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The Endangered Species Act and Western Water Rights

A. Dan Tarlock*

The problems associated with the federal government enforcing the Endangered Species Act while the western states attempt to manage their water resources present a classic example of the conflict between federal environmental policy and state resource management programs. In this article, the author considers the effect of the federal government's "regulatory property rights" under the Endangered Species Act and section 404 of the Clean Water Act on water management by the western states. The author then proposes some ways in which to mitigate the conflict between the western states' objectives in managing their water resources and the federal government's objectives in enforcing the Endangered Species Act and section 404 of the Clean Water Act.

The United States has a strong endangered species policy that potentially conflicts with state water diversion and impoundment projects. Federal endangered species policy has evolved from preserving commercially valuable or well-known species to protecting habitats needed to maintain threatened animals, fish, insects and plants. Habitat destruction is the major threat to endangered species and, while habitat preservation may be the most effective remedy, it is also the most far-reaching to preserve a species. As a result of the evolution of federal policy to preserve

*Professor of Law, Chicago-Kent College of Law, Illinois Institute of Technology. This article is a revision of a speech prepared for the University of Colorado School of Law Natural Resources Law Center's Fifth Annual Summer Program entitled The Federal Impact on State Water Rights, held in Boulder, Colorado, June 11-13, 1984.


habitat in order to protect endangered species, the operation of many planned and existing water projects must pass muster under the Endangered Species Act of 1973.3

The shift toward habitat preservation on a modest scale is significant for water development activities. Water development activities are now evaluated, in part, by backdoor federal water-related land use planning processes under the environmental programs that Congress has superimposed on resource development programs. Compliance with the Endangered Species Act is controversial in the West for the reason that it constrains the operation and location of water projects. Coupled with section 404 of the Clean Water Act4, the two acts have the potential to limit severely and to modify traditional state water development activities.

Efforts to weaken the Endangered Species Act have failed and are likely to fail in the future in light of the increasing appreciation of the role of biological diversity in the world’s ecosystems.5 Thus, endangered species protection must be added to the list of environmental constraints—such as the Clean Water Act, in-stream flow protection, wetlands preservation, and environmental impact analysis—that affect western water development.

Conflicts between federal environmental regulations and state water development were exemplified during the hearings on the 1982 Amendments to the Endangered Species Act:

One result of the Act’s inflexibility which is of real concern to us, and should be of concern to all, is the de facto interstate apportionment and intrastate appropriation of waters which the FWS [Fish and Wildlife Service] is effectively accomplishing by imposing substantial minimum flow releases on water storage projects. For example, in order to obtain a non-jeopardy opinion on the Colorado River squawfish from FWS on its White River Dam, the State of Utah recently had to agree to release a minimum of 250 second-feet (cfs) of water at the dam during most of the year, with higher releases in the spawning period, and to augment the minimum flow by up to 5000 acre-feet from inactive storage when natural river flows fall below the 250 cfs minimum and as the matter stands now, our own sub-district’s Taylor Draw reservoir, also to be constructed on the White River above Utah’s project, will be forced to release up to 200 cfs, depending upon river flows. All of this has the potential to interfere with appropriative rights under State water laws as well as interstate apportionments under the Upper Colorado River Basin Compact.6

5. See infra text accompanying note 94.
Regulatory programs such as the Endangered Species Act and section 404 of the Clean Water Act create "regulatory property rights." These programs are not usually conceptualized as property rights assignments, but any program that prevents the degradation of commons effectively does this. Modern regulatory programs cancel the historic de facto assignment of property rights in commons to exploiters and reassign them to the government as agent for the public generally. It is therefore important to characterize the results of regulatory programs as "regulatory property rights" in order to appreciate the potential effect of such programs and to compare the costs and benefits of federal government intervention on a traditional area of private rights. 7

THE ENDANGERED SPECIES ACT

The protection of endangered species goes to the heart of environmentalism and raises difficult problems of justification. 8 Why should society choose to protect endangered species at the expense of other social values? Protecting endangered species by preventing human interference with natural ecosystems exposes to scrutiny the utilitarian benefits of this policy and the non-utilitarian arguments for species diversity. 9

The Council of Environmental Quality warned in its 1980 report, "[i]f the physiochemical (nonliving) and biological environments posed no uncertainties, evolution by natural selection might eventually stop as surviving species would come to consist entirely of "optimal' genotypes." 10 However, biological change occurs regardless of human intervention. The preservation of biological and genetic diversity therefore cannot be justified.

8. J. PASSMORE, MAN'S RESPONSIBILITY FOR NATURE 101-26 (1974). Professor Edwin Smith has summarized the three conventional justifications for species protection:

First, basic scientific research involving wild species provides new data on the function of biological systems and forms the basis for new theories of human origins and capacities. Second, biological diversity provides instrumental benefits; through direct exploitation of wild species, valuable products may be acquired which can fulfill important human needs, while the indirect benefits of functioning ecosystems provide critical life support services. Finally, a number of ethical arguments support the case for biological conservation.

9. J. PASSMORE, supra note 8, at 17.
by a "preservation at all cost" strategy because we cannot distinguish between species which are endangered through conditions created by nature and those created by man. In addition, ecologists themselves increasingly view concepts such as diversity, stability, and equilibrium as problematic and perhaps meaningless. At best, economic and scientific justifications for preserving endangered species are a warning to man to guard against drastically reducing species diversity.

Because economic and scientific justifications for preserving endangered species do not support a consistent preference for species preservation over exploitation, efforts to preserve endangered species can be justified on non-utilitarian or moral grounds. We are often trapped into thinking exclusively in terms of scientific and economic values to justify programs that depart from these values. The point about environmental protection generally is that it is the outcome of what many see as a fundamental shift in values. We cannot foresee the angle of repose from this shift; but enough of a transition in the popular thinking has occurred to simply recognize it. The benefit of this justification is that one need not accept all of the premises of the more radical or "deep ecology" movement that inanimate objects have rights. One need only conclude, in John


The major objection to a limitless theory of rights for animals and inanimate objects is this:

[The relationship between the individual interests of organisms, individual plants, and nonliving objects, on the one hand, and the healthy functioning and integrity of the ecosystem, on the other hand, is a contingent one. Actions which damage an environmentally sensitive area usually or always damage some individuals or some species. This fact accounts no doubt, for the persistence of suggestions that the recognition of interests and rights of nonhuman objects is a useful basis for a new environmental consciousness or ethic. But environmental destruction need not result in harm to any individual. It is possible to accept a humane ethic extended as broadly as one wishes and take this ethic to require steps to protect all individuals affected, rather than to protect the habitat, the community, or the ecosystem in question. Once the contingency of this relationship is recognized, the temptation is to continue the expansion of rights to apply to greater portions of the environment— hence, the implausible suggestions that all existent things have rights. This seems to ensure that, whenever the environment is damaged, some rights holder will be affected and the rights-based ethic will become relevant. This play works only at the expense of trivializing the environmental ethic in question. Every action with environmental consequences must, on this view, affect some rights holder. If this result is not to be totally paralyzing, there must be some means of deciding which actions are to be prohibited from those which need not be. And since
Passmore's words, that in a heightened appreciation of the benefits of biological diversity "the onus is on anyone who seeks to modify an ecosystem's degree of diversity and that he has to produce a far more elaborate and complex argument than has ordinarily been supposed." Thus the heightened appreciation of biological diversity, as evidenced in our legislation, has created a "presumption" in favor of protecting endangered species. Lawyers are comfortable with presumptions and the burdens of proof and persuasion. As imprecise and open-ended as presumptions are, they do avoid absolute choices that may, even in the short-run, turn out to be wrong. Ultimately, the "presumption" in favor of protecting endangered species recognizes some duty toward future generations, but avoids the impossible task of trying to calculate the present as against future values of endangered species.

**Purpose**

The Endangered Species Act relies primarily on protecting individual species to preserve biological diversity. The Act's habitat protection man-

- the original use of the terms rights and interests applies to human rights and interests, no guidance for behavior is forthcoming from those concepts alone, as the analogy with human rights and interests have been abandoned.


One commentator has taken the theory of unlimited rights for animals and objects to its logical but unacceptable conclusion:

> Man will, in the foreseeable future, confront the moral obligation to make himself extinct — to commit racial suicide. He will lie under a duty to preserve nature: that is, the life process and the earth. And the only way in which this obligation can be discharged is by man decreasing his own extinction.


