



Fall 1995

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Recommended Citation

Lynn E. Dwyer & Dennis D. Murphy, *Fulfilling the Promise: Reconsidering and Reforming the California Endangered Species Act*, 35 NAT. RES. J. 735 (1995).

Available at: <https://digitalrepository.unm.edu/nrj/vol35/iss4/1>

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Fulfilling the Promise: Reconsidering and Reforming the California Endangered Species Act

ABSTRACT

California has long been recognized as an innovator in the development of environmental policy. California has assumed the mantle of innovator because it is frequently the first state with environmental problems of sufficient seriousness to merit a concentrated policy response. In a big state with big problems, California's environmental conflicts also often mirror national debates surrounding such issues. Nowhere is this as true as in the current fracas over the fate of endangered species. Like the federal Endangered Species Act, California's primary nongame wildlife protection statute has become a lightning rod for controversy. Here we consider the history, structure, and implementation of the California Endangered Species Act relative to the protections of the federal Act to gain an understanding of the present method for protecting biotic diversity in the state and in the nation. We make recommendations for California Endangered Species Act reform that should both benefit species and ecosystems and reduce conflicts over the economic impacts of the statute. These recommendations may also have some relevance to national policy. Among the recommendations we suggest are reprioritizing listings which provide an umbrella of protection to additional species and habitats; defining explicit, achievable performance standards and acceptable levels of incidental take; providing for one stop permitting and empowering local government in conservation planning efforts; encouraging meaningful recovery planning; emphasizing regional ecosystem management; providing incentives to landowners to conserve species and creating free markets in which habitat can be traded; requiring agency staff training to enhance professional skills; and focusing on the state's public lands as the core habitats in conservation strategies.

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INTRODUCTION

Earthquake prone California finds itself the epicenter of other rumblings. With more than twice the number of protected species and more species under consideration for federal listing than any other continental state, even the most disengaged of the state's citizenry are now aware of spotted owls, desert tortoises, and delta smelt. Impacts from human population growth have pushed an extraordinary number of native animals and plants to the brink of extinction, as they have been displaced from their habitats by the residential and commercial development, water projects, agriculture, and road construction that attends that growth.¹ Long-term population projections promise that pressure on California's natural environment will only increase during the next decade.

Earthquakes provide an apt metaphor. Endangered species conflicts have shaken the economic infrastructure of the state and have been credited with contributing to the most depressed state economy in the nation. While the rest of the country waded into recession and then bounced back up, California nose-dived into double digit unemployment from which it has yet to resurface. In an economy beset by events seemingly uncontrollable—the demise of the defense sector, a flight of heavy industry, and a deep depression in real estate—endangered species policy seemingly run amok makes a ready target for social angst. These are not rolling temblors, but real jolts. Approximately 250,000 acres of the state's most valuable real estate was affected by the March 1993, decision to list the California gnatcatcher as a threatened species.² This added to 80,000 acres in southern California's Riverside County on which development has been restricted while biologists study conservation alternatives following the listing of the Stephen's kangaroo rat as endangered.³ Kern County claims that 266 individual development projects have been stalled by state protection of the threatened Mojave ground squirrel.⁴ The list of imperiled species grows ever longer and now ensnares every region, industry, and person in the state: from coastal redwoods to desert salt flats, from fishing to farming, from the individual property holders who want to develop their few acres to entire communi-

1. Cal. Dep't of Fish and Game, Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants 15 (1992).

2. See generally Ralph Frammolino, *Two Sides Argue Case in Gnatcatcher Suit*, Los Angeles Times, May 9, 1992 at B3.

3. Timothy Beatley, Habitat Conservation Planning, Endangered Species and Urban Growth 135 (1994).

4. See generally State Roundup California, Daily Environmental Report, May 25, 1993, available in Westlaw, Database BNA-ENV.

ties fighting over their dwindling open spaces.

The political, legal, scientific, and economic choices that drive biodiversity policy are rendered doubly difficult when the implementation of the existing approach to species protection in the state—the California Endangered Species Act (CESA)—fails to address adequately the inherent conflict between private property rights and effective wildlife policy. This article examines the historical context of species and habitat protection in California, compares the key provisions of the CESA and the Federal Endangered Species Act (FESA), and describes some of the primary implementation problems in current biodiversity policy. All establish the context for recommendations that should better balance mandated conservation goals with the state's inevitable population growth.

THE TRADITION OF SPECIES PROTECTION IN CALIFORNIA

The California Endangered Species Act declares and affirms that: "[I]t is the policy of the state to conserve, protect, restore, and enhance any endangered species or any threatened species and its habitat."⁵

This clear and simple mandate masks complex political negotiations that inevitably surround threatened and endangered species protection in California. And, although that species policy has often been a political hot potato, California has been an entrepreneur in the development of conservation initiatives. Policy innovations include more stringent protection mandates than those of the federal government or other states and consensus building between public and private interests.⁶ Moreover, these innovations have also been characterized by precedent setting leadership shifts between state and federal government.

California has mandated protection of wildlife and the habitats that support it for more than a century. In 1878, the state created the nation's first Fish and Game Commission (FGC) to regulate and restore depleted fish and wildlife resources. California set aside forest lands in parks in response to runaway redwood logging in the early 1900s, and in 1928 established the state park system. In 1938, the legislature mandated that the State Lands Commission conserve and protect irreplaceable natural resources on public lands. The Wildlife Conservation Law was passed in 1947 for the purpose of acquiring and restoring wildlife habitat and recreation lands. Several single-purpose state agencies were created in the 1960s and 1970s to manage land, water, and

5. Cal. Fish & Game Code § 2052 (West 1995).

6. David B. Robertson & Dennis R. Judd, *The Development of American Public Policy, The Structure of Policy Restraint* 346, 373 (1989).

wildlife resources, including the San Francisco Bay Conservation and Development Commission in 1965 and the California Coastal Commission in 1976.⁷

In 1968, the California legislature authorized the Department of Fish and Game (DFG) to acquire habitat specifically to protect rare species; this just two years after the federal Endangered Species Preservation Act of 1966 included such provisions. The California Endangered Species Act of 1970 was the first state law to prohibit the importation, take, possession, and sale of rare and endangered wildlife.⁸ This state Act was stricter than the then existing federal law with its "taking" restrictions on killing, trapping, collecting, and harming individuals of an endangered species.⁹

State action continued to parallel federal policy with passage of the 1970 California Species Preservation Act. The law directed the Department of Fish and Game to develop criteria for determining threats or endangerment to species, to inventory all threatened fish and wildlife, and to report periodically on the status of those species. In 1971, the first group of 43 animals were declared rare or endangered,¹⁰ only seven years after preparation of the first endangered species list—the so-called Redbook—by the U.S. Department of the Interior in 1964.¹¹

Other legislation designed, in whole or in part, to protect the state's imperiled species includes the California Environmental Quality Act (CEQA), enacted in 1970 "to ensure that the long-term protection of the environment shall be the guiding criterion in public decisions," and directing the state to "preserve for future generations representations of all plant and animal communities."¹² Modeled after the National Environmental Policy Act of 1969 (NEPA),¹³ CEQA requires that Environmental Impact Reports (EIRs) be prepared before local, regional, or state agencies can approve development projects.¹⁴ In 1983, specific definitions for rare and endangered plants and animals and language providing for their protection was added to CEQA.¹⁵

7. Cal. Assembly Office of Research, California 2000: Biological Ghettos, Major Issues in Land Conservation 3 (1991).

8. Cal. Dep't of Fish and Game, *supra* note 1, at 3.

9. Kathryn A. Kohm, *The Act's History and Framework*, in *Balancing on the Brink of Extinction, The Endangered Species Act and Lessons for the Future* 12 (Kathryn A. Kohm ed., 1991).

10. Cal. Dep't of Fish and Game, *supra* note 1, at 3.

11. Kohm, *supra* note 9, at 12-15.

12. Cal. St. Off. of Plan. and Res., CEQA: California Environmental Quality Act, Statutes and Guidelines 5 (1992).

13. National Environmental Policy Act of 1969, §101(a), 42 U.S.C. § 4331 (1988).

14. Cal. St. Off. of Plan. and Res., *supra* note 12, at 9.

15. *Id.* at 159.

California Environmental Quality Act documentation, involving more extensive environmental review requirements than those called for under NEPA, has become central to the assessment of development activities in the state. Impact statements triggered by CEQA must include a discussion of measures to mitigate adverse project impacts, including those that effect imperiled species. CEQA also has a more stringent public comment requirement than the National Environmental Policy Act. The federal endangered species listing process is categorically exempt from NEPA provisions, and, as a result, opportunities for public comment are limited. In addition, CEQA defined "rare and endangered" more broadly than the federal and state endangered species laws. CEQA does not restrict disclosure requirements to candidate or listed species; animals and plants that are even suspected of being rare or at risk must be considered in a CEQA Environmental Impact Report.¹⁶

The 1977 California Native Plant Protection Act (NPPA) helps to conserve native plants by requiring permits of those who would collect, transport, or sell such plants. Currently, FESA only regulates the taking of plants on federal land and on other lands when federal actions are involved, and only prohibits taking with "intent to reduce to possession"—that is, collecting, not habitat modification or destruction. In California, prohibitions against taking apply to plants on private as well as public lands; however, it should be noted that property owners are often afforded exceptions which serve to negate protection afforded plants in the state law.¹⁷

PUBLIC VALUES ON PRIVATE LAND

California was the site of the nation's first Habitat Conservation Plan (HCP), developed in the early 1980s to protect the endangered Mission blue butterfly on both public and private land on San Bruno Mountain, south of San Francisco. The San Bruno HCP became the federal model for reconciling conflicts on private property by providing a mechanism to allow for "incidental take" of threatened or endangered species in the course of development. "Incidental" is understood to mean that property owners can "take," that is destroy, some individuals of a listed species while carrying out otherwise lawful activities, if the majority of individuals of the species are protected in accordance with a conservation plan including appropriate mitigation measures. Convinced of the benefits of this model, Congress passed amendments to the federal

16. *Id.* at 160.

