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New Directions in Nebraska Water Policy**

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I. INTRODUCTION

State and federal water policies have traditionally accepted economic development as a principal objective. Federal transportation, hydropower generation, and reclamation policies have been perceived as instrumental in helping a developing nation reach its economic potential. Because these economic development objectives have been largely achieved, public concern in recent years has changed from the development of natural resources to a greater emphasis on their protection and preservation.2 Enactment of federal and state environmental legislation reflecting these more recent concerns has resulted in inconsistent federal and state water policies. Emphasis on implementing reclamation, flood control, and hydropower production programs has changed to accommodate environmental objectives, although integration of development and environmental objectives is a continuing struggle. In addition, federal taxing and budget constraints have triggered a greater interest in governmental efficiency and reduced public expenditures. Consequently, federal water development programs are being subjected to closer budget scrutiny.

Nebraska's water policies have paralleled federal policies. Historically Nebraska water law has sought to facilitate private and public irrigation development. The irrigation crusade of the 1880s culminated in the adoption of the irrigation code of 1895, which remains the foundation of Nebraska surface water law. Federal adoption of the 1902 Reclamation Act provided federal financial subsidies for public irrigation projects. Nebraska adopted the required irrigation district, reclamation district, and public power district organization statutes to allow irrigators to participate in federal irrigation projects.

Initially, federal reclamation policies of subsidizing public irrigation projects could be justified as encouraging the settlement and agricultural development of what was considered to be a vast wasteland.

B. Holmes, History of Federal Water Resources Programs and Policies, 1961-70, at 1800-1960 (U.S. Dep't of Agric., Misc. Pub. No. 1233) (1972) [hereinafter cited as Holmes II.

B. Holmes, History of Federal Water Resources Programs and Policies, 1961-70 (U.S. Dep't of Agric., Misc. Pub. No. 1379) (1979) [hereinafter cited as Holmes II].

During the Depression, reclamation policies were subsumed by larger federal public works programs in an effort to stimulate employment. In the postwar period reclamation policies enjoyed broad political support. However, the environmental movement of the 1970s and the federal budget constraints of the 1980s have dealt significant blows to traditional federal reclamation policies.

Nebraska participated in public irrigation project development during the golden era of water development. However, the 1936 Osterman restriction on interbasin transfers³ constrained federal project development until the 1980 Little Blue I⁴ case authorized transbasin diversions. At the same time, farmers developed the plentiful ground water resources of Nebraska to increase total irrigated acreage to several times what could be supplied by streams and impoundments alone. This intensive ground water development led to declining ground water supplies in many areas of Nebraska. The threat of ground water depletion has led local irrigators to seek "rescue projects," i.e., public irrigation projects to supply the irrigation water lost to ground water depletion. When Little Blue I opened the Platte River to development by irrigators outside the Platte valley, the race for Platte River water began.

However, state and federal environmental and financial policy changes have made it more difficult to develop the Platte (and other Nebraska rivers) for irrigation: the golden age of water development has already passed. President Carter's water project hit list and proposed water policy reforms have resulted in significantly reduced federal financial assistance for public irrigation projects. In addition, Little Blue II ruled that water projects must comply with state endangered species statutes.⁵ This decision highlighted a bitter conflict between water developers and environmentalists and brought water development in Nebraska to a standstill.

To break this water development logjam, Nebraska Governor Bob Kerrey appointed a "Water Independence Congress" in 1983 to recommend new water policies to accommodate water development and environmental concerns, and to adapt to new federal water financing policies. Water Congress recommendations were adopted in 1984 and resulted in the creation of a Water Management Board to oversee and promote water project development in Nebraska.

This Article will trace the development of Nebraska and federal water development policies with special reference to the appropriate-

Osterman v. Cent. Neb. Pub. Power & Irrigation Dist., 131 Neb. 356, 268 N.W. 334 (1936).

Little Blue Natural Resources Dist. v. Lower Platte North Natural Resources Dist., 206 Neb. 535, 294 N.W.2d 598 (1980) [Little Blue I].

Little Blue Natural Resources Dist. v. Lower Platte North Natural Resources Dist., 210 Neb. 862, 317 N.W.2d 726 (1982) [Little Blue II].

ness of publicly subsidized rescue projects to cope with ground water depletion.

II. DEVELOPMENT OF STATE AND FEDERAL WATER DEVELOPMENT POLICIES

A. Appropriation and Reclamation: 1867-1929

Historically the major emphasis of Nebraska water law has been on facilitating irrigation development. The first step was replacing the common law riparian doctrine with the statutory surface water allocation doctrine of prior appropriation. Under the riparian doctrine, each owner of land bordering a natural stream or lake has the coequal right to make a reasonable use of water flowing past his property.⁶ Riparian conflicts are resolved through private litigation, the outcome of which is not easily predictable.⁷ The riparian doctrine does not facilitate irrigation for three main reasons: (1) nonriparians are not entitled to use streamflow,⁸ (2) litigation is a costly and uncertain way to determine rights when water supplies are inadequate,⁹ and (3) dormant riparian rights could be exercised to the detriment of existing riparian (and nonriparian) uses.¹⁰ In contrast, appropriative water rights are more certain. Water may be used on nonriparian land, the amount of water is fixed, and new users take subject to existing

Wasserberger v. Coffee, 180 Neb. 149, 141 N.W.2d 738 (1966). See Comment, The Dual-System of Water Rights in Nebraska, 48 NEB. L. REV. 488 (1969) [hereinafter Dual-System].

See R. Harnsberger & N. Thorson, Nebraska Water Law and Administration 19-22 (1984).

^{8.} In public irrigation projects most of the land irrigated will often be land located near the stream or reservoir. The river valley land may often be the best suited for irrigation. In addition, the closer the land to be irrigated is to the source of supply, the less costly is the delivery of irrigation water. However, restricting water use to riparian land would prevent most of the land within a river valley from being irrigated because the land tract was not physically contiguous to the stream.

^{9.} In the West, precipitation, and therefore streamflow, is irregular. However, the need for supplemental irrigation water will be greatest during periods of low precipitation, and therefore, periods of low streamflow: the need for water will be greatest when the supply is the lowest. Thus, regular and predictable resolution of the inevitable water use conflicts is important. Under the riparian doctrine disputes are resolved by private litigation, the nature of which does not promote predictability. In resolving riparian disputes Nebraska courts are likely to balance the equities by following the Restatement of Torts. See Wasserberger v. Coffee, 180 Neb. 149, 141 N.W.2d 738 (1966); HARNSBERGER & THORSON, supra note 7, at 54-57.

^{10.} Riparian rights are not lost by nonuse. 2 H. FARNHAM, THE LAW OF WATERS AND WATER RIGHTS § 463 (1904). Riparians may initiate new uses at any time which may interfere with existing uses, thus adding an additional element of uncertainty to the riparian system.

users.¹¹ The appropriation doctrine was developed to remedy the defects of the riparian doctrine in an arid environment. Thus replacement of the riparian doctrine with the appropriative doctrine was the first step to facilitate private irrigation development in Nebraska.¹²

The Nebraska Supreme Court decisively rejected the appropriative doctrine in several early cases.¹³ The unacceptable legal uncertainty resulting from riparian rights jeopardized the significant investment required for irrigation, and led to a political crusade to adopt appropriation statutes to promote surface water irrigation in Nebraska.¹⁴ Subsequent statutory development included the irrigation acts of 1877 and 1889, and the 1895 irrigation code which is the basis of current appropriation statutes.

In 1877 the Nebraska Legislature took the first step towards the legal recognition of prior appropriation by enacting a brief statute giving corporations organized for irrigation purposes the power of condemnation to acquire rights of way for canals, dams and reservoirs. The 1889 irrigation act explicitly recognized the doctrine of prior appropriation. The act adopted the principle of priority: "As between appropriators the first one in time is the first one in right." The procedure for appropriating water was reminiscent of the customs developed in the mining camps of the California gold rush. To appro-

^{11.} Trelease, Law, Water and People: The Role of Water Law in Conserving and Developing Natural Resources in the West, 18 Wyo. L.J. 3 (1963).

For a more complete discussion of the inappropriateness of the riparian doctrine to foster irrigation, see Trelease, supra note 11; Fischer, Harnsberger & Oeltjen, Rights to Nebraska Streamflows: An Historical Overview with Recommendations, 52 Neb. L. Rev. 313, 339-40 (1973); R. HARNSBERGER & N. THORSON, supra note 7, at 122-25.

