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Endangered Species: Difficult Choices

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SUMMARY

The 107th Congress may consider whether to reauthorize and amend the Endangered Species Act of 1973 (ESA). Major issues in recent years have focused on whether to incorporate further protection for property owners and reduce regulatory impacts, or whether to increase the protection afforded listed species.

The ESA has been one of the more contentious environmental laws. This may stem from the strict substantive provisions of this law, which also can affect the use of non-federal lands. Under the ESA, certain species of plants and animals (both vertebrate and invertebrate) are listed as either "endangered" or "threatened" according to assessments of the risk of their extinction. Once a species is listed, powerful legal tools are available to aid the recovery of the species and the protection of its habitat. The ESA is administered by the Fish and Wildlife Service (FWS) for terrestrial and freshwater species and some marine mammals, and by the National Marine Fisheries Service (NMFS) for marine and anadromous species. The U.S. Geological Survey's Biological Resources Division conducts research on species for which the FWS has management authority.

The authorization for spending under ESA expired on October 1, 1992. The prohibitions and requirements of the ESA have remained in force, even in the absence of an authorization, and funds were appropriated to implement the administrative provisions of the ESA in each subsequent fiscal year. The Clinton Administration made significant changes in regulations under the ESA, and many have advocated including these changes in the law itself.

The Senate Environment Subcommittee on Fisheries, Wildlife, and Water has held an oversight hearing on the ESA listing and delisting process. Other hearings have been held by House and Senate committees on specific issues, and additional hearings are anticipated. In the 107th Congress, a number of bills have been introduced to address specific issues, while only one bill (S. 911) has been introduced to deal comprehensively with reauthorization and a host of ESA issues. On the international side, reauthorizations for the African Elephant Conservation Act (P.L. 107-111, the Rhinoceros and Tiger Conservation Act of 1994 (P.L. 107-112), and the Asian Elephant Conservation Act (P.L. 107-141) were enacted.

MOST RECENT DEVELOPMENTS

On March 20, 2002, the House Committee on Resources held a hearing on H.R. 2829 and H.R. 3705, both relating to the role of science in ESA decisions. On March 13, 2002, the House Committee on Resources held an oversight hearing on the National Academy of Science Interim Report on Endangered and Threatened Fishes in the Klamath River Basin. On March 6, 2002, the House Committee on Resources held an oversight hearing on the Canada Lynx Interagency National Survey and endangered species data collection.

BACKGROUND AND ANALYSIS

What is the ESA? The 1973 ESA (16 U.S.C. 1531-1543; P.L. 93-205, as amended) is a comprehensive attempt to protect all species and to consider habitat protection as an integral part of that effort. 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. In addition, distinct population segments of vertebrate species may also be listed as threatened or endangered. Some populations of chinook, coho, chum, and sockeye salmon in Washington, Oregon, Idaho, and California are protected under the ESA while other healthy populations of these same species in Alaska are not listed and can be commercially harvested. Once a species is listed, powerful legal tools, including citizen suit provisions, are available to aid the recovery of the species and the protection of its habitat. Use of these tools, or the failure to use them, has lead to conflict. The ESA has been amended many times and assorted appropriations riders have affected its implementation. The authorization for funding under ESA expired on October 1, 1992, although Congress has appropriated funds in each succeeding fiscal year. Subsequent attempts to enact a comprehensive reauthorization (most notably in the 105th Congress) have not succeeded.

As of October 31, 2001, 1,064 species of animals and 743 species of plants had been listed as either endangered or threatened, of which the majority (509 species of animals and 740 species of plants) occur in the United States and its territories and the remainder only in other countries. Of the 1,249 U.S. species, 975 are covered in recovery plans. (See the U.S. Fish and Wildlife Service (FWS) at [http://endangered.fws.gov/] and the National Marine Fisheries Service (NMFS) at [http://www.nmfs.noaa.gov/endangered.htm].)

Major Provisions of Current Domestic Law.

Protected species. An **endangered species** is defined as "any species which is in danger of extinction throughout all or a significant portion of its range." A **threatened species** is defined as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." The ESA does not rely on a numerical standard; such a standard would not reflect the wide variety of many species' biology. The protection of the ESA extends to all species and subspecies of animals (not just birds and mammals), although for vertebrates, protection can be applied at the level of distinct population segments (e.g., wolves, grizzly bears) or evolutionarily significant units (e.g.,

anadromous fish such as salmon and trout) within a species. More limited protection is available for plant species under the ESA. (16 U.S.C. 1532)

Prohibited acts. The ESA has civil and criminal penalties for "take" of endangered species, which means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to 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 (*Sweet Home*) 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*, on this case.)

Management. Most listed species are managed by the Secretary of the Interior through the U.S. Fish and Wildlife Service (FWS). However, anadromous and marine species, including most marine mammals, are the responsibility of the Secretary of Commerce, acting through the National Marine Fisheries Service (NMFS).

Listing. When the appropriate Secretary initiates or receives a substantive petition from a party (which may be a state or federal agency — including FWS or NMFS, an individual, or some other entity), 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 information. The Secretary may not take into account the economic effects that listing may have on the area where the species occurs. Listing is the only place in the ESA where economic considerations are expressly forbidden. (See CRS Report RL30792, *The Endangered Species Act: Consideration of Economic Factors*, for an analysis of when and where the ESA does allow consideration of economic factors.) Some steps may be skipped for emergency listings. Economic factors are not taken into account at this stage because Congress felt that listing is fundamentally a scientific question as to whether the continuation of a species is threatened or endangered. Through the 1982 amendments particularly, Congress clearly intended to separate this scientific question from subsequent decisions on structuring appropriate protection. (16 U.S.C. 1533)

Critical habitat. If a species is listed, the appropriate Secretary must designate critical habitat (areas where the species is found, and any other areas where features essential to the species' conservation exist) at the time of listing. 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 critical habitat (CH). The appropriate Secretary may also postpone designation for up to one year if the information is not determinable. (16 U.S.C. 1533) As a practical matter, CH has not been designated for many listed species because FWS (in part because of FWS interpretation of regulations) regards listing as providing the bulk of species protection, while CH designation adds only a marginal increment. While any area, whether or not federally owned, may be designated as CH, private land is affected by designation primarily if some federal action (e.g., license, loan, permit, etc.) is also involved. In either case, federal agencies must avoid "adverse modification" of CH, either through their own actions or activities that are federally approved or funded.

