

Frayed Safety Nets: Conservation Planning Under the Endangered Species Act

by Laura C. Hood

The Endangered Species Act is the only federal law expressly designed to save wild species and the ecosystems on which they depend. The ESA explicitly prohibits killing or harming species listed by the federal government as endangered and destroying their habitat, regardless of ownership. In the 24 years since the law was enacted, however, countless acres of habitat have been destroyed and some species have declined in numbers or even gone extinct. Meanwhile, controversy over private landowners responsibilities has exploded.

The question of how to conserve endangered species on private land is terribly important. Nearly 90 percent of the 1,119 species the federal government considers at serious risk of extinction occur on nonfederal lands, and half occur exclusively on nonfederal lands. The dire status of listed species, in many cases, can largely be blamed on habitat loss. Unfortunately, federal budget shortfalls and lack of political support for aggressive enforcement have meant continued destruction of endangered species habitat despite the ESA's prohibition against it. In recent years, the situation has taken a turn for the worse as key members of Congress, at the behest of special interests and private-property-rights advocates, give high priority to seeking to weaken the law.

Yet endangered species conservation does not have to be a confrontational, zero-sum game. In 1982, Congress amended the ESA to allow nonfederal landowners to develop their property even if this led to destruction of some listed animals or their habitat. In exchange for this flexibility, landowners have had to keep the damage to a minimum and adopt conservation measures to offset it, such as setting aside endangered species habitat in preserves. The terms of these negotiated, legally binding agreements initiated by landowners have been set forth in habitat conservation plans (HCPs). Despite the flexibility HCPs offer, only 12 were completed between 1982 and 1992. Since then, however, the Clinton administration has promoted them aggressively as a way to accommodate private landowners while also protecting imperiled species. As a result, roughly 225 HCPs, in some cases covering more than a million acres and designed to last for up to a century, have been approved since 1992, and at least 200 more are in the works.

To encourage more private landowners to participate, the Clinton administration in 1994 adopted a no surprises policy. This policy assures landowners that they will not have to provide more land or money than called for under the plan, even if new scientific information shows that species are declining either because the original HCP was flawed or because of natural changes in the landscape. The administration also has promoted so-called safe-harbor agreements to encourage landowners to restore and maintain endangered species habitat on their property and pre-listing agreements to conserve rare or declining species before their numbers dwindle so drastically that listing becomes necessary. In addition, the administration is using these conservation tools to encourage ecosystem-wide land-use planning.

Although HCPs and other ESA-related conservation plans have tremendous potential, this report reveals that in many cases they are being approved without adequate scientific information or public input. Provisions in the plans for long-term biological monitoring, if they exist at all, are weak, and because of the no-surprises policy, HCPs and other agreements will be extremely difficult to modify if affected species continue to slide toward extinction. Even if there is scientific information indicating the need for extra conservation measures, none of the plans we reviewed provided a way to pay for them, leaving that responsibility by default to the federal government, which is unlikely to have funding to cover it. These drawbacks are alarming. Under many HCPs, development is permitted and habitat is destroyed despite great uncertainty about whether the landowners have provided enough mitigation to sustain species in the long run.

For the last two years, dozens of the nation's leading ecologists and geneticists have been raising similar concerns about HCPs and other ESA-related conservation agreements. In a 1996 letter to members of Congress, a group of 167 scientists seriously questioned the scientific adequacy of HCPs and the wisdom of the no-surprises policy. Most notably, a group of scientific experts on conservation planning led by Dennis Murphy, a biology professor at the University of Nevada-Reno and past president of the Society for Conservation Biology, in 1997 issued a set of science-based recommendations for HCPs and other conservation agreements. Murphy and his colleagues asserted that such agreements have been developed without scientific guidance and have the potential to become habitat giveaways that contribute to, rather than alleviate, threats to listed species and their habitats (see Appendix B). These scientists also expressed concern about the lack of funding available to modify approved plans if circumstances change and species decline.