> I agree, in the long run, with the Stoics: if men were to decide that they ought to treat plants, animals, landscapes precisely as if they were persons, if they were to think of them as forming with man a moral community in a strict sense, that would make it impossible to civilize the world—or, one might add, to act at all or even to continue living.

J. Passmore, supra note 8, at 126.


Since the cluster of value-giving principles applies generally throughout the world to living natural entities and systems, it applies to human beings and human societies as well as to the realm of nonhuman nature. To the extent that diversity or an individual human level is threatened by the pressures of conformity in mass society, and diversity of social ways of life is threatened by the pressures of global resource exploitation and an ideology of worldwide "development" in whose name indigenous peoples are being exterminated along with native forests, it would be short-sighted to think of "ecological issues" as unrelated to "social issues." From an ecological point of view, one of the most striking socio-political phenomena of the twentieth century — the rise of totalitarian dictatorships that forcibly try to eliminate the natural condition of human diversity in the name of some mono-cultural ideal (e.g., an Aryan Europe or a classless society) — is not so much a freakish aberration from modern history as it is an intensification of the general spirit of the age. Ecological sensibility, then is "holistic" in a sense beyond that usually thought of: it grasps the underlying principles that manifest themselves in what are ordinarily perceived as separate "social" and "environmental" issues.
date incorporates habitat preservation strategies as well.\textsuperscript{15} These strategies are less pronounced than those protecting national park and wilderness systems, but habitat protection is becoming a significant potential constraint on many development activities. Moreover, unlike the National Environmental Policy Act,\textsuperscript{16} the Endangered Species Act imposes substantive as well as procedural duties on federal agencies.\textsuperscript{17}

The Act's objective of conserving endangered species includes the entire biological community: animals, fish, insects (other than pests), and plants.\textsuperscript{18} A species' extinction need not be imminent to be protected.\textsuperscript{19} For instance, a species is deemed threatened when it is likely to become an endangered species in the foreseeable future throughout all or a significant portion of its range.\textsuperscript{20} Effectively, to preserve a species, its habitat must be protected from destruction, and the statute allows the Secretary to "list" endangered or threatened habitats.\textsuperscript{21}

**Protection Mechanisms**

There are three major protection mechanisms in the statute. These are (1) listing, (2) agency consultation and protection duties, and (3) the prohibition against takings which is independent of any federal agency action.\textsuperscript{22}

The Secretary may "list" an endangered or threatened species and its habitat after completing the rulemaking process.\textsuperscript{23} Interested citizens may also initiate the listing process. "Listing" triggers the full range of protection measures under the Act, and a decision to list a species is made on the basis of any of the following factors:

1. The present or threatened destruction, modification, or curtailment of a species habitat or range;

\begin{itemize}
  \item \textsuperscript{15} 16 U.S.C. § 1533(a)(3) (1982) provides:
  The Secretary, by regulation promulgated in accordance with subsection (b) of this section and to the maximum extent prudent and determinable—
  (A) shall, concurrently with making a determination under paragraph (l) that a species is an endangered species or a threatened species, designate any habitat of such species which is then considered to be critical habitat; and
  (B) may, from time-to-time thereafter as appropriate, revise such designation.
  \item \textsuperscript{16} 42 U.S.C. §§ 4321-4370 (1982).
  \item \textsuperscript{17} A considerable debate exists whether NEPA imposes substantive as well as procedural duties, but the Supreme Court has shown little inclination to encourage the development of a substantive law of NEPA. See, e.g., Stryker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223 (1980). For a summary of the debate and post-Stryker cases see F. ANDERSON, D. MANDELRK & A. TARLOCK, ENVIRONMENTAL PROTECTION: LAW AND POLICY 752-64 (1984).
  \item \textsuperscript{18} 16 U.S.C. § 1531(b) (1982). The term endangered species is defined as "any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this chapter would present an overwhelming and overriding risk to man." 16 U.S.C. § 1532(6) (1982).
  \item \textsuperscript{19} 16 U.S.C. § 1532(20) (1982).
  \item \textsuperscript{20} \textit{id}.
  \item \textsuperscript{21} 16 U.S.C. § 1533(c) (1982).
  \item \textsuperscript{22} 16 U.S.C. § 1533 (1982).
  \item \textsuperscript{23} \textit{id}.\n\end{itemize}
(2) overutilizing for commercial, recreational, scientific, or educational purposes;
(3) disease or predation;
(4) the inadequacy of existing regulatory mechanisms; or
(5) other natural or manmade factors affecting its continued existence.\(^4\)

The Endangered Species Act requires that a listing decision be based on the best scientific and commercial data available.\(^5\) Economic considerations are expressly excluded from front-end listing decisions.\(^6\) This will preclude judicial challenges to listing decisions because of the Secretary’s failure to take economic impacts into account. Economic considerations are, however, relevant to back-end protection decisions because they may be taken into account in the exemption process.\(^7\)

The term critical habitat for a threatened or endangered species is defined as:

(i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of Section 1533 of this title, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and

(ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of Section 1533 of this title, upon a determination by the Secretary that such areas are essential for the conservation of the species.\(^8\)

This definition of habitat is the result of a 1978 amendment to the Act which narrows the protected habitat to areas necessary for the species survival.\(^9\) The restrictive definition of habitat precludes the Department of the Interior from designating the entire range of a species as critical except when necessary to protect small, confined populations. Although

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   The Secretary shall designate critical habitat, and make revisions thereto, under subsection (a)(3) of this section on the basis of the best scientific data available and after taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. The Secretary may exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned.
27. With some exceptions Congress has chosen to allow agencies to set environmental standards without regard to the cost and feasibility of compliance in order to place the burden on specific affected individuals to prove that a variance is warranted.
habitats may be listed, in contrast to species listing decisions, economic considerations are relevant.\(^\text{30}\)

An agency or a private licensee must obtain a biological assessment of whether a species will be jeopardized from the Fish and Wildlife Service.\(^\text{33}\) The assessment must be based on the best scientific evidence available.\(^\text{34}\) Once completed, the biological assessment becomes the pivotal scientific evidence around which subsequent disputes will be resolved.

Section 7 of the Endangered Species Act is the heart of the Act’s species protection scheme. Section 7 requires an agency or license applicant to consult with the Secretary of the Interior before undertaking action which may jeopardize an endangered or threatened species.\(^\text{31}\) The consultation process is designed to provide the Secretary with a scientific basis to decide whether and how the Act should be applied to an activity. Failure to consult with the Secretary will result in a project being enjoined.\(^\text{32}\)

The Secretary and the relevant parties must complete the consultation process within 90 days after it is initiated. Based on the biological assessment, the Secretary must issue a written opinion on whether or not the activity will jeopardize a threatened or endangered species. A variety of “jeopardy conclusions” from no jeopardy to complete jeopardy are possible.\(^\text{35}\) If the Secretary concludes that the project will have adverse consequences upon an endangered or threatened species, “the Secretary shall suggest reasonable and prudent alternatives which he believes would not violate” the section 7 prohibition against jeopardizing the continued existence of a species or destroying or adversely modifying a species.

\(^{31}\) Section 7(d) provides:

After initiation of consultation required of this section, under subsection (a)(2) the Federal agency and the permit or license applicant shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection (a)(2) of this section.


\(^{33}\) 16 U.S.C. § 1536(a)(2) (1982). The following definition of “jeopardize” has been offered:

A reasonable definition of “jeopardize” is any substantial harm to any population segment of any listed species. That a species is listed as endangered itself indicates that any adverse effect could contribute to its extinction. The use of “jeopardize” in the statute instead of “result in extinction” suggests that Congress contemplated a less demanding standard. The administrative interpretation, which is entitled to some deference, takes a middle-of-the-road approach: an agency action does not “comply if it might be expected to result in a reduction in the number or distribution of that species of sufficient magnitude to place the species in jeopardy, or restrict the potential and reasonable expansion or recovery of that species. . . .” Since an endangered species is already in jeopardy and a threatened species is close to it, only a de minimus impact on the species should be tolerable in applying section 7.

Coggins and Russell, supra note 2, at 1465.


habitat. These alternatives are implemented either by the federal agency or the applicant seeking a federal license.

In *Tennessee Valley Authority v. Hill*, the Supreme Court concluded that the legislative purpose of section 7 revealed

an explicit congressional decision to require agencies to afford first priority to the declared national policy of saving endangered species. The pointed omission of the type of qualifying language previously included in endangered species legislation reveals a conscious decision by Congress to give endangered species priority over the "primary missions" of federal agencies.

