

SECTION THREE

Conclusions and Recommendations

Science

HCPs and ESA-related conservation plans can contribute significantly to the conservation of imperiled wildlife on private land, but to do so they must be based on adequate biological information and provide long-term biological monitoring of affected species and habitat. In addition, there must be a process for changing the plan in the event that monitoring shows that additional conservation measures are needed to save species. Because planning can be contentious and highly politicized, especially when little habitat is left and landowners have millions of dollars at stake, there is a risk that plans will favor landowners' financial objectives even if the best available science indicates species will decline as a result.

Despite the risk, there has never been such a good opportunity to incorporate science into private land-use planning, and our report found encouraging signs of progress. For the first time, some landowners are actually considering the status of species and habitat on their property and attempting to integrate their land-management

practices with those governing public lands in the same region. A few are even setting up biological monitoring programs. For example, 20 years ago no one seriously considered doing what San Diego has done with its Multiple Species Conservation Plan: assembling survey information for more than 90 sensitive species and multiple habitat types in the San Diego area, identifying natural areas for protection and managing and monitoring those areas. In some cases, landowners have even undertaken to restore degraded habitat. For example, in the Sandhills region of North Carolina, the safe-harbor program has provided an incentive for landowners to maintain longleaf pine forests.

Unfortunately, these are exceptions. Most ESA-related conservation plans that we examined were not adequately based on science and were not consistent with species recovery. Some plans, rely heavily on unproved management techniques. The Coleman Company HCP for endangered Utah prairie dogs and the Georgia statewide draft HCP for endangered red-cockaded woodpeckers call for moving animals from

The Tongass National Forest and ESA-Related Conservation Planning

The conclusions and recommendations presented here regarding ESA-related conservation planning on private and state-owned lands can be applied (as appropriate) to planning for federal lands. This becomes increasingly important for species whose fate is locked in by multiple federal and private conservation plans.

In particular, plans for public lands must take into account independent science, public participation, the need for adaptive management, and the role that listing plays in enforcing implementation of key provisions. Perhaps the most appropriate example of ESA-related conservation planning on federal land is the Tongass National Forest planning process and its influence on the fate of the Alexander Archipelago wolf (*Canis lupus ligoni*) and the Queen Charlotte goshawk (*Accipiter gentilis laingi*).

The Tongass National Forest is the nation's largest national forest and constitutes one of the most important remaining publicly owned aggregations of temperate rainforest in the western hemisphere; not surprisingly, management of the forest has been of high national interest. Operating under the auspices of the 1979 Tongass Land and Resource Management Plan (TLMP) as well as two long-term timber sale contracts, the Forest Service allowed the cutting of hundreds of thousands of acres of the highest quality old-growth forest in the region. This clearcut logging in the Tongass National Forest has brought several species to the brink of extinction despite decades of research, congressionally mandated studies and public protests.

In response to the growing awareness of the values of old-growth forests and to the increasing

litigation associated with their protection, the Forest Service embarked on an effort to reconcile the conflicts over continued logging in the Tongass National Forest; revision of TLMP was intended to head off listing of two old-growth-dependent species, the Queen Charlotte goshawk and the Alexander Archipelago wolf, under the Endangered Species Act. Although FWS previously found that both species warranted listing under the ESA, neither the wolf nor the goshawk was afforded this protection. Instead, the Forest Service and FWS entered into an agreement whereby the 1997 TLMP would be revised in order to protect these two species without the need for listing under the ESA.

While federal agencies do not (and should not) receive assurances like the no-surprises policy, this management plan for the Tongass National Forest acts as an ESA-related conservation plan similar to plans for private landowners. In this case, the Forest Service purports to have developed a pre-listing agreement that provides what is needed for survival and recovery of these imperiled species. In exchange, the Forest Service is assured that the species will not be listed, and consequently that the management plan will not later need to be revised in response to listings.