Recovery plans. The appropriate Secretary must develop recovery plans for the conservation and survival of listed species. At first, recovery plans tended to cover birds and mammals, but a 1988 amendment forbade the Secretary from favoring particular taxonomic groups. (16 U.S.C. 1533) The ESA and regulations provide little detail on the requirements for recovery plans; these plans are not binding on federal agencies or others.

Land acquisition and cooperation. Land may be acquired to conserve (recover) endangered and threatened species, and money from the Land and Water Conservation Fund may be appropriated for this 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 the states must normally provide a minimum 25% matching amount. Under the 1988 amendments, a fund was created to provide for the state grants. While the authorized size of the fund is determined according to a formula, money from the fund still requires annual appropriation. (16 U.S.C. 1535)

Consultation. If federal agency actions or actions of a non-federal 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 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 adversely modify CH, the Secretary must suggest reasonable and prudent alternatives that would avoid harm to the species. Pending completion of the consultation process, agencies may not make irretrievable commitments of resources that would foreclose any alternatives. The Secretary may issue a written statement that allows incidental taking of a species, subject to terms and conditions specified in the statement. (16 U.S.C. 1536)

Exemptions; Emergencies. Proponents of federal action may apply for an exemption from §7(a)(2) of the ESA for that action (not for a species). Under the ESA, a Committee (commonly called the "God Squad") of six specified federal officials and a representative of each affected state must decide whether to allow a project to proceed despite future harm to a species; at least five votes are required to pass an exemption. To date, three applications for exemption from the ESA have been considered by the Committee, with only one exemption (Grayrocks Dam, WY) fully granted. The President may grant exemptions for actions in declared disaster areas, but the ESA does not address emergency actions or situations. The Committee must grant an exemption if the Secretary of Defense determines that an exemption is necessary for national security. (16 U.S.C. 1536) (For further discussion, see CRS Report 89-274 A, *Consideration of Economic Factors under the Endangered Species Act*, and CRS Report 90-242 ENR, *Endangered Species Act: The Listing and Exemption Processes*. The second report discusses several instances when the "God Squad" has been convened to consider granting an exemption.)

Permits for private actions. For actions without a federal nexus (i.e., no federal funding, permit, or license), the appropriate Secretary may also issue permits to allow the incidental take of species during otherwise lawful actions. The applicant for an "incidental take permit" must submit a conservation plan 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 FWS and NMFS have vastly expanded use of this section and provided streamlined procedures for activities with minimal impacts. (16 U.S.C. 1539)

Miscellaneous. Other provisions specify certain exemptions for raptors; 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 that were owned before the ESA went into effect; and specify rules for establishing experimental populations. (16 U.S.C. 1539) (Provisions of the ESA referring to international activities are discussed below.)

Enforcement. The ESA contains civil and criminal penalties, and provides for citizen suits to enforce the ESA. (16 U.S.C. 1538 and 1540)

Major Provisions of Current International Law. For the United States, the ESA implements the Convention on International Trade in Endangered Species of Wild Fauna and Flora ("CITES"; TIAS 8249; see CRS Report 94-675 ENR, *Convention on International Trade in Endangered Species: Its Past and Future*), 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, rather than two. In contrast to the ESA, CITES focuses exclusively on trade and does not consider or attempt to address habitat loss. The ESA makes violations of CITES violations of U.S. law if committed within the jurisdiction of the United States. (16 U.S.C. 1538) The ESA also regulates import and export of controlled products and provides some exceptions.

Differing Opinions about the ESA. While many demographic groups support species conservation, that support is stronger in urban and suburban populations; and stronger in the East and along the coasts than in central and mountain states. Sport hunters and anglers seem divided on the ESA. In addition, some interests (e.g., logging, some motorized recreation, and land development) generally see the ESA as a serious problem, while others (e.g., some commercial fishing and many recreation groups) see it as generally supporting their objectives. It is also noteworthy that, while the debate often centers on jobs and biology, people on both sides claim ethical support for their positions, and some religious groups now participate in the debate. Among interests otherwise lukewarm on the ESA, there are components that see the ESA as a potentially useful tool, either through actual support for conservation objectives or through prospects for improvement of public image.

Because the ESA protects species, it can also become embroiled in quarrels whose primary focus is the allocation of scarce or diminishing lands or resources – the ESA often acts like the proverbial canary in the coal mine, since declining species often flag larger issues of resource scarcity and altered ecosystems. Examples of 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 the snail darter); 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). Several current situations reflect similar concerns.

Budget Considerations. The amount the federal government and others spend on ESA implementation has been hotly debated, because amounts spent for endangered species cannot be reliably allocated to the ESA alone (e.g., NMFS's budget counts spending for both the ESA and the Marine Mammal Protection Act under "Protected Species," making it difficult to distinguish funds spent under each law). Both NMFS and FWS fund some activities which benefit listed species through other programs; e.g., FWS refuge management provides not only hunting, fishing, and bird-watching opportunities, but also habitat for listed species. Many other agencies (*e.g.*, the Forest Service, National Park Service, Army Corps of Engineers, Bureau of Land Management, Minerals Management Service, U.S. Navy, and U.S. Geological Survey) also expend funds on activities that benefit listed species. These agencies may spend some fraction of their budget each year in ways that protect (or avoid deliberate harm to) listed species, either directly or indirectly. Thus, FWS and NMFS spending might be viewed as the most readily measured part of federal spending. In addition, state and local governments, businesses, and individuals also spend in similarly complex ways.

