a part. Under the 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, and consequently some populations of chinook, coho, chum, and sockeye salmon in Washington, Oregon, Idaho, and California are protected under the 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 the ESA. Once a species is listed, powerful legal tools, including penalties and citizen suit provisions, are available to aid the recovery of the species and protect its habitat. Use of these tools, or the failure to use them, has led to conflict. (For more background information on the ESA, see CRS Report RL31654, *The Endangered Species Act: A Primer*, by Pamela Baldwin, Eugene H. Buck, and M. Lynne Corn.)

The ESA is administered by the Department of the Interior’s Fish and Wildlife Service (FWS) for terrestrial and freshwater species and some marine mammals, and by the National Marine Fisheries Service (NMFS; also popularly referred to as NOAA Fisheries) in the Department of Commerce’s National Oceanic and Atmospheric Administration (NOAA) for the remaining marine and anadromous species. (For background on the ESA programs of the two administering agencies, see the FWS at [<http://endangered.fws.gov/>] and NMFS at [<http://www.nmfs.noaa.gov/pr/species/>].) The U.S. Geological Survey’s Biological Resources Division conducts research on species for which the FWS has management authority; NMFS conducts research on the species for which it is responsible.

As of March 30, 2005, a total of 1,078 species of animals and 749 species of plants had been listed as either endangered or threatened, of which the majority (518 species of animals and 746 species of plants) occur in the United States and its territories and the remainder only in other countries. Of the 1,264 U.S. species (up 2 since December 31, 2002), 1,031 are

covered in recovery plans (up 31 since December 31, 2002). Of the U.S. species, 478 have designated critical habitat in some portion of their range.

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 well as snail darters); Pacific northwest timber harvest (protection of logging jobs and communities versus commercial and sport fishing, recreation, and ecosystem protection, as well as salmon and spotted owls); and Texas's Edwards Aquifer (allocation of water among various users with differing short- and long-term interests, as well as several spring-dependent 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. 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. These steps, including policies to solicit independent scientific peer review, are described in 59 *Fed. Reg.* 34270 (July 1, 1994). In deciding whether a species needs the protections of the ESA, the Secretary *may not* take into account the economic effects that listing may have; economic and other considerations are taken into account in structuring alternatives for assisting the species after listing. (See CRS Report RL30792, *The Endangered Species Act: Consideration of Economic Factors*, by Pamela Baldwin, for an analysis of when and how the ESA allows consideration of economic factors.)

Critical Habitat. With certain exceptions, if a species is listed, the appropriate Secretary must designate critical habitat (CH) in areas where the species is currently found or which might provide additional habitat for the species' recovery. However, if the publication of this information is not prudent, because it could harm the species (e.g., by encouraging vandals or collectors), the appropriate Secretary may decide not to designate CH. The appropriate Secretary may postpone designation for up to one year after listing if the information is not determinable (16 U.S.C. §1533). As of December 17, 2004, the FWS had designated CH for 37% of listed domestic species.

As a practical matter, CH has not been designated for most listed species largely because the FWS prefers to allocate its limited 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 to the recovery of the species. Yet the FWS consistently loses cases brought against it for failure to designate CH. Several courts have found the regulation in question to be an erroneous interpretation of the law, because it does not take into account the duty to avoid adverse modification of CH (*Sierra Club v. United States Fish and Wildlife Service*, 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. USFWS*, 2004 U.S. App. LEXIS 16215 (9th Cir. August 6, 2004)). Although the FWS has minimized the value of CH (based on their interpretation that has been struck down), others assert the value of CH; for example, the Center for Biological Diversity has released a study (see [<http://www.biologicaldiversity.org/swcbd/programs/policy/ch/sub1.html>]) concluding that CH designation enhances species

recovery. (For more background on CH, see CRS Report RS20263, *The Role of Designation of Critical Habitat under the Endangered Species Act*, by Pamela Baldwin.)

CH is frequently misunderstood by the public as posing a significant direct restriction on private landowners' authority to manage 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 the 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, or private (nonfederal) actors in actions with a federal nexus (i.e., actions that involve any federal funding, permit, or license). (See also "Issues in the 109th Congress," below.)

Prohibitions and Penalties. The ESA contains prohibitions on the "take" of endangered 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 in 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 the inclusion of significant habitat modification was a reasonable interpretation of the term "harm" in the ESA. (See CRS Report 95-778 A, *Habitat Modification and the Endangered Species Act: The Sweet Home Decision*.) The ESA provides civil and criminal penalties for violations.