Unfortunately, despite claims to the contrary, the 1997 TLMP falls far short of reversing those activities which have resulted in serious ecological degradation and loss of old-growth habitats and associated species. After careful review and analysis of TLMP and its provisions for protection of old-growth-dependent species, many biologists believe that this land management plan fails to prevent continued trends towards extinction for old-

Continued

growth habitats and species. The 1997 TLMP's Standards and Guidelines for wildlife and biodiversity protection fail to provide sufficient and necessary protective measures for ensuring the viability of the Queen Charlotte goshawk, Alexander Archipelago wolf, pine marten (*Martes americana*), marbled murrelet, and other old-growth-dependent wildlife species. Because the wolf and

goshawk have not been listed, virtually all of the standards and guidelines for those two species are voluntary. Without the enforceability that ESA listings provide, there are no safety nets for these species, and recovery becomes an unattainable goal. Meanwhile, the old-growth forests and associated biodiversity in the Tongass National Forest decline as well.

privately owned habitat to publicly owned land despite evidence of poor survival after relocation. This is done so that the privately owned habitat can be destroyed, and as a result, the species appear to be worse off than before the plans were put in place. Other plans, such as the Swan Valley Conservation Agreement for grizzlies, directly contradict what biological information is available about habitat requirements and management techniques.

Part of the difficulty involved in making HCPs and other plans consistent with recovery is that federal recovery plans for many listed species either have not been completed or are not current. Obviously, one solution is to speed preparation of recovery plans so they can guide conservation plan development. Meanwhile, conservation plans should err on the side of species protection if up-to-date recovery plans are not available. HCPs should not guide or replace forthcoming recovery plans.

Another problem is that HCPs are typically developed and approved without regard to their cumulative impacts. This may not matter if a single plan covers all or most of the species range. But more often than not, plans cover only

part of that range, which may encompass both publicly and privately owned lands. In this case, determining whether individual plans are consistent with recovery cannot be done without first assessing the potential cumulative impacts of land management practices throughout the species range. Yet the federal government's operating assumption is that single-landowner HCPs have negligible effects on recovery.

Also troubling is the fact that virtually all of the plans we reviewed will be difficult to monitor and change over time. As Dennis Murphy and his colleagues have stated (see Appendix B),

The natural world is full of surprises. Nature frequently produces surprises such as new diseases, droughts, storms, floods and fire. The inherent dynamic complexity of natural biological systems precludes accurate, specific prediction in most situations; and human activities greatly add to and compound this complexity. Surprises will occur in the future; it is only the nature and timing of surprises that are unpredictable. Furthermore, scientific research produces surprises in the form of new information regarding species, habitats and natural processes.

Yet in most cases, determining whether adjustments are needed will be virtually impossi-

ble because plans typically do not provide for adequate long-term biological monitoring. The prevalence of no-surprises guarantees for landowners, which puts the financial burden for additional conservation measures on the federal government, compounds the problem. Even plans that call for adaptive management may find that no-surprises guarantees make it exceedingly difficult to change plans on the basis of monitoring information. Because many plans are approved despite considerable scientific uncertainty about their impacts, it would be prudent to make landowner assurances contingent on whether a secure funding source exists to cover biological “surprises,” whether the plan sets clear and measurable biological goals, and whether it has a biological-monitoring program based on quantitative data-gathering and analysis.

Our report also found that few plans reflect input from independent scientists knowledgeable about the particular species and habitat. During initial planning and biological assessment, most plans involved scientists employed by the U.S. Fish and Wildlife Service or other government agencies or employed by consulting firms hired by the landowner. Very few plans were reviewed by scientists unaffiliated with either the government or the landowner. Unless HCPs are evaluated by scientists who do not have a stake in their outcome, the plans will lack scientific credibility. For large-scale HCPs covering multiple species, independent scientific review should be sought at multiple stages in their design.

In sum, for many plans, the combination of any of the following factors: paucity of biological

information, reliance upon unproven management techniques, lack of scientific review, and inability to monitor and make adjustments, makes safety nets for species disappear.

Recommendations

- Plans should have measurable biological goals that are consistent with species recovery. Goals should be set in terms of habitat quantity and quality and the size and number of wildlife populations.
- Large-scale, multiple species plans should undergo independent scientific review at multiple stages of development from information gathering to designing conservation strategies and reviewing implementation and biological monitoring. Plans should document the extent to which they underwent independent scientific review, and the results of that review.
- Plans should have biological-monitoring programs that emphasize quantitative information and that are reviewed by independent scientists. This can be expensive and requires: (1) greater financial commitment by landowners and involved jurisdictions and (2) partnerships between wildlife agencies and biologists from universities, environmental consulting firms and private organizations.
- Plans should provide for adaptive management based on experimental approaches and biological-monitoring results.