Has the ESA Been Effective? The answer to this question depends very much on the choice of measurement. If the recovery of species to the point at which the protection of the ESA is no longer necessary is the standard, the ESA might be considered a failure, since only 11 species (including the American alligator, peregrine falcon, Aleutian Canada goose, eastern Pacific gray whale, and brown pelicans along the U.S. Atlantic coast) have been delisted due to recovery, as of August 1, 2001. On the other hand, the ESA might be considered a success since only seven species (including the longjaw cisco, blue pike, and dusky seaside sparrow) are believed to have become extinct since their listing. Twelve listed species (including the Dismal Swamp southeastern shrew, the Florida population of the pine barrens treefrog, and the Umpqua River coastal cutthroat trout) were delisted due to improved data. It can be quite difficult to prove whether extraordinarily rare species are simply that, or are already extinct. Rare species are, by definition, hard to find.

Another measure of effectiveness might be the number of species that have stabilized or increased their populations, even if the species is not actually delisted. Under this standard, the ESA might be considered a success, since a large number of species (41% of listed species, according to one study) have improved or stabilized their populations. 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. (See CRS Report 98-32, *Endangered Species Act List Revisions: A Summary of Delisting and Downlisting*.)

Leading Causes of Extinction. Until recently decades, extinction losses were believed to be due primarily to over-exploitation and extermination efforts, generally through targeted poisoning, hunting, trapping, or overfishing of select species. The poster species for these losses were passenger pigeons, tigers, wolves, and other animals well known in today's ESA debate. In the late 20th century, a shift of focus and of fact occurred. The vast majority of species now protected under the ESA reached that status more indirectly, due to habitat loss. Another significant factor in the demise of many species is the introduction of non-native species. The non-natives can be diseases or parasites (e.g., avian malaria in Hawaii, or Asian long-horned beetles in North America), predators (e.g., brown tree snakes in Guam

and Hawaii), or competitors (e.g., barred owls in the Pacific Northwest). The gradual homogenization of the world's flora and fauna has led to the demise of many species and has affected many others. (See CRS Report RL30123, *Harmful Non-Native Species: Issues for Congress*.)

Is Extinction Normal, or Why Worry? If extinction were normal, then one could argue that there is no reason nor need for government to intervene in a natural process. The majority of species that have ever lived on Earth are now extinct. But is the current rate of extinction different from background ("normal") extinction rates over time, and if so, by how much? Calculating current rates of extinction, much less making comparisons with the geologic past, is extremely difficult. Scientists are unsure of how many species exist, so it is difficult to estimate how fast species may be disappearing. However, widely diverse methods suggest that current rates of extinction exceed background rates, which are thought to be from one to ten species for every 10 million species each year. Evolution continues, and may even be accelerated by high extinction rates that could promote the evolution of new species, better adapted to changing conditions (i.e., habitats highly modified by human development). Some scientists estimate that recovery of species diversity took as long as 25 million years following the most severe previous extinction crises. If we could anticipate a comparable recovery rate, the return of species diversity to that of the pre-historic era could take many million years, and would only proceed this "rapidly" if human development did not thwart recovery. In the meantime, the loss of native biodiversity and its effects on healthy ecological functioning are a major concern.

Some assert that we ought not be overly concerned if species are lost as a result of our way of life. Others counter that we lack the wisdom to know the true role that each species may play in the overall ecology that ultimately sustains us, and that prudence and humility (and in the eyes of some, religion) suggest we should be good stewards of the natural world.

Issues in the 107th Congress

Comprehensive re-authorization of ESA has been on the legislative agenda since the last authorization expired in 1992. Hearings have been held on various aspects of ESA in every Congress from the 102nd to the 107th, with particular attention during the 105th. While efforts to make the ESA more responsive to the concerns of property owners have received perhaps the widest attention, environmentalists and many scientific societies have called on Congress to increase the ESA's protections. The most commonly discussed issues are presented below. Former Interior Secretary Babbitt attempted to address some landowners' concerns with several regulatory changes, and there has been interest in incorporating these changes in the ESA itself. These are also described below.

Resource Conflicts. One of the express purposes 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 our nation runs out of open space and our population puts increasing pressures on our natural resources, the conservation of species and their habitats may highlight underlying resource and economic conflicts. Public values and affected economic interests may be complex and sometimes conflicting. Some of these situations have been the subject of Congressional oversight and legislative interest.

Klamath River Basin. For example, in the Klamath River Basin, which straddles the Oregon/California border, the Bureau of Reclamation, after consultation with the FWS and NMFS on operating the Klamath Project in an acute drought year, decided to allocate nearly all the water to the protection of two species of endangered suckers in Upper Klamath Lake, the project's primary reservoir, and threatened coho salmon in the Klamath River, which drains the Basin. (Whether there is enough water to meet both needs may present another difficulty.) This action was taken to avoid jeopardizing these species and to meet obligations to the Klamath and Yurok tribes. The authority of the Bureau to use irrigation water to preserve species was upheld in Klamath Water Users Protective Association v. Patterson, 204 F.3d 1206 (9th Cir, 1999). Because of the drought conditions, implementation of this operating plan meant that water could not be delivered to many irrigation-dependent Oregon farmers. In addition, the lack of downstream flows has adverse impacts on salmon fisheries and on federal wildlife refuges that are home to many migratory birds and ESA-listed bald eagles. Therefore, upstream farmers are pitted against salmon fishing, Native American interests, and other downstream users; all sides have policy concerns that can be asserted and involve valuable sectors of the local economy. Farmers point to their contractual rights and the hardships for their families; others note that the salmon industry may be 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, and that the science underlying the agencies' determinations is simply wrong. A federal district court denied a plea for release of water to the farmers (Kandra v. United States, 2001 U.S. Dist. LEXIS 6932 (D.C. Or. April 30, 2001)).