The mandate to agencies to protect endangered species under *Tennessee Valley Authority v. Hill* remains unchanged, despite the 1982 amendment of section 7. Prior to 1982, agencies had a duty to ensure that a species would not be "threatened." After 1982, the duty is to ensure that the agency action is "not likely to jeopardize" the species. In a recent opinion, the United States Court of Appeals for the First Circuit attributed no substantive significance to the 1982 language because in the court's view the Congress did not intend to change the absolute substantive mandate confirmed in *Hill*.

In addition to the section 7 consultation and protection duties, section 9 of the Act provides an independent source of federal authority over activities which jeopardize endangered species. Section 9 makes it unlawful to "take" an endangered species within the United States or territorial area of the United States.

Theoretically, each time an endangered species is killed by a project, a section 9 violation occurs. The section 9 prohibition against "taking" has been characterized as double jeopardy because an activity, such as a water diversion project, could be in violation of the Act even though it received section 7 clearance. Support for this proposition can be found...

36. Id.
39. See infra text accompanying notes 54-57.
40. Roosevelt Campbello Island Int'l Park v. EPA, 684 F.2d 1041 (1st Cir. 1982). Although the 1978 Amendments to ESA softened the obligation on an agency from requiring the agency to "insure" the species would not be jeopardized to requiring the agency to "insure" that jeopardy is not "likely," [citation] the legislative intent was that the Act "continues to give the benefit of the doubt to the species." [citation] Agencies continue to be under a substantive mandate to use of "all methods and procedures which are necessary," [citation] "to prevent the loss of any endangered species regardless of the cost." [citation] The Act does, however, create a special "exemption" procedure . . . designed to allow necessary actions even if they threaten the loss of an endangered species.
in *Palila v. Hawaii Department of Land and Resources.* Hawaii maintained a feral goat and sheep herd in a game reserve that overlapped the designated critical habitat of the Palila bird, a finch-billed member of the Honeycreeper family unique to the Islands. The goats and sheep were eating up the forest, and the Sierra Club, on behalf of the Palila bird sued to compel Hawaii to graze the animals elsewhere. The district court held that the state’s maintenance of the herd in an area that endangered the Palila was a section 9 taking. The state’s argument that it owned all its wildlife in trust for the public and thus the tenth amendment prohibited application of the Endangered Species Act were rejected.  

Section 9’s sting has been somewhat lessened by 1982 amendments which established an exemption process to reduce section 9 conflicts. The Secretary of the Interior may grant a permit for a section 9 “taking” if he finds that:

(i) the taking will be incidental;

(ii) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking;

(iii) the applicant will ensure that adequate funding for the plan will be provided;

(iv) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild. . . .

*Judicial Review*

Biological assessments are subject to judicial review under the arbitrary and capricious standard. Courts have shown considerable deference to the conclusions reached in biological assessments when the Fish and Wildlife Service recommends measures to mitigate the consequences of a project on an endangered or threatened species. Even in the “hard look” mode, the circumstances in which a court will second guess the Fish and Wildlife experts are rare. The courts will intervene, however, where a

42. 471 F. Supp. 985 (D. Haw. 1979), aff’d, 639 F.2d 495 (9th Cir. 1981).
46. The “hard look doctrine” was originated by the United States Court of Appeals for the District of Columbia Circuit. The doctrine is an attempt to promote agencies’ rationality by imposing on their decisions the appellate opinion model. Lawyers are trained to develop an argument logically from the initial to the final step. All of the assumptions and assertions must be made explicit. Prior to the 1970’s, administrative agency reasoning seldom achieved this artificial but rigorous standard. Thus, it is not surprising that when the federal judiciary set out to reform the administrative process it decided to hold the agencies to the same standards of analysis to which lawyers have long held judges. See Note, Recent Changes in the Scope of Judicial Control Over Administrative Methods of Decisionmaking, 49 IND. L.J. 118 (1973). The theory and current state of the doctrine are explored in F. Anderson, D. Mandelker & A.D. Tarlock, ENVIRONMENTAL PROTECTION: LAW AND POLICY 103-18 (1984).
challenger proves that the decision was not based on the best scientific evidence available. Under the Clean Air and Clean Water Acts, the courts have sometimes defined "available" as available after further research, and these decisions have influenced at least one court. In *Roosevelt Campobello Island Park Commission v. Environmental Protection Agency* the United States Court of Appeals for the First Circuit reversed an administrative law judge's conclusion that the risk of harm to endangered whales from oil spills was remote because it was not based on the best scientific evidence. The court held that sophisticated, computer simulation studies simulating various navigation conditions, were necessary.

Congress has provided some flexibility in the consultation process which in turn gives the courts some remedial discretion in reviewing decisions under the Act. For instance, Congress was concerned that scientific uncertainty would force the Fish and Wildlife Service to issue negative biological opinions and thus block projects. This possibility has been limited by making the consultation process an on-going one. This rolling process is important in multi-stage projects, where the first stage of a project may be allowed to proceed during the period of consultation. But as a district court reviewing the likely effect of an outer continental oil and gas lease sale on endangered whales observed: "A negative biological opinion, however, does not render section 7(d) inapplicable. If new information develops which indicates that an endangered species might be threatened, section 7(d) would prohibit the further irreversible or irretrievable commitment of resources until consultation is reinitiated and a new biological opinion prepared." The Act does not simply allow the agency to continue collecting information, however. It requires that the agency have a plan to avoid jeopardy and that any private parties may be put on notice that subsequent activities may have to be modified or even terminated should they jeopardize a species.

48. 684 F.2d 1041 (1st Cir. 1982).
51. See infra notes 52-53.
53. Village of False Pass v. Clark, 733 F.2d 605 (9th Cir. 1984). A district court has recently announced a "futile call" exception to the agency's consultation duties. The Forest Service proposed to construct a gravel road in the Nez Perce National Forest in Idaho in an area that was suitable for the endangered Rocky Mountain Grey Wolf. After the Service determined that no wolves were present in the area surrounding the road, it did not request information on other endangered species as required by 16 U.S.C. § 1536 (1982). The court conceded that the Forest Service breached a duty to consult, but refused to enjoin the road because there was no evidence that additional information on jeopardy would have been produced. But, the result "would likely" have been different had the Forest Service denied the potential presence of the wolf or lacked adequate knowledge to make such a conclusion. *Thomas v. Pederson*, 21 ENV'T REP. CAS. (BNA) 1275 (D. Idaho 1984).
The Exemption Process

Tennessee Valley Authority v. Hill provoked a great controversy in Congress which led to the enactment of amendments to the Endangered Species Act. Senator Howard Baker was able to save the Tellico Dam for his state by a specific exemption, but Congress also chose to introduce some general flexibility into the back-end of the protection process. The amendments contain a two-tiered exemption process that places the burden on an agency or private applicant to show that the value of the activity outweighs the protection of a species. After the consultation process is completed, an ad hoc review board is convened by the Secretary of the Interior. If there was a good faith effort to resolve the conflict during the consultation process, and the conflict is deemed irresolvable, the exemption application goes to a cabinet level Endangered Species Committee which reviews the board’s record. The Committee’s discretion is limited by substantive standards of the statute which require that:

(i) there are no reasonable and prudent alternatives to the agency action;
(ii) the benefits of such action clearly outweigh the benefits of alternative courses of action consistent with conserving the species or its critical habitat, and such action is in the public interest;
(iii) the action is of regional or national significance; and
(iv) neither the Federal agency concerned nor the exemption applicant made any irreversible or irretrievable commitment of resources prohibited by subsection (d) of this section; and
(v) it establishes such reasonable mitigation and enhancement measures, including, but not limited to, live propagation, transplantation, and habitat acquisition and improvement, as are necessary and appropriate to minimize the adverse effects of the agency action upon the endangered species, threatened species, or critical habitat concerned.

In short, the Endangered Species Act protects listed endangered or threatened species and their habitats in two ways. Section 7 requires all agencies that undertake activities that may jeopardize a species or its habitat to consult with the Secretary of the Interior. He has the authority to deny clearance for the activity or to allow it to go forward, often with mitigation conditions. Section 9 is a flat prohibition against all activities, public or private, that result in the taking of a species and both sections have variance procedures.