17. Thomas S. Reid & Taylor Peterson, *Laws for Rare Plant Conservation*, 22 *Fremontia* 22-23 (1993).

Endangered Species Act in 1982 that allow the United States Fish and Wildlife Service (USFWS) to issue incidental take permits under section 10(a) in situations where landowners have prepared satisfactory HCPs.¹⁸ Although HCPs have been frequently criticized because of their costs, their timeliness, and the uncertainties associated with their preparation, they remain the primary national model for resolution of conflicts over endangered species protection on private land.¹⁹

DOING THE RIGHT THING—THE CALIFORNIA ENDANGERED SPECIES ACT OF 1984 AND BEYOND

Many scholars believe that Congress did not understand the full economic and political ramifications of passage of the federal Endangered Species Act of 1973—until that law was used in 1978 to halt construction of the huge Tellico Dam project in Tennessee to save a little-known endangered fish.²⁰ Previously, the law was viewed as a largely symbolic gesture with few obvious costs.²¹ The California legislature enjoyed few such illusions when it passed the California Endangered Species Act of 1984, the provisions of which were designed to parallel those of the federal Act.²² Development of the state legislation was tempered by the well documented implementation history of the federal law, although real contention over the existing federal law had yet to peak. Negotiations over the Act ultimately involved conservationists, developers, business interests, and farmers.²³ Bowing to pressure from business interests, the proposed state Act provided an opportunity for more public comment in the petition listing process. Major differences between the state law and the existing federal law included decisions neither to protect invertebrates nor to use the federal regulatory definition of "harm" that prohibits the modification of habitat of imperiled species.²⁴ On the other hand, the new state law protected candidate species and plants on private lands, two assurances not found in federal law. In response to the Tellico Dam

18. KOHM, *supra* note 9, at 18-19.

19. See Timothy Beatley, *Habitat Conservation Planning: Endangered Species and Urban Growth* 9-12, 20-22 (1994).

20. See Oliver A. Houck, *The Endangered Species Act and its Implementation by the U.S. Departments of Interior and Commerce*, 64 U. Col. L. Rev. 296-307 (1993).

21. Richard Tobin, *The Expendable Future, U.S. Politics and the Protection of Biological Diversity* 27, 102, 104 (1990).

22. Kenneth A. Manaster & Daniel P. Selmi, *California Environmental Law and Land Use Practice*, Cumulative Supplement § 81.03 (Mark Wasserman & Katherine Hardy eds., Supp. 1994).

23. See generally Cone, *supra* note 3, at B3.

24. Personal communication, William Geyer, Geyer & Associates, Sacramento, participant in the development of the California Endangered Species Act of 1984 (Jan. 1995).

decision, *Tennessee Valley Authority v. Hill*, the legislature gave state agencies the opportunity to propose and to exercise alternatives to development projects that might adversely affect species. Despite substantive debate, "in the end it was a love-fest" remarked one industry representative. "We all thought appropriate trade-offs had been made and we were doing the right thing."²⁵

Just seven years after authorization of the California Endangered Species Act, the state's Resources Agency initiated a ground-breaking program, Natural Community Conservation Planning (NCCP), to promote a new approach to species and habitat protection in southern California. NCCP constitutes a paradigm shift from the existing federal practice of project-based, single species conservation actions, offering instead a regional multiple species, multiple habitat protection program.²⁶ With a front-loaded ecosystem planning approach, state agencies attempt to identify and conserve imperiled habitats and their resident species before those habitats become degraded by development—and species listings are required. In March 1993, the Department of Interior established federal interest in promoting NCCP by publishing a special 4(d) rule under the federal Act. That special rule permits landowners enrolled in the program to take the threatened California gnatcatcher if such take conducted within the context of NCCP.²⁷ Secretary of the Interior Bruce Babbitt directly endorsed the program, commenting:

The only effective way to protect endangered species is to plan ahead to conserve the ecosystems upon which they depend . . . This [NCCP] may become an example of what must be done across the country if we are to avoid the environmental and economic train wrecks we have seen in the last decade.²⁸

Two years later, Natural Community Conservation Planning boldly lurches forward despite inadequate funding, unexpected delays in implementing biological research, expected internecine quarrels between local stakeholders²⁹ and other parties, and a legal challenge to the listing

25. *Id.*

26. Cal. Dep't of Fish and Game & Cal. Resources Agency, Southern California Coastal Sage Scrub Natural Community Conservation Planning, Process Guidelines 1-2 (1993).

27. *Id.* at i-iii.

28. See generally Dep't of the Interior News Release, Gnatcatcher to be Listed as "Threatened;" Interior's Babbitt Promotes Regional Conservation Efforts (Mar. 25, 1993).

29. See generally *Multiple Species Plans: Science or Politics*, Endangered Habitats League Newsletter (Endangered Habitats League), Fall 1994, at 1-2; *Fish and Game Role in NCCP Plagued by Problems*, Endangered Habitats League Newsletter (Endangered Habitats League), Winter 1994, at 1-2.

of the gnatcatcher.³⁰ Despite these inevitable problems, many participants still believe that NCCP remains the best hope for constructive engagement where imperiled species conservation conflicts with resource use and development on public and private lands.

A CHASM BETWEEN INTENT AND RESULTS

California has always appeared to be a leader in its commitment to environmental protection. The state recently ranked among the top ten in a U.S. Department of Commerce study on environmental control expenditures.³¹ A 1987 Defenders of Wildlife study found that California spends five times more on endangered and other nongame species than does any other state, and it commits a greater portion of its total budget to the conservation of these resources than all other states save one.³² These statistics notwithstanding, while the 1991-1992 *Green Index* does rank California first among all states for environmental policies, it rates it nineteenth for environmental conditions.³³ The state's record is dimmer yet when expenditures and policies are evaluated relative to the success of protection of threatened and endangered species: where 54 percent of state listed animals and 75 percent of state listed plants are currently documented as declining.³⁴ It seems a yawning chasm separates policy intent and practical results.

With this background, the goals, structure, and protections of the California Endangered Species Act, and its relationship to the federal Endangered Species Act, can be considered in more detail to gain an understanding of the present system of biodiversity protection in the state. Understanding the limits of the two laws provides guidance that could contribute to narrowing the gap between intent and results.

FEDERAL AND STATE ENDANGERED SPECIES LAWS COMPARED

Operating as it does in the shadow of the federal Endangered Species Act, the California Endangered Species Act seems to many like a weak sister to the national law. Why is this so? In language and

30. Ralph Frammolino, *Two Sides Argue Case in Gnatcatcher*, Los Angeles Times, May 9, 1992, at B3.

31. Samuel P. Hays & Barbara P. Hays, *Beauty, Health and Permanence, Environmental Politics in the United States, 1955-1985*, at 4, 67-68, 73(1987).

32. Cal. Dep't of Fish and Game, *supra* note 1, at 11.

33. Tim Palmer, *California's Threatened Environment, Restoring the Dream 4* (Tim Palmer ed., 1993).

34. Cal. Dep't of Fish and Game, *supra* note 1, at 10.

structure, the two statutes share strengths that make them powerful mandates for species protection. But in interpretation and practice, the federal law emerges as the more powerful sibling. Not so different, however, are the welter of criticisms directed at the two Acts.

Comparable to the federal Act, the California Endangered Species Act is written in sweeping terms. It recognizes that "certain . . . species of fish, wildlife, and plants are in danger or threatened with extinction" because of factors such as "habitat destruction, adverse modification, or curtailment" or as a result of "over-exploitation, disease, predation, or other factors." CESA goes on to define such species as public goods to be held in trust for the people of California, declaring that "these species . . . are of ecological, educational, historical, recreational, esthetic, economic, and scientific value to the people of this state, and the conservation, protection, and enhancement of these species and their habitat is of statewide concern."³⁵ This language mirrors the findings and declarations made by Congress in FESA.³⁶

Despite the bold nature of the mandate, the California law differs in actual application from the federal Act. Historically, Congressional intent as it related to implementation of the federal Endangered Species Act has been substantively determined by judicial fiat. For example, in the case *Tennessee Valley Authority v. Hill*³⁷ the Supreme Court found that the plain intent of Congress was to prevent the demise of species "whatever the cost" and to give species priority over the "primary missions of federal agencies."³⁸ *Palila v. the Hawaii Department of Land and Natural Resources*³⁹ expanded coverage of the federal Act to preclude significant habitat modification on non-federal or private lands where it may harm a listed species.⁴⁰ In both cases, the primacy of the species protection mandate was affirmed, and in *Palila* it was expanded. No similar base of court decisions exists that interprets or clarifies the California Act in such a way.⁴¹ In essence, state species conservation mandates have become understood in practice, not in the courtroom.

An example of state and federal divergence in practice is in implementation of the word "conserve." The ESA declares that its purpose is "to provide a means whereby the ecosystems upon which threatened

35. Cal. Fish & Game Code § 2051 (West 1995).

36. Federal Endangered Species Act, 16 U.S.C. § 1531 (1985).

37. 437 U.S. 153 (1978).