Two Members of Congress and the Pacific Legal Foundation (PLF) on behalf of two irrigation districts urged the Secretary of the Interior to convene an Endangered Species Committee to exempt the Bureau's operating plan from complying with the ESA. However, the request was denied because, under 16 U.S.C. 1536(g), only a federal agency (which is defined as including a federal department), the Governor of the state in which the agency action will occur, or a permit or license applicant may apply to the Secretary for an exemption. In addition, it is not clear how the treaty obligations to Native Americans would factor into any exemption consideration. The ESA precludes an Endangered Species Committee from considering an exemption that would violate an *international* obligation of the United States (16 U.S.C. 1536(i)), but is silent as to Native American treaty obligations.

On March 13, 2002, the House Resources Committee held an oversight hearing on a National Academy of Science Interim Report evaluating two federal biological opinions on endangered and threatened fishes in the Klamath River Basin. The agency opinions had prevented the Bureau of Reclamation from delivering water to farmers in much of its Klamath Basin Project Area early in the 2001 growing season. The Academy released its report in February 2002, and concluded there was no sound scientific basis for maintaining Upper Klamath Lake levels and increased river flows as recommended in biological opinions issued a year ago by the Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS). The Bureau of Reclamation released a 10-year biological assessment for Klamath Project operations on February 27, 2002 in which it anticipates regular water deliveries for the 2002 growing season. For additional information, see CRS Report RL31098, *Klamath River Basin Issues: An Overview of Water Use Conflicts* and CRS Report IB1009, *Western Water Resource Issues*.

Salmon Restoration. Similarly, salmon protection in the Pacific Northwest presents many difficult choices, especially now that regional hydropower facilities are playing an increasingly important role and drought conditions have become more severe. ESA listings by NMFS officials in 1999 and 2000 completed most of the pending decisions on Pacific salmon and steelhead trout, with a total of 26 distinct groups (i.e., evolutionarily significant units) now listed as either threatened or endangered. NMFS officials are working closely with state, local, and tribal officials, as well as the public, to develop a variety of recovery measures that address habitat restoration and other concerns. In late July 2000, NMFS decided, in response to an Army Corps of Engineers review, to delay any recommendation to Congress concerning whether or not to breach the four Lower Snake River hydroelectric dams to benefit salmon recovery. NMFS concluded, in a draft Biological Opinion and a Basin-Wide Recovery Strategy, that the four Lower Snake River dams should remain in place for at least 8 more years, to allow for a more complete assessment of progress toward recovering endangered salmon. The final Federal Columbia River Power System biological opinion, reflecting this policy, was released on December 21, 2000 (this opinion is available at [http://www.nwr.noaa.gov/1hydrop/hydroweb/docs/Final/2000Biop.html]).

In *Alsea Valley Alliance v. Evans*, Judge Hogan (United States District Court for the District of Oregon), remanded the listing of the Oregon Coast Evolutionary Significant Unit of coho salmon as a threatened species, finding that listing to have been arbitrary and capricious under the Administrative Procedure Act. The ESA permits listing of a species, subspecies, or "distinct population segment." This allows some species such as bald eagle to be listed in an area (such as the lower 48 states) even if a viable population exists somewhere else (such as Alaska). NMFS had clarified in a policy statement what was meant by distinct population segment in the context of certain fish. NMFS equated "distinct population segment" with being an "evolutionary significant unit (ESU)" (56 Fed. Reg. 58,612 (November 20, 1991)). An ESU is a population that is "substantially reproductively isolated from other conspecific population units" and "represent[s] an important component in the evolutionary legacy of the species" (56 Fed. Reg. 58,618). However, the NMFS policy on hatchery fish (58 Fed. Reg. 17,573 (April 5, 1993)) states that a hatchery population will not be considered part of an ESU if the hatchery population is of a different genetic lineage than natural populations; artificial propagation has produced appreciable changes in the hatchery population in characteristics that are believed to have a genetic basis; or there is substantial uncertainty about the relationship between existing hatchery fish and the natural population (58 Fed. Reg. 17,575).

The mistake the Judge felt NMFS made with respect to coho salmon was to include in the coho ESU hatchery fish that in this instance were genetically identical to naturally hatched fish in the same water source, but *not* to count the same fish when deciding whether to list the coho or not. The court concluded that, in this instance, not considering the numbers of hatchery fish when making the listing decision was arbitrary and created a further distinction (hatchery-spawned vs. identical non-hatchery fish) below the level of 'distinct population segment,' which the agency lacked authority to do.

Although the United States did not to appeal this decision, intervening parties have appealed, and the 9th Circuit blocked implementation of the lower court decision until the appellate case is heard. It is not clear how this case might affect other listings, since subsequent decisions could strike down other listings where genetically similar hatchery fish were included in ESUs but not counted in making the listing decisions. In addition, it is not

clear whether courts will approve the NMFS hatchery policy that permits excluding from a population segment fish from a dissimilar genetic lineage, even if they otherwise meet the definition of the ESU. The decision could have implications for salmon listings in general.

Private Property and Takings. Some landowners fear that the presence of an ESA-listed species or the designation of their land as CH for a listed species will result in restrictions of current or new activities on their land with subsequent loss of some or all of their property value. At the other end of the spectrum, there are those, particularly in the Northeast and Midwest, who value the presence of a rare flower or frog on their land.