Section 404 of the Clean Water Act

Section 404 of the Clean Water Act establishes a joint Corps of Engineers-Environmental Protection Agency regulatory program for the

55. Coggins and Russell, supra note 2, at 1482 n.433.
discharge of dredge and fill into navigable waters. Section 404 permits are issued by the Corps of Engineers subject to a veto by the Environmental Protection Agency. The Corps' jurisdiction extends to "navigable waters," which is defined broadly to include all surface bodies of waters and associated wetlands. Western water interests have been fairly well accommodated in the section 404 procedure. For instance, a number of exemptions including normal farming and soil and water conservation practices, irrigation ditches, and return flows are included. Also, a section 404 permit is only required for major new water diversion projects. It does not apply to the operation of existing facilities.

Section 404 regulations list a number of substantive criteria for granting a permit. As one would expect, the primary purpose of the regulations is to limit dredge and fill activities to water-dependent activities. The major standard of review is an all-encompassing public interest study that allows the Corps to balance the benefits of the project against its environmental costs. The major unresolved issue, however, is the extent to which the Corps can take into account environmental impacts other than those directly caused by dredge and fill activities.

The Endangered Species Act and Western Water Rights

The Endangered Species Act effectively creates de facto regulatory water rights. That is, the federal government now has a new basis to claim that specific but undetermined amounts of water either be released from a reservoir or not be impounded. The closest the Act comes to recognizing any property rights is in section 5 where the federal government is allowed to acquire land and other resources to protect a species and its habitat. De facto regulatory water rights differ significantly from

60. The Corps is no longer bound by the historic chain of interstate commerce test. See Wyoming v. Hoffman, 437 F. Supp. 114 (D. Wyo. 1977); Leslie Salt Co. v. Froehlke, 578 F. 2d 742 (9th Cir. 1978); and United States v. Earth Sciences, Inc., 599 F.2d 368 (10th Cir. 1979). The latest definition of navigable waters can be found at 33 C.F.R. § 323.2(a) (1983). Courts are less convinced that Congress intended to assert its full constitutional power over associated wetlands, and thus assertions of jurisdiction over low-lying areas that sometimes become saturated with water have been set aside. United States v. Riverside Bayview Homes, Inc., 729 F.2d 391 (6th Cir. 1984); cf. Avoyelles Sportsmen’s League, Inc. v. Marsh, 715 F. 2d 897 (5th Cir. 1983).
62. Section 404 is only triggered by the discharge of dredge and fill material into navigable waters. 33 U.S.C. § 1344(a) (1976).
proprietary rights whether held by the government or by private entities. All property rights share common characteristics, but it is necessary to emphasize the differences between regulatory and proprietary water rights to understand western fears about integrating these rights with traditional state-created water rights.

Traditional Western Water Law

Western states follow the law of prior appropriation (subject to dual riparian rights in California, Nebraska, Texas, and Washington). Prior appropriation is premised on the following assumptions: (1) waters are owned in trust for the public so that the acquisition of private rights can be regulated and hence all water rights are usufructuary; (2) the optimal use of water will be served by a system which maximizes private use of water and minimizes public use for purposes such as instream flow maintenance; (3) private rights should be as secure as possible subject to the dubious but well-established principle that claims cannot be asserted for speculative purposes; (4) rights are based on the priority of application to a beneficial use, subject to relation back to the date of filing, and endure so long as the claimant applies the water to a beneficial use and does not abandon the use or suffer a forfeiture; and (5) the whole stream may be diverted during times of peak demand to satisfy calls on it and a call may only be rejected by the stream administrator if it would be futile.

Public rights are common in western water law. Historically, public rights specify the types of permitted and prohibited activity that can take place with respect to a water body. Such rights do not directly give the right holder, the government, an entitlement to a specific quantity of water. For example, the public has long had the right to make use of navigable waters for commercial and recreational purposes. Public proprietary rights also exist in the West with federal reserved Indian and non-Indian rights as the most important public proprietary rights.

Public water rights have been generally accepted because of their long history, but western water lawyers have been troubled by federal-reserved public proprietary water rights for theoretical and practical reasons. Theoretically, federal-reserved proprietary water rights are mules. They have hybrid appropriative and riparian characteristics. They have

70. Reserved rights were first recognized as a judicial contribution to the then prevailing federal Indian policy of integrating Indians into white civilization. See Winters v. United States, 207 U.S. 564 (1908).
71. The assertion of public rights to tidelands long thought to be free from the public trust poses difficult problems. California has aggressively asserted the public trust over tidelands held by private patentees and their successors in interest. The state supreme court has upheld these assertions, but the Supreme Court recently invalidated the state's assertion of a trust easement over tidelands long confirmed in private ownership pursuant to the Treaty of Guadalupe Hidalgo. Summa Corp. v. California, 104 S. Ct. 1751 (1984).
a priority date and entitle the holder to a fixed quantity of water like appropriative rights. But, they also have riparian characteristics; i.e., the right depends on federal land ownership rather than on the application of water to a beneficial use. These characteristics have given rise to the concern that huge amounts of water will be claimed by their beneficiaries: Indian tribes and federal land management agencies. The fear of western states is that the exercise of these "phantom" rights will destabilize the intricate fabric of western water allocation. To date, these fears have proven groundless (1) because reserved rights mimic private water rights and thus have internal, self-limiting characteristics, and (2) because of judicial and Congressional hostility to their recognition.\(^{72}\)

Like private water rights, federal-reserved rights are limited because they have a priority date; namely the date reserving the public land for a water-related purpose. In addition, the holder of the federal-reserved rights can only claim the minimum amount of water necessary to support the purpose\(^{73}\) and the rights depend upon a congressional claim. In United States v. New Mexico,\(^{74}\) Justice Rehnquist articulated a high standard for finding congressional claims. An implied congressional intent for a claim will only be found when a reserved right is necessary to prevent the frustration of the primary purpose of water-related reservation.\(^{75}\)

As this brief overview of western water law demonstrates, federal-reserved water rights are limited and are disfavored by the Congress and the judiciary. To understand western fears about federal claims under the Endangered Species Act and section 404 of the Clean Water Act, one only needs to appreciate how limited and interrelated with state water allocation systems federal reserved-rights are as compared to "unclaimed" federal regulatory rights under federal environmental protection acts.

Ironically, restrictions on the federal government's reserved water rights create pressures to resort to "unclaimed" federal regulatory rights as an end-run around these restrictions. The recent Supreme Court case of Nevada v. United States,\(^{76}\) illustrates how restrictions on the exercise of federal-reserved water rights would encourage a party to use federal regulatory rights to achieve its purpose.

In 1913, the federal government brought an action both to claim reserved rights for the Pyramid Lake Indian Reservation and to establish water rights for the proposed Newlands reclamation project on the Truckee River in Nevada. All the water users on the Truckee River were named

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76. 103 S. Ct. 2906 (1983).
as defendants. After a prolonged and interrupted history, the "Orr Ditch" litigation culminated when the district court entered a final settlement decree in 1944, adjudicating the water rights of the Tribe and the project.\textsuperscript{77}

In 1973 the federal government sought to open the "Orr Ditch" decree to claim reserved water rights to maintain the Pyramid Lake fishery.\textsuperscript{78} The district court held that the 1944 decree was res judicata to all new claims, but the United States Court of Appeals for the Ninth Circuit held that the owners of the Newlands project lands, now under the management of the Truckee-Carson Irrigation District, were not bound by the decree. The court held that the government breached its fiduciary duty to the Tribe by both representing the conflicting interests of the Tribe and the proposed project beneficiaries.\textsuperscript{79}

The Court of Appeals' conclusion was unanimously reversed by the Supreme Court. In \textit{Nevada v. United States},\textsuperscript{80} the Supreme Court held that: (1) the federal government cannot reallocate water from project beneficiaries because landowners are the beneficial owners of the water rights;\textsuperscript{81} (2) "the government does not 'compromise' its obligation to one interest that Congress obliges it to represent by the mere fact that it simultaneously performs another task for another interest that Congress has obligated it by statute to do";\textsuperscript{82} and (3) res judicata bars an action by and binds parties who were not parties to an original reserved rights decree.\textsuperscript{83}

The most significant holding in \textit{Nevada} is that parties which were not parties to the original 1913 suit were bound by the "Orr Ditch" decree:

\textbf{Orr Ditch} was an equitable action to quiet title, an \textit{in personam} action. But as the Court of Appeals determined, it "was no garden variety quiet title action." As we have already explained, everyone involved in \textit{Orr Ditch} contemplated a comprehensive adjudication of water rights intended to settle once and for all the question of how much of the Truckee River each of the litigants was entitled to. Thus, even though quiet title actions are \textit{in personam} actions, water adjudications are more in the nature of \textit{in rem} proceedings. Nonparties such as the subsequent appropriators in this case have relied just as much on the \textit{Orr Ditch} decree in participating in the development of western Nevada as have the parties of that case. We agree with the Court of Appeals that under "these circumstances it would be manifestly unjust ... not to permit subsequent appropriators to hold the reservation to the claims it made