Clark v. Cambridge & Arapahoe Irrigation & Improvement Co., 45 Neb. 798, 64 N.W. 239 (1895); Meng v. Coffee, 67 Neb. 500, 93 N.W. 713 (1903). For citations of earlier non-irrigation cases see 1 WIEL, WATER RIGHTS IN THE WESTERN STATES 138-40, n.12 (3d ed. 1911).

For an excellent account of this irrigation crusade see Fischer, Harnsberger & Oeltjen, supra note 12, at 342-48.

^{15.} Act of February 19, 1877, Ch. 16, § 158 Neb. Laws 168 (repealed 1889). See Fischer, Harnsberger & Oeltjen, supra note 12, at 333-34; HARNSBERGER & THORSON, supra note 7, at 64. While the 1877 Act did not explicitly provide a procedure for acquiring appropriative water rights, the Nebraska Supreme Court subsequently ruled that a common law appropriative procedure was implied. Kearney Water & Elec. Powers Co. v. Alfalfa Irrigation Dist., 97 Neb. 139, 149 N.W. 363 (1914). That is, an appropriator acquired his right by diverting water and applying it to a beneficial use.

Act of March 27, 1889, ch. 68, §§ 1-15, 1889 Neb. Laws 503 [hereinafter 1889 Act].
 See Fischer, Harnsberger & Oeltjen, supra note 12, at 334-40; R. HARNSBERGER & N. THORSON, supra note 7, at 64-67.

^{17. 1889} Act, § 7 (currently codified at NEB. REV. STAT. § 46-203 (1984)).

For an excellent account of the California gold rush and its impact on the development of the appropriation doctrine, see McGowen, The Development of Political Institutions on the Public Domain, 11 Wyo. L.J. 1 (1956).

priate water one was required to post a notice in writing in a conspicuous place at the point of diversion stating (1) a claim specifying the amount of water to be diverted and a description of the point of diversion, (2) the purpose for which water would be used and the place of use, and (3) the size and type of diversion works.¹⁹ A copy of the notice was required to be filed with the local county clerk within ten days of its being posted.²⁰ The claimant was required to begin construction of his diversion works and "prosecute the work diligently and uninterruptedly to completion unless temporarily interrupted by snow or rain."²¹ If the claimant complied with these rules his priority date related back to the posting of the notice.²² Failure to comply with these provisions worked a loss of priority as against a subsequent appropriator who complied with the rules.²³ The act also recognized prior common law appropriations.²⁴

A significant limitation of the 1889 act was its failure to provide an administrative mechanism for supervising the grant and exercise of appropriations.²⁵ Thus priority among appropriators had to be enforced through private litigation. Determining the priority and extent of rights was difficult as records were kept at the county level, rather than on a state-wide basis. A prospective irrigator would have needed to search the county records to the source of the stream to determine his relative priority.

While the 1889 act was little more than codification of common law appropriation principles, the 1895 irrigation code created a comprehensive administrative system for acquiring and administering water rights. The 1895 code replaced the 1889 system of acquiring an appropriation by use with an administrative system, administered by the

^{19. 1889} Act, § 8 (repealed 1895).

^{20.} Id.

^{21.} Id. at § 9.

^{22.} Id. at § 11. This is the beginning of the important "relation back" doctrine under which an appropriator's priority date relates back to when the work on the appropriation was initiated so long as the diversion was completed with "due diligence." See infra note 39.

^{23. 1889} Act, § 12 (repealed 1985).

^{24.} Id. at § 11. The act also abrogated riparian rights on streams wider than 50 feet. Id. § 1. This was amended in 1893 to apply only to streams wider than 20 feet. Act of March 31, 1893, ch. 40, § 1, 1893 Neb. Laws 377 (repealed 1895) [hereinafter 1893 Act]. The provisions restricting riparian rights were held invalid in Clark v. Cambridge and Arapahoe Irrigation & Improvement Co., 45 Neb. 798, 64 N.W. 239 (1895).

^{25.} Fischer, Harnsberger & Oeltjen, supra note 12, at 337-38; HARNSBERGER & THORSON, supra note 7, at 67.

^{26.} Act of April 4, 1895, ch. 69, §§ 1-69, 1895 Neb. Laws 244 (codified as amended at NEB. REV. STAT. § 46-201 to -263 (1984)) [hereinafter 1895 Act]. See Fischer, Harnsberger & Oeltjen, supra note 12, at 348-58; R. HARNSBERGER & N. THORSON, supra note 7, at 64-73. The Nebraska statute was patterned after Wyoming's appropriation statute, which was the first to establish an agency to grant and admin

state board of irrigation (now the Department of Water Resources), for acquiring new appropriations and for administering appropriations.²⁷ The establishment of an administrative agency to grant and administer appropriative rights is the most significant aspect of the 1895 code. Appropriations could be acquired only by filing with the board of irrigation,28 which was authorized to deny a permit if a stream were over-appropriated, or if granting the permit was not in the public interest.²⁹ Appropriation records were centralized with the board of irrigation, making the investigation of outstanding appropriative rights much simpler. Finally, resolution of appropriative disputes was made an administrative function.30 Relative priorities were established through adjudication of existing rights³¹ or when the permit was filed with the board of irrigation for new rights.³² The board also adjudicated the quantity of water to which an appropriator was entitled.33 These issues would no longer be required to be determined through litigation. Similarly, a senior appropriator could notify the board of irrigation when he was not receiving the quantity of water he was entitled to divert, rather than suing the upstream junior appropriator. Thus the basis for resolving appropriative disputes was clarified and an administrative mechanism for resolving such disputes on a routine basis was established.34

The significance of the 1895 irrigation code in encouraging irriga-

ister appropriations. Fischer, Harnsberger & Oeltjen, supra note 12, at 347; R. HARNSBERGER & N. THORSON, supra note 7, at 69-70.

^{27. 1895} Act, § 4 (repealed 1919) (state board of irrigation established); §§ 19-27 (adjudicating existing claims); §§ 28-31 (procedures for new appropriations). See Fischer, Harnsberger & Oeltjen, supra note 12, at 349-54; R. HARNSBERGER & N. THORSON, supra note 7, at 70-73. For a discussion of current appropriation procedures see id. at 73-86.

^{28. 1895} Act, § 28 (codified at NEB. REV. STAT. § 46-233 (1984)).

^{29.} Id. (codified at NEB. REV. STAT. §§ 46-234 to -235 (1984)).

 ¹⁸⁹⁵ Act, § 50 (codified as amended at NEB. REV. STAT. § 46-263 (1984)). For a good discussion of problems in administering priorities see R. HARNSBERGER & N. THORSON, supra note 7, at 92-97.

^{31. 1895} Act, §§ 16, 19-25 (codified, as amended, at NEB. REV. STAT. §§ 46-226 to -231 (1984)). See Fischer, Harnsberger & Oeltjen, supra note 12, at 350-52.

^{32. 1895} Act, § 31 (codified as amended at NEB. REV. STAT. § 46-205 (1984)).

^{33.} Id. § 28 (new appropriations); § 20 (adjudicated appropriations) (codified as amended at Neb. Rev. Stat. § 46-231 (1984)). See R. Harnsberger & N. Thorson, supra note 7, at 78-80.

^{34.} The 1895 irrigation code also cut off the acquisition of new riparian rights as of the act's effective date, April 4, 1895. But it did not provide a specific means for resolving riparian-appropriative disputes involving those riparian rights which had already vested. See Wasserburger v. Coffee, 180 Neb. 149, 141 N.W.2d 738 (1966); Dual-System, supra note 6; Fischer, Harnsberger & Oeltjen, supra note 12, at 358-63; R. HARNSBERGER & N. THORSON, supra note 7, at 97-112.