Permits and Consultation. Proposed actions that may have adverse impacts on listed species may be permitted in two ways. First, under §7 of the 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. To review the possible effects of their actions on listed species and CH, federal agencies must 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 must suggest 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 then issues a written statement, called a *biological opinion*, that allows the agency or the applicant to take individuals of a species incidental to otherwise lawful activities without triggering the ESA's penalties, subject to terms and conditions specified in the opinion (16 U.S.C. §1536).

For actions without a federal nexus (i.e., no federal funding, permit, or license), the appropriate Secretary may issue permits under §10 of the ESA to allow the *incidental take* of species during otherwise lawful actions. An applicant for a permit must submit a habitat conservation plan (HCP) that shows the likely impact of the planned action; steps to be taken to minimize and mitigate the impact; funding for the mitigation; alternatives that were considered and rejected; and any other measures that 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).

Exemptions; Emergencies. Proponents of a federal action may apply for an exemption from the prohibition against jeopardy for *that action* (not for a species). Under

the ESA, a high-level committee (commonly called the “God Squad”) decides whether to allow a project to proceed despite likely harm to a species. To date, this process has been little used and only one exemption (Grayrocks Dam, WY) has been granted and carried out. The committee is required to accept the President’s determination (under specified circumstances) on an exemption in declared disaster areas. In addition, 50 C.F.R. §402.05 provides for ESA procedures in case of emergencies. The committee must also grant an exemption if the Secretary of Defense determines that an exemption is necessary for national security (16 U.S.C. §1536). DOD has claimed that requirements under the ESA conflict with its readiness activities, but DOD has not requested any exemptions to date. (See also “Issues in the 109th Congress,” below.)

Recovery Plans. The appropriate Secretary generally must develop a recovery plan for the survival and conservation (i.e., recovery) of a listed species; these plans are not binding on federal agencies or others, but rather serve as guidelines. 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). The ESA and its regulations provide little detail on the requirements for recovery plans. As noted below in “Is Species Protection and Restoration Working?,” only a small fraction of species listed under the ESA have been delisted due to recovery. This result is not surprising, since two of the primary causes of species loss are the introduction of invasive species and habitat loss — problems which have not abated appreciably in recent years. In fact, for most of the 17 recovered species, these two relatively intractable causes were not the primary factor in the decline of the species, and addressing other factors played a substantial role in recovery. Examples of recovery in which habitat loss and invasive species were not considered the primary problem include American alligators (poaching) as well as the bald eagle and two subspecies of peregrine falcons (pesticides).

Land Acquisition and Cooperation. The federal government may acquire land to conserve (recover) listed species, and the ESA authorizes money from the Land and Water Conservation Fund for land acquisition (16 U.S.C. §1534). 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. 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 authorized to provide state grants. While regular annual deposits to this fund are 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 the ESA went into effect; and specify rules for establishing experimental populations (16 U.S.C. §1539).

Major Provisions of International Law

For the United States, the 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 the 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. In contrast to the ESA, CITES classifies species based on the risk trade poses to their survival. (For more information on CITES, see [<http://www.cites.org/>].) The ESA makes violations of CITES violations of U.S. law if committed within U.S. jurisdiction (16 U.S.C. §1538). The ESA also regulates import and export of controlled products and provides some exceptions. 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.

The 13th regular meeting of CITES parties was held October 3-14, 2004, in Bangkok, Thailand. Some highlights included the downlisting of the bald eagle from Appendix I to Appendix II status, approval for a limited hunt of black rhinoceros (five animals), and the rejection of proposals to downlist the minke whale and reopen the ivory trade in selected African countries. On August 18, 2003, the FWS published a draft policy for enhancement-of-survival permits for foreign species listed under the ESA (68 *Fed. Reg.* 49512). These permits would allow imports of endangered species into the United States for scientific research and for the enhancement of survival of the species in their range country (i.e., the country where the population of the species in question naturally exists). The comment period on this draft policy has closed, but FWS has not yet published its final policy.

Related to international species conservation, the United States has created the Multinational Species Conservation Fund (MSCF), which currently benefits tigers, the six species of rhinoceroses, Asian and African elephants, marine turtles, and great apes (gorillas, chimpanzees, bonobos, orangutans, and the various species of gibbons). The fund supports conservation efforts benefitting these species, often in conjunction with efforts under CITES. For more information on the MSCF, see CRS Report RS21157, *Multinational Species Conservation Fund*, by Pervaze A. Sheikh and M. Lynne Corn.