\textsuperscript{77} \textit{Id.} at 2912.
\textsuperscript{78} \textit{Id.}
\textsuperscript{79} \textit{United States v. Truckee-Carson Irrigation Dist.}, 649 F.2d 1286 (9th Cir. 1981), \textit{modified}, 666 F.2d 351 (9th Cir. 1982), \textit{reversed} 103 S. Ct. 2906 (1983).
\textsuperscript{80} 103 S. Ct. at 2925.
\textsuperscript{81} \textit{Id.} at 2914. \textit{citing}, Ickes v. Fox, 300 U.S. 82 (1937) and \textit{Nebraska v. Wyoming}, 325 U.S. 589 (1945).
\textsuperscript{82} \textit{Nevada v. United States}, 103 S. Ct. at 2917.
\textsuperscript{83} \textit{Id.} at 2918.
endangered species and western water rights

in Orr Ditch; any other conclusion would make it impossible ever finally to quantify a reserved water right.\textsuperscript{84}

This holding can be defended on the basis that holders of state-created property rights have a legitimate expectation that the ground rules under which the rights were acquired will not be changed. Western water rights may be trimmed if the use ceases or if the use is found to be wasteful, but not simply because a new and "higher" user appears. The expectation of security is especially high if the fight is between private state-created rights and federal-reserved rights that mimic state rights. As illustrated in Nevada \textit{v. United States}, if a choice must be made between adding federal measures and reallocating project water vested under state law to protect a Tribe, it seems fair that the federal government bear the burden of its trust duties. This result shows the extent to which federal water rights are limited and the attraction to resort to federal unclaimed "regulatory-reserved rights."

\textit{Integrating Regulatory Property Rights and State Water Rights}

The existence of regulatory rights under the Endangered Species Act and section 404 of the Clean Water Act raises the following issue: whether private expectations that the ground-rules under which state water rights are acquired will not be changed are equally as strong when the federal government exercises its constitutional power retroactively to regulate in the public interest. A tentative answer is no. What seems to be emerging out of recent water adjudications is that state-created water rights are not different from any other property rights despite the vast energy dissipated by western water lawyers to will a contrary result. Thus, state water rights are not immune from the retroactive application of state police power or of federal constitutional authority.\textsuperscript{85}

The application of the public trust doctrine, long thought to be confined if not mired in submerged lands beneath navigable waters, to water diversions is the most dramatic example of the retroactive application of state police power to water rights. Initially, a few state court decisions suggested that the public trust doctrine applied to the state’s power to approve limited new appropriations.\textsuperscript{86} Building on these precedents, the California Supreme Court squarely held in \textit{National Audubon Society v. Superior Court of Alpine County} that the doctrine applied to all appropriative rights and thus that the doctrine retroactively applied to new and existing, vested appropriative water rights.

\textsuperscript{84} \textit{Id.} at 2925.


\textsuperscript{86} See, e.g., Ritter \textit{v. Standal}, 98 Idaho 446, 566 P.2d 769 (1977). It has also been held that the state retains the power to subject new appropriations to a public trust standard. \textit{United Plainsmen Ass’n v. North Dakota State Water Conservation Comm’r}, 247 N.W.2d 457 (N.D. 1976).

\textsuperscript{87} 33 Cal. 3d 419, 658 P.2d 709, 189 Cal. Rptr. 346 (1983).
The state has an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible. Just as the history of this state shows that appropriation may be necessary for efficient use of water despite unavoidable harm to public trust values, it demonstrates that an appropriative water rights system administered without consideration of the public trust may cause unnecessary and unjustified harm to trust interests. As a matter of practical necessity, the state may have to approve appropriations despite foreseeable harm to public trust uses. In so doing, however, the state must bear in mind its duty as trustee to consider the effect of the taking on the public trust and to preserve, so far as consistent with the public interest, the uses protected by the trust.

Once the state has approved an appropriation, the public trust imposes a duty of continuing supervision over the taking and use of the appropriated water. In exercising its sovereign power to allocate water resources in the public interest, the state is not confined by past allocation decisions which may be incorrect in light of current knowledge or inconsistent with current needs. 88

California's approach can be faulted because the court has knowingly introduced great instability into an intricate web of property rights with insufficient legislative guidance. National Audubon was decided shortly after the California legislature declined to act on the changes in California water law recommended by a blue ribbon commission. The same criticism cannot be made of the Endangered Species Act and section 404 of the Clean Water Act. Originally, Congress did not consider the impact of these regulatory programs on state water law, but ultimately it did. Both programs are typical of federal environmental statutes that are simply superimposed on existing institutions. If Congress considered the problem at all initially, the most likely assumption is that it thought that the courts would resolve serious conflicts by holding that there had been a fifth amendment taking of private property. This conclusion is becoming more and more remote as the Supreme Court continues to muddle through the problem of when a regulation is a taking. 89

Western states made Congress aware of the potential conflict between environmental regulation and state water management as soon as conflicts started to emerge. 90 Congress has reacted to the concerns of western states, but in a manner that makes integration of regulatory property rights with state-created water rights difficult. For instance, Congress has not chosen to modify the primary objectives of environmental statutes. Thus the power of federal agencies to create regulatory property rights remains intact. Instead, Congress has vacillated between merely express-

88. Id. at 448, 658 P.2d at 728, 189 Cal. Rptr. at 364-65.
90. See supra notes 6, 65.
ing hope that there will be no conflict and placing a heavy burden on holders of state-created rights to show that there has been an impairment of rights.

Congress' strongest accommodation of western water interests in environmental statutes is found in section 101(g) of the Clean Water Act:

It is the policy of Congress that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this chapter. It is further the policy of Congress that nothing in this chapter shall be construed to supersede or abrogate rights to quantities of water which have been established by any State. Federal agencies shall cooperate with State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources.\(^91\)

The language of the statute is less than clear about its effect, and the remarks of its chief sponsor, Senator Malcolm Wallop of Wyoming, are equally ambiguous.\(^92\)

Section 101(g) responded to somewhat vague western fears that the technology-forcing standards of the Clean Water Act would prevent many existing discharges to the detriment of downstream water rights holders. Congress lacked sufficient information to gauge the extent to which federal water quality protection programs might displace state water right holders and it did not attempt to address systematically all possible water quality-quantity relationships. Under section 101(g), states were not given a veto over federal quality standards and federal agencies were enjoined to try to accommodate state and federal objectives. One commentator has suggested that federal regulation may condition state water rights so long as the conditions are imposed to carry out the intended purposes of the regulations.\(^93\)

In 1982 a major effort was made to weaken the Endangered Species Act. One proposed amendment would have added a section to the Act identical to section 101(g). In the end, Congress chose to impose a much weaker cooperation duty on the Department of the Interior: "It is further declared to be the policy of Congress that Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species."

The net effect of present congressional responses to western concerns that state-created water rights will be displaced is to shift the task of striking an accommodation between state and federal interests to the courts and to give water rights holders a new but slim statutory basis to argue that a federal agency has abused its discretion.

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93. Id. at 619.
The first major clash between the Endangered Species Act and state water rights is now working itself through the courts. *Riverside Irrigation District v. Andrews* is being touted as a decision that could be as important to western water rights as the 1955 *Pelton Dam* decision that paved the way for the recognition of federal non-Indian proprietary rights. The real effect of *Riverside*, however, will be on water lawyers rather than on water allocation patterns.

The *Riverside* case is not the first time in which the Endangered Species Act has been invoked to require flow release conditions on a diversion project, but it is the first major case that has not been settled. The first major clash between the Endangered Species Act and water allocation arose when Nebraska discovered that downstream irrigators on the Platte River could be better protected under the wing of the endangered whooping crane than by litigating the allocation of the river under interstate compacts and the doctrine of equitable apportionment. In that case, Nebraska brought its "defensive end-run" suit to prevent utility companies from building the Grayrocks Dam on the North Platte River. By seeking to enjoin the construction of the dam under the Endangered Species Act in order to protect the endangered whooping crane, Nebraska used federal regulatory rights to achieve its original purpose: protecting the interests of downstream Nebraska agricultural diversions. In the end, the focus of the litigation had permanently shifted to protect an endangered species because it was easier to get water for this purpose than to reopen a 1945 equitable apportionment.