For a useful analysis of Nebraska's prior appropriation system see Yeutter, *A Legal-Economic Critique of Nebraska Watercourse Law*, 44 NEB. L. REV. 11 (1965).

tion development cannot be overstated. The code was absolutely necessary to developing large scale irrigation projects in Nebraska. Those wishing to develop individual or collective irrigation projects had all the legal tools they needed to obtain secure water rights for their project. Prior to making any investment the prospective irrigators could survey the stream to determine the number of appropriators and the quantity of their claims. This allowed the prospective appropriator to determine the likelihood of water being available to him if he obtained an appropriation. An appropriation would have a fixed quantity and priority date rather than having a coequal right to share a stream with other users.³⁵ Perhaps the most significant change was the administration of priorities. No longer would a senior appropriator be required to obtain a court order to close an upstream junior's headgate when the senior needed the water. A call to the Department of Water Resources (DWR) would result in an immediate investigation and, usually, the issuance of closing orders to the junior appropriator.³⁶

These changes were significant both for individual irrigators and for those wishing to promote collective irrigation projects. The earliest appropriations tended to be natural flow appropriations,³⁷ i.e., rights to divert water directly from the stream. As natural flow appropriations use the reliably available streamflow, later appropriators are required to incorporate water storage into their irrigation projects to obtain a secure water supply. Thus storage appropriations are used to store water during the non-irrigation season for use during the summer months.³⁸ The ability to make a realistic legal evaluation of stream conditions and existing uses, and to obtain water rights with fixed quantities and priorities which would be administratively enforced, provided the security necessary to encourage irrigation development.³⁹ If irrigation projects would fail, it would be primarily

^{35.} As Trelease has noted, "an equal share of water that was insufficient for all would lead to a parceling out of the waters in shares that were sufficient for no one." Trelease, supra note 11, at 9.

^{36.} When DWR personnel investigate to determine whether an upstream junior is diverting water which a downstream senior needs, the DWR ditch rider will first determine how much water the junior is diverting. The junior may be diverting more than allowed by his appropriation permit. If restricting the junior to his authorized rate of diversion will release enough streamflow for the senior, the junior will not be issued a closing order. If the streamflow to the senior is still inadequate, however, the closing order will be issued. When the senior has diverted as much as he is entitled to, the junior will again be allowed to resume diversions.

^{37.} For a discussion of how the priority rule encourages junior appropriators to obtain secure rights to water by developing storage see Trelease, *supra* note 11, at 9-10.

^{38.} For a discussion of the difference between natural flow appropriations and storage appropriations, and the difference in their administration, see R. HARNSBERGER & N. THORSON, *supra* note 7, at 74-84.

^{39.} Proposed irrigation projects created an element of uncertainty for prospective

because available streamflow was overestimated,⁴⁰ not because water rights were insecure or difficult to enforce.⁴¹

In addition to the appropriation code, irrigation district legislation was enacted in 1895.⁴² The irrigation district act provided the legal and financial tools necessary for irrigators to develop a large scale irrigation project, just as the irrigation code removed the legal impediments created by the riparian doctrine to such projects. The irrigation district act allows a majority of landowners or leaseholders (now referred to as electors)⁴³ to propose to organize an irrigation district by petition.⁴⁴ If a majority of voting electors vote to organize an irrigation district, the district is established.⁴⁵ The district, governed by an elected board of directors,⁴⁶ may establish water charges or land assessments (i.e. property taxes) to pay for district organization, operation and maintenance.⁴⁷ Districts are authorized to construct irrigation canals and reservoirs.⁴⁸ Construction bonds to pay for the

appropriators attempting to project current and future stream conditions. There is a significant time lag between when appropriations have been obtained for an irrigation project and when the project is actually constructed and water diverted. Moreover, obtaining appropriations for a project is no guarantee that the project will ultimately be completed. For reclamation projects, federal funding must be obtained. Given the current vagaries of federal water project funding, federal funding cannot be guaranteed. See B. Andrews & M. Sansone, Who Runs the Rivers? Dams and Decisions in the New West, 167-71 (1983). This is important to the prospective appropriator as well as appropriators who obtain their rights in the interim between water project appropriation approval and project implementation. If the project is constructed and put into operation, the project's priority date relates back to the date the appropriation permits were originally filed, so long as the appropriator "diligently" pursues the construction of the irrigation project. NEB. REV. STAT. § 46-205 (1984). See R. HARNSBERGER & N. THORSON, supra note 7, at 84-86. Appropriation officials have construed the due diligence requirement liberally, bending over backwards to give project sponsors every opportunity to obtain the required federal funding to prosecute the project. Thus the prospective appropriator who relies on the water allocated to a pending water project becomes a speculator gambling on completion of the

- 40. For a brief discussion of data problems with planning water projects, including constructing reservoirs that never fill because of inadequate streamflow, see NATIONAL WATER COMMISSION, WATER POLICIES FOR THE FUTURE 528 (1973).
- 41. The federal government also recognized the doctrine of prior appropriation in the 1877 Desert Land Act, ch. 107, 19 Stat. 377 (codified at 43 U.S.C § 321). See R. HARNSBERGER & N. THORSON, supra note 7, at 125-32.
- 42. 1895 Act, § 1 (codified at NEB. REV. STAT. § 46-101 (1984).
- An elector must own at least 15 acres or lease at least 40 acres within the proposed irrigation district. NEB. REV. STAT. § 46-102 (1984).
- 44. Act of March 26, 1895, ch. 70, § 2, 1895 Neb. Laws. 270 (codified at NEB. Rev. STAT. § 46-103 (1984)).
- 45. Id. (codified at NEB. REV. STAT. §§ 46-110 to -111 (1984)).
- 46. Id. §§ 3, 9 (codified at NEB. REV. STAT. §§ 46-112 to -120 (1984)).
- 47. Id. § 24 (codified at NEB. REV. STAT. § 46-152 (1984)).
- 48. Id. § 22 (codified at NEB. REV. STAT. § 46-145 (1984)). Irrigation districts thus were limited to supplying water solely for irrigation. Public power and irrigation dis-

costs of developing an irrigation project may be issued if approved in a special election.⁴⁹

The irrigation district statutes provide powerful organizational and financial tools to those wishing to develop irrigation projects. If the election to organize a district is successful, the cost of organizing the district is borne, not by the original promoters, but by the district. Further, bonds may be issued, secured by the real estate within the district, to finance irrigation project construction costs. While these authorities facilitate irrigation project development, Nebraska has not provided direct financial assistance to promote irrigation projects.⁵⁰ However, financial assistance would be forthcoming from the federal government.

The 1902 federal reclamation act⁵¹ inaugurated the federal water development program in the West. Receipts from the sale of public lands in the sixteen reclamation states⁵² were credited to the "reclamation fund," the purpose of which was to construct and maintain "ir-

tricts, authorized in 1933, are authorized to provide power and to supply water for irrigation. Act of April 18, 1933, ch. 86, § 3, 1933 Neb. Laws 339 (codified at Neb. Rev. Stat. § 70-604(1) (1981)). Reclamation districts, authorized in 1947, are authorized to supply water for municipal, domestic, irrigation, power, milling, manufacturing, mining, metallurgical, hunting, fishing, recreational development, and other beneficial purposes. Act of June 11, 1947, ch. 173, § 13, 1947 Neb. Laws 535 (codified at Neb. Rev. Stat. § 46-541(9), § 46-541(14) (1984)). The current practice for project promoters is to organize as a reclamation district.

 Act of March 26, 1895, ch. 70, § 28, 1895 Neb. Laws 289 (codified at NEB. REV. STAT. §§ 46-144, 46-193 to -1,127 (1984)).

- 50. California did establish a state water development program including state construction and operation of irrigation projects. R. Dunbar, Forging New Rights in Western Waters 36-45 (1983). The federal government, through the Carey Act of 1894, attempted to encourage Desert Land Act states to initiate state reclamation efforts. Carey Act, ch. 301, § 4, 28 Stat. 422 (current version at 43 U.S.C. § 641 (1982)). The act authorized states to apply for federal land grants of up to one million acres of unclaimed desert land within their boundaries. States were then to oversee the occupation, reclamation and irrigation of such land by homesteaders. Twenty acres out of each 160 acre tract was to be put in cultivation within 10 years. B. Andrews & M. Sansone, supra note 39, at 170. Professor Sax concludes, "The Carey Act, as expected, resulted in very little reclamation. It was a demonstration of what was, by then, reasonably obvious—that large-scale reclamation works were not a profitable enterprise." Sax, Federal Reclamation Law, 2 Waters & Water Rights 120 (R. Clark ed. 1967). That is, reclamation projects could not profitably be undertaken by states or private entities.
- 51. Reclamation Act of 1902, ch. 1093, 32 Stat. 388 (current version at 43 U.S.C. §§ 372-498, 1457) (1982)) [hereinafter Reclamation Act]. For a brief discussion of the historical background of the Reclamation Act see Sax, *supra* note 50, at 113-21
- 52. The 16 reclamation states designated in the 1902 Reclamation Act are Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, and Wyoming. Reclamation Act, § 1 (current version at 43 U.S.C. § 391 (1982)). Texas was added in 1906. Act of June 12, 1906, ch. 3288, 34 Stat. 259 (current version at 43 U.S.C. § 391 (1982)).

rigation works for the storage, diversion, and development of waters for the reclamation of arid and semiarid lands "53 The Secretary of the Interior was authorized to construct those projects deemed feasible without Congressional approval. Irrigators could water no more than 160 acres with reclamation water. Irrigators receiving reclamation water were required to repay construction costs without interest in ten years. It was hoped that the reclamation fund would be a revolving fund, based on receipts from the public land sales and irrigator payment of construction costs, and that the reclamation program would be financially self-contained. However, this hope was not realized. The reclamation program was never financially self-supporting, in part because irrigator's repayments were "greatly in arrears."