Public Participation

HCPs and ESA-related conservation plans affect numerous public resources, including wildlife and water quality, and may impact the

availability of outdoor recreational opportunities, an important quality-of-life concern for many people. Yet our findings show that public input seldom was solicited as plans were being developed. Even when the National Environmental Policy Act's public participation requirements were triggered, responses to public comment were irregular and infrequent. There are notable exceptions. For example, the diversity of organizations participating in the Black Bear Conservation Committee has enabled the group to make significant progress. California's NCCP law creates an opportunity for all stakeholders to participate in planning, including some conservationists who have been influential in developing the MSCP in San Diego County.

Nevertheless, in most plans reviewed here the public had little or no involvement, either because steering committees were loaded with industry group representatives or because individual landowners, who are not legally required to solicit public input, saw no need to do so. Even when public comment was invited, it was usually too late to change fundamental mitigation strategies. Although the National Environmental Policy Act (NEPA) establishes a public comment process that applies to major federal actions affecting the environment, it is often circumvented in the interest of expediency. Large conservation plans increasingly rely on environmental assessments instead of highly detailed environmental impact statements, and most small HCPs are exempt from NEPA.

Recommendations

- Balance representation on steering committees.

These committees should equitably represent conservationists and others interested in the affected public resources, and conservationists on those committees should represent views of the broader conservation community. This can be accomplished under current laws, such as the federal or state endangered species acts and regulations or other local and state laws.

- Use NEPA more effectively. The public scoping process under NEPA has generally been used only for large-scale HCPs that warrant full-blown environmental impact statements.

Without altering NEPA, public scoping could be required for smaller HCPs, including those that do not warrant an EIS.

- When the draft plan and associated NEPA documentation are released, FWS (or NMFS) should also make public the draft "biological opinion" explaining why the plan is deemed not to jeopardize survival of affected species.
- Make the results of compliance and biological monitoring available to the public throughout the life of the plan. This may involve notifying the public when monitoring reports are released or at minimum notifying steering committee members and affected constituencies in the region.
- The findings of independent scientists who review plans also should be publicly available.

Funding

One of the biggest impediments to effective conservation planning is lack of contingency funding to address inevitable biological "surprises." Regardless of their design, plans that do not provide a stable and secure funding source to

cope with unanticipated species declines or other problems create major risks for imperiled species. Unfortunately, our findings show that plans often do not provide enough money to monitor species and habitat and identify problems that may not occur until months or even years after plans are in place. Without funding for the kind of thorough biological monitoring that makes adaptive management possible, plans cannot be implemented in a scientifically credible way.

In contrast, plans are legally required to provide funding for implementation, although sometimes the amount falls short of what is needed. With a few notable exceptions, the approaches used are diverse, innovative and effective. Some plans are funded entirely by the landowner. Some have complex formulas for distributing financial responsibility among all those responsible for endangered species protection, including private landowners, local jurisdictions and the public. Moreover, ESA-related conservation planning provides an opportunity to draw on other financial incentives available to private landowners as the Black Bear Conservation Committee has done in Louisiana.

Recommendations

- Permit applicants should post a performance bond or other financial security before being granted an incidental-take permit. This would ensure that funds are available if a permit is revoked or additional mitigation measures are necessary to address changed circumstances. This also would apply if the landowner becomes insolvent or otherwise terminates the agreement before mitigation steps are completed.

- Establish a federal trust fund to provide supplemental support in the event that landowners comply with the plan but additional measures are necessary to meet biological goals.
- For large-scale, multi-landowner plans, the steering committee and FWS or NMFS should consider the full range of conservation incentives and funding mechanisms available. The plan should include an outreach program to encourage landowners in the planning area to make use of these incentives instead of resorting to incidental take.
- Funding should be adequate to support compliance monitoring by FWS and NMFS and third parties. Compliance monitoring should include site visits to areas covered by HCPs.