38. *Id.* at 171, 185, 194.

39. 649 F. Supp. 1070 (D. Haw. 1986), *aff'd* on other gds., 852 F. 2d 1106 (9th Cir. 1988).

40. Robert Meltz, *Where the Wild Things are, the Endangered Species Act and Private Property*, 24 *Env. L.* 369 (1994).

41. Donald M. Kelly & Julianne B. D'Angelo, *Near Extinction: California's Protection of Endangered Species*, 10 *Cal. Reg. L. Rep.* 1-15 (Spring/Summer 1990).

and endangered species depend may be conserved" and "to provide a program for the conservation of such species." It defines "conserve" as "the use of all methods and procedures" that are necessary to bring species to the point at which the protections of the law are no longer necessary.⁴² California law seems to go further when it says that "it is state policy to conserve, protect, restore, and enhance . . . species and their habitats."⁴³

Despite this similarity in language, there have been dramatic differences in implementation of the terms "conserve," as well as "protect," "restore," and "enhance" under CESA and the federal Act.⁴⁴ At present, the state Act has no mandated statutory requirement for recovery planning actions that are so central to meeting federal Act goals. As a result, formal planning for the recovery of species, the most meaningful application of the word conserve, is rarely pursued under CESA. Description after description in the DFG's *Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants* (1992) shows that "currently no recovery plan" exists for individual species; although certain species such as the California condor and the bald eagle are jointly protected under FESA and CESA.

KEY PROCEDURAL REQUIREMENTS

Because the state Act lacks recovery planning requirements and the USFWS has been justly criticized for abdicating its recovery mandate, the centerpiece of both state and federal laws remains the listing process itself. Once a species is listed as threatened or endangered under either statute it receives protection that can limit public and private development projects that might adversely affect the species or its habitat. Under CESA, any "native" species of "bird, mammal, fish, amphibian, reptile, or plant" is considered "endangered" when it "is in serious danger of extinction throughout all or a significant part of its range" and "threatened" when it "is likely to become an endangered species in the foreseeable future."⁴⁵ These definitions echo those in the federal Act.⁴⁶ However, CESA alone protects "candidate species" during the 12 month period in which the listing petition is being considered.⁴⁷ With its emphasis on protection of individual species, often those on the very brink of extinction, the listing decision has a similar result under both

42. Federal Endangered Species Act, 16 U.S.C. § 1533 (1973).

43. Cal. Fish & Game Code § 2052 (West 1995).

44. Federal Endangered Species Act, 16 U.S.C. § 1533 (1973).

45. Cal. Fish & Game Code §§ 2062, 2067 (West 1995).

46. Federal Endangered Species Act, 16 U.S.C. § 1532.

47. Cal. Fish & Game Code § 2074.6 (West 1995).

statutes. State and federal government use the "hammer" of command and control regulation to achieve legislative intent, relying upon listing, deadlines for compliance, and detailed enforcement procedures and standards. While this practice has ensured high rates of compliance, albeit grudging by many landowners, the practice makes it more difficult to engineer creative solutions that could better serve to avoid collisions between conservation goals and economic activities.

Key provisions of both state and federal laws also stipulate that listings of species are to be based on scientific information. However, this requirement is more strongly stated in FESA, which declares that listings should be decided "solely on the basis of the best scientific and commercial information available." Only after listing can economic impacts be considered as part of designations of critical habitat.⁴⁸ The California statute declares that a species may be added to or removed from the list of threatened and endangered species only upon receipt of "sufficient scientific information" to show that a petition may be warranted.⁴⁹ Ostensibly, science is meant to depoliticize species listings. However, the process continues to be criticized both nationally and in California for being politically motivated, rather than biologically determined.⁵⁰ Critics of the Acts complain that many concerns related to human welfare are given short shrift.⁵¹

MAKING THE LISTING DECISION

California uses a quasi-judicial administrative structure to make listing determinations. The Fish and Game Commission (FGC) is responsible for establishment and maintenance of state lists of threatened and endangered species, addition to or removal of species from these lists, and for adjustment of the species' endangerment status.⁵² The role of the FGC can be considered quasi-judicial because it has wide discretion to make listing determinations similar to a judge's decision-making role in a courtroom.⁵³ Increasingly, however, the FGC has had difficulty fulfilling its mandate because of external pressures.⁵⁴ Almost every recent petition to list has become a political cat fight, as the FGC is

48. Federal Endangered Species Act, 16 U.S.C. § 1533.

49. Cal. Fish & Game Code § 2070 (West 1995).

50. Daniel J. Rohlf, *Six Biological Reasons Why the Endangered Species Act Doesn't Work—And What To Do About It*, 5 *Conservation Biology* 273, 275-77 (1991).

51. See generally Charles C. Mann & Mark L. Plummer, *The Butterfly Problem*, *The Atlantic*, Jan. 1992, at 47-70.

52. Cal. Fish & Game Code § 2070 (West 1995).

53. Donald M. Kelly & Julianne B. D'Angelo, *supra* note 41.

54. Little Hoover Comm'n, Report on California's Fish and Game Commission and Department of Fish and Game 1, 3 (1990).

actively lobbied and challenged by both environmentalists and industry.⁵⁵

Although the FGC has a constitutionally authorized structure that places it outside the executive branch of government, the Department of Fish and Game supports the listing responsibilities of the Commission by evaluating petitions. If the FGC accepts a petition and a species is granted candidate status, the DFG is responsible for evaluating the status of that species to determine if it warrants permanent protection.⁵⁶ However, because the FGC is not legally part of the state government's executive branch, it has not always been able to exercise administrative control over implementation of its actions by the DFG.⁵⁷ In contrast, at the federal level, the Secretaries of Interior or Commerce determine whether species are eligible for protection. They receive information from USFWS or the National Marine Fisheries Service (NMFS), agencies under their direct chain of command.⁵⁸

CONSULTATION FEDERAL TO FEDERAL, STATE TO STATE

One of the most important procedural requirements of the California Endangered Species Act is a consultation process akin to that of section 7 federal agency consultation under FESA, which requires that federal agencies determine whether a listed species will be affected by a proposed project. If so found, the agency must consult with the USFWS or NMFS to minimize or to avoid adverse impacts on that species from the project.⁵⁹ Mandatory consultation under CESA is triggered when a state lead agency plans to authorize, fund, or carry out an action that may jeopardize the continued existence of a state listed species; may result in destruction or adverse modification of habitat essential to that species; or may cause a taking of a threatened or endangered species.⁶⁰ Informal consultation is available to regional or local agencies, and to all other applicants, but those consultations do not expressly result in a permit.

Consultation under CESA is closely linked to the definitions of CEQA and to preparation of EIRs. For example, CESA uses California Environmental Quality Act definitions of lead agency and action. A lead agency is an agency that has principal responsibility for carrying out a

55. See generally Todd Woody, *Debating Delisting*, *The Recorder*, June 11, 1993.

56. Tara L. Mueller, *Guide to The Federal and California Endangered Species Laws* 82-83 (1994).

57. Little Hoover Comm'n, *supra* note 54, at 2.

58. 16 U.S.C. § 1533.

59. 16 U.S.C. § 1536.

60. Cal. Fish & Game Code § 2090 (West 1995).

project that may have significant environmental effect. An action is defined as a direct activity of the agency. A CEQA Environmental Impact Report is prepared when such an action is likely to have significant environmental impact, including deleterious effects on rare, threatened, or endangered species.⁶¹

Upon formal consultation, the Department of Fish and Game must issue a written opinion describing whether a proposed project will jeopardize a listed species. If jeopardy is likely to result from a proposed project, the DFG must specify "reasonable and prudent" alternatives to the action. Those alternatives must be incorporated into project specifications, unless "specific economic, social, or other conditions make the alternatives infeasible."⁶² The lead state agency can still proceed with the project if it includes "reasonable mitigation . . . to minimize the adverse impacts of the project" on protected species or, if, according to cost-benefit analysis, project benefits as originally proposed outweigh the benefits of developing the project using the reasonable and prudent alternatives suggested by DFG.⁶³ However, non-state agencies, such as local planning departments, cannot make final decisions or override DFG decisions because they are not granted the same latitude provided to state agencies in the formal consultation process.

Escape-hatch phrases and terms, including "reasonable," allow implementation of CESA to be informed in part by economic and social consequences. Congress also granted similar, albeit narrower, exemptions from consultation for federal agencies in its 1978 amendments to FESA. For example, the so-called "God squad" committee can exempt a project if it is determined that no "reasonable" or "prudent" alternatives exist to the project as proposed. It can also decide to exempt a project if the benefits of the project outweigh the costs.⁶⁴ Neither federal⁶⁵ nor California state agencies⁶⁶ always choose to exercise the exemptions provided for as part of formal consultation. Instead, many informal consultations are initiated with DFG and USFWS staff that often result in resolution of endangered species concerns before formal consultation is necessary.

Many observers believe that successful implementation of CESA has been hampered by a failure to institutionalize the consultation process as an automatic response to potential endangered species conflicts, as is more generally the case among federal agencies. Lead state

61. Mueller, *supra* note 56, at 86-87.

62. Cal. Fish & Game Code § 2091 (West 1995).

63. *Id.* § 2092.

64. 16 U.S.C. § 1536.