In the Grayrocks litigation, the court set aside a federal loan guarantee from the Rural Electrification Administration (REA) and a section 404 permit because of the effect of the diversion on the downstream habitat of the whooping crane. The REA failed to consult the Fish and Wildlife Service, and the court concluded the REA finding, that there would be no adverse effect on the whooping crane habitat, was insufficient without the Fish and Wildlife Service's biological assessment. The section 404 per-

97. In the Supreme Court's most important application of the doctrine of equitable apportionment, Nebraska was given seventy-five percent of the flow of the Platte over the objections of three Justices that the decree was premature. Nebraska v. Wyoming, 325 U.S. 589 (1949). The decree did not affect the Laramie River because it had earlier been apportioned between Colorado and Wyoming, Wyoming v. Colorado, 259 U.S. 419 (1922). Nebraska's reluctance to seek additional relief under the doctrine of equitable apportionment seems wise as the Court is generally reluctant to apportion interstate waters when future projected adverse impacts are uncertain. Nebraska and other states, resting their claims on priority of use, may take some comfort from the Supreme Court's most recent application of the principle that priority of use is the primary factor to be considered in equitable apportionments between two appropriation states. Colorado v. New Mexico, 104 S. Ct. 2433 (1984). In Colorado v. New Mexico, the Court placed the burden on the party initiating a diversion to show by clear and convincing evidence that injuries to existing uses could be mitigated and that any injuries were outweighed by the benefits of the diversion. 104 S. Ct. at 2440.
mit was also issued before the Fish and Wildlife Service completed its assessment, but the federal government had reserved the right to impose operating conditions on the reservoir until the Fish and Wildlife study was complete. The court held that to allow reservoir operation before adequate biological information was available did not adequately ensure that the whooping crane’s habitat would be preserved. A settlement favorable to the whooping crane and, incidentally, Nebraska irrigators, ended the litigation. 99

*Riverside Irrigation District v. Andrews* is an important case because it questions the federal government’s authority to regulate the possible downstream environmental impacts of water impoundment and diversion projects under section 404 of the Clean Water Act. In *Riverside*, the proposed dam is located on a tributary of the South Platte River in Colorado. Because the South Platte and the Platte Rivers are over-appropriated, the Fish and Wildlife Service is concerned that any additional withdrawals will jeopardize the habitat of the endangered whooping cranes. 100 The Fish and Wildlife Service’s first biological assessment concluded that reservoir releases or diversions were necessary during the spring and early summer to scrub out the vegetation in the river channel. (The vegetation enables the cranes’ predators to hide and prey on them.) A subsequent assessment however suggested that any flows from Wildcat Reservoir would not provide adequate scouring flows and that mechanical clearing in Nebraska was necessary.

The litigation arose when the Corps of Engineers refused to issue a nationwide permit for the discharge of sand and gravel during the construction of the dam. The Corps’ decision was based on the adverse environmental impacts to the cranes’ critical habitat from the operation of the dam rather than on the impacts of the deposit of dredge and fill material during construction. The United States Court of Appeals for the Tenth Circuit upheld the Corps’ refusal to issue a nationwide permit, but remanded the case to the district court to determine whether the Corps of Engineers had exceeded its statutory authority. 101

On remand, the district court ruled that the Corps of Engineers had not exceeded its authority. The opinion squarely rejected Riverside District’s contention that the federal government lacks the authority to create water rights beyond federal-reserved proprietary water rights and public water rights such as navigation servitude rights. 102

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100. Projects that propose to deplete a stream rather than flood a critical habitat pose substantial but more manageable problems under the Endangered Species Act. Depletions pose less of a threat to species survival than flooding. For instance, the Fish and Wildlife Service approved the Windy Gap project in Colorado after its sponsors agreed to divert 11,000 acre-feet of water annually for the protection of downstream aquatic habitat for primarily non-endangered trout. These releases combined with habitat enhancement and research ensured that the project would not jeopardize endangered species.
Riverside District had first argued that the Corps lacked the authority to impose downstream protection conditions because of the long-standing policy of congressional deference to state water law. Riverside District also argued that section 404 did not authorize the Corps to impose downstream protection conditions because section 404 only applies to water-quality changes caused by the discharge of dredge and fill. In addition, Riverside District cited section 101(g) of the Clean Water Act to demonstrate that Congress did not intend the Act to affect state water rights in any substantial way. The court rejected the District’s arguments in favor of the federal government’s argument that deference to state water law merely reflects congressional policy not to preempt state law. It is not a general waiver of federal constitutional power.

Riverside District’s second argument was that Congress lacked the authority to create new regulatory water rights under the Clean Water Act because, in this case, water flow release conditions would prevent Colorado from using the water allocated to it under the South Platte River Compact. Riverside District’s second argument is a stronger one. Although several cases have upheld the Corps’ authority to take into account a wide range of environmental impacts beyond the immediate impact of dredge and soil deposits, some of the Corps’ section 404 nationwide permit denials have been held to be arbitrary or ultra vires. These cases generally involved situations where the Corps lacked sufficient authority over the entire project to justify a far-ranging inquiry or where the project’s effect on navigable waters was de minimus. Neither one of these situations applies to the Riverside case, however.

The real issue raised by the Riverside District’s second argument is whether the Endangered Species Act mandates protection measures at the section 404 permitting stage. This would seem appropriate in situations where there is a substantial nexus between the project and the endangered species because all interested parties are likely to coalesce when negotiation over mitigation measures is possible. Otherwise, federal objectives would be frustrated by limiting the power of the government to prevent environmental injury to the immediate boundaries of a project. The district court’s conclusion that Congress did not intend to limit the government’s power is based on this premise:

103. Id. at 589.
104. Id. Justice Rehnquist’s opinion in California v. United States, 438 U.S. 645 (1978), reviving the deference doctrine, contains language that casts doubt on congressional authority to allocate western water. Only he and Justice O’Connor, however, adhere to these extreme and erroneous views. The deference doctrine mandates that courts find specific evidence of congressional intent to preempt state water rights. They cannot lightly infer preemption from highly abstract ideas of the need for federal supremacy.
105. The South Platte River Compact, 44 Stat. 195 (1926).
While the Endangered Species Act does not expand the scope of federal agencies' authority, its clear language "shall insure" directs them to exercise their authority under other statutes to the fullest extent possible to carry out its aims. The question in this case is therefore whether the defendant's actions here, denial of plaintiffs' use of the nationwide permit because of potential deleterious downstream effects, was permissible under the Clean Water Act. If defendant's action was permissible under the Clean Water Act, then it was required under the Endangered Species Act.\footnote{109}

If Congress intended to deny the Corps of Engineers the power to use the section 404 permit process to coordinate application of the Endangered Species Act, section 101(g) of the Clean Water Act would seem to be the most persuasive evidence of that intent. Although section 101(g) has not been extensively construed by the courts, section 101(g) was a factor in \textit{National Wildlife Federation v. Gorsuch}.\footnote{110} There the court of appeals held that the Environmental Protection Agency was reasonable in concluding that dams were not point sources of pollution under the Clean Water Act,\footnote{111} but the reach of this decision is problematic. The court relied on section 101(g) for the proposition "that Congress did not want to interfere any more than necessary with state water management, of which dams are an important component,"\footnote{112} but the court also stated that this was not a situation where "federal intervention is needed because the states have abdicated their . . . responsibility over a truly pressing national problem."\footnote{113}

\footnote{109. Riverside Irrigation Dist. v. Andrews, 568 F. Supp. at 588. See also Winnebago Tribe of Nebraska v. Ray, 621 F.2d 269 (8th Cir. 1980); Save The Bay v. Corps of Engineers, 610 F.2d 322 (5th Cir. 1980).}

\footnote{110. 693 F.2d 156 (D.C. Cir. 1982).}

\footnote{111. Judge Wald, who is famous for writing opinions that list but do not conclusively assign weight to the factors that influenced her decision, concluded that substantial deference should be given the EPA's conclusion because neither the language of the Act nor the legislative history yielded a conclusive answer to the question. National Wildlife's strongest argument was the uncontested evidence that dams can have an adverse effect on downstream water quality. EPA avoided the evidence by drawing a distinction between pollution and pollutants and the court accepted the distinction as reasonable:

The reasonableness of EPA's distinction between "pollutant" and "pollution" is reinforced by the changes made in conference. Both the Senate and the House had used inclusive phrasing—"[t]he term 'pollutant' means, but is not limited to, dredged spoil . . . and industrial, municipal, agricultural, and other waste discharged into water." The conference committee deleted the inclusive phrases "but is not limited to" and "other waste," albeit without explanation.