Legal Framework

Although the overarching goal of the ESA is recovery of imperiled species in the wild, there is no clear legal mandate to ensure that HCPs and other plans do not undermine that goal. Section 10(a) of the ESA requires that the incidental taking that occurs in connection with the HCP does “not appreciably reduce the likelihood of survival and recovery of the species in the wild.” But when considering HCPs for approval, FWS often has focused exclusively on their impacts on species survival in the short term.

Mitigation for the harm caused by development varies widely among plans and is largely a function of the federal government’s negotiating skill and the landowner’s willingness to accommodate species needs. Without an explicit statutory requirement, it is difficult to ensure that plans will not reduce the chances of recov-

ery for many species. Landowners who receive incidental-take permits are legally responsible for minimizing and mitigating the damage inflicted on species. HCPs describe how that will be accomplished. The legal standard used to determine how much mitigation the landowner must provide is “practicability,” which FWS has interpreted as the amount the landowner is willing to pay. Because this standard fails to consider species needs, mitigation may be inadequate and even result in net habitat losses. Such a case is when landowners move animals from their property and put them on land already owned and protected by the federal government. The privately owned habitat is then destroyed.

Moreover, there is no legal standard to ensure that assurances given to landowners reflect the degree of certainty that the plans will produce their promised conservation benefits. Our report found that landowners sometimes are given assurances for plans covering dozens of species even when little is known about species status and biology. Landowners typically are given the flexibility to terminate plans on short notice, and landowner desires to reduce risks associated with long-term economic projections typically determine how long plans apply. The bottom line is that a disproportionate amount of the risk associated with these plans is being borne by endangered and threatened species. Regardless of the quality of their plans, landowners are uniformly assured that they will not have to pay if something goes wrong and species decline.

Meanwhile, stronger enforcement of the ESA’s Section 9 prohibition against killing animals and destroying habitat would encourage

more landowners to develop HCPs and would encourage more regional land-use planning such as has occurred in southern California. Using the ESA in conjunction with local laws and zoning regulations can help achieve greater ecosystem protection. Properly done, regional conservation plans can demonstrate how ESA implementation can be coordinated with state and local land-use planning with good conservation results.

Recommendations

- Consistency with recovery should be the legal standard for conservation plan approval.
- The level of assurances granted to landowners should be determined by the quality of the plan and by the level of certainty that it will produce promised conservation benefits. Assurances should vary depending on the plan’s expected impact on species, its scientific basis, its reliance on proven conservation techniques, its use of adaptive management and its duration, among other things.
- Citizens should not be precluded from suing to enforce the terms and conditions of HCPs and implementing agreements, the legally binding contracts that often accompany plans. This should be explicitly stated in law.
- In implementing agreements and other legally binding contracts, there should be explicit procedures for conducting adaptive management. By doing this, essential plan changes in the future will not be trumped by landowner assurances, and permittees will be aware of and commit to aspects of the plan that may change.
- Enforcement of Section 9 (prohibition of take associated with nonfederal activities) should be

strengthened to encourage more landowners to develop HCPs and to curb habitat loss and species population declines before HCPs are in place. In cases where private landowners have developed HCPs but their neighbors have not, FWS and NMFS should aggressively enforce Section 9 for all. Otherwise, landowners who invest in HCPs may be put at a competitive disadvantage, and the incentive for reluctant landowners to develop HCPs will be removed.

- Landowners should be held fully responsible for mitigating adverse impacts from incidental take of endangered and threatened species. This burden should not be shifted to the federal government. For example, moving animals from private land to federally protected land is not acceptable mitigation.

Critical questions are now being raised about ESA-related conservation planning. Once we have brought conflicting interests to the negoti-

ating table, will we be able to bring them back if something goes awry? Will imperiled species have safety nets after private landowners have been provided their assurances?

According to our review, there already have been both encouraging successes and utter failures in habitat conservation planning. For many plans, the stakes are high: landowners make large financial commitments by creating and relying upon plans, and endangered species are encircled by preserve boundaries and management prescriptions that will be difficult to change in the future. The challenge now is to learn from experience, to find ways to adapt plans to changing natural conditions and new scientific developments without unfairly burdening landowners, and to improve conservation plans so that widespread species recovery on private land becomes a reality. These are major conservation challenges.