The 1902 Reclamation Act was significant in that it established financing (including federal subsidies) for western irrigation projects,⁵⁹ creating the expectation that if irrigators wanted cheap irrigation water the Bureau of Reclamation would try to accommodate them. Without federal financial assistance it is unlikely that many western irrigation projects would have been constructed. The initial justification for the federal reclamation program was that it encouraged settlement and agricultural development of an underdeveloped region. In the 1930s, the reclamation program would receive greater federal

^{53.} Reclamation Act (current version at 43 U.S.C. § 391 (1982)).

^{54.} Id. at § 4. Apparently project feasibility related to whether the payments from irrigators would meet the project's estimated costs. Id. In 1910, Congress restricted the Secretary's discretion to undertake reclamation projects by requiring Presidential approval for reclamation projects. Act of June 25, 1910, ch. 407, § 4, 36 Stat. 836 (current version at 43 U.S.C. § 413 (1982)). For a discussion of current project initiation and authorization procedures, see Sax, supra note 50, at 136-47.

^{55.} Reclamation Act of § 32 (repealed 1966). This antimonopoly provision is the controversial excess land reclamation limitation. Sax, *supra* note 50, at 209-41. The limitation was enlarged in 1982 to 960 acres. Reclamation Act of 1982, Pub. L. No. 97-293, § 204, 96 Stat. 1265, (codified at 43 U.S.C. § 390dd (1982)). *See* B. ANDREWS & M. SAMSONE, *supra* note 39, at 177.

^{56.} Reclamation Act, § 1 (current version at 43 U.S.C. § 391 (1982)).

^{57.} Sax, supra note 50, at 122.

^{58.} *Id.* at 129-32. Congress advanced general revenues to the reclamation fund as early as 1910. Act of June 25, 1910, ch. 407, § 1, 36 Stat. 835, (codified as amended at 43 U.S.C. § 397 (1982)). In the early 1970s the annual income from the reclamation fund comprised approximately one third to one half of annual reclamation expenditures. Sax, *supra* note 50, at 131.

^{59.} With the enactment of the 1928 Boulder Canyon Project Act, Congress broadened the scope of the Bureau of Reclamation's program to include multipurpose or multi-objective projects, including flood control, hydropower generation, and recreation, as well as irrigation. Ch. 42, 45 Stat. 1057 (1928) (current version codified at 43 U.S.C. §§ 617-617u (1982)). See B. ANDREWS & M. SAMSONE, supra note 39, at 180. While current Bureau projects are termed multipurpose projects, there is some justification for considering them irrigation projects, as the other purposes are ancillary to irrigation.

funding as part of the public works policy the New Deal used to relieve unemployment. However, after World War II agricultural surpluses became a continuing problem, and federal subsidy of irrigation projects was to come under increasing scrutiny. Ultimately federal budget concerns would place federal funding for water projects into a political limbo from which it has not yet completely emerged.

B. Drought, Depression, and Ground Water Development: 1930-1967

The drought and depression of the 1930s led to a significant increase in the reclamation program, ⁶⁰ as New Dealers sought to reduce unemployment through ambitious public works programs. The New Deal also helped develop irrigation projects through non-reclamation programs, such as the Public Works Administration and the Works Progress Administration. ⁶¹ The Tri-County project, Nebraska's largest surface water project, was financed through the PWA. ⁶²

The Tri-County project led to numerous court challenges, one of which significantly influenced the direction of Nebraska water development and policy. In the famous *Osterman* decision, the Nebraska Supreme Court ruled that the movement of water from one river basin to another violated Nebraska appropriation law.⁶³ The suit was filed by Tri-County project opponents, fearful of the downstream effects of the large project. The legal issue turned on the interpretation of two conflicting statutes. Section 46-206, enacted in 1893,⁶⁴ stated that water could not be diverted for use in another river basin unless the stream was over 100 feet wide, in which case no more than 75% could be diverted into another basin. Section 46-265, enacted in 1895,⁶⁵ stated that unused irrigation water must be returned to the stream from which it was originally diverted, or to the Missouri river. This latter statute was seized upon by the *Osterman* court to invalidate Tri-

^{60.} During the 1930s, annual Bureau of Reclamation expenditures were sometimes 10 times the annual income of the reclamation fund. Sax, supra note 50, at 131.

^{61.} HOLMES I, supra note 1, at 13, 15-16.

^{62.} G. HANAMAKER, IRRIGATION PIONEERS: A HISTORY OF THE TRI-COUNTY PROJECT TO 1935, at 204-09 (1964). The Tri-County Project, operated by the Central Nebraska Public Power and Irrigation District, includes Lake McConaughy, the largest lake in Nebraska. For a discussion of the Tri-County system see Harnsberger, Oeltjen & Fischer, Groundwater: From Windmills to Comprehensive Public Management, 52 Neb. L. Rev. 179, 284-92 (1973) [hereinafter Windmills].

^{63.} Osterman v. Central Neb. Pub. Power and Irrigation Dist., 131 Neb. 356, 268 N.W. 334 (1936), overruled, Little Blue Natural Resources Dist. v. Lower Platte North Natural Resources Dist., 206 Neb. 535, 294 N.W.2d 598 (1980). Regarding Osterman, see also Oeltjen, Harnsberger & Fischer, Interbasin Transfers: Nebraska Law and Legend, 51 Neb. L. Rev. 87, 104-07 (1971) [hereinafter Interbasin Transfers].

^{64. 1893} Act § 3 (codified as amended at NEB. REV. STAT. § 46-206 (1984)).

^{65. 1895} Act § 59 (codified as amended at NEB. REV. STAT. § 46-265 (1984)).

County's plan to use Platte River water to irrigate lands in the Platte, Blue and Republican River basins.

The effect of Osterman was to reserve Platte River water to Platte valley interests, at least temporarily. Irrigators from the Blue and Republican River basins, the areas of the original Tri-County project which were excised in Osterman, could not expect to obtain Platte River water to supplement local water supplies. The decision probably kept Nebraska from obtaining federal reclamation funding it otherwise might have obtained to use Platte River water in the Blue and Republican basins. Conversely, the Osterman decision protected "instream" water uses—such as ground water recharge, subirrigation, and wildlife maintenance—as well as inbasin water development potential, which otherwise may have been lost to out-of-basin developments.

The devastating drought of the 1930s also led to the first surge of ground water development in Nebraska. In 1935 alone over 1000 irrigation wells were drilled. In later decades ground water depletion would give rise to demand for more irrigation projects as ground water overtook surface water as the primary source of irrigation water in Nebraska. The first significant ground water law development was the 1933 Nebraska Supreme Court decision in Olson v. City of Wahoo. In this well interference case, the court ruled that ground water was not the private property of the landowner, that landowners could use ground water on their land without waste, and that ground water would be shared by competing users during periods of shortage. The sharing principle was later embodied in the 1975 Ground Water Management Act.

The major federal development of the 1940s was enactment of the 1944 Flood Control Act.⁶⁸ The act adopted the Pick-Sloan plan to develop the Missouri river basin for flood control, power generation, and irrigation.⁶⁹ The Pick-Sloan plan is significant to Nebraska water development in that it created a special basin account for future water projects in the Missouri River basin. Power revenues from hydroelectric power plants associated with main-stem Missouri River reservoirs would be used to subsidize irrigation projects in the Missouri River basin.⁷⁰

There were few notable state surface water law changes in the

^{66.} Aiken, Nebraska Ground Water Law and Policy, 59 NEB. L. REV. 917, 944 (1980).