This report presents substantial evidence bearing out scientists' concerns but also shows that many HCPs and other ESA-related conservation plans are weak in other areas. Our findings show that as they are now being developed, many plans represent big risks to endangered species because they have not benefited from public input and because there is no explicit legal mandate that they be consistent with species recovery. In many cases, the federal government is putting species on Noah's Ark with a blind captain and no way to repair the vessel when holes appear.

Overview of Findings

Our report shows that some HCPs and other ESA-related conservation agreements may yield significant gains for the conservation of endangered and threatened species on nonfederal (i.e., private, state, local and tribal) land. First, they may prompt municipalities and counties to incorporate wildlife conservation (a factor typically overlooked) as an explicit factor in their local land-use plans. For example, if fully funded and implemented, the Multiple Species Conservation Program for the city and county of San Diego should protect high-quality habitat for dozens of imperiled species in a preserve system that benefits not only wildlife but also urban residents who want to experience nature first-hand. Second, HCPs and other plans may enable biologists to gather information about species and habitat on private land and conduct long-term monitoring that they would not be able to do otherwise. The San Bruno Mountain HCP in California, for example, was based on a two-year, peer-reviewed study of endangered butterfly populations and includes an annual monitoring requirement. This kind of information is critical to making sound wildlife management decisions. Finally, HCPs and other plans may encourage landowners to maintain and restore habitat. For example, under some safe-harbor agreements in North Carolina, participating landowners periodically burn the understory in longleaf pine forest to provide suitable habitat for endangered red-cockaded woodpeckers.

Unfortunately, our assessment also shows that most plans do not provide these benefits. Not only have conservation gains been disappointing, but some plans actually have diminished species' chances for recovery. For example, large-scale HCPs for the threatened northern spotted owl allow logging of old-growth forest in which the birds nest. Old growth is replaced with much younger, sparser stands unsuitable for nesting, although providing enough cover for juvenile owls to disperse through them to establish new breeding territories. But replacing hundreds of acres of nesting habitat with dispersal habitat is not an acceptable tradeoff - it will not boost owl reproduction and assure species survival. Moreover, there is no guarantee that enough old growth to sustain owls will remain after these and other HCPs in the region have been implemented. Even small-scale plans with minimal individual impact may lead to major rangewide habitat losses when assessed collectively. Although efforts are being made to prevent this from happening, it is a real problem for some species, such as the endangered golden-cheeked warbler and Florida scrub jay, whose habitats are being nibbled away by housing developments. In far too many cases, cumulative impacts are not analyzed before small-scale plans are approved. For example, many HCPs of the threatened Utah prairie dog involve moving the prairie dogs to federal land so that their privately owned habitat can be destroyed. Relocation of prairie dog colonies frequently fails, yet this strategy continues to be used and may lead to major regional loss of prairie dog habitat.

Scientific shortcomings can be attributed partly to the fact that many HCPs are not reviewed by independent scientists before they are approved. For example, the 170,000-acre Plum Creek Timber Company HCP, which covers more than 250 species, was not reviewed by independent scientists. Adequate biological monitoring, essential to determine whether plans are working as intended, is commonly lacking. Most plans are also missing adaptive management, including plan modifications based on new scientific information. These plans lock in preserve designs and management techniques that may prove ineffective if circumstances change.

Public involvement is given short shrift in the development of many plans, with the exception of those involving state or local governments. This is troubling, since plans may have enormous impacts on public resources such as wildlife, water quality and open space. For example, when plans cover hundreds of acres, they may significantly affect the quality of life enjoyed by local residents by providing or eliminating outdoor recreational opportunities. Even in cases in which citizen steering committees were established, we found that representation was biased heavily toward developers and resource users. Individual landowners with small-scale plans typically perceived no need to include any meaningful public input.

One major reason why many plans are weak is that they are not legally required to be consistent with species recovery, even though that is the ESA's main goal. The mitigation that landowners are required to provide is based on practicability, in other words, on what the landowner is willing to provide, not on what species need. There is no requirement that the degree to which landowners are absolved of future liability be commensurate with the degree of certainty that mitigation will work, and thus leave species at least no worse off than they were before.