In the 109th Congress, H.R. 93 proposes to expand species eligible for assistance from the MSCF by creating a Flagship Species Conservation Fund. In addition, S. 270 would establish a framework for legislative and executive consideration of unilateral economic sanctions against foreign nations, such as could be imposed in relationship to CITES.

Is Species Protection and Restoration Working?

The answer to this question depends very much on the choice of measurement. Since a major goal of the ESA is the recovery of species to the point at which protection under the ESA is no longer necessary, this seems a good starting point. Since the ESA was enacted in 1973, 40 U.S. and foreign species have been delisted. The reasons cited by the FWS are (a) recovery (17); (b) extinction (9, but some may have been extinct when listed); (c) new understanding of the taxonomy of the species, making some ineligible for listing under current law (7); and (d) new information, including a determination that erroneous data were provided to the FWS at the time of listing (7). Recovered species include alligators, peregrine falcons (two subspecies), and three species of kangaroos. Extinct species include the dusky seaside sparrow, Guam broadbill (a bird), and two species of 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, a rare shorebird thought by many to be extinct was rediscovered in a remote area of Canada a few years ago; it might just as easily have quietly gone extinct without being rediscovered. Rare species are, by definition, hard to find.

Some have asserted that the ESA is a failure since only 17 species have been delisted in recognition of recovery, as of January 1, 2005. Others note that full recoveries are relatively few because the two principal causes of extinction — invasive non-native species and habitat loss — are increasing. In addition, some scientific studies have demonstrated that most species are listed only once they become very depleted (e.g., median population of 407 animals for endangered vertebrates according to one study). Another measure of “success” might be the number of species that have stabilized or increased their populations, even if the species is not actually delisted. If this standard is used, the ESA could be considered a success, since a large number (41%, according to one study) 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, even though these species are still rare. (See archived CRS Report 98-32, *Endangered Species Act List Revisions: A Summary of Delisting and Downlisting*, available from the authors.)

Another approach is to look at what proportion of the recovery objectives identified in species recovery plans have been achieved. **Table 1** indicates how recovery has progressed related to the length of time since species were listed.

Table 1. Percent Recovery Achieved versus Time Listed

(data as of September 30, 2002)

Recovery Plan objectives	% species listed 5 years or less	% species listed 6-10 years	% species listed 11 years or more
0%-25% recovery achieved	96	94	64
26%-50% recovery achieved	4	5.5	24
51%-75% recovery achieved	0	0.25	9
76%-100% recovery achieved	0	0.25	3

Source: FWS, *Recovery Report to Congress: Fiscal Years 2001-2002*, p. 13.

Issues in the 109th 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. The issues for the 109th Congress include effects of the ESA on private and federal land use, how to better promote species recovery, agency use of scientific information, specific regional resource conflicts, and other matters. Below are descriptions of some of the issues most commonly raised.

Critical Habitat Designation. With limited exceptions, the 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 the FWS and NMFS have misinterpreted and failed to enforce the current statute. There are also disagreements over the value and timing of CH designation. (See “Critical Habitat,” above, and “ESA Listing Caps, New and Old,” below.)

In the 108th Congress, H.R. 2933 sought to address some of the CH issues. As reported by the House Resources Committee on November 19, 2004, the measure would have required the designation of CH to the maximum extent “practicable,” as well as the current standard of “prudent, and determinable.” In light of the repeated FWS assertion that CH designation represents a poor use of agency resources, the addition of this word might have allowed the FWS to designate CH for fewer species. The bill also would have postponed CH designation to three years after listing, or in connection with issuance of a recovery plan, and would have precluded CH designation for any areas covered under a §10 incidental take permit (and possibly even under a submitted habitat conservation plan), or under a state or federal land conservation or species management program that offers substantially equivalent protection. It also would have given greater emphasis to economic costs and benefits to governments and landowners. H.R. 2933 would also have changed the definition of CH to be habitat determined by field studies actually to be occupied and used for essential behaviors, plus additional habitat necessary for the *survival*, as opposed to *recovery*, of the species, as the law currently requires.

P.L. 108-136 prohibits new CH designations on military lands if the lands have Integrated Natural Resource Management Plans that “benefit species.” (For more on this enactment and issue, see CRS Report RL32183, *Defense Cleanup and Environmental Programs: Authorization and Appropriations for FY2004*, by David M. Bearden; and CRS Report RL31415, *The Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), and Department of Defense (DOD) Readiness Activities: Background and Current Law*, by Pamela Baldwin.)