^{67. 124} Neb. 802, 248 N.W. 304 (1933). See Windmills, supra note 63, at 192-96.

Flood Control Act, ch. 665, 58 Stat. 887 (1944) (codified at 33 U.S.C. § 701-1 et. seq. (1986)).

J. AUCOIN, WATER IN NEBRASKA 50-55 (1984). The book is a readable account of Nebraska water history, policies and issues.

^{70.} Id. at 57-59; Sax, supra note 50, at 135-36.

1950s and 1960s.⁷¹ However, significant changes occurred in Nebraska ground water legislation. In the 1950s drought, combined with the development of sprinkler irrigation systems, led to greater ground water irrigation—in 1959 the number of acres irrigated from ground water surpassed the number irrigated with surface water.⁷² With this increase in ground water development came the first realization that development could lead to depletion. This realization, plus increasing ground water irrigation (strengthened by the boom in center pivot development of the middle 1960s)⁷³ led to a steady stream of legislation, beginning with the irrigation well registration,⁷⁴ ground water preferences,⁷⁵ and well spacing statutes⁷⁶ of 1957. Concerns regarding ground water depletion led to enacting ground water conservation district (GWCD) statutes in 1959.⁷⁷ Subsequent ground water legislation

In 1967 the Unicameral directed the Nebraska Soil and Water Conservation Commission to utilize these federal water planning funds to prepare what is now known as the Framework Study, a statewide assessment of water resources needs and a guide to future development. The final Framework Study report was prepared in 1971, which identified potential surface water development opportunities in Nebraska. Neb. Soil & Water Conservation Comm'n, Report on the Framework Study 121-30 (1971) [hereinafter Framework Study].

- 72. Aiken, supra note 66, at 948.
- 73. Id. at 951; AUCOIN, supra note 69, at 38-41.
- 74. Irrigation Well Registration Act, ch. 200, 1957 Neb. Laws. 701, 701-04 (1957) (codified at Neb. Rev. Stat. §§ 46-601 to -607 (1984)). See Aiken, supra note 66, at 949-50; R. Harnsberger & N. Thorson, supra note 7, at 230-31.
- 75. Groundwater Preference Act, ch. 199, 1957 Neb. Laws. 701 (1957) (codified at NEB. REV. STAT. § 46-613 (1984)). See Aiken, supra note 66, at 951; R. HARNSBERGER & N. THORSON, supra note 7, at 236-40.
- 76. Spacing of Irrigation Wells Act, ch. 201, 1957 Neb. Laws. 704 (1957) (codified as amended at NEB. REV. STAT. §§ 46-608 to -612 (1984)). See Aiken, supra note 66, at 950; R. HARNSBERGER & THORSON, supra note 7, at 231-33.
- 77. Groundwater Conservation Act, ch. 220, 1959 Neb. Laws. 773-781 (1959) (codified as amended at Neb. Rev. Stat. §§ 46-614 to -634 (1984)). See Aiken, supra note 67, at 950-51. The GWCDs were instrumental in developing public awareness about improved irrigation practices, including irrigation scheduling, which helped make a greater degree of ground water regulation politically more acceptable. See id. at 951 n.163. The § 46-664 irrigation runoff requirement of the Ground Water Management Act probably stems from the runoff controls established and enforced by the Blue River Association of GWCDs. GWCDs were subsequently replaced by ground water control areas administered by Natural Resources Districts. See id. at 960-67.

^{71.} However, in 1965 Congress enacted the federal Water Resources Planning Act, Pub. L. No. 89-90, 79 Stat. 244 (codified at 42 U.S.C. § 1962 et seq. (1982)). A major feature of the act was funding for state water planning programs to facilitate surface water development; federal funds would be provided to the state to prepare general water development plans for river basins or the state. Federal agencies would then follow these state water plans in planning and designing particular federal surface water projects. The purpose of these state water plans was to reduce state-federal conflicts in federal water project development. The Reagan administration ended state water planning program funding. Energy and Water Development Appropriation Act, Pub. L. No. 97-88, 95 Stat. 1135 (1981).

included well abandonment requirements to protect ground water quality⁷⁸ and authorization of municipal ground water transfers.⁷⁹

In 1969 Nebraska adopted an important institutional innovation. Twenty-four Natural Resources Districts, organized along river basin boundaries, were established, replacing over a hundred single purpose districts, primarily soil and water conservation districts.⁸⁰ NRDs have developed into effective and professional water development advocates,⁸¹ and are in part responsible for the local control orientation of Nebraska ground water depletion policies.

III. THE ENVIRONMENTAL REVOLUTION AND THE "NEW FEDERALISM": 1968-1986

During its first 60 years the federal reclamation program was generally supported by other federal policies, most notably the federal public works policies of the 1930s and post-World War II period.⁸² However, federal environmental and budgetary policy changes in the 1970s and 1980s would significantly conflict with the traditional reclamation program objectives. New state and federal environmental laws

- 78. Enactment of well abandonment statutes reflected the first realization that ground water development could affect ground water quality. See Well Registration Act and Abandonment, ch. 230, 1961 Neb. Laws 683, 683-84 (1961) (codified as amended at NEB. REV. STAT. § 46-602 (1984)). See Aiken, supra note 66 at 951; R. HARNSBERGER & N. THORSON, supra note 7, at 234-35.
- 79. The need for municipalities in and near the Platte River valley to import ground water led to authorization of municipal ground water transfers in 1963. Municipal Groundwater Transfers Act, ch. 276, 828, 828-32 (1963) 1963 Neb. Laws (codified as amended at Neb. Rev. Stat. §§ 46-638 to -650 (1984)). See R. Harnsberger & N. Thorson, supra note 7, at 241-44. Municipal representatives pointed to the interrelationship between ground water withdrawals from the Platte River alluvium and streamflow and the need to legally integrate surface and ground water uses. However, ground water irrigators' fears that that their uses would be subordinated to surface water appropriations under the priority (first in time is first in right) doctrine prevented integrating ground and surface water rights. Aiken, supra note 66, at 953-55.
- Conservation of Natural Resources Act, L.B. 1357, 1969 Neb. Laws 99, 99-145 (1969) (codified as amended at NEB. REV. STAT. § 2-3201 to -3289 (1984)). See Windmills, supra note 62, at 254-64.
- 81. One problem irrigation project promoters face is finding an effective local advocate to promote the project at local, state, and federal levels. Generally irrigation districts, public power districts, and reclamation districts could not afford to hire a full-time advocate. With the creation of NRDs, water project promoters could look to the permanent, full-time NRD staff to provide technical and advocacy assistance. NRD managers fulfill this function for a wide range of resource development projects, of which irrigation projects are the largest.
- 82. Economists feared that the U.S. economy would suffer a recession or depression as federal war spending stopped at the end of the war. Thus federal public works projects were seen as a mechanism for helping prevent this postwar bust. In fact, postwar spending to rebuild Europe under the Marshall Plan helped maintain the economic demand for American products and the postwar bust did not materialize.

required that the environmental consequences of proposed water projects be evaluated, and that, in appropriate circumstances, projects could not be constructed if they interfered with endangered wildlife species or other environmental values. These environmental statutes provided project opponents new means to challenge and delay water projects. A federal study commission challenged many of the traditional justifications for reclamation projects, legitimizing political criticism of previously sacrosanct water projects.

Perhaps most significantly, Presidents Carter and Reagan, on cost and environmental grounds, have not proposed initiating any new reclamation projects. New federal water project funding legislation requires states to pay 35% of costs for U.S. Army Corps of Engineers irrigation projects. While the shape of evolving federal policies regarding financing reclamation projects are not yet clear, evidence suggests that new reclamation projects will also require significant state and/or local funding to qualify for federal cost-sharing assistance. This is in dramatic contrast to prior federal policies, where the federal government paid up to 90% of project costs. Federal and related state policies were no longer directly supporting of the traditional reclamation program mission, but instead were challenging that mission and the assumptions upon which it was based. These policy changes required new state policies regarding water projects in Nebraska.