And, while Congress did not intend the term "pollutant" to be all-inclusive, we find, at the same time, strong signals in the legislative history that it also entrusted EPA with at least some discretion over which "pollutants" and sources of pollutants were to be regulated under the NPDES program. Of course, Congress generally intended that EPA would exercise substantial discretion in interpreting the Act. . . . It also specifically expected EPA to have some power to determine both what is a "point source" and what is a "pollutant."}

\footnote{112. \textit{Id.} at 178.}

\footnote{113. \textit{Id.} at 183.}
The National Wildlife Federation case might be characterized as another example of strong judicial deference to state water law, but the deference in that case is limited compared to Justice Rehnquist's articulation of the principle in California v. United States. National Wildlife Federation thus has limited relevance for Endangered Species Act cases.

The Riverside case underscores the nature of the relationship between federal regulatory rights and state water rights. Here a federal agency is willing to exercise broad jurisdiction and a contrary result might frustrate a clear congressional objective: species preservation. The sponsors of section 101(g) realized that a federal program could interfere with state water allocation. Section 101(g) is not a guarantee against all federal interference. It is primarily a guarantee against the use of federal authority to interfere with state water allocation programs that have no affect on a specific federal regulatory program.\textsuperscript{114} In Riverside, the district court rejected Riverside District's argument that section 101(g) immunized it against federal interference.\textsuperscript{115} The court held that "while the defendant is barring the plaintiffs from exercising their water rights in a manner inconsistent with federal law, he [the district engineer] is not taking away the rights. They may still be utilized, so long as in a manner consistent with federal law.

This conclusion seems correct because the Endangered Species Act only prohibits state water management to the extent necessary to effectuate the objective of protecting the whooping crane.

Riverside District's third and most intriguing argument was that conditions created by flow release would violate the South Platte Compact. State water rights holders have no right to prevent the state from reallocating its waters to users in other states through an interstate compact,\textsuperscript{117} but the issue of Congress' ability to reallocate water subject to compact has never been considered by a court. This issue has taken on added importance after Sporhase v. Nebraska,\textsuperscript{118} which subjects state water rights to the negative commerce clause.\textsuperscript{119} The issue of whether Congress has the ability to reallocate water subject to compact is not easy to resolve, but the answer must be that Congress has the power to alter compact allocations to achieve federal objectives.\textsuperscript{120}

\begin{itemize}
  \item \textsuperscript{114} See White, supra note 92.
  \item \textsuperscript{115} Riverside Irrigation Dist. v. Andrews, 568 F. Supp. 583 (D. Colo. 1983).
  \item \textsuperscript{116} Id. at 589.
  \item \textsuperscript{117} Hinderlider v. La Plata River and Cherry Creek Ditch Co., 304 U.S. 92 (1938), reh'g denied, 305 U.S. 668 (1938).
  \item \textsuperscript{118} 458 U.S. 491 (1982).
  \item \textsuperscript{119} There is considerable speculation among western water lawyers about the relationship between Sporhase and interstate compacts based on fears that compact allocations may not be as firm as they were once thought to be. For example, is congressional consent to a compact an exercise of Congress' power to exempt state law from negative commerce clause scrutiny? More explicit congressional intent is probably needed but the issue is very much open. See New England Power Co. v. New Hampshire, 455 U.S. 331 (1982).
  \item \textsuperscript{120} The classic Frankfurter and Landis work, The Compact Clause of the Constitution—A Study in Interstate Agreements, 34 Yale L.J. 685 (1925), concludes by considering congressional approval of a compact to promote regional equity:

\begin{quote}
In no wise does this solution imply a transfer by Congress of its duty towards national affairs. On the contrary, it is a deliberate recognition by Congress that
\end{quote}
\end{itemize}
A compact is more than a contract among states.\textsuperscript{121} It is a contract that furthers a federal interest: interstate cooperation. Thus state interests recognized in a compact may be subject to federal policies articulated after the compact was negotiated. The federal government has the power to apportion interstate waters, and therefore no state rights are vested against federal apportionment.\textsuperscript{122} Any state water rights, be they based on state law or an interstate compact, therefore remain subject to subsequent diminution by Congress, if Congress decides to use this power.

There is some precedent for the proposition that a compact estops Congress. But in \textit{Pennsylvania v. Wheeling and Belmont Bridge Co.},\textsuperscript{123} the Supreme Court held that a compact between states could not restrict the power of Congress to regulate interstate commerce. In \textit{Wheeling}, Congress had retroactively authorized the construction of a bridge on the Ohio River between Virginia and Ohio. Pennsylvania, representing the upstream port of Pittsburgh, argued that the legislation was inconsistent with a compact between Virginia and Kentucky that guaranteed free navigation on the Ohio. Confronted with the question of whether a compact can limit the power of Congress to regulate interstate commerce, the Court answered: "Clearly not. Otherwise Congress and two States would possess the power to modify and alter the constitution itself."\textsuperscript{124}

\begin{flushright}
\textit{Id.} at 726-27.
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\textsuperscript{121} Interstate compacts are based on the concept of contract, but this analogy does not immunize them from federal power. The contract origin of compacts is important when it is necessary to articulate standards to determine which types of interstate cooperation can proceed without Congressional consent. Engdahl, \textit{Characterization of Interstate Agreements: When Is A Compact Not A Compact}, 64 Mich. L. Rev. 63 (1965), is an ambitious attempt to formulate such standards. Following Triepel, \textit{Volkerecht und Landerrechte} (1889), Engdahl distinguishes between transactional and cooperative agreements. The former, Vertrag, were analogized by Triepel to private contracts and the latter, Vereinbarung, to cooperative agreements by parties sharing mutual interests. Engdahl rightly characterizes interstate water apportionment as a transactional agreement because such an interstate agreement performs the function of treaties, the allocation of political power between sovereigns. Engdahl, supra, at 101. The exercise of federal power over compacts does not, however, turn on this distinction.

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\textsuperscript{123} 59 U.S. 421 (1856).  
\textsuperscript{124} \textit{Id.} at 433.
\end{flushright}
The only remaining objections that Riverside District can make to the Corps' permit conditions would be (1) that the Endangered Species Act is unconstitutional or (2) that the permit conditions constitute a taking. The South Platte Compact does not estop Congress from reallocating state water. The deference doctrine and section 101(g) of the Clean Water Act do not restrict the Corps' actions. The argument that the Endangered Species Act is unconstitutional is untenable. Endangered species protection is a clear exercise of Congress' commerce as well as treaty authority.

The argument that the permit conditions constitute a taking will be difficult to maintain short of a showing that Riverside's ability to perform its intended function is virtually eliminated, which the district court found was not the case. Western water law is designed to protect rights holders during periods of peak demand, but conflicts such as *Riverside* raise substantial, although seldom well articulated, ripeness issues that make it hard for state water rights holders to demonstrate impairment. The Supreme Court prefers to avoid these issues by holding that the final effect of a regulation is not ripe for review, and courts in water cases seem to apply this teaching. Water rights holders, claiming impairment, will have to demonstrate that the risks of shortages during periods of peak demand have been increased to an extent greater than have so far been demonstrated in the cases.

**The Possible Future Impacts of the Clean Water Act and the Endangered Species Act on State Water Rights**

The characterization of permit conditions as "regulatory property rights" is a conceptual analysis: neither Congress nor the courts have adopted it. As permit conditions are imposed, however, the issue of how these "regulatory property rights" should be applied will arise.

The solution which best serves the needs of the federal government and the states is to assign water rights to the project operator. The result is that except in extraordinary cases, the project operator, as a water rights holder, should be subject to state procedural law. The project operator's water rights would also appear in the state record system, notifying subsequent appropriators of the federal government's claims.

State substantive doctrines may operate to frustrate federal water rights claimed under the Endangered Species Act. When conflicts between state law and federal objectives arise, however, state law should be presumptively preempted. For example, some western states do not recognize instream uses either because the use is not beneficial or because the state does not satisfy the actual diversion requirement. Neither one of these rules should be applied to flow releases claimed under the Endangered Species Act or section 404 of the Clean Water Act. There may be long periods of time when flow releases under the species protection

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program are not needed, but state laws that terminate water rights for non-use should not be applied to the federal government.\textsuperscript{126} Instead, courts should only terminate a federal water right when the Department of the Interior or another agency makes an affirmative determination that releases are no longer necessary to prevent a species from jeopardy.