Under the Constitution, no person's property can be taken by the government without "just compensation," whether the taking occurs under the ESA or any other federal law. In the past, "taking" has been strictly interpreted by the courts and does not include restrictions on permitted uses or a decrease in the value of the land, unless the constraints are very severe and the prohibited uses could not have been barred at the time the property was acquired. The U.S. Court of Federal Claims ruled (Tulare Lake Basin Water Storage District, et al. v. US, No. 98-101L) that water could not be taken from California irrigators to benefit endangered fish unless compensation was provided. However, the outcome of this case rests on facts that may not be present in other instances, so the value of the case as precedent is not yet clear.

Critics of the ESA would like to see it amended to provide compensation in a broader range of circumstances than those required under the Constitution. These critics generally propose that compensation be offered for some specified percentage decrease in the value of property owners' assets (including losses related to any loss of use of their land), since they feel that property owners are otherwise being forced to bear the cost of a public benefit. Such provisions have been included in several bills introduced in previous Congresses.

Opponents of a revised "taking" standard counter that they do not wish to see the ESA singled out as having a different, more generous standard for compensation than that required under current interpretation of the Constitution or for any other agency or law. They further state that the rights of property owners to use their land have never been absolute. The cost to the federal government from changed thresholds for compensation and the constraints that would likely be placed on the implementation of the ESA under a more lenient takings standard are among the contentious issues slowing action on ESA reauthorization. (See also CRS Report 93-346 A, *Endangered Species Act and Private Property Rights: A Legal Primer*.) However, both proponents and opponents of the ESA favor enacting incentives (primarily tax benefits) to encourage landowner cooperation.

Funding for Land Conservation. In the 106th Congress, several bills would have appropriated funds for acquiring lands to conserve listed species. These bills ultimately died, but additional funding for some of these programs was included in annual appropriations for FY2001 (Title VIII of P.L. 106-291), including the Cooperative Endangered Species Conservation Program, which provides grants to states, including support for state land acquisition. Other federal land acquisition funds contained in Title VIII of P.L. 106-291 may benefit endangered species by protecting habitat, and this approach has re-surfaced in the 107th Congress (Title VII of H.R. 701/S. 1328). (For more information, see CRS Report RL30444, *Conservation and Reinvestment Act (CARA): A Comparison of Current Versions of H.R. 701 with Current Law*.)

Making the ESA More User-Friendly. Former Interior Secretary Babbitt initiated action to decrease ESA conflicts in several ways. New FWS/NMFS joint 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 have triggered penalties. Federal managers also re-focused on listing species as threatened rather than endangered, to allow 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.

Greater use of "4(d)" Rules. While all prohibitions on taking under Section 4 of the ESA are automatically applied to endangered species, special regulations may be promulgated to limit the situations in which these prohibitions apply to threatened species. For this reason, federal managers have made an effort to list species as threatened, rather than endangered. The first large-scale application of this approach began when NMFS published a Section 4(d) rule (65 *FR* 42421-42481; July 10, 2000) prohibiting the take of 14 groups of steelhead trout and salmon listed as threatened, except in cases where the take was associated with an approved program that had been reviewed to ensure salmon protection. This 4(d) rule approved certain existing state and local programs, and created a process whereby NMFS could approve additional programs that meet certain standards. Incorporating limits in 4(d) rules can allow activities to be conducted while maintaining protection for threatened species and their habitats. State agencies, government entities, tribes, and others are relieved from certain liability for takes that could result from these activities. By limiting take liability, governments and private citizens are encouraged to adjust their programs and activities to be consistent with conservation and recovery needs.

No Surprises. Among the administrative changes of greatest legislative interest is the "no surprises" rule. The Clinton Administration viewed this approach as an incentive for landowners to reach conservation agreements (i.e., habitat conservation plans or 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. In some cases, changes may implemented, provided that the costs are not borne by the landowner. While landowners like the increased certainty, the "no surprises" program has been criticized by conservationists as potentially "locking in" conservation measures that are inadequate or unable to respond to changing conditions. However, the federal agencies initially failed to complete formal rule-making on this program. The FWS and NMFS jointly proposed a "no surprises" rule (62 *FR* 29091; May 29, 1997) in response to the March 21, 1997, settlement agreement in a lawsuit (Spirit of the Sage v. Babbitt No. 1:96CV02503 (SS)(D.D.C.)). A final rule was published February 23, 1998 (63 *FR* 8859). Attempts to enact this "no surprises" policy and regulations into law have, thus far, been unsuccessful.

A final rule on Safe Harbor Agreements and Candidate Conservation Agreements (64 *FR* 32705; June 17, 1999; see also *Safe Harbor Agreements*, below) modified the "no surprises" policy. Specifically, a condition of a §10 incidental take permit is a finding that the permitted taking will not appreciably reduce the likelihood of the species' survival and recovery. If continuation of permitted activities would be inconsistent with such a finding,

and the inconsistency is not remedied in a timely fashion, the new regulations provide for revocation of incidental take permits, even if they contain "no surprises" agreements.

Safe harbor agreements. A "safe harbor" agreement is a voluntary agreement between a landowner or other responsible party and FWS or NMFS. It differs from an HCP in that a safe harbor agreement is not concluded as a condition for obtaining a permit; rather it is an action taken by a landowner to assure that their "good deeds" in conserving ESA-listed species and habitat (beyond the requirements of the law) are not "punished" by incurring increased restrictions based on the voluntary improvements. A landowner agrees to conduct certain activities that are believed likely to increase the abundance of the listed species for a specified term of years. Because of the less restrictive provisions for plants (§9), it is unlikely that they would ever be the subjects of safe harbor arrangements.