A. Wild and Scenic Rivers Act

The first indication that federal policy towards reclamation was changing was the enactment of federal environmental legislation to protect environmental values often disrupted by water development projects. The first act was the Wild and Scenic River Act of 1968.83 The intent of the act is to complement federal water impoundment activities with one of preserving free-flowing rivers in their natural state.³⁴ The Act establishes a national system of protected riparian environments by initially designating certain river reaches as components of the system and by providing a mechanism by which other river reaches may be added to the system.⁸⁵ Additional rivers can be brought into the system (1) by an act of Congress or (2) upon application of the governor(s) of the concerned state(s) after approval by the Secretary of the Interior and designation in a state program.⁸⁶

^{83.} Pub. L. 90-542, 82 Stat. 906 (codified as amended at 16 U.S.C. §§ 1271-87 (1982)). See Tarlock & Tippy, The Wild and Scenic Rivers Act of 1968, 55 CORNELL L. REV. 707 (1970); B. ANDREWS & M. SANSONE, supra note 39, at 121-24; Comment, Federal Protection of Instream Values, 57 NEB. L. REV. 368, 393-94 (1978).

^{84. 16} U.S.C. § 1271 (1982).

^{85.} Id. at § 1272. Fifty-five river segments currently included in the wild and scenic river system are listed at 16 U.S.C. § 1274(a) (1982, Supp. III 1985).

^{86.} Id. at § 1273(a) (1982). Ninety-one river segments identified for potential inclu-

River segments are classified as a "wild river area," a "scenic river area," or a "recreational river area," depending on the river area's character.⁸⁷ The Secretary of the Interior and the Secretary of Agriculture are authorized to acquire up to 100 acres of land per mile on both sides of rivers included in the system, ⁸⁸ giving the federal government some control over future development of the river corridor. More significantly, federal agencies are prohibited from authorizing, assisting, or developing water impoundment projects within system river components or in rivers which may be potentially included in the system.⁸⁹ Finally, system components are required to be managed by federal agencies to preserve and enhance the values which led to inclusion in the wild and scenic rivers system.⁹⁰

The Act's prohibition of impoundment in stream segments included in the wild and scenic river system poses a significant threat to water development. The Act allows project opponents to attempt to have the river segment to be developed for impoundment included in the wild and scenic river system or at least studied for possible inclusion. Aware of this, whenever Nebraska stream segments have been suggested by the state for study for inclusion in the system, the segments nominated have carefully excluded segments where potential impoundment sites are located.⁹¹ Beyond this, the Act was the first

sion in the system are listed at 16 U.S.C. § 1276(a) (1982, Supp. III 1985). Several states, excluding Nebraska, have adopted state wild and scenic river programs. For a discussion of conflicts between state and federal scenic river programs, see Fairfax, Andrews, & Buchsbaum, Federalism and the Wild and Scenic Rivers Act: Now You See It, Now You Don't, 59 Wash. L. Rev. 417 (1984). Nebraska Senator Exon has introduced legislation that would include portions of the Niobrara River in the wild and scenic river system. S. 1713, 99th Cong., 2d Sess., 131 CONG. Rec. 124, 12317 (1985). See generally Neb. Natural Resources Comm'n, The Niobrara River: A Proposal For Scenic River Designation (1986) (examines Exon's proposal to protect Niobrara as a scenic river).

- 87. 16 U.S.C. § 1273(b) (1982).
- 88. Id. at § 1277(a). Private land may be condemned. Id. at § 1277(b).
- 89. Id. at § 1278. This would include projects for which federal authorization was required, such as under the federal 404 permit program, 33 U.S.C. § 1344 (1982, Supp. III 1985), as well as federally financed reclamation projects. Regarding the 404 program, see *infra* text accompanying notes 103-14.
- 90. 16 U.S.C. § 1281(a) (1982). The federal government may enter into a cooperative agreement with a state or political subdivision to participate in administering the river area. *Id.* at § 1281(e).
- 91. In the 1971 Framework Study, the Nebraska Soil and Water Conservation Commission, now the Nebraska Natural Resources Commission, recommended the Niobrara River, site of the controversial Norden Project, for potential designation as a protected river "from its confluence with Antelope Creek downstream to the headwaters of the proposed Norden Reservoir." Framework Study, supra note 71, at 261. Similarly, the federal Platte Level B Study recommended for potential designation as a protected river "the Calamus river above the recommended Calamus Reservoir." MISSOURI RIVER BASIN COMM'N, REPORT ON THE PLATTE RIVER BASIN, NEBRASKA LEVEL B STUDY 177 (1976) [hereinafter Platte Level B STUDY]. Nebraska has not adopted a state wild and scenic river or protected river

forthright acknowledgement by Congress that water development and environmental protection could clash, and that in some cases environmental values should be protected even if water development was thereby constrained.⁹²

B. National Environmental Policy Act

The second federal statute enacted that has significantly impeded the reclamation program is the National Environmental Policy Act of 1969 (NEPA).⁹³ NEPA is the best known of the federal environmental statutes and has spawned the most litigation. NEPA requires federal agencies whose actions have significant environmental consequences to publicly identify those consequences in a detailed environmental impact statement (EIS), to evaluate those consequences, and to consider alternative courses of action with less environmental disruption before taking final action.⁹⁴ The EIS requirement is the heart of NEPA, and has been used to require federal water development agencies, however reluctantly,⁹⁵ to more fully explore the environmental consequences of the proposed water project and less environmentally disruptive alternatives to that project. If an agency fails to prepare an adequate environmental impact statement, the adequacy of the statement can be challenged in court and the agency re-

system, even though both water planning studies recommended such a system. FRAMEWORK STUDY, *supra* note 71, at 261 (Recommendation 9); PLATTE LEVEL B STUDY, *supra*, at 176.

- 92. The Wild and Scenic Rivers Act was not the first federal statute dealing with the environmental consequences of water development. The Fish and Wildlife Coordination Act of 1934, 16 U.S.C. §§ 661-666(c) (1982), provides "that wildlife conservation shall receive equal consideration and be coordinated with other features of water-resource development programs through the effectual and harmonious planning, development, maintenance, and coordination of wildlife conservation and rehabilitation." Id. at § 661. The act requires federal officials to confer with state wildlife officials "with a view to the conservation of wildlife resources by preventing loss of and damage to such resources" when a federal program or permit is required for water diversion, impoundment, or channel modification. Id. at § 662(a). See Guilbert, Wildlife Preservation Under Federal Law, in FEDERAL ENVIRONMENTAL LAW 550, 553-57 (E. Dolgin & T. Guilbert eds. 1974) Comment, supra note 83, at 384-86.
- National Environmental Policy Act of 1969, Pub. L. 91-190, 83 Stat. 852 (codified at 42 U.S.C. §§ 4321-70a (1982)). See generally B. Andrews & M. Sansone, supra note 39, at 115-17; Anderson, The National Environmental Policy Act, in Federal Environmental Law, supra note 92, at 238-419; Anderson, NEPA in the Courts (1973); MacBeth, The National Environmental Policy Act After Five Years, 2 Colum. J. Envil. L. 1 (1975); Comment, supra note 83, at 381-82.
 U.S.C. § 4332(2)(C) (1982). Many states have enacted "little NEPAs" or
- 94. 42 U.S.C. § 4332(2)(C) (1982). Many states have enacted "little NEPAs" or "SEPAs." Pridgeon, Anderson & Delphey, State Environmental Policy Acts: A Survey of Recent Developments, 2 HARV. ENVIL L. REV. 419 (1977). Nebraska has not. Cf. Neb. Rev. Stat. §§ 81-1501 to -1532 (1986 Cum. Supp.).
- 95. See Cramton & Berg, On Leading a Horse to Water: NEPA and the Federal Bureaucracy, 71 Mich. L. Rev. 511 (1972).

quired to prepare additional studies. NEPA does not require the federal decision-maker to select the most environmentally sound alternative, but rather to make a reasoned selection, considering the environmental consequences.⁹⁶

NEPA was used to contest construction of the proposed Norden Dam on the Niobrara River in Save the Niobrara Ass'n v. Andrus.⁹⁷ The Norden Dam litigation involved the Bureau of Reclamation O'Neill Unit, which proposed to irrigate approximately 77,000 acres in north central Nebraska from the water impounded by the Norden Dam on the Niobrara River.⁹⁸ The court ruled that the EIS prepared by the Bureau failed to satisfactorily address the geologic stability of the dam site, the ground water quality effects of the irrigation project, the effect on wildlife, and project alternatives.⁹⁹ The court enjoined the project pending revision of the EIS.¹⁰⁰ That ruling began a project delay that has resulted in an evaluation of irrigation water supply alternatives to the original impoundment proposal.¹⁰¹

Save the Niobrara illustrates how NEPA provides water project opponents with a better means to oppose projects on environmental grounds than they traditionally have been afforded by state law. Save the Niobrara also is significant in that Norden is the first (and only) Nebraska water project that has been significantly affected by federal environmental law.