The issue may also arise as to whether downstream water rights holders between the point of release and the protected habitat should be able to claim the water. Characterization of Endangered Species Act rights as developed water is one way to resolve the problem.\textsuperscript{127} The water would be free of the call of the river and thus the project operator could make releases without the risk of downstream interference. A project operator should, however, be able to invoke the futile call doctrine under state law if he can demonstrate that the releases would not reach the habitat area.\textsuperscript{128}

Unlike section 404 of the Clean Water Act, the Endangered Species Act should impose a duty on new and existing federal or private project operators to supply sufficient water to protect the endangered species. Senior water rights holders should not have to suffer uncompensated reallocation, but project beneficiaries and other rights holders may expect to see water allocation patterns that differ from those provided under state law.\textsuperscript{129}

Project operators will argue that there is a distinction between new and existing projects, but this distinction is irrelevant. 	extit{Tennessee Valley Authority v. Hill} and other cases suggest that the Act applies to existing

\textsuperscript{126} The situation in which a downstream senior appropriator is not protected are discussed in 1 W. Hutchins, Water Rights Laws in the Nineteen Western States 518-85 (1971).


\textsuperscript{128} The Act requires only those measures that are likely to prevent jeopardy to species. Flow releases that do not protect a species or its habitat would be an abuse of the Secretary's discretion. To date, courts have entertained arguments that non-flow augmentation strategies exist, but have concluded that the Secretary's refusal to try them was reasonable based on the evidence. Carson-Truckee Water Conservancy Dist. v. Clark, 741 F.2d 257 (9th Cir. 1984).

\textsuperscript{129} Flow releases have long been required by the Federal Power Commission (now the Federal Energy Regulatory Commission). These releases have been sustained against challenges that they conflict with state water rights, but the basis of the Commission's power and limits, if any, have never been articulated. In California v. FPC, 345 F.2d 917 (9th Cir. 1964), cert. denied, 382 U.S. 941 (1965), the Supreme Court declined to probe the issue because it found that any conflict between the mandated releases and state appropriators was hypothetical. The issue continues to be unresolved. See Wolfe, Hydropower: FERC Licensing and Emerging State-Federal Water Rights Conflicts, 29 Rocky Mt. Min. L. Inst. 851, 872-75 (1984).

Federal authority to require that projects be operated in a manner that may be inconsistent with state law arises out of the case of First Iowa Hydro-Electric Coop v. FPC, 328 U.S. 152 (1946), in which the Court interpreted a section of the Federal Power Act to require deference to state water law as a mere compensation guarantee. \textit{First Iowa} is wrong as a matter of statutory construction, and the Supreme Court has held that a similar statute in the Reclamation Act is not merely a compensation guarantee but provides a limited double veto system. California v. United States, 438 U.S. 645 (1978). The decision in \textit{California v. United States} reverses a line of cases starting with \textit{First Iowa} that found state law based on the general need for federal supremacy. Clear expressions of federal policy, such as the Endangered Species Act, will still preempt state law. See United States v. California, 694 F.2d 1171 (9th Cir. 1982) and Wolfe, \textit{supra}, at 892-95.
projects as well as to new ones and any other conclusion would frustrate
the purpose of the Endangered Species Act.130 Retroactive compared to
prospective application, however, may not be relevant in deciding how
the Act should be applied. Perhaps countervailing considerations will be
given more weight in the exemption process when the issue is the applica-
tion of the Act to an on-going project.

Carson-Truckee Water Conservancy District v. Watt131 illustrates the
risk to state water rights claimants under this proposal. In Carson-Truckee
the court held that the Secretary of the Interior has a duty to operate
a reservoir in Pyramid Lake, located in the Pyramid Lake Indian Reser-
vation, to protect endangered and threatened species. All parties agreed
that the Secretary had a duty to prefer fish to municipal and industrial
uses in the operation of the Stampede Reservoir in allocating water over
and above that involved in the "Orr Ditch" litigation.132 The issue con-
cerned to what degree fish should be preferred, and the court held that
the Secretary had a duty to defer all other uses until the fish were no longer
classified as threatened or endangered.133 The court rejected the Carson-
Truckee District's argument that the Endangered Species Act required
the Secretary to avoid only those actions that jeopardized the bare sur-
vival of the species.134 As a consequence, the Carson-Truckee District's
proposed operating plan for the reservoir was found to be inconsistent
with the Secretary's species restoration duties under the Act and his
fiduciary obligation to the Tribe: "Water releases for the fishery in a single
year may require all of the Stampede storage, leaving no reserve for M&I
users in drought years."135

The United States Court of Appeals for the Ninth Circuit affirmed
the trial court's analysis of the Endangered Species Act.136 Judge Preger-
son reasoned that section 3 of the Act defined the term "conserve" as
"the methods and procedures which are necessary to bring any endangered
species or threatened species to the point at which the measures of the
Act are no longer necessary."137 Thus, "the ESA supports the Secretary's
decision to give priority to the fish until such time as they no longer need
ESA's protection."138 The court did reverse the trial judge's construction
of the Washoe Project Act and held that the Secretary was not restricted
to water sales for municipal and industrial purposes. This construc-
tion enabled the court to avoid the hard question: Must the Secretary use all

of the Yakima Indian Nation v. FERC, 734 F.2d 1347 (9th Cir. 1984) (FERC must under-
take a full study of the impact of a hydroelectric project on fishery resources prior to issu-
ing a new license).
132. Id. at 708.
133. Id. at 710.
134. Id. at 708.
135. Id. at 711.
138. 741 F.2d at 262.
of the project's water to protect the fish? The ultimate problem of allocating the reservoir's supply was therefore dumped into the Secretary's lap. 139

CONCLUSION

Like many environmental laws, the Endangered Species Act is paradoxical. If its scientific justification is correct, we should be moving toward institutions that practice integrated ecosystem management on a wide geographic scale instead of concentrating our efforts on the protection of an arbitrary and limited number of species and their habitats. But, we are not sure what integrated ecosystem management means and we are reluctant to make major institutional changes to try and manage our resources to this end. The Endangered Species Act will continue to be applied to activities on a case by case basis and water project managers and regulators will be forced to make a number of difficult decisions.

The integration into western water law of the values represented by the Endangered Species Act and section 404 of the Clean Water Act will not be easy. The first step is to recognize that it is legitimate for the federal government to claim water rights under these acts. These Acts represent a federal decision to add to the list of "beneficial" uses served by our water resources. The issue is not whether such rights can be claimed, but under what circumstances and in what manner they can be asserted.

Section 101(g) of the Clean Water Act and the cooperation injunction in the Endangered Species Act reflect the principle that integration should take place by the least intrusive means available to the federal agency. 140 For instance, flow maintenance that potentially conflicts with a state allocation pattern should be a preservation strategy of last resort. This is the correct meaning of the oft cited but much abused principle of federal deference to state water law. It remains proper for the courts to scrutinize the effects of federal law on long established state-created property rights. But, in light of its history, deference is not an excuse for the failure of states to recognize legitimate federal interests asserted in light of changing policies in the use of our resources. 141

Courts could start the process of accomodating federal and state interests by adopting a rule requiring the federal government to determine that non-flow release protection strategies are unlikely to preserve the species as compared to flow release strategies. This inquiry will reinforce the federal government's duty to seek mitigation strategies that include active management programs.

The frustration of purpose standard adopted by the Supreme Court in United States v. New Mexico, 142 setting forth when it is appropriate to imply non-Indian reserved rights, is a possible analogy to the proposed

139. The Secretary's decisions are subject to review under an abuse of discretion standard.
140. See supra text accompanying notes 91-93.
141. 1 S. WIEL, WATER RIGHTS IN THE WESTERN STATES 166 (3d ed. 1911).
rule. As applied by the Court, however, this standard leaves the federal government with an insufficient margin of safety. The standard requires too great a showing of specific congressional intent to protect environmental values and therefore leaves courts too little room to decide if a specific remedy, reservoir releases for example, is an appropriate means of furthering the overall objective of the statute. An intermediate standard would be more consistent with the purposes of the Endangered Species Act.

The federal government should be entitled to the minimum amount of water deemed necessary to prevent the species' habitat from a further risk of deterioration. This determination must be based on the best available evidence. Judicial ground rules for species protection should provide sufficient incentives for all interested parties to strike some creative bargains rather than requiring parties to resort to the courts to solve future protection claims.