In the 109th Congress, H.R. 1299 proposes to modify the definition of CH as well as the process for determining and designating CH under the ESA; the language of this bill is the same as H.R. 2933, as reported, in the 108th Congress.

Use of “Sound Science”. The ESA requires that decisions to list a species be made “solely on the basis of the best scientific and commercial data available....” (See CRS Report RL31546, *The Endangered Species Act and Science: the Case of Pacific Salmon*, by Eugene H. Buck, et al.) In several recent situations, legal, economic, and social disputes have resulted from actions taken to list, protect, and recover species under the ESA. Recent examples of these controversies have concerned the Canada lynx, Florida panthers, and Klamath River Basin suckers and coho salmon. Critics in some of these disputes suggest that the science supporting ESA action has been insufficiently rigorous or mishandled by the agencies.

A major issue is how the FWS and NMFS are to proceed when the “available” data are not extensive. Under current law and agency interpretations, a margin of safety is provided dwindling species pending completion of additional studies. 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.” For others, recent bills are seen as an attempt to undermine the ESA, which they see as having struck a reasonable balance, and they question whether an amendment concerning science is advisable or practical. These considerations are complicated by the costs and time required to acquire more complete data, particularly in connection with many lesser-known species. 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 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?

The ESA does not elaborate on this question, but some argue that, combining the protective purpose of the ESA — to save and recover species — with the wording of “best ... data *available*,” arguably dwindling species are to be given the benefit of the doubt and a margin of safety provided. This is the position taken in the *FWS Handbook* at pages 1-6, which states that efforts should be made to develop information, but if a biological opinion must be 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. This phrase is drawn from H.Rept. 96-697, page 12 (1979), which stated that the “best information available” language was intended to allow the FWS to issue biological opinions even when information was incomplete, rather than being forced to issue negative opinions. The report also states that if a biological opinion is rendered on the basis of inadequate information, the federal agency proposing an action has the duty to show 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.”

Current Scientific Peer Review Policies. To understand proposed changes, it is useful to outline current peer review policies. The FWS and NMFS developed an *Interagency Cooperative Policy on Information Standards Under the Endangered Species Act* (59 *Fed. Reg.* 34271, July 1, 1994). Under this policy, the FWS and NMFS are to receive and use information from a wide variety of sources, including from 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 the 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 *Interagency Cooperative Policy for Peer Review in Endangered Species Act Activities* (59 *Fed. Reg.* 34270, July 1, 1994) 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 decisions, the agencies are to solicit the expert opinions of 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 the ESA and Science. Courts that have considered the “best data available” language have held that an agency is not obliged to conduct studies to obtain missing data (*Southwest Center for Biological Diversity v. Babbitt*, 215 F. 3d 58 (D.C. Cir. 2000)), but cannot ignore available biological information (*Connor v. Burford*, 848 F. 2d 1441 (9th Cir. 1988)), especially if the ignored information is the most current (*Southwest Center for Biological Diversity v. Babbitt*, 926 F. Supp. 920 (D.C. Ariz. 1996)). Nor may an agency treat one species differently from other similarly situated species (*Id.*), nor decline to list a dwindling species and wait until it is on the brink of extinction in reliance on possible but uncertain future actions of an agency (*Biodiversity Legal Foundation v. Babbitt*, 943 F. Supp. 23 (D. D.C. 1996)). “Best scientific and commercial data available” is not a standard of absolute certainty, reflecting Congress’s intent that the FWS take conservation measures before a species is conclusively headed for extinction (*Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 679-680 (D. D.C. 1997)). If the 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” (*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).

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. See *Connor v. Andrus*, 453 F. Supp. 1037 (W.D. TX. 1978), striking down regulations totally banning duck hunting in an area to protect one listed species of duck. The court in *Arizona Cattle Growers Association v. United States Fish and Wildlife Service* (273 F. 3d 1229, 9th Cir. 2001) stated that the evidentiary bar the FWS must clear is very low, but it must at least clear it. In the context of issuing Incidental Take Permits under §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. (For more information, see CRS Report RS21500, *The Endangered Species Act (ESA), ‘Sound Science,’ and the Courts*, by Pamela Baldwin.)

Specific Regional Resource Conflicts. One express purpose of the 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 our natural resources, the conservation of 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 congressional oversight and legislative interest.