65. Rohlf, *supra* note 50, at 273-81.

66. Mueller, *supra* note 56, at 89.

agencies often fail to make species protection a priority and do not always consult with DFG when projects have an impact on threatened or endangered organisms.⁶⁷ Despite the consultation requirement's importance, insufficient legal and administrative resources, among other factors, have prevented the DFG from commenting on projects that might pose significant environmental impacts.⁶⁸

PROHIBITIONS AGAINST TAKE ON PRIVATE LANDS

The major procedural requirement of the California Endangered Species Act is the prohibition against take of threatened and endangered species. Similar to FESA, the state law prohibits any person from taking or attempting to take a species that is listed as threatened or endangered. As noted, state prohibitions against take apply to candidate as well as to formally listed species. However, the definition of take to hunt, pursue, catch, capture or kill, or attempt any of those acts, is far more limited under CESA.⁶⁹ Section 9 of the federal Act broadly defines "take," to include acts that "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect" on public or private lands. After *Palila*, the United States Fish and Wildlife Service expanded its regulatory definition of "harm" in section 9 to include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering.⁷⁰ Notwithstanding CESA's more limited definition, the DFG has also interpreted take to prohibit actions that destroy or modify essential habitat of species,⁷¹ although there is no general agreement about whether such actions should be considered criminal take.⁷²

The California Endangered Species Act, as well as FESA, can make exceptions to the prohibitions against take. CESA management authorizations, or "section 2081 permits," in the vernacular, are issued to individuals or institutions to take candidate, threatened, or endangered species if it can be shown that a proposed take is for "scientific, educational or management purposes." These permits are the CESA equivalent of FESA section 10(a) permits that allow for incidental take if development projects are carried out in tandem with a Habitat Conservation

67. Cal. Dep't of Fish and Game, *supra* note 1, at 11.

68. Donald M. Kelly & Julianne B. D'Angelo, *supra* note 41.

69. Cal. Fish & Game Code § 2080 (West 1995).

70. Final Redefinition of Harm, 46 Federal Register 54,748 (1981) (codified at 50 CFR § 17.3).

71. Mueller, *supra* note 56, at 90.

72. California State Legislature, Legislative Counsel's Opinion, Senate Daily Journal, Aug. 11, 1994, at 6129.

Plan. The DFG relies heavily on these management authorizations to identify the responsibilities of project sponsors for mitigation of adverse impacts on species.⁷³ Mitigation can also be mandated under CEQA in an EIR; although the perception exists that mitigation activities are rarely monitored, thus success or failure cannot be readily evaluated.

Management authorizations are facing increasingly frequent challenges from environmentalists because CESA does not clearly delineate the extent of DFG authority to issue 2081 permits for incidental take. In the case *San Bernardino Audubon Society v. City of Moreno Valley et al.*,⁷⁴ one such permit was scrutinized for this reason.⁷⁵ A section 2081 permit granted the City of Moreno Valley authority to allow take of the endangered Stephen's kangaroo rat during construction of a housing development. The plaintiffs claimed that the project for which the permit was issued was not a "management purpose" under the terms of CESA and that the DFG illegally delegated its permit authority to the city. The environmental community contended that the management purposes language of CESA was never intended to include development of private land, such as would occur in this case.⁷⁶ The court eventually upheld the ability of the California Department of Fish and Game to issue management authorizations that allow for incidental take, but the challenge still simmers. State management authorizations and section 10(a) federal permits are prey to complaints from the other side as well. Industry criticism of the federal HCP process points to exhausting delays in permit issuance and uncertainty about the timing and extent of allowable incidental take.⁷⁷ Environmentalists believe that Habitat Conservation Planning planning takes place in a "largely ad hoc fashion," the result of which is "a gradual attrition of habitat to a baseline of [species] survival."⁷⁸ Similar charges have been leveled against permitting under CESA section 2081.

DIRECT PROBLEMS WITH CESA IMPLEMENTATION

Similarities and differences between the federal and state Acts set the stage for furor on the front lines despite the fact that the legislative language of the laws leaves much room for negotiation, and land

73. Mueller, *supra* note 56, at 91.

74. *San Bernardino Audubon Society v. City of Moreno Valley et al.*, Riverside County Super. Ct., Case No. 218310 (1993).

75. Mueller, *supra* note 56, at 91.

76. Cal. Fish & Game Code § 2081 (West 1995).

77. Robert Thornton, *Searching for Consensus and Predictability: Habitat Conservation Planning Under the Endangered Species Act of 1973*, 21 *Envtl. L.* 605-66 (1991).

78. Houck, *supra* note 20.

developers in California are conditioned to levels of project exactions as demanding as anywhere in the nation. Unfortunately, implementation of state endangered species policy has serious flaws including regulatory scope and coherence, and institutional capacity to implement that hamper its effectiveness.⁷⁹ As such, implementation has become a hot zone of imperiled species controversy on a number of fronts, many quite clearly exacerbating each other. Key areas of contention include:

Petition and listing of individual species: Everyone recognizes that the listing process is the statutory provision that initiates and provides the most substantive protection of species. When the listing trigger is pulled, so begins a process of formal and informal consultation, review, and permitting that can forestall or limit development. It should come as no surprise that listing has become a bloody battleground for competing priorities. Business interests, local government, and landowners clamor for far greater consideration of economic and social factors in listing decisions. Environmentalists prefer that listings remain wholly driven by biological information. These arguments do little to quell the virulent criticism of both federal and state Acts which is driven by single species listings that fail to immunize property holders against future species listings on the same land.⁸⁰ In addition, significant time, money, and energy has been expended to list species that have very little chance of recovery or cannot contribute to the goal of broader ecosystem conservation. Environmentalists lament that single species protection fails to stanch continued ecosystem losses. Developers plead for "one stop shopping" in environmental reviews and permitting. The single species focus fails both constituencies.

The dilemma of incidental take on private lands: Incidental take is of special concern to many business interests, especially as it relates to section 2081 management authorizations. Farming interests are frustrated because permits may be required for activities that they consider to be "temporary" or "cyclical," such as allowing lands to lie fallow as part of normal crop rotation.⁸¹ Other industry groups complain that they should not have to seek section 2081 permits when conducting routine operations and maintenance activities on private lands, or for activities that have already been permitted (e.g. under a timber harvest plan).⁸² Additional problems spring from the way in which incidental take permits are issued. Historically, section 10(a) permits under FESA and state 2081

79. Deborah B. Jensen, et al., *In Our Own Hands, a Strategy for Conserving Biological Diversity in California*, 2 Cal. Pol'y Seminar Brief 2 (1990).

80. Letters from Helen Roland, Cal. State Library, to Mary Shallenberger, consultant to the Cal. Senate Agriculture and Water Comm. 1-3 (July 27, 28, 1994) (on file with author).

81. *Id.*

82. *Id.*

permits under CESA have been issued to protect individual species at the project level. Such an approach typically has been inadequate to slow losses of species and populations, and often sparks expensive, protracted legal battles as individual landowners fight regulatory prohibitions. The debate over incidental take masks a larger problem: state listing of imperiled species guarantees neither appropriate mitigation nor recovery planning. As a result, listed species by and large never really recover, hence prohibitions against take of species are never lifted.

Confusing and contradictory implementation: Critics complain that species protection efforts are not uniform, not certain, not timely, not cost-effective, and, most disappointingly, fail to protect the targeted resources.⁸³ A source of repeated complaints is the horizontal redundancy in the state species conservation process. At the present time, a number of state and local agencies are responsible for protection of threatened and endangered species as either a part of their direct mandate or when their sponsorship of projects may adversely impact species.⁸⁴ State agency mandates often overlap with independent federal actions that regulate the same resources for the same public purposes. And, agencies at all levels frequently pursue independent single-purpose plans without clear conservation or development strategies.⁸⁵

Redundancy is exacerbated when thresholds and triggers in the CEQA and CESA statutes fail to mesh. CEQA uses a low threshold test to trigger preparation of an EIR—if a "fair argument" can be made that a project will cause environmental harm, an EIR must be prepared. The low CEQA threshold is more difficult to apply to CESA. In theory, the CESA consultation process should work in concert with CEQA environmental review. In practice, problems arise because the threshold used in CEQA to determine "significant effect" is lower than the standard used to determine "jeopardy" under CESA. The lower CEQA threshold would seem to mean endangered species should be explicitly treated in the process of environmental review without having to meet the stricter standards of a jeopardy finding. Yet, CEQA does not impose special obligations on a lead agency to guarantee the continued existence of threatened or endangered species at risk from a proposed project. It is the jeopardy provision of CESA that serves to establish the more substantive obligations to conserve species and to focus CEQA analysis requirements.⁸⁶ Consultation and environmental review procedures therefore

83. *Id.*

84. Mueller, *supra* note 56, at 88-89.

85. Bruce Jennings et al., *Blueprint for Our Future: Safeguarding California's Environment* 17 (Rebecca LaVally ed., 1991).

86. Stephen L. Kostka & Michael H. Zischke, *2 Practice Under the California Environmental Quality Act 809-10* (Craig Scott & Mary Gerber eds., 1993).

occur separately in attempts to satisfy endangered species concerns; thus projects must pass through both review procedures, thereby duplicating efforts.

The CEQA-CESA discordance can be found elsewhere. First, the purpose and results of EIR processes are not the same as the goals of species protection. An Environmental Impact Report informs the public and responsible agencies of the environmental consequences of their decisions before those decisions are made. Species protection, as dictated by law, is not merely a study process akin to CEQA, but is an active commitment to substantive protection of organisms against adverse impacts that may result from proposed development or other activities. Second, while CEQA does require mitigation for the loss of sensitive species and habitats, it is a dull knife when it comes to protecting essential habitat that may be affected by a project. For example, the use of habitat by many species is dynamic and often seasonal, and temporarily unoccupied but otherwise suitable habitat may be critical to the persistence of species.⁸⁷ Because certain habitat is temporarily unoccupied by rare, threatened, or endangered species, substantial losses of truly important habitat could be judged mitigable under CEQA. Third, CESA specifies criminal penalties for violations of take provisions, while CEQA violations result in civil liabilities. Criminal prosecution can be a real deterrent; fines, in contrast, are viewed by many who can afford them as just one more cost of doing business.