If, at the end of a safe harbor agreement's term, the landowner wishes to take actions that might reduce an elevated species' population or the quality or quantity of improved habitat, there would be no penalty under the ESA for doing so, provided that the baseline conditions in the agreement continued to be met. (Provisions are included in the safe harbor agreement to require that FWS/NMFS receive advanced warning of proposed landowner actions so as to be able to remove as many of the listed animals as possible and take specified other steps to retain as much of the advantage gained during the agreement's term as possible.) A final policy and final rule for this program (including modified "no surprises" as discussed above) were published on June 17, 1999 (64 *FR* 32717; 64 *FR* 32705). Some property rights groups criticize the safe harbor program as offering minimal incentives to landowners; conservation groups are concerned that these agreements may not necessarily support recovery and,.in the end, might harm recovery efforts if the landowner returns the property to baseline conditions.

Candidate Conservation Agreements. A landowner may enter into a candidate conservation agreement with FWS or NMFS to conserve a declining, but unlisted, species. A landowner who enters into such an agreement receives assurances from the federal agency that, if the landowner successfully completes the agreement and the species is ESA-listed in the future, no additional measures will be required beyond those specified in the agreement. Landowner efforts and actions could forestall a listing. These agreements have been criticized as offering minimal incentive to landowners to stimulate their participation, and sometimes requiring landowners to take actions more strict than might have been required for listed species. Environmentalists and others counter that the requirements on landowners in these agreements can be minimal, and that these agreements could discourage ESA listing when such a decision is biologically marginal. A final policy and final rule for this program were published on June 17, 1999 (64 *FR* 32726; 64 *FR* 32705).

Critical Habitat Designation. The Clinton Administration supported restrictions on its own ability to designate CH under the ESA (e.g., see proposed restrictions under *Appropriations Issues*, below). In an announcement on October 22, 1999, FWS placed the designation of CH at the lowest priority in its listing budget, and stated that it could not comply with all of the demands of the ESA under current budget constraints. Conservation groups saw a contradiction between that claim and FWS's failure to request more funds for listing as well as its request in the FY2000-FY2001 budget cycles to have Congress place a special cap on funding for designation of CH. (See *ESA Listing Caps, New and Old*, below.) On November 23, 2000, FWS announced that all work on listing new species would be halted

for the remainder of FY2001, so that FWS could complete court-ordered work on designating CH. About 25 to 30 species are affected by the order, which was promptly denounced by various environmental groups. (See *Pending Agreement*, below, for attempts to negotiate a resolution to this conflict.)

In FWS's view, CH offers little protection for a species beyond that already available under the listing process. Moreover, although the avoidance of adverse modification of CH is an obligation only for federal agencies and actions, it is frequently misunderstood by the public to be a major restriction on private landowners' authority to manage land. While a landowner may experience some restrictions on land management because of the presence of an ESA-listed species, the bulk of the restrictions, FWS believes, come as a result of the ESA's prohibition on taking a listed species, and only occasionally from any added strictures resulting from designated CH. Thus (according to some FWS officials), the expense of CH designation, combined with the small margin of additional conservation benefit, make CH designation a poor use of scarce budgetary resources. According to FWS, CH designation shows its greatest conservation benefit when it includes areas not currently occupied by the species; these areas may be important as connecting corridors between populations or as areas where the species may be re-introduced.

Under current law, the agency is obliged to designate CH at the time of listing. Two exceptions are provided. If the CH designation is not "prudent" (*e.g.*, due to the threat of illegal collecting or killing), it may be omitted. If CH is not "determinable" due to insufficient data, CH designation may be postponed as long as one year after species listing. In practice, FWS designates CH for only about 10% of listed domestic species; in every case brought against FWS for failure to designate CH, the agency has lost. (At least 13 cases have been decided; others are pending.) In some situations, CH designation can antagonize opposing interests. According to the *Los Angeles Times* (September 18, 2000, p. A3), FWS proposed CH designations for nine California species, and was accused by environmentalists of potentially antagonizing developers, and by developers of proposing very large areas around known habitats of listed species without sufficient study or research. FWS claimed that funding was insufficient for the required studies.

In a notice soliciting comment, FWS proposed to "develop policy or guidance and/or revise regulations, if necessary, to clarify the role of habitat in endangered species conservation" (64 *FR* 31871-31874; June 14, 1999). The notice clarifies FWS's long-standing disaffection for this ESA provision, and its view that the conservation benefits of CH designation are low compared to its cost. Given FWS's position, the importance that the environmental community attaches to CH, and the distress its designation causes among landowners, CH designation was the focus of S. 1100 in the 106th Congress. See CRS Report RS20263, *The Role of Designation of Critical Habitat under the Endangered Species Act.*

On March 15, 2001, the Fifth Circuit Court, in a case involving FWS's and NMFS's failure to designate CH for threatened Gulf sturgeon, found that agency reliance on 50 C.F.R. 402.02 led them to erroneous conclusions. A portion of §402.02 was declared invalid, and the Fifth Circuit Court remanded the decision back to the District Court.

Legislative Initiatives. On March 15, 2001, the House Resources Subcommittee on Fisheries Conservation, Wildlife, and Oceans held a hearing on reauthorizations for the African Elephant Conservation Act (H.R. 643), the Rhinoceros and Tiger Conservation Act

of 1994 (H.R. 645), and the Asian Elephant Conservation Act of 1997 (H.R. 700). The Committee on Resources reported (amended) H.R. 643 (H.Rept. 107-93) and H.R. 700 (H.Rept. 107-94), and the House passed both these measures on June 12, 2001. H.R. 645 was reported by the Committee on Resources on June 25, 2001 (H.Rept. 107-109), and passed by the House later in the same day. On November 8, 2001, the Senate Committee on Environment and Public Works ordered that H.R. 700 (amended) reported. On November 30, 2001, the Senate Committee on Environment and Public Works reported H.R. 643 (S.Rept. 107-104) and H.R. 645 (S.Rept. 107-105). On December 7, 2001, the Senate Committee on Environment and Public Works reported H.R. 700 (S.Rept. 107-113). On December 18, 2001, the Senate passed H.R. 700 (amended), H.R. 643, and H.R. 645. On January 8, 2002, the President signed both H.R. 643 as P.L. 107-111 and H.R. 645 as P.L. 107-112. On January 23, 2002, the House agreed to the Senate amendments to H.R. 700. On February 12, 2002, the President signed H.R. 700, Asian Elephant Conservation Reauthorization Act of 2001 as P.L. 107-141.