Klamath River Basin. Controversy erupted in 2001 when the Department of the Interior’s Bureau of Reclamation announced it would not release water from Upper Klamath

Lake — 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 was made 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 issues involving several tribes, fishermen, farmers, environmentalists, and recreationists. Upstream farmers point to their contractual rights to water deliveries 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. Various 10-year and annual operation plans, and associated biological assessments (by the Bureau) and biological opinions (by the FWS and NMFS) have been criticized and defended. In the 108th Congress, H.R. 1760 would have established water conservation and habitat restoration programs in the Klamath River Basin and provided emergency disaster assistance to those who suffered economic harm from the Klamath fish kill of 2002. A House-passed prohibition on Interior Department funding in the FY2004 Interior Appropriations bill for the Klamath Fishery Management Council that would have suspended this council's activities was deleted in conference (H.R. 2691, H.Rept. 108-330). (For more information, see CRS Report RL31098, *Klamath River Basin Issues: An Overview of Water Use Conflicts*, by Betsy A. Cody, et al.)

Salmon Restoration. Salmon protection in the Pacific Northwest in general 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 groups (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) the biological opinion on operations of the Federal Columbia River Power System (FCRPS) as it relates to retaining (or removing) four dams on the lower Snake River; (2) whether or not salmon produced in hatcheries should be included in listed ESUs of Pacific salmon; and (3) the role and extent of critical habitat designation in the recovery of Pacific salmon. In the 109th Congress, S. 232 would authorize the Bureau of Reclamation to assist in implementing fish passage and screening facilities at non-federal water projects in the Columbia River Basin to meet the Bureau of Reclamation's ESA obligations. H.R. 1615 would require a National Academy of Sciences analysis of federal salmon recovery efforts and a Government Accountability Office study of the effects of partially removing four lower Snake River dams, and would authorize partial removal of these four dams under certain conditions.

Rio Grande Silvery Minnow. Efforts to hold back water necessary for the Rio Grande silvery minnow from competing New Mexico water users (primarily the city of Albuquerque and irrigators) have ignited considerable controversy. At issue is the operation of two Bureau of Reclamation (BOR) water projects on the Middle Rio Grande: the San

Juan-Chama Project and the Middle Rio Grande Project. Conservation groups asserted that BOR's operations on the middle Rio Grande jeopardize the continued existence of the endangered silvery minnow, in violation of the ESA. BOR claimed that existing water delivery contracts precluded the use of already-committed water for the endangered fish. After years of litigation, the New Mexico District Court held that withholding water from irrigators for ESA-related purposes was permissible under the water contracts at issue (aff'd by the 10th Cir., 333 F.3d 1109 (10th Cir 2004)). Some argue that this and similar decisions could have far reaching implications and affect other BOR projects.

Section 208 of the Energy and Water Development Appropriations Act of 2004 (P.L. 108-137) prohibited the use of FY2004 or earlier fiscal year funds to reduce water deliveries from specified sources under existing contracts for the purpose of ESA compliance in the middle Rio Grande except through willing sales or lease of water. (To date, there have been a handful of such sales.) Section 209 established an executive committee to oversee the ESA Collaborative Program associated with this complex situation. The language in P.L. 108-137 was cited by some as being the first successful legislative override of federal requirements in the ESA's 30-year history. (Others might cite the override concerning Tellico Dam and the snail darter which preceded this override by 25 years.) Still, the passage of this legislation does not necessarily affect the precedential value, if any, of the Tenth Circuit's decision. Section 205 (Division C) of P.L. 108-447, omnibus FY2005 appropriations, contains language that appears to make the previous prohibition permanent.

Counterpart Regulations: Pesticides and Fire Management Projects. In 50 C.F.R. §402.04, "counterpart" regulations are authorized that allow an action agency to determine whether its actions are likely to adversely affect listed species, without formal or informal consultation under §7 of the ESA or a written concurrence from the FWS or NMFS. Although the regulation has been on the books for years, it has not been used until recently, and hence its validity has not yet been tested in the courts. Several new counterpart regulations have recently been finalized and suits challenging the regulations have been filed.