A good deal of mistrust between the public and regulators has developed over time because of the poor performance history of state lead agencies in protection of imperiled species. Currently, most project modifications are made as a result of informal consultations. Jeopardy opinions are rarely issued.⁸⁸ On face value, this could indicate that project modifications are commonly made with a minimum of conflict and without bringing the full regulatory weight of a jeopardy opinion to bear. However, the consultation process often militates against truly meaningful action to protect imperiled species. One environmentalist has commented, "mitigations are rarely monitored or evaluated for effectiveness"⁸⁹—indeed, good intentions rarely serve species well.

The relationship of the state Act to FESA: Some critics charge that the parallel goals, structures, and protections of the federal and state endangered species laws contribute to regulatory redundancies. Many wish to see more authority and funds directly delegated to the state from

87. Dennis D. Murphy & Kathy M. Rehm, *Unoccupied Habitats and Endangered Species Protection*, 7 *Endangered Species Update* 10 (1990).

88. Mueller, *supra* note 56, at 87.

89. Personal communication, John McCaull, National Audubon Society, participant in the California Endangered Species Act reform negotiations, Sacramento, Ca. (Dec. 1994).

the federal government. Others advocate elimination of the state Act altogether because it operates like a weak sister to FESA. While there is general agreement that CESA is underfunded, proponents of the state Act feel it does protect the state's own unique biota. At a minimum, seemingly everyone agrees that the activities of the primary implementing agencies at federal and state levels need to be reconciled.⁹⁰

Common law and practice make protection of imperiled plants a low priority: Two hundred and thirteen native plants⁹¹ in California are threatened or endangered and the California Native Plant Society estimates that an additional 1,746 plant species warrant some level of protection.⁹² Despite obvious threats to the survival of so many species, plants are not recognized as public trust resources by the state. It is understood that the government has the right and duty to protect and preserve public trust resources such as wildlife under common law. Plants by contrast, are understood to belong to the landowner. As a result, government traditionally has made few claims regulating their conservation. Common law differences aside, it makes very little scientific sense to treat plants differently than animals; if anything, plants are more important to ecosystem health and integrity.

Adding confusion to conservation efforts that target plants is the unclear relationship between the California Endangered Species Act of 1984 and the Native Plant Protection Act of 1977. Because NPPA was never amended by CESA, there is disagreement about whether the more stringent provisions against take of species in CESA supersede the provisions of NPPA, which grant more exemptions.⁹³ Such exemptions are the most significant challenge to plant protection. The Native Plant Protection Act, for example, provides exemptions for activities, such as timber operations conducted under an approved timber management plan and certain mining operations.⁹⁴

Other problems occur because "salvage," that is, the translocation of imperiled plants, has been pursued as a primary strategy to mitigate adverse effects on plants from development activities. Unfortunately, the rate of successful salvage under NPPA protection is very low because, among other reasons, the timing of salvage tends to be driven by development timetables rather than botanical imperatives.⁹⁵

No incentives exist in CESA to promote conservation: One of

90. Cal. Research Bureau, Cal. State Library, Minutes of the California Endangered Species Act Work Group Meeting 2, Apr. 29, 1994.

91. Cal. Dep't of Fish and Game, *supra* note 1, at 1.

92. Reid & Peterson, *supra* note 17, at 20-26.

93. Mueller, *supra* note 56, at 94.

94. *Id.* at 96.

95. Reid & Peterson, *supra* note 17, at 20-23.

the biggest drawbacks of traditional command and control government regulation is that positive incentives for compliance do not exist in the structure of the law. The heart of the problem is that regulation can leave property holders with little or no opportunity to reap economic benefit from their land. CESA, for instance, provides no incentives to farmers to keep their land in a fallow state with natural vegetation that could serve as habitat for imperiled species. If a threatened or endangered species were to occupy that fallow land, permits would be required for further operations. Since leaving land in an undisturbed state can result in economic losses, land is often cleared just to avoid the problem. These days resistance to environmental regulation of this sort no longer simply takes the form of passive noncompliance. Simmering and ready to boil are grassroots challenges to environmental regulation that invoke the United States Constitution's Fifth Amendment prohibitions against the taking of private property without just compensation.⁹⁶

Insufficient, inconsistent funding: Current Department of Fish and Game funding is insufficient to meet its growing mandate. In fiscal year 1992-1993, for example, the department received just 2.5 percent of its revenue from General Fund taxes while a majority of its support came from no fewer than 40 other sources, many tied to specific programs. For example, California's sport license sales and the state's share of federal taxes on hunting and fishing licenses and equipment account for 64 percent of the DFG budget; but this money can only be used for managing and conserving game species.⁹⁷ A review of the Governor's budget for the period FY1992-95 shows funding is stagnant for the Natural Heritage, Wildlife Management, and Environmental Services divisions of the DFG, the divisions that have primary responsibility for implementing non-game programs including endangered species.⁹⁸ Although a variety of direct legislative acts and bond measures have helped to pay for endangered species protection, these revenues have been highly uncertain and subject to the vicissitudes of overall economic conditions in the state and the nation as a whole. Sources include monies from the Environmental Protection Fund, received from the sale of personalized license plates; funds from the Tobacco Tax and Health Protection Act, generated by taxes on tobacco products; and monies from cooperative agreements with the United States Fish and Wildlife Service, to manage those species that occur in California and that are jointly listed by the state and federal governments.⁹⁹ A review of the Governor's state

96. Meltz, *supra* note 40.

97. California Department of Fish and Game, Combined Ann. Rep. 1, 69 (1993).

98. Governor's Budget 1994-95, Submitted by Pete Wilson, Governor of California, R54 (1994).

99. Cal. Dep't of Fish and Game, *supra* note 1, at 4-5.

budget shows Environmental License Plate Funds, for a representative example, declined in FY93-94 and then increased in FY94-95, but to a lower level than in earlier years. Similarly, there were only small increases in tobacco taxes and Federal Trust Fund revenues. This uncertainty makes it difficult for DFG to plan for the long-term.

Institutional capacity and coherence: While many problems faced by the Department of Fish and Game are rooted in factors beyond the control of the institution, Jensen et. al. (1990) study of California biodiversity policy contends other impediments to effective conservation are institutional.¹⁰⁰ Those impediments might fairly be described as limited institutional capacity and lack of institutional coherence. Institutional capacity is defined as the ability of an agency to entertain a variety of responses to social and economic problems.¹⁰¹ Contributing to short-comings at the Department of Fish and Game is that not enough middle management capacity exists to implement multidisciplinary environmental programs, either from the scientific or from the planning standpoint. The 1990 Little Hoover Commission study of the DFG noted that "the department cannot provide the required level of . . . timely expertise and research consistent with the requirements of its mandate, especially with respect to staff support of the FGC," and noted that "DFG's response to the obvious training needs of its regional staff was insufficient." At that time, the Commission noted that this was partially due to a "late-developing science."¹⁰²

If anything, this situation has worsened, and nowhere is a lack of DFG staff capacity so manifest as in threatened and endangered species program implementation. Previously, advances in conservation biology and landscape ecology and cutting-edge tools like geographic information systems could be considered theories or yet untested methods with fair promise for future application. Agency personnel were not required to incorporate these tools into their work because the tools had had limited application in the field. Now, both theory and application are outpacing the educational training of agency biologists, geographers, and planners, hence their capacity to meet complex, multidisciplinary conservation challenges. A lack of staff training and expertise increasingly hampers implementation of key environmental programs, forcing decision-makers to seek outside assistance in formulating innovative species protection policy or representing California's interests in federal dialogues and negotiations. For example, the state employed a five member scientific review panel of outside experts to develop

100. Jensen et al., *supra* note 79.

101. Robertson & Judd, *supra* note 6, at 9.

102. Little Hoover Comm'n, *supra* note 54, at 33-34.

interim conservation guidelines for the coastal sage scrub natural community in southern California, a key component of regional and local planning for the NCCP program. Agency staff have also been viewed by many as unable to hold sway over scientific hired guns in the long-running Bay-Delta conflict, which concerned water allocations for agriculture, urban uses, and imperiled aquatic species—a circumstance that stalled resolution of key issues.¹⁰³ Fish and Game Commissioners routinely feel that resources and support are not available from the DFG during their listing deliberations.¹⁰⁴

Institutional coherence is defined as the skill with which an agency aligns its efforts in a consistent policy direction.¹⁰⁵ The Fish and Game Department is saddled with the frankly unmanageable responsibility of solving the myriad problems created by a department in conflict with itself. Some divisions have a mandate to preserve species and their habitats, while others issue licenses to hunt and fish. The five geographic regions of the department have also been criticized for not adhering to central office guidelines and directives, and for implementing regulations and guidelines inconsistently.¹⁰⁶ Coherence problems are further exacerbated because protection of imperiled species is fragmented among divisions of DFG including Natural Heritage, Environmental Services, Inland Fisheries, and Bay and Delta.