^{96.} Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 558 (1978); Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227 (1980). In spite of the Supreme Court rulings that NEPA is procedural rather than substantive, some federal agencies have nonetheless attempted to minimize or obscure the adverse environmental impacts of their proposed action, probably on the basis that opponents would use the EIS identification of adverse environmental impacts to politically oppose the project. This, of course, leaves the agency open to having the EIS deemed inadequate when it is challenged in court.

^{97. 10} Env't Rep. Cas. (BNA) 1665 (D. Neb. 1977).

^{98.} Id. at 1666-67.

^{99.} Id. at 1670-72, 1678-80.

^{100.} Id. at 1681.

^{101.} NEBRASKA DEP'T OF WATER RESOURCES, NEBRASKA STATE-LED O'NEILL UNIT ALTERNATIVES STUDY (1985). The Niobrara river is now the subject of a proposed federal scenic river designation. See supra note 86 and infra note 292.

^{102.} The only opportunity available to Norden project opponents would have been when the project's water rights were granted by the Nebraska Department of Water Resources. At that time the only ground upon which the permit could have been denied would have been if the proposed use of water was not beneficial, or if the project was not in the public interest. See NEB. Rev. Stat. §§ 46-204, -229, -231, -234 (1984). Neither concept has been judicially defined in Nebraska. See R. Harnsberger & N. Thorson, supra note 7, at 78-79. However, now the Water Management Board may review major water projects to determine whether they should be modified to, among other things, accommodate environmental objectives and/or competing water projects. See infra text accompanying notes 285-97.

C. Section 404 Dredge and Fill Permits

Section 404 of the 1972 Federal Water Pollution Control Act Amendments (Clean Water Act)¹⁰³ goes beyond the identification of environmental impacts of proposed federal projects required under NEPA. Section 404 requires public and private construction activities in water bodies to meet water quality and environmental protection criteria. The section 404 program is the first federal environmental statute superimposing substantive constraints on federal water resources projects.

Section 404 is only a part of the federal water pollution control program. The 1972 Clean Water Act established a comprehensive national program of regulating discharges of pollutants into water from point sources through NPDES permit requirements. States were encouraged to assume administration of the federal NPDES water quality program through federal program administration grants available to states with federally approved water pollution control programs. 105

The section 404 program was designed to avoid overlap between EPA's NPDES program and the Corps's permitting authority under the Rivers and Harbors Act. 106 There is some irony in this fact, as the Corps is better known as a water developer than as an environmental regulator. 107 The purpose of the section 404 program is to prevent environmental disruption resulting from the hydrologic modification of water bodies, including streams (e.g. from stream channelization or

^{103. 33} U.S.C. § 1344 (1982). See R. HARNSBERGER & N. THORSON, supra note 7, at 204-08; Blumm, The Clean Water Act's Section 404 Permit Program Enters Its Adolescence: An Institutional and Programmatic Perspective, 8 Ecology L.Q. 409 (1980); Thompson, Section 404 of the Federal Water Pollution Control Act Amendments of 1977: Hydrologic Modification, Wetlands Protection and the Physical Integrity of the Nation's Waters, 2 HARV. ENVIL L. REV. 264 (1977).

^{104. 33} U.S.C. § 1311 et. seq. (1982). NPDES stands for the National Pollution Discharge Elimination System. Id. at § 1342. See R. HARNSBERGER & N. THORSON, supra note 7, at 321-24.

^{105. 33} U.S.C. § 1256 (1982). See also id. § 1342. The Nebraska Department of Environmental Control administers the NPDES program in Nebraska. NEB. ADMIN. RULES & REGS. 119 (1980).

^{106.} Section 9 of the Rivers and Harbors Act requires Congressional and Corps approval for the construction of any bridge, dam, dike, or causeway over or in any navigable waters of the United States. 33 U.S.C. § 401 (1982). Section 10 of the Rivers and Harbors Act requires a Corps permit for any obstruction placed in navigable waters not specifically authorized by Congress. *Id.* § 403. The traditional purpose of the Corps' §§ 9 and 10 permits is to prevent interference with navigation. However, that purpose had been broadened to include environmental considerations even prior to the Clean Water Act. *See* Kramon, *Section Ten of the Rivers and Harbors Act: The Emergence of a New Protection for Tidal Marshes*, 33 Md. L. Rev. 229 (1973); Thompson, *supra* note 103, at 267-71.

See generally B. Andrews & M. Sansone, supra note 39, at 134-66 (overview of the Corps' water development activities).

impoundment).¹⁰⁸ The scope of the section 404 program is very broad, affecting virtually any construction in all waters of the United States, rather than the traditional definition of navigable waters.¹⁰⁹ As a result, section 404 permits are required for virtually any water project, as they involve the placing of dredged or fill material into waters of the United States.¹¹⁰

Section 404 was amended in 1977 to exempt certain federal projects from the permit requirement.¹¹¹ The exemption applies if (1) the project is authorized by Congress, (2) the effects of the proposed discharge are considered in an EIS, (3) the EIS is submitted to Congress prior to the discharge, and (4) Congress, after receiving the EIS, subsequently either authorizes the project or appropriates funds for the project.¹¹² Legislative history indicates that Congress intended the section 404(r) exemption to apply to projects "which are entirely planned, financed, and constructed by a Federal agency in every respect."¹¹³ Thus Bureau of Reclamation projects would not be ex-

The Corps uses the § 404(b)(1) environmental guidelines adopted by the EPA in determining whether a § 404 permit should be granted. 33 U.S.C. § 1344(b)(1) (1982). Technically the § 404 permit authorizes the discharge of dredged or fill materials into a specified "disposal site" within waters of the United States. The EPA Administrator is authorized, through the § 404(b)(1) environmental guidelines, to prohibit or restrict the discharge of dredged or fill materials into water bodies if the discharge would have an unacceptable adverse effect on municipal water supplies, shellfish beds, fishery areas, wildlife, or recreational areas. *Id.* at § 1344(c). The objective of the guidelines is to maintain the ecological integrity of the aquatic environment. 40 C.F.R. § 230.1a (1985).

- 111. Clean Water Act of 1977, Pub. L. No. 95-217, 91 Stat. 1605 (codified at 33 U.S.C. § 1344(r) (1982)). See Thompson, supra note 103, at 271-86. The 1977 amendments also authorized "general permits" to administratively exempt categories of dredge and fill activities from permit requirements, to exempt certain agricultural practices from permit requirements, and to authorize state administration of the § 404 program. 33 U.S.C. § 1344(e), (f), (g)-(k) (1982).
- 112. 33 U.S.C. § 1344(r) (1982). The § 404(r) exemption process was no doubt a reaction to the TVA v. Hill endangered species case, in which the TVA unsuccessfully argued that its identification of endangered species destruction in its EIS and the subsequent appropriation by Congress of construction funds constituted a Congressional ratification of the project and acquiescence to the effects on endangered species. See infra text accompanying notes 120-38.
- 123 CONG. REC. S19,654 (daily ed. Dec. 15, 1977) (floor statement of Sen. Stafford).
 See Thompson, supra note 103, at 284-86.

^{108.} See Thompson, supra note 103, at 264-67.

^{109.} See Natural Resources Defense Council, Inc. v. Calloway, 392 F. Supp. 685 (D.D.C. 1975) (Corps definition of "waters of the United States as traditionally navigable waters invalidated as too narrow). See R. HARNSBERGER & N. THORSON, supra note 7, at 205; Thompson, supra note 103, at 273-75.

^{110.} Technically a § 404 permit is not required to merely dredge or excavate material from a water body so long as none is discharged back into the water body; a permit is required only to place dredged or fill material therein. However, as Thompson notes, "it is almost impossible to remove sediment or other material from a stream without discharging part of it back into the water." Thompson, supra note 103, at 272.

empted because state and/or local financing is required.

Section 404 was a profound legal development because it began to interject environmental values into federal public works policies. Section 404 is the first federal environmental law establishing what has been referred to as "regulatory property rights."¹¹⁴ By establishing a program to administratively protect aquatic environmental values, the section 404 program effectively creates and preserves public property rights in those aquatic environments.