Other measures propose to increase protection for bears (H.R. 397/S. 1125); exempt federal agencies from ESA consultation for certain activities (H.R. 472); modify the ESA regulatory process (H.R. 1402); modify federal land management activities under ESA (H.R. 1403); modify ESA provisions relating to liability for civil and criminal penalties (H.R. 1404); require the Department of Defense to fully comply with the ESA (§3(a) of H.R. 2154); provide compensation (H.R. 2389) or disaster relief (H.R. 2827) to Klamath Basin residents who were economically harmed by ESA-related actions; transfer ESA authority for anadromous fish from NMFS to FWS (H.R. 2409); direct the Secretary of the Interior to approve the HCP developed by the Imperial Irrigation District for the Salton Sea and provide for construction of habitat enhancement projects (H.R. 2764); expand protective measures for North Atlantic right whales (H.R. 3095/S. 1380); amend the ESA to authorize federal agencies to promptly respond to emergencies involving human health and safety (H.R. 3259); authorize funding for pallid sturgeon investigations in the Missouri River (§2(h)(3) of H.R. 3570); modify the communication and public hearing process related to ESA listing decisions involving the Administrative Procedures Act (H.R. 3706); authorize designation of survival habitat for listed species and specify its relation to critical habitat (H.R. 3707); modify requirements for scientific data in designating critical habitat (H.R. 3798); specify requirements for listing the black-tailed prairie dog under the ESA (H.R. 3920); modify the ESA listing, recovery planning, and delisting processes (S. 347); authorize a wildlife incentive program to preserve CH and avoid ESA listings (§801 of S. 1267 and §216 of S. 1731); amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act to expand the definition of "major disaster" to include an application of the ESA that causes severe economic hardship (S. 1384); amend the list of animal quarantine laws in §11(h) of the ESA (§18(b)(3) of S. 1482); authorize a water conservation program for agricultural lands in the Klamath, the Truckee-Carson, and Walker River Basins to benefit ESA-listed species (§226 of S. 1727); and authorize funding for Pacific salmon restoration (S. 1825). S. 1731 was reported by the Senate Committee on Agriculture, Nutrition, and Forestry (without a written report) on November 27, 2001: on the Senate floor, amended language of S. 1731 was inserted into H.R. 2646. The Senate passed the amended H.R. 2646 in lieu of S. 1731 (with the wildlife incentive program in §217; the ESA amendment on animal quarantine laws (from S. 1482, above) in §1038(b)(3); and the Bear Protection Act of 2002 (H.R. 397/S. 1125) in §1070) on February 13, 2002. A conference committee will be convened on this measure.

Several bills seek to clarify the role of science in ESA decisions. H.R. 2829 and S. 1912 would require the Secretary of the Interior to give greater weight to scientific or commercial data that is empirical or has been field-tested or peer-reviewed, while H.R. 3705 would modify the listing petition process and establish an independent review board. The House Committee on Resources held a hearing on H.R. 2829 and H.R. 3705 on March 20, 2002.

Title VII of H.R. 701/S. 1328 and Title II of S. 990 would provide dedicated funding to promote the recovery of ESA-listed species by property owners; H.R. 701 was ordered reported by the House Committee on Resources on July 25, 2001, while S. 990 was reported (amended) by the Senate Committee on Environment and Public Works on December 13, 2001 (S.Rept. 107-123). The Senate passed S. 990 (amended) on December 20, 2001.

H.R. 1985, H.R. 3208, and S. 976 include language to authorize creation of an "environmental water account" within the CALFED process to provide water for ESA-listed fish; H.R. 3028 was reported (amended) by the House Committee on Resources on February 14, 2002 (H.Rept. 107-360, Part I). No action has been taken on the other measures.

On May 9, 2001, the Senate Environment Subcommittee on Fisheries, Wildlife, and Water held an oversight hearing on the ESA listing and delisting process. On February 16, 2002, the House Committee on Resources held an oversight field hearing at Grand Island, Nebraska, on the Platte River Cooperative Agreement and critical habitats. On March 6, 2002, the House Committee on Resources held an oversight hearing on the Canada Lynx Interagency National Survey and endangered species data collection. A comprehensive bill, S. 911, proposing to reauthorize the ESA was introduced on May 17, 2001. No hearings have been held on S. 911, and no action has been taken.

Appropriations Issues. Appropriations bills play an important role in the ESA debate. Appropriations provide funds for listing and recovery activities as well as finance FWS/NMFS consultation necessary for permits, such as Army Corps of Engineers permits, that are necessary for federal projects. See the table below for recent ESA funding. FY2002 Department of the Interior appropriations (FWS) were substantially increased in P.L. 107-63 (H.R. 2217), signed by President Bush on November 5, 2001. FY2002 Department of Commerce appropriations (NMFS) were signed by President Bush on November 28, 2001, as P.L. 107-77 (H.R. 2500). Funding for international endangered species programs were considered in the FY2002 foreign operations bill (H.R. 2506), which was signed into law by the President as P.L. 107-115 on January 10, 2002.

On March 15, 2002, the House Committee on The Budget reported H.Con.Res. 353, wherein §406(b) expresses the sense of Congress that Pacific Northwest salmon recovery is a high-priority item for funding in the FY2003 federal budget (H.Rept. 107-376); this measure was passed by the House on March 20, 2002.