A white hole of information exists about imperiled species: The Department of Fish and Game uses the Natural Diversity Data Base (NDDDB) as its primary means of tracking California's threatened and endangered species, and describing the natural communities that these species depend upon. Data on imperiled species and natural communities are collected, classified, and entered into a data management system. Using this information, departmental biologists rank species according to relative rarity and type of threat to survival and create lists and base inventories of birds, mammals, fish, reptiles, amphibians, and plants that may become candidates for protection in the future.¹⁰⁷ However, the utility of the NDDDB as a conservation tool has been widely criticized for several reasons.

First, on-site observation of species endangerment has been sporadic and much of the information in the database is quite old. Because independent field scientists collect the data the DFG has limited control over its accuracy. As a result, a new species list from a specific site may not correspond well with written descriptions in the NDDDB,

103. *Id.* at 34.

104. *Id.* at 20.

105. Robertson & Judd, *supra* note 6, at 10.

106. Little Hoover Comm'n, *supra* note 54, at 33.

107. Cal. Dep't of Fish and Game, *supra* note 1, at 1.

hence descriptions can be misleading. Second, a glaring white hole of data exists for many species, particularly from habitats on private land where 50 percent of threatened and endangered species are found.¹⁰⁸ When a petition to list is filed, there is often scant information available to assist decision-makers. Third, the spatial scale of mapped data on species occurrences, which are conveyed at a cross-grained level, causes very concrete problems when used to determine whether endangered species occupy a project area for purposes of preparation of a CEQA-mandated EIR. At best, information conveyed from within a circle a mile in diameter can only provide the most limited guidance to planners who must make land-use decisions on a much finer scale. The general lack of reliable data at appropriate spatial scales for management allows public agencies to exercise wide discretion to classify projects into categories exempt from law. Moreover, insufficient data also presents a problem for landowners who bear a significant portion of the costs of environmental studies required when they seek project approvals.

Conservation priorities on public lands: The record indicates that current acquisition and management of federal- and state-owned lands is failing to protect imperiled species. While these lands constitute almost half of California's geographic area, only four percent of all public and private lands in the state are designated as biological preserves or natural reserves. A majority of these lands are located at high elevations; there is scant protection for degraded low elevation habitats including native grasslands, wetlands, and riparian areas.¹⁰⁹ Most of the public lands in the state are managed for multiple uses or sustained yields that often contribute to degradation of natural habitat. The Bureau of Land Management, for example, is the second largest landowner in the state. Its 17 million acres are home to 800 mammal, bird, reptile, fish, and amphibian species, including federally listed threatened and endangered species. Yet only 1.1 million acres of this land receives special recognition as "areas of critical environmental concern" or "reserve natural areas." State forest lands, state parks, and property owned by the State Lands Commission are also managed for multiple uses. Only a small percentage of those lands are reserved for public trust uses that include wildlife protection.¹¹⁰ The Department of Fish and Game has acquired 522,000 acres of wetlands and other reserves including wildlife areas, ecological reserves, and public access lands, but its acquisition strategy has been

108. John. McKinney et al., *Economic Incentives to Preserve Endangered Species Habitat and Biodiversity on Private Lands*, in *Building Economic Incentives Into the Endangered Species Act 2* (Wendy E. Hudson ed., 2d ed. 1993).

109. Gerald H. Meral et al., *The Planning and Conservation League Fund, The Twenty First Century Study, Preserving California's Natural and Human Environment* 15, 18 (1991).

110. Cal. State Assembly Office of Research, *supra* note 7, at 14-15.

described as an uncoordinated "get-what-you-can-approach" that does not lend itself to achieving coordinated conservation goals.¹¹¹

Local government participation: Although species protection is almost exclusively a federal and state mandate, the locus of control over implementation lies directly with counties, special districts, and local planning departments. For this reason, Tarlock (1993) believes that the second generation of environmental challenges, including those associated with biodiversity protection, places new responsibilities squarely on the shoulders of local government.¹¹² To protect species, local government must deflect harmful activities from sensitive lands and facilitate intensive site management of reserves. Unfortunately, there are substantial constraints on the ability of local government to actively promote biodiversity.

First and foremost, local and regional governments are revenue driven when establishing planning priorities. Since the imposition in 1978 of California's Proposition 13, which constrains property tax revenues, local and regional agencies have been starved for funds for facilities and services. As a result, cities and counties fight for revenue-producing developments to enrich the local tax base. On top of their wish list are mini-malls and McDonald's, sources of direct taxes. Buried well below are open-space and habitat reserves, sources of no revenue. A second major constraint to action is that the jurisdictional boundaries of localities often do not relate to the distributions of species or the habitats that support them. Successful biodiversity protection is regional, not local in breadth. Unfortunately, where authorities are regional, they are often fragmented. For example, independent regional agencies such as air pollution control districts, water quality control boards, and transportation planning agencies have not always been able to reconcile conflicts between their policy goals.¹¹³

RECOMMENDATIONS FOR IMPROVING THE CALIFORNIA ENDANGERED SPECIES ACT

If California's fragile and beleaguered natural heritage is to withstand the pressures that are accompanying the state's spiraling human population growth, more effective measures must be taken to protect the environment, while somehow accommodating that growth. Public and private institutions in California are uniquely positioned to influence the character of that effort. Yet, at the same time, powerful

111. *Id.* at 22-24.

112. A. Dan Tarlock, *Local Government Protection of Biodiversity: What is its Niche?*, 60 U. Chicago. L. Rev 555, 556 (1991).

113. Jennings et al., *supra* note 85, at 21-22.

traditions and interest groups resist innovation unless it is made within existing bureaucratic arrangements. This problem must be understood and incorporated into recommendations for change—change that balances the physics of innovation and inertia. In the recommendations that follow are a number of concepts that are embodied in or encouraged by the state's fledgling Natural Community Conservation Planning program. None, however, have been formally institutionalized in CESA.

Establish listing priorities that have the greatest potential to promote the survival of the most species with the least governmental intervention. It is probably reasonable, if not popular, to suggest that listing determinations be based on a priority ranking scheme that assures that listing is solely a biological decision. Typical species listing focuses on the rarity of organisms. While rarity is generally well-correlated with vulnerability, it can be a poor indicator of the ecological role or importance of specific species. Species should be ranked for listing purposes based upon their suitability as indicators of the overall integrity and/or health of complex ecosystems. Two types of species should receive special attention. First are keystone species, ecologically significant species whose roles in ecosystem function are so critical that their losses would precipitate a cascade of additional extinctions, even ecosystem collapse. Second are umbrella species, species whose successful conservation would serve to confer protection to numerous other species within the same habitats. The latter species necessarily will be wide-ranging and have greater habitat demands than most other species.¹¹⁴ The protections of candidacy status could generally be limited to species that fall within either of these two broad categories, since both encourage planning at the ecosystem level and should reduce the need to list multiple species from the same habitats.

Such a defensible ranking system would offer the best chance of addressing broader conservation goals and contribute to changing the perception by some that scarce resources are being squandered to protect species with little chance of survival or that have little significance to overall ecosystem health.

Establish standards for neutral scientific peer review of listing decisions. Many calls for peer review are not calls for timely, quality science but are attempts to forestall a process that already suffers from countless delays. Fortunately, many participants in CESA reform are supportive of peer review as a means to improve the availability and quality of scientific information used to implement the law. The best way

114. Paul R. Ehrlich & Dennis D. Murphy, *Monitoring Populations on Remnants of Native Vegetation*, in *Nature Conservation: The Role of Remnants of Native Vegetation* 201-20 (Dennis A. Saunders ed., 1987).

to achieve this goal would be for the state to create a rotating panel of outside scientists to support the FGC and agency staff in their deliberations over candidate species. The panel would be involved in review of listing petitions and be able to call upon the expertise of leading taxonomists, ecologists, and other specialists who can provide unique insights into the technical scientific aspects of species and ecosystems and their conservation status. With appropriate financial support and marketing, an appointment to the panel could become a coveted scientific honor because of the opportunity to participate in the development of biodiversity policy in California. Neutral scientific review could help depoliticize decision-making and provide the FGC with sorely needed expertise.

Use thresholds to determine acceptable levels of incidental take. Current levels of endangerment should be evaluated at the time of listing to determine if species can sustain further losses of individuals or whether they have declined to some threshold level below which no further losses can be tolerated. Future levels of allowable incidental take can be identified on the basis of this evaluation. The evaluation criteria could take many forms. For example, if the current geographic distribution of an organism is less than 25 percent of its assumed original distribution, then the species might be deemed endangered and take would have to be greatly restricted. If a species remains in 50 percent of its former range, it might be considered threatened, and levels of allowable take could be greater. Other thresholds used to evaluate the degree of species endangerment might include comparisons of historic and current numbers of demographic units (that is, independent populations or metapopulations), or identification of specific floor population levels to be sustained through set time periods. In both cases, biologists would have to determine if imperiled species are at risk of local extirpation not only because of reduced population size or limited geographic distribution, but also due to restriction of their remnant populations on small, isolated habitat patches. Such a strategy would allow departmental biologists to customize section 2081 management authorizations to respond to current biological conditions. Property owners benefit because, in many cases, significant levels of incidental take could be permitted.

One stop permitting would allow developers, landowners, or businesses to receive simultaneous permit approvals at all levels of government. One method to achieve this result is to designate a single "lead agency" to serve all participants involved in review and consultation. The lead agency should probably be one of the state's resources departments; a regional governmental entity, such as the Association of Bay Area Governments, might coordinate the process where geographically appropriate. That designated lead agency should collect all agency

comments; direct survey research, and land management studies; prepare environmental assessments and impact statements; develop mitigation strategies; and organize public hearings. A single comprehensive EIR would then be produced to ensure compliance with all relevant federal and state laws.