To increase landowner participation, the Clinton administration has transferred the uncertainty associated with planning almost entirely from the landowners to the species themselves. In fact, the term no surprises applies to the landowner and not the species, because conditions will change for the species over time and implementation of the plan will have unpredicted consequences. Some plans will last for decades, well beyond periods in which scientists can predict the effects on species. For example, most HCPs and safe-harbor agreements for red-cockaded woodpeckers in the Southeast will apply for 99 years. Plans covering unlisted species about which little is known are also common. The Washington Department of Natural Resources HCP applies to all species in the 1.6-million-acre planning area that are not now listed but may be listed during the plan's 70-year life. Yet landowners across the board are being assured that even if species continue to slide toward extinction, the landowners will not have to provide more money or land than was required in the approved HCP.

What Must Be Done

There will never be complete information and unlimited funding for designing and carrying out HCPs and other conservation plans. This does not negate the necessity of reducing the risks to imperiled species that these plans currently pose and of ensuring consistency with species recovery goals.

Improve the scientific quality of plans.

- Plans must be consistent with species recovery. This requires that plans set measurable, recovery-based biological goals in terms of populations and habitat quantity and quality and that plans provide full mitigation for habitat loss and adverse impacts on species.
- Large-scale, multi-species plans need independent scientific review at every major stage of their development, from information gathering to designing conservation strategies, reviewing implementation and biological monitoring. Each plan should document the extent of this review and the results of the review.
- Large-scale multispecies plans should have biological-monitoring programs emphasizing quantitative information. Because of the expense, this requires (1) a greater financial commitment on the part of both landowners and involved jurisdictions, (2) partnerships between wildlife agencies and biologists from universities, environmental consulting firms and private

organizations and (3) independent scientific review of the initial monitoring program as well as of subsequent monitoring.

- Plans should be subject to modification as new scientific information is obtained. In other words, they should provide for adaptive management.

Bring more citizens to the table.

- Representation on committees that oversee plan development should equitably cover all stakeholders, including conservationists, scientists and other concerned citizens.
- Landowners should provide greater opportunities for public participation in plan development.
- Monitoring information should be publicly available throughout the life of the plan. Assure funding.
- Landowners should provide performance bonds or other financial security before any loss of animals or habitat occurs, in case additional mitigation becomes necessary to address changes in circumstances or landowners become insolvent before mitigation is complete.
- A federal trust fund should be established to provide funds to cope with unanticipated problems.
- Funding adequate for federal agencies to monitor compliance should be provided. Set strong legal standards.
- Consistency with recovery should be the legal standard for conservation plan approval.
- Assurances to landowners should be based on the extent to which risk is reduced for species on their lands. The degree to which landowners are freed of future liability should be based on the plan s expected impacts, the likelihood that mitigation will be effective and whether the plan provides for adaptive management.
- Enforcement of the ESA Section 9 prohibition against destroying listed species and habitat should be strengthened. This would encourage landowners to develop plans instead of illegally destroying habitat, and it would reduce habitat loss that could occur while plans are being developed.
- Landowners should be legally responsible for fully mitigating all incidental take, without relying upon the federal government for part of that mitigation.

Methodology

In this report Defenders of Wildlife has assessed the scientific content, funding, public participation and legal implementation of 24 plans, mostly HCPs, across the country, gleaning what we believe are valuable lessons about the promise and peril they hold. It was beyond the scope of this report to do an exhaustive assessment of the several hundred plans that either have been approved or are likely to be approved in the coming months. Instead, after reviewing plans nationwide, we selected a representative sample and evaluated them using criteria that should be satisfied in order to produce significant conservation benefits on private land (see Appendix A: Methodology). Our report summarizes the 24 plans (see Appendix C), highlights their most commendable and objectionable provisions and describes major trends.

Organization of the Report

Our report begins with an introduction to the Endangered Species Act, HCPs and other types of conservation plans. In the body of the report we discuss the four elements of conservation planning on which we have focused: (1) science, (2) public participation, (3) funding and (4) legal issues. For each element, we discuss its significance, important plan examples and general trends. Finally, we state our conclusions and recommendations.