ESA Listing Caps, New and Old. Beginning in FY1998, Congress enacted annual limits (i.e., "caps") on funding FWS for its ESA listing function. This language limits FWS discretion to transfer funds to finance additional listings: if courts mandate agency action on listing certain species, other listings may not be able to be funded. 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.

Endangered Species Program Appropriations

(x $1000)

	FY2000 Enacted	FY2001 Request	FY2001 Enacted	FY2002 Request	FY2002 Enacted	FY2003 Request
Candidate Conservation	7,388	8,447	7,052	7,220	7,620	8,682
Listing	6,208	7,195	6,341	8,476	9,000	9,077
Consultation	32,342	39,400	42,750	41,901	45,501	47,770
Recovery	57,363	55,297	59,835	54,217	63,617	60,215
Subtotal	103,301	110,339	115,978	111,814	125,738	125,744
Landowner Incentive	4,981	4,981	4,969	0	40,000	50,000
Stewardship Grants	0	0	0	0	10,000	10,000
Coop. End. Species Conservation Fund (CESCF)	23,000	65,000	104,694*	54,694	96,235	91,000
Total FWS	**131,282**	**180,320**	**225,641**	**166,508**	**271,973**	**276,744**
Total NMFS	**55,470**	**64,914**	**102,476**	**108,314**	**105,476**	**not available**

Sources: Annual budget justifications, House and Senate committee reports, and floor debates.
* Of the FY2001 CESCF funds, $77.829 million was provided in Title VIII of P.L. 106-291.

The George W. Bush Administration's FY2002 budget proposed a new version of this cap by requesting authority to prioritize listings within the cap, regardless of judicial orders. The Administration stressed that (a) current court orders alone meant that FWS's ESA listing function was likely to run out of funds before the end of the fiscal year, and (b) if FWS were to make listing determinations on merely its own estimated backlog, the cost would be roughly $120 million. The agency's critics (calling the language an "extinction rider") responded that (1) few listings would have taken place in the last several years without the lawsuits; (2) the FWS's claims of conscientious attention to the ESA are contradicted by FWS's failure to seek adequate funding to address the backlog of ESA listings in light of its assertion of a $120 million need; (3) the restriction is one-sided since de-listings and down-listings would have no such cap; and (4) the new authority would be a fundamental change in the ESA, since FWS could choose which species to protect, rather than protecting all species meeting the criteria specified under §4(b) of the ESA.

Acting on H.R. 2217 (FY2002 Department of the Interior appropriations), the House Appropriations Committee rejected the Administration's proposed language change, retained the current $8.48 million cap on spending for listing activities, and accepted a "subcap" of $6 million on the designation of new CH. Therefore, if FWS were ordered to designate even a few areas of CH, funding for new ESA species listings could be restricted to no more than $2.48 million. The Senate passed a $9 million cap on listing, but did not include a "subcap"

on CH, nor did it accept the Administration's proposed change. The conference agreement (H.Rept. 107-234, October 11, 2001) adopted the $9 million funding level for the listing program and specified that the $6 million CH designation limitation is exclusive of funds needed for litigation support. This measure was signed as P.L. 107-63 on November 5, 2001. The Bush Administration's FY2003 budget proposed $9.077 million for listing, with a subcap of $5 million for CH.

Pending Agreement. In late August 2001, an agreement in principle was announced between the FWS and a coalition of environmental groups to address litigation and budget concerns and increase protection for dozens of rare species and their habitats. Under this agreement, protective measures affecting 29 species would be accelerated, with 3 species (e.g., Tumbling Creek cavesnail in Missouri) immediately reviewed for emergency listing, final listing determinations issued for 14 species (including the Mississippi gopher frog), proposed listing rules issued for 8 species (including the island fox in California), and decisions rendered on 4 ESA petitions (including the Big Cypress fox squirrel in Florida). In exchange, the coalition of environmental groups agreed to seek an extension of court-ordered deadlines for identifying CH for eight species. The written settlement document on this agreement remains to be negotiated, after which it will need to be reviewed and approved by the Departments of the Interior and Justice before presentation to the courts.

LEGISLATION

Related public laws and bills are discussed in the text of this document under "Background and Analysis."

P.L. 107-63 (H.R. 2217); P.L. 107-77 (H.R. 2500); P.L. 107-111 (H.R. 643); P.L. 107-112 (H.R. 645); P.L. 107-115 (H.R. 2506); and P.L. 107-141 (H.R. 700).

H.Con.Res. 353 (Nussle); H.R. 397 (Gallegly); H.R. 472 (Radanovich); H.R. 701 (Young of Alaska); H.R. 1402 (Thomas); H.R. 1403 (Thomas); H.R. 1404 (Thomas); H.R. 1985 (Calvert); H.R. 2154 (Filner); H.R. 2389 (Herger); H.R. 2409 (Otter); H.R. 2646 (Combest); H.R. 2764 (Hunter); H.R. 2827 (Walden); H.R. 2829 (Walden); H.R. 3095 (Delahunt); H.R. 3208 (Calvert); H.R. 3259 (McInnis); H.R. 3570 (Bereuter); H.R. 3705 (Pombo); H.R. 3706 (Pombo); H.R. 3707 (Pombo); H.R. 3798 (Tancredo); H.R. 3920 (Thune); S. 347 (Thomas); S. 911 (Smith of Oregon); S. 976 (Feinstein); S. 990 (Smith of New Hampshire); S. 1125 (McConnell); S. 1267 (Crapo); S. 1328 (Landrieu); S. 1380 (Kerry); S. 1384 (Smith of Oregon); S. 1727 (Reid); S. 1731 (Harkin); S. 1825 (Boxer); and S. 1912 (Smith of Oregon).