Another approach would be for agencies to act in concert to resolve environmental problems based on negotiated Memoranda of Understanding (MOU). Such MOUs would include all governmental bodies, including federal agencies, that share responsibility for species protection. Notwithstanding whether a single lead agency assumes leadership responsibilities or multiple agencies act together, MOUs would define the scope of the mission and determine areas of responsibility.

A similar model already exists between the United States Fish and Wildlife Service, the DFG, private developers, and local and regional planning entities in San Diego County in the context of NCCP planning. The USFWS, DFG, and 12 other regional and local governmental partners are engaged in a joint conservation planning exercise stimulated by the federal listing of the California gnatcatcher, and designed to obviate the need to confer formal protection to additional species from the same natural community. The agencies exchange scientific, economic, and planning information, and cooperatively review all documentation related to the program. When the process is completed, the agencies have agreed to issue blanket, simultaneous approvals of section 10(a) federal and section 2081 state permits for take of listed species based on MOUs. Local government permitting is then guided by the terms and conditions of these approvals.¹¹⁵

The designated "lead" agency or agencies do not require additional expertise to fulfill these responsibilities. Rather, the intent of the recommendation is to achieve administrative streamlining and process clarification. This type of participatory management model allows for synthesis of activities and concerns into a more coherent whole.

In the MOU model, more comprehensive environmental assessment and development of mitigation is shifted to the planning stage, reducing the reactivity inherent in the current approach to species protection. Additionally, joint planning exercises of this type make conservation planning processes more timely and uniform, eliminating vertical and horizontal redundancies.

Ensure improved protection of plants by addressing such issues as ecosystem planning, taking provisions, and salvage requirements. A call for stronger prohibitions against the take of individual species under CESA is probably not realistic given the current dark hue of the political

115. Cal. Dep.'t of Fish and Game, *supra* note 26, at 5, 18, 18a (1993).

mood ring. Still, there is no scientific justification for providing plants with less protection than animals. Ecosystem planning of the NCCP type provides the best opportunity to integrate plants into regional conservation efforts. Because vegetation mapping is so crucial to NCCP, plants are brought into the forefront of planning. Explicit recognition of sensitive plant species in subregional conservation planning should be required. A trade-off that might encourage better compliance with the law is decriminalization for take of plants, with concomitant narrowing of the circumstances under which salvage is recognized as acceptable mitigation. For example, salvage should only be acceptable as mitigation in section 2081 permitting if it is driven by biological rather than construction timetables.

Meaningful recovery planning should facilitate removal of species from the threatened and endangered list. Recovery plans that serve conservation purposes would include assessments of the current status of a species and likely trends, and would discuss appropriate management alternatives to assure species persistence. Recovery plans for each species should take the form of white papers which would assist DFG staff in decision-making. Development of broad criteria for recovery planning could begin during the candidacy period and terminate soon after final decisions to list. Upon listing, the FGC would issue rules that could be incorporated into HCP or NCCP efforts and serve to protect the species during the recovery planning stage. A full package of information containing the listing decision and the recovery planning regulations would then be submitted to the Office of Administrative Law (OAL) for review and approval as required under the California Administrative Procedures Act. There are some fears that adding the requirement of recovery planning regulations at this stage would slow the listing process.¹¹⁶ This concern could be ameliorated if the design of recovery plans were simplified as described above; hence, the OAL review could be somewhat *pro forma* in this area.

Define achievable performance standards that can provide meaningful protection to imperiled species and enhance process certainty for project sponsors. Performance standards should be established and integrated from the start of the planning process to guide the designated lead agency or agencies. The standards should be integrated into the definitions "conserve," "conserving," and "conservation" in Section 2061 of CESA, or should become part of the "Consultation Requirements" used by the DFG.¹¹⁷ Lead agencies would also have an independent obliga-

116. Memorandum from Mary Shallenberger, consultant, Cal. Senate Agric. and Water Comm., to Helen Roland 1-9 (Aug. 10, 1994) (available in the Cal. State Library).

117. Cal. Dep't of Fish and Game, Guidelines for Consulting with the Department of Fish and Game on Projects Subject to the California Environmental Quality Act that May Affect

tion under CEQA to guarantee the continued existence of threatened or endangered species on project sites.

Performance standards akin to those proposed below for ecosystem planning could be used. Examples might include: 1) mapping and directed biological studies to fill in information gaps; 2) identification of explicit population size and distribution targets for key species; and 3) development of adaptive management programs with monitoring obligations. By agreeing to more rigorous performance standards, project sponsors will have to respond substantively to biodiversity mandates by committing resources to ongoing conservation. Environmentalists will have to make a large presumption of good faith on the part of those sponsors. But, appropriately employed, triggers and empirical thresholds of compliance, would reduce uncertainty for project sponsors and provide more meaningful protection to targeted species.

Emphasize regional ecosystem management. Conservation planning must be redirected from its current single species mode of enforcement to promote multiple species, multiple habitat conservation on a regional scale. The major components of such a strategy would be: 1) to conduct biological surveys and mapping of key resources; 2) to rank sensitive habitats into high, medium, and low value categories for conservation planning purposes; 3) to prepare regional planning programs that integrate biological considerations with current and future land-use activities; 4) to define circumstances for incidental take of species; 5) to coordinate interagency activities from federal to local levels; 6) to establish a basis for public and private landowner commitment, such as enrollment of lands in the program and the provision of financial support; 7) to integrate all stakeholders into the planning process; 8) to prepare financing and acquisition strategies; and 9) to provide ongoing management of the resources within the reserves.

If CESA is so broadened, the listing process could also be tempered to respond to such a change. In cases where multiple species or habitat-based planning is in progress, petitions to list would be set-aside, only to be reactivated if planning fails to meet biological standards. To forestall listings, planning efforts would have to meet minimum performance standards, such as providing information on individual species status, and incorporating them into surveys, reserve design and mapping exercises, and long-term management programs. Yearly monitoring reports would be provided to the FGC, which in turn would determine if a listing should remain shelved or be reactivated.

Despite the obvious complexities of putting such a proposal into action, these programmatic changes would still constitute measurable

improvements over the frustrations of traditional project-by-project planning. Using an ecosystem model for conservation planning allows decision makers to identify and protect important habitat areas and their resident species before they are put at risk by development—in this way participants in the ongoing process are engaged in a pre-listing strategy. Generally such a strategy is "win-win" for participants because it can reduce the risk of additional species listings, while it satisfies the need to protect the natural communities and ecosystems that support imperiled species. The conservation of open space that accompanies ecosystem-level programs probably has a broader constituency than does conservation that focuses on individual threatened and endangered species. Ecosystem management thus makes sense not only biologically, but politically and economically.

Encourage property owners to conserve species by building economic and tax incentives into CESA to promote profitable habitat conservation. In designing such incentives it is important to remember that landowner motivation differs dramatically among industries. Some individuals want to make continued use of land and resources for agriculture or forestry. Others would like to immediately convert land to commercial or residential development. Incentives must be tailored to fit these differing motivations and timetables. In addition, depending upon the form of the incentives, different levels of government will be involved. Incentives will have to be used in concert so as not to place too great a financial strain on any one level of government. This stated, the time seems ripe to institutionalize some of the creative incentive programs currently being proposed.

Such creative incentives include providing tax credits to landowners for habitat maintenance or improvement. Tax credits—that is direct forgiveness of taxes owed—are powerful devices to stimulate private activities. Credits are useful to all types of landowners because the tax reduction from a given credit is the same for taxpayers in all rate brackets.¹¹⁸ To qualify for credits, property owners would have to develop conservation plans in concert with the DFG and commit to long-term implementation. Landowners seeking to develop smaller parcels could also earn tax credits through compliance with CESA by using appropriate construction methods or by participating in biological surveys. This incentive strategy may be more appealing to property owners who plan to hold onto land for purposes of continued resource use. Local government would have to be involved in the decision to offer such credits, since property taxes are basic revenue sources for them, and credits produce a greater revenue drop than do equivalent tax deductions

118. John L. Mikesell, *Fiscal Administration* 253 (3d ed. 1991).

or exemptions. It is worthwhile to note that property tax forgiveness has already been widely used to preserve open space and historic lands.

Other incentive strategies would involve reductions in corporate or personal income taxes, or capital gains and estate taxes, when a landowner maintains essential habitat for endangered species.¹¹⁹ The exemption for a parcel of land may be complete and permanent, or it may abate all or a portion of property taxes for a specific period of time. It may also exempt portions of an otherwise taxable parcel or provide special exemptions for rehabilitated property. The goal of this strategy is to stimulate certain activities at defined locations.¹²⁰ Preferential incentives of this type are intended to encourage favored activities from landowners in any tax bracket. Property holders motivated by the desire to realize immediate income gains from land may be compelled by such a strategy. Exemptions of this type are the province of federal and state government which would have to determine the extent of such programs in light of the negative effect on the overall tax base. However, exemptions are politically popular because of their apparent tax savings and redistribution of tax burdens.

Participants in the ongoing process of CESA reform point to the California Land Conservation Act of 1965, the so-called Williamson Act, as an incentive model uniquely designed to achieve conservation aims. The Act was originally conceived as a preferential assessment program that reduced property taxes on farmland in return for agreements to restrict development for ten years, later amendments allocated state funds to counties participating in the program to pay for local administration to replace portions of the property tax revenues lost on contracted lands.¹²¹ A key aspect of a Williamson-like model for imperiled species programs would be the targeting of funds to lands where the conservation payoff is highest, to assure that the best environmental bang for the buck is realized. Lands that provide for the conservation of multiple species or natural communities, lands that are known to support habitat of particularly high quality, or lands that serve special needs of species, such as migratory stop-over sites, would be high priorities.