New counterpart pesticide regulations were finalized on August 5, 2004 (69 *Fed. Reg.* 47732), for Environmental Protection Agency (EPA) regulatory actions on pesticides. Under the new rules, when the EPA is taking action to approve, permit, or authorize the sale, distribution, or use of a pesticide under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA; P.L. 80-104; 7 U.S.C. §§136, et seq.), the EPA and the FWS may execute an alternative consultation agreement under which the EPA will decide whether a proposed FIFRA action is likely to adversely affect a listed species or critical habitat, and EPA may make this determination without informal consultation with or written concurrence from the FWS Director. If the EPA makes such a determination, no further consultation is required. There is to be FWS oversight of the consistency of EPA's determinations with the ESA. Under 50 C.F.R. §402.43, the EPA may ask the FWS for information on listed species that may be present in an area that might be affected by the FIFRA action, including the applicable environmental baseline for each species or habitat. Under new §402.44, the EPA may request FWS personnel to assist in an effects determination and must use its "best efforts" to include the FWS representative in relevant discussions. These two regulations appear to apply with or without an alternative consultation agreement. Critics note that the EPA has a poor record on consultations and was ordered to consult regarding pesticide impacts on salmon (*Washington Toxics Coalition v. EPA*, Civ. No CO1-132C (W.D. Wa.

2002)), and fear that the new self-consultation process will allow more harm to listed species. Supporters counter that the new process will increase EPA flexibility and efficiency.

Counterpart regulations also were finalized December 8, 2003 (68 *Fed. Reg.* 68254), among the Forest Service, the Bureau of Land Management, the Bureau of Indian Affairs, the National Park Service, the FWS, and NMFS, to streamline consultation on projects supporting the National Fire Plan (NFP). These counterpart regulations complement the general consultation regulations in 50 C.F.R. Part 402 by providing an alternative process for completing ESA §7 consultation for agency projects that authorize, fund, or carry out actions that support the NFP. The alternative consultation process contained in these counterpart regulations eliminates the need to conduct informal consultation with the FWS or NMFS, and eliminates the requirement to obtain written concurrence from the FWS or NMFS for those NFP actions that the action agency determines are “not likely to adversely affect” any listed species or designated CH.

Defense Department Activities. The events of September 11, 2001, focused attention on all statutes that might impinge on military training activities. The ESA (§4(j)) allows for an automatic exemption for activities involving national security, but an exemption has never been sought on this basis, there are no regulations that elaborate on it, and little information is available as to how it might apply in practice. It is, however, worded as an exemption for an individual action of an agency and must be granted by the high-level committee (“God Squad”) assembled to consider exemptions. Provisions in §318 of P.L. 108-136, the National Defense Authorization Act for Fiscal Year 2004, amended the ESA to add a requirement that impacts on national security be considered when critical habitat is designated and to preclude the designation of critical habitat for Department of Defense lands which have an Integrated Natural Resources Management Plan that the Secretary determines benefits the species. (For additional information, see CRS Report RL31415, *The Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), and Department of Defense (DOD) Readiness Activities: Background and Current Law*, by Pamela Baldwin.)

Under §7 of the ESA, the “reasonable and prudent alternatives” that the FWS may suggest to an agency as part of consultation must be ones that “can be taken” by the agency. A regulation (50 C.F.R. §402.02) elaborates on this requirement as being measures that are economically and technologically feasible and “that can be implemented consistent with the scope of the Federal agency’s legal authority and jurisdiction.” In a case involving water use by the Army at Fort Huachuca, the final biological opinion of the FWS required the Army to take actions allegedly beyond its authority (although the court noted that the Army had voluntarily agreed to do similar things in a memorandum of agreement). However, the court remanded the final opinion because of other flaws, so the extent to which actions beyond the authority of the Army to complete would actually have been required is not known. Congress clarified the relevant language and recognized a collaborative partnership in the area in §321 of P.L. 108-136. (For additional information, see the section on the ESA in CRS Report RL32183, *Defense Cleanup and Environmental Programs: Authorization and Appropriations for FY2004*, by David M. Bearden.)

Private Property and Fifth Amendment Takings. The presence of endangered species on private property is sometimes welcomed by owners. Builders, for example, have been known to market a new residential development in part on the basis of the wildlife present on undeveloped parts of the tract. Still, the prohibitions in §9 (private actions) and

§7 (federal agency permits, funding, etc.) may at times frustrate the economic desires of owners of land or other property. This fact has long been a rallying cry for the ESA's detractors, who assert that restrictions under the ESA routinely "take" property in the constitutional sense of the term. Such conflicts between the ESA and property owners come about despite the existence of ESA mechanisms noted herein that were 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 a *total* elimination of its economic use. When the government restriction removes only part, but not all, of the property's use or value, a three-factor balancing test is used. Though 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.