CONSERVATION PLAN	LOCATION	SPECIES	GEOGRAPHIC SCOPE	DURATION (in years)	YEAR OF COMPLETION	AGREEMENT TYPE	PRIMARY ACTIVITY	FWS REGION
-------------------	----------	---------	------------------	---------------------	--------------------	----------------	------------------	------------

							PERMITTED	
1. Washington Department of Natural Resources	Western WA	northern spotted owl, marbled murrelet, salmon*	1.6 million acres	70-100	1996	HCP, §10	timber harvest	1
2. Plum Creek Timber Company	Cascades, WA	northern spotted owl, marbled murrelet, salmon*	170,000 acres	100	1996	HCP, §10	timber harvest	1
3. Weyerhaeuser Company, Inc.	Willamette Timberlands, OR	northern spotted owl, marbled murrelet, salmon*	400,000 acres	40-80	autumn, 1997	HCP, §10	timber harvest	1
4. Teichert, Inc. Vernalis Project	San Joaquin, County CA	San Joaquin kit fox*	300 acres	50	1997	HCP, §10	mining	1
5. PG&E - Blackhawk	Contra Costa County, CA	red-legged frog	5 acres	3	1996	HCP, §10	pipeline construction	1
6. San Bruno Mountain	San Mateo County, CA	mission blue butterfly, callippe silverspot butterfly*	3,600 acres	30	1983	HCP, §10	development	1
7. Metropolitan	Kern County, CA	San Joaquin kit fox,	408 square miles	20	1994	HCP, §10	development	1

Bakersfield		blunt-nosed leopard lizard, 2 kangaroo rats*						
8. Multiple-Species Conservation Program	San Diego, CA	coastal California gnatcatcher, 83 species	314,900 acres	50	1997	NCCP, 4(d) rule	development	1
9. Clark County	NV	Mojave Desert tortoise	525,000 acres	30	1994	HCP, §10	development	1
10. Coleman Company	Cedar City, UT	Utah prairie dog	3.7 acres	2	1995	HCP, §10	development	6
11. Swan Valley Agreement	MT	grizzly bear	600 square miles	5+	1995	§7 and 10 hybrid	timber harvest	
12. Balcones Canyonlands	Travis County, TX	golden-cheeked warbler, black-capped vireo, cave invertebrates	633,000 acres	30	1996	HCP, §10	development	2
13. Louisiana Black Bear Plan	LA	Louisiana black bear	statewide	NA	1995 (Recovery Plan)	4(d) Rule	no permit	4
14. Fel-Kran Plumbing	Baldwin County, AL	Perdido Key beach mouse	27 acres	30	1994	HCP, §10	development	4
15. Sarah N. Bradley	Monroe County, AL	Red Hills salamander	80 acres	30	1994	HCP, §10	timber harvest	4
16. Fort Morgan Paradise Joint Venture	Baldwin County, AL	Alabama beach mouse	86.3 acres	30	1996	HCP, §10	development	4

17. Georgia Statewide HCP	GA	red-cockaded woodpecker	statewide	99	no complete draft	HCP/Safe Harbor §10	timber harvest	4
18. Brandon Capitol Corporation	Brevard County, FL	Florida scrub jay	3.8 acres	2	1994	HCP, §10	development	4
19. Gross/Snow Construction	Osceola County, FL	bald eagle	11.4 acres	99		HCP, §10	development	4
20. Volusia County Government	Volusia County, FL	5 sea turtle species	49 miles of coast, 50,000 acres	5	1996	HCP, §10	recreational use	4
21. Ben Cone	Pender County, NC	red-cockaded woodpecker	8,000 acres	99	1996	HCP, §10	timber harvest	4
22. Sandhills Agreement	Sandhills region, NC	red-cockaded woodpecker	300,000 acres	99	1995	Safe Harbor	habitat destruction	4
23. Massachusetts Division of Fisheries and Wildlife	coastal counties of Massachusetts	piping plover	200 miles of coast	2	1996	HCP, §10	recreational use	5
24. Atlantic Salmon Conservation Plan	Maine	Atlantic salmon	1,422 square miles	NA	1996 - draft	Pre-listing agreement	no permit	5