Create a market for species and habitat protection that allows landowners to reap a tangible economic return for investing in conservation. A major problem with establishing the value of species and their habitats has always been the difficulty of setting a price for a good that is neither bought nor sold in the market. A variety of solutions have been proposed to develop such a market, such as the Habitat Transaction

119. See generally McKinney et al., *supra* note 108.

120. Mikesell, *supra* note 118, at 301.

121. Cal. Assembly Office of Research, *supra* note 7, at 34.

Method (HTM) or transfers of development rights (TDRs). HTM is a market model that confers credit to any landowner who conserves or restores land based on its value as habitat.¹²² The relative values of the land for habitat purposes are established and driven by biological criteria. Landowners proposing projects that adversely affect habitat must trade credits, the value of which reflects regional or local decreases in conservation value. Credits can be traded to develop elsewhere in the planning area, or credits can be sold to other developers who need them to compensate for project impacts.

TDR programs also involve the purchase and sale of development rights. Two basic steps are required to create a TDR program. Initially, a community must set up a *sending area* where conservation is desired and development rights can be created and sold, and establish a *receiving area* where a greater density of land development will be permitted. Developers transfer or trade development rights from the sending area to the receiving area. Montgomery County, Maryland, for example, has successfully used such a program for purposes of preserving farmland and open space.¹²³

Both methods help translate the intangible social value of biological resources into economic terms. Landowners are rewarded for preservation. Patterns of development tend to improve because the scarcity of rural development rights causes land to be used more efficiently. Land use normally tends to shift to locations where there are existing public services including transportation links.

Mandated, continuing multidisciplinary professional education for Department of Fish and Game staff. A well planned program of professional development should be conducted using a combination of in-house programs, self-guided individual study materials, joint programs with other agencies, purchased programs and videos, and university courses. There are a plethora of models in the public and private sector that provide templates for such training. The program should offer a menu of courses from different fields including law, finance, planning, biology, geography, computer applications, and economics. All professionals would participate in at least 100 hours of mandated continuing professional education over a three-year period, with no fewer than twenty hours in any one year. Completion of course work would be one of the criteria used to judge individual performance. Participation should be planned on an individual basis in consideration of particular needs

122. See generally Todd Olson et al., *The Habitat Transaction Method: A Proposal for Creating Tradable Credits in Endangered Species Habitat*, in *Building Economic Incentives Into the Endangered Species Act 27-36* (Wendy E. Hudson ed., 2d ed. 1993).

123. *TDRs: A Market Approach to Preserving Farmland and Open Space*, Landlines (Lincoln Institute of Land Policy), Nov. 1994.

and work assignments. The program would be coordinated with work assignment schedules, although staff should be expected to organize and perform their jobs in such a manner as to permit them to participate. Course fees would be reimbursed by the agency if a passing grade is attained. Certain courses could also be open to local or regional governmental representatives. A program to enhance professional skills will help staff to improve on-the-ground CESA implementation in an increasingly technical environment.

Improve the quality of information used to identify planning priorities with a comprehensive database of information concerning species and land use. An updated statewide gap analysis by the Department of Fish and Game should be prepared that allows planners to evaluate the current level of protection of animals, plants, and natural communities using computer-based Geographic Information System (GIS) mapping to identify those species and sites that fall through the current safety net of protected and managed lands—the so-called “gaps” in the network of protection.¹²⁴ Other important data needed include information on patterns of land ownership (both public and private), and existing and planned land uses; habitat value index maps identifying high, moderate, and low value lands relative to the current status of the land as developed, agricultural, or otherwise; and location maps of selected sensitive animals and plants. Since most GIS mapping exercises provide information at only a relatively gross scale, mapping must necessarily be combined with field surveys to provide a verifiable and reliable basis for conservation planning. Most importantly, use of integrated databases should be required in CEQA to ensure protection of critical wildlife habitats.

GIS mapping and field surveys are an expensive proposition. Partial financing of ongoing database maintenance could be assured if all permit applicants were assessed a fee to access the information.¹²⁵ Given the depleted condition of the public purse, California could also be well-served by actively supporting the federally funded National Biological Service (NBS). The state could piggy-back its existing Natural Diversity Database onto NBS products to create the superior biological information base called for in management actions and decisions of government agencies. State or nationally funded surveys of planned lands could spread the costs of regulation to the wider public. In addition, because the NBS is nationally funded, it helps in a limited fashion to defray some costs to the state of federal species protection in California.

124. Frank Davis & David Stoms, *Gap Analysis of Biodiversity in California*, in 23 *Proceedings of the Symposium on Biodiversity in Northwestern California* (1991).

125. Cal. State Assembly Office of Research, *supra* note 121, at 37.

Since the goal of the state's Natural Diversity Data Base and the NBS is primarily data collection and dissemination, as opposed to advocacy of particular positions, they may be less subject to stakeholder challenges over data and decisions. All these tools would provide the information necessary to prioritize habitat acquisitions and help decision makers determine preservation and development priorities.

Public lands should form the core of conserved habitat. Public lands are the logical starting point for developing reserve systems designed to protect California species and ecosystems. Integrated management of public lands at all levels of government, with the aim of preservation of biotic diversity, may be the best means available to shift a substantial portion of the conservation burden to the public sector without adding further obligations on the public purse. The federal government, for example, could donate surplus lands to support regional and local conservation goals. Surplus public federal lands in the possession of the Bureau of Land Management, the U.S. Forest Service, the Resolution Trust Corporation, and the Department of Defense are currently being considered for this purpose in San Diego County to support habitat acquisition goals mandated by NCCP. Some of the surplus lands could also be used to generate funding for acquisition or for land exchanges. State lead agencies contemplating projects with potential adverse effects on listed species should be required to identify lands that could serve to mitigate development impacts.

Commitment of public lands to this purpose makes sense for several reasons. First, public lands commonly constitute the only large blocks of undeveloped habitat remaining in many regions, as is the case with the large military bases in California. Second, this recommendation would go far toward helping to assuage the feeling shared by many landowners that they are being forced to make the first sacrifice of property for the greater public purpose.

Empower local government to plan for its remaining land base to achieve a balance between growth and protection of resources without draining its coffers. While there are many existing mechanisms for financing resource protection, not all of them are workable given the current budgetary constraints. Some revenue assistance, however limited, will still have to be available in the form of direct funding from the federal and state government. For example, local agencies could be given preferential access to categorical grant and loan programs if they carry out conservation goals including protection of endangered species.¹²⁶ However, assistance need not always be in the form of new resources; it

126. Steve Sanders, Cal. State Senate Office of Research, *Managing Growth in California: a Blueprint for Economic and Environmental Recovery* 52 (1993).

could instead include improved access to resources or help with regulatory administration and compliance. This assistance could include the opportunity to participate in cooperative or centralized administrative relationships such as memorandums of understanding. Coordination with state or federal agencies can reduce individual costs of compliance.

The most immediate and revenue neutral approach to achieving resource protection aims would be to more effectively use existing land use regulation. One way to do this would be to update the conservation and open space elements that are features of all general plans under California law. County and local governments could establish a threshold for conversion of open space to other uses or mandate protection of scarce or sensitive resources in the plans. Once a general or specific plan includes policies for open space conversion, tempered use can then be made of zoning ordinances and subdivision regulations that govern the physical layout of new development to promote conservation aims. Another way local government can establish policies to promote biodiversity is with resource protection ordinances (RPOs). Localities are subject to a broad range of resource-related mandates in their planning, including limits on building on flood plains or steep slopes and constraints on development that promote esthetic and recreational values—so RPOs do not break new ground. San Diego County recently developed one such RPO that specifies protection goals for sensitive habitats and resident species that are located within its jurisdictional boundaries.¹²⁷ The RPO is now a central element in planning activities of the County. By coordinating preservation goals with existing regulations, localities may not always need to raise substantial funds for land acquisition.

Additional methods for financing and supporting local government activities in this area could include benefit assessment districts and utility tax increases. Under California law, any city, county, joint powers authority, or other municipal district can finance acquisition or construction of facilities necessary to growth or development in the form of a benefit assessment district. Benefit assessments are based on a formula that assigns different tax rates to parcels of land according to a calculation of benefit. Proposition A approved by voters in Los Angeles County in 1992 created one such district to fund infrastructure improvements, including acquisition of open space.¹²⁸ The rate structure of utilities can also be increased if it is done to respond to the pressures of regional growth. Utility rate changes are a preferred form of financing because

127. San Diego County, Cal., Resource Protection Ordinance, No. 17602 (1990).

128. See generally Green Money Fact Sheet (The Trust for Public Lands/New Funding Initiatives Project, San Francisco, CA), 1994, at 1.

there are no limits are placed on distribution of revenues between capital and operational costs as is the case in benefit assessment districts. Benefit assessments and utility taxes assign the costs for species protection directly to the citizens receiving the benefits of biodiversity. Neither strategy contributes to the indebtedness of local government.

CONCLUSION

Quite simply there is nothing technical, legal, financial, political, or moral that prevents successful implementation of the California Endangered Species Act in its current formulation. Neither a major overhaul of the Act nor significant expenditures are necessary to quell conflict and allow this law to meet original legislative intent. What is needed is for all stakeholders to apply the state's Act creatively, cooperatively, and with a modicum of trust. California has a strong record of resolving seemingly intractable conflicts in endangered species policy. Bipartisan engagement in reforming the California Endangered Species Act should produce a responsive product that once again could serve as the model for the rest of the nation.