Roughly a dozen court decisions have addressed takings challenges to ESA restrictions on land or other property, all but one ruling against the property owner. These cases have involved not only the restrictions on timber cutting or other land uses so prominent in the ESA debate, but also reductions in water delivery to preserve instream flows needed by listed species, restrictions on shooting marauding animals resulting in 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 — ripeness usually requiring that suit be brought only after the plaintiff has applied for an incidental taking permit and been denied. 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. In the one decision favoring the property owner, ESA-related cutbacks in water delivered by a state reclamation project to water districts were held a taking by the United States of state-contract-created water rights (*Tulare Lake Basin Water Storage Dist. v. United States*, 49 Fed. Cl. 313 (2001)). This decision has been controversial for several reasons, including the Department of Justice's settlement of the case (for \$16.7 million) despite arguments pressed on it from several quarters that the case was incorrectly decided. (See CRS Report RL31796, *The Endangered Species Act and Claims of Property Rights "Takings": A Summary of the Court Decisions*, by Robert Meltz; and CRS Congressional Distribution Memorandum, *The 'Tulare Lake' Decision's Implications for Use of Bureau of Reclamation Project Water*, by Pamela Baldwin and Robert Meltz, available from the authors.)

The ESA's critics want the ESA amended to afford compensation for a broader range of property impacts than does the Constitution — perhaps by specifying a fixed percentage of ESA-related property value loss, above which compensation must always be paid. Similar provisions have been included in bills of previous Congresses. Opponents of an explicit compensation standard counter that the ESA should not be singled out for a more property owner-friendly standard than the Constitution's. 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. The likely consequences of a generous

compensation threshold — added federal costs and/or a chill on ESA implementation — are among the issues slowing action on ESA reauthorization.

However, both proponents and opponents of the ESA favor enacting incentives (primarily tax benefits) to encourage landowner cooperation. In the 108th Congress, §204 of H.R. 7 proposed to exclude landowner incentive payments under ESA §6 from gross income for tax purposes; H.R. 7 was reported (amended) by the House Committee on Ways and Means on September 16, 2003 (H.Rept. 108-270, Part I), and passed by the House on September 17, 2003. In the 109th Congress, §3 of H.R. 411 proposes compensation for ESA activities that eliminate or reduce grazing privileges.

Making the ESA More User-Friendly. Former Interior Secretary Babbitt initiated actions to decrease ESA conflicts in several ways. Joint FWS and NMFS policies streamline permit procedures for small landowners, and other initiatives encourage landowners to increase protection for populations of listed species on their land. Under *safe harbor* agreements, landowners who increase suitable habitat can return to “baseline conditions” without penalty. *No surprises* agreements provide landowners with greater certainty regarding activities that might otherwise trigger penalties, an incentive for landowners to develop Habitat Conservation Plans (HCPs), since a landowner properly implementing such an agreement is assured that there will be no further costs or restrictions on the use of the property to benefit the species covered by the HCP, except by mutual consent or in unforeseen circumstances in which changes may be implemented by the government without costs borne by the landowner. Modifications to the no surprises rule required revoking an incidental take permit if the permitted taking would be inconsistent with the survival and recovery of the relevant listed species, and the inconsistency was not remedied in a timely fashion. These rules were repropounded (69 *Fed. Reg.* 29681, May 25, 2004) and finalized (69 *Fed. Reg.* 71723, December 10, 2004) in response to litigation, but may still present issues raised previously. The new regulations resolved only procedural issues and repeated the previous text on permit revocation that the court had called into question. Federal managers also focused on listing species as threatened rather than endangered, to allow the FWS to take advantage of the ESA’s more flexible provisions for protecting threatened species. While administrative changes have been made within the framework of existing law, there is great interest among some groups in codifying many of these changes in an amended ESA. Others are critical of the agreements as difficult to enforce and as locking in the government to inflexible long-term positions that sometimes are based on inadequate knowledge.

In the 109th Congress, S. 260 proposes to expand the authorization of the Secretary of the Interior to assist private landowners in restoring, enhancing, and managing endangered and threatened species habitat on private land through the Partners for Fish and Wildlife Program. Section 2027 of H.R. 6, an omnibus energy bill, would establish a pilot project in Wyoming, Montana, Colorado, Utah, and New Mexico designed to improve coordination of federal permits, including ESA §7 permits.

Additional Legislative Initiatives

In the 108th Congress, a number of bills concerning the ESA were enacted besides those mentioned previously. P.L. 108-148 authorized the Secretary of Agriculture (National Forest System lands) and the Secretary of the Interior (Bureau of Land Management lands) to conduct fuels reduction projects on lands that contain threatened and endangered species

habitat if such activities would benefit the species (§102(a)(5)); directed the Secretary of Agriculture to establish the healthy forests reserve program by the Forest Service to protect, restore, and enhance degraded forest ecosystems on private lands to promote the recovery of threatened and endangered species (§§501-503); and directed the Secretary of the Interior to provide safe harbor and similar assurances under the ESA to landowners who enroll in the healthy forests reserve program when such enrollment will result in new conservation benefits for ESA-listed species (§506). P.L. 108-266 promoted the conservation of marine turtles and their nesting habitat in foreign countries.

Early in the 109th Congress, Senators Mike Crapo and Lincoln Chafee along with Representatives Richard Pombo and Greg Walden announced efforts to develop a coordinated House-Senate approach to improve and update the ESA. In addition, S. 164 would facilitate federal acquisition of Utah lands for desert tortoise protection. S. 362 proposes to establish NOAA and Coast Guard programs to manage marine debris and address its adverse impacts on endangered species; the Senate Committee on Commerce, Science, and Transportation reported this bill (with amendment) on April 13, 2005 (S.Rept. 109-56). Section 1505 of S. 732, as reported on April 6, 2005 (S.Rept. 109-53), by the Senate Committee on Environment and Public Works, would authorize state programs for mitigating highway and surface transportation impacts, including those affecting endangered and threatened species.

Appropriations Issues. Appropriations bills play an important role in the ESA debate. Appropriations provide funds for listing and recovery activities as well as financing FWS and NMFS consultations that are necessary for federal projects. See **Table 2** for recent ESA funding. For FY2005, P.L. 108-447 provided \$261.9 million for the FWS for ESA activities. Overall, FY2005 FWS funding for ESA and related programs is \$27 million below the President's request, and \$2.9 million below the FY2004 appropriations level. NMFS does not yet have figures available for endangered species programs for the Commerce appropriations for FY2005 in P.L. 108-447, since ESA funds are commingled with funds to protect marine mammals in its program for protected species.

Table 2. Funding for Endangered Species and Related Programs, FY2004-FY2006

(\$ in thousands)

	FY2004 Approp.	FY2005 Request	FY2005 Approp.	FY2006 Request
Endangered Species Program				
Candidate Conservation	9,785	8,610	9,255	8,252
Listing	12,135	17,226	15,960	18,130
Consultation	47,074	45,450	48,129	49,484
Recovery	67,762	58,154	69,870	64,243
<i>Subtotal</i>	<i>136,756</i>	<i>129,440</i>	<i>143,214</i>	<i>140,109</i>
Related Programs				
Landowner Incentive Program	29,630	50,000	21,694	40,000
Stewardship Grants	7,408	10,000	6,903	10,000

	FY2004 Approp.	FY2005 Request	FY2005 Approp.	FY2006 Request
Endangered Species Program				
Cooperative Endangered Species Conservation Fund ^a	81,596	90,000	80,462	80,000
Multinational Species Conservation Fund ^b	5,531	9,500	5,719	8,300
Neotropical Migratory Bird Fund ^b	3,951	0	3,944	0
Total FWS	264,872	288,940	261,936	278,409
NMFS	179,819	216,088	201,686	213,687
TOTAL (to date)	444,691	505,028	463,622	492,096

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

a. In FY2004, \$50 million of this fund was derived from LWCF; although the President's FY2005 budget request called for entire amount to be derived from LWCF, the conference agreement derives \$49.348 million from the LWCF.

b. From FY2002 to FY2006, the President's budget has proposed subsuming the Neotropical Migratory Bird Fund within the Multinational Species Conservation Fund but, to date, Congress has rejected this proposal.

ESA Listing Caps, New and Old. Beginning in FY1998, Congress enacted annual limits (*caps*) on funding the FWS for its ESA listing function. This appropriations language limits FWS discretion to transfer funds to finance additional listings, so that if courts mandate agency action on listing certain species, other listings may not be able to be funded. The FWS supported these limits to assure that funding for other agency programs could not be diverted to finance additional ESA listing activities. However, courts have held that budget constraints do not excuse an agency from compliance, in some circumstances. These limits have been approved by Congress in succeeding fiscal year appropriations bills. P.L. 108-447, FY2005 omnibus appropriations, limits listing activities to \$16.175 million, of which no more than \$11.4 million would be used for activities related to critical habitat designation. In FY2004, these figures were \$12.3 million and \$8.9 million, respectively. For FY2006, the Bush Administration proposes limiting listing activities to \$18.13 million, of which no more than \$12.852 million would be used for activities related to critical habitat designation.