D. Endangered Species Act

The 1973 Act. The second federal environmental statute establishing "regulatory property rights" is the Federal Endangered Species Act of 1973 (FESA), which affirmatively requires federal agencies to refrain from taking action that would harm endangered species or their critical habitat. While earlier federal endangered species statutes dealt primarily with the hunting and taking of endangered species, the 1973 FESA recognized that the destruction of natural habitat was a greater threat to endangered species than hunting. Thus a major focus of the FESA was protection of habitat critical to the continued existence of federally designated threatened or endangered wildlife species. This feature of the FESA established regulatory property rights in critical habitat of endangered and threatened species which would conflict with implementing federal water development projects.

The most important provision of the FESA relative to federal water projects is the section 7 interagency cooperation requirements. Section 7 imposes on federal agencies a consultation requirement and an independent requirement to refrain from taking actions harming listed species or their critical habitat. The species and habitat protection requirements take precedence over the federal agency's primary mission. 119

^{114.} Tarlock, The Endangered Species Act and Western Water Rights, 20 LAND & WATER L. REV. 1, 3 (1985).

^{115.} See 16 U.S.C. §§ 1531-43 (1982 & Supp. I 1983); B. ANDREWS & M. SANSONE, supra note 39, at 118-21; Coggins, Conserving Wildlife Resources, An Overview of the Endangered Species Act of 1973, 51 N.D.L. Rev. 315 (1975); Comment, supra note 83, at 389-92.

B. Andrews & M. Sansone, supra note 39, at 118-19; Coggins, Federal Wildlife Law Achieves Adolescence: Developments in the 1970s, 1978 Duke L.J. 753 (1978).

^{117.} See TVA v. Hill, 437 U.S. 153, 179 (1978).

^{118.} Pub. L. 93-205 § 7, 87 Stat. 892 (currently codified as amended at 16 U.S.C. § 1536(a) (1982)) (emphasis added).

^{119.} The 1969 Endangered Species Act authorized federal agencies to preserve the habitat of endangered species on federal lands under their jurisdiction only insofar as it was practicable and consistent with the agency's primary mission. Endangered Species Act of 1969, Pub. L. 89-669, § 1(b), 80 Stat. 926. The bills introduced to amend the 1969 act originally had the same practicability considera-

Section 7 (1) requires federal agencies to consult with the Interior Department (in fact the U.S. Fish and Wildlife Service) to determine whether proposed agency action would harm threatened or endangered species or their critical habitat, and (2) further prohibits federal agencies from taking actions harming threatened or endangered species or their habitat. The section 7 consultation requirement provides substantial legal protection to endangered or threatened species and to their associated habitat. In the 1973 act this legal protection was absolute: there was no procedure for granting waivers or exemptions, and no procedure for evaluating the costs and benefits of the proposed federal action relative to endangered species conservation. Thus, if a proposed water project would violate section 7, the project would have to be modified to accommodate threatened or endangered species and/or their critical habitat or else not be constructed. However, this endangered species preservation policy was significantly amended in 1978 in the wake of the 1977 U.S. Supreme Court TVA v. Hill opinion. The case applied section 7 to stop completion of a major federal water project, the Tellico dam and reservoir, that was nearly completed.

 $TVA\ v.\ Hill.$ The major Supreme Court opinion interpreting the 1973 FESA was $TVA\ v.\ Hill,$ 120 the Tellico dam controversy involving the three inch snail darter fish. The issues, as stated by the Court, were whether the FESA applied retroactively to a project that was nearly completed, and whether continued congressional appropriations for the Tellico dam constituted an implied repeal of FESA regarding Tellico. 121

Tellico dam was constructed on the Little Tennessee River by the TVA to impound water by flooding 16,500 acres for shoreline development, power, flood control, and recreational purposes. ¹²² Construction was originally authorized in 1967, and Congress continued to appropriate money for the project up to the time of the Supreme Court deci-

tions and were consistent with primary purpose limitations. TVA v. Hill, 437 U.S. 153, 181 (1978). However, these restrictions were eliminated from the final bill in conference. *Id.* at 182.

Section 9 is the takings provision of the FESA. Section 9 prohibits virtually all importing, exporting, taking, possession, selling, delivery, transportation or shipping of listed species. 16 U.S.C. § 1537 (1982). To take a listed species is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." *Id.* at § 1532(19). Thus, each time an endangered species were killed by a water project, for example, a taking would occur. *See* Tarlock, *supra* note 114, at 9. *See also* 16 U.S.C. § 1539(a)(2)(B) (1982), discussed *infra* note 185.

^{120. 437} U.S. 153 (1978). See Comment, Endangered Species Act Amendments of 1978: A Congressional Response to Tennessee Valley Authority v. Hill, 5 COLUM. J. ENVIL L. 283 (1979).

^{121.} TVA v. Hill, 437 U.S. 153, 156 (1978).

^{122.} Id. at 157.

sion.¹²³ The project had been delayed approximately two years through NEPA litigation.¹²⁴ Shortly before the NEPA injunction was dissolved, a new species of perch, the snail darter, was discovered in the Little Tennessee River.¹²⁵ On October 8, 1975, the snail darter was formally listed as an endangered species.¹²⁶ In the designation, the Secretary noted that the snail darter lives only in that portion of the Little Tennessee River that would be innundated by Tellico.¹²⁷ Subsequently, the Secretary designated that portion of the Little Tennessee River as critical habitat for the snail darter.¹²⁸ Negotiations between the Fish and Wildlife Service and the TVA were of no avail, and litigation under the FESA was initiated.¹²⁹

The district court found that closure of the Tellico Dam would adversely modify, if not completely destroy, the snail darter's critical habitat, jeopardizing the continued existence of the species.¹³⁰ Nonetheless the court refused to enjoin completion of the project, because of continuing congressional appropriations, and because of the loss of federal expenditures for the dam.¹³¹ The court of appeals reversed, interpreting section 7 as prohibiting completion of the dam if it jeopardized endangered species or their habitat.¹³² The court concluded that Tellico could be completed only if Congress legislatively exempted the project from the FESA, if the snail darter were removed from endangered species status, or if the snail darter's critical habitat were redefined to exclude the dam site.

Chief Justice Burger, for a divided Court, began the analysis of the issues with a review of the legislative history of the act, and concluded that Congress intended to afford endangered species protection the highest of governmental priorities. The Court noted the 1973 FESA went beyond prior federal endangered species legislation by deleting language that would require federal agencies to protect endangered species only insofar as it were practicable and did not conflict with the primary mission of the agency. In doing so, Congress indicated its

^{123.} Id. at 158.

See Environmental Defense Fund v. TVA, 371 F. Supp. 1004 (E.D. Tenn. 1973), aff d, 492 F.2d 466 (6th Cir. 1974); Environmental Defense Fund v. TVA, 339 F. Supp. 806 (E.D. Tenn. 1972), aff d, 468 F.2d 1164 (6th Cir. 1972).

^{125.} TVA v. Hill, 437 U.S. at 153, 158-59 (1978).

^{126. 40} Fed. Reg. 47005-06 (1976); TVA v. Hill, 437 U.S. 153, 160-61 (1978).

^{127.} TVA v. Hill, 437 U.S. 153, 161 (1978).

^{128. 41} Fed. Reg. 13925-28 (1976); TVA v. Hill, 437 U.S. 153, 162 (1978).

^{129.} TVA v. Hill, 437 U.S. 153, 162-65 (1978).

^{130.} Hill v. TVA, 419 F. Supp. 753, 756-57 (E.D. Tenn. 1976). See TVA v. Hill, 437 U.S. 153, 165-66 (1978).

Hill v. TVA, 419 F. Supp. at 753, 758-60. See TVA v. Hill, 437 U.S. 153, 166-67 (1978).

^{132.} Hill v. TVA, 549 F.2d 1064 (6th Cir. 1977). See TVA v. Hill, 437 U.S. 153, 168 (1978).

^{133.} TVA v. Hill, 437 U.S. 153, 174 (1978).

^{134.} Id. at 180-82.

belief that the value of the genetic material of even a single species is virtually incalculable, and that endangered species protection should override an agency's primary mission.¹³⁵ Against this legislative background, the Court found that Congress intended the FESA to be retroactive and that it be enforced even if ongoing projects were thereby stopped.¹³⁶ The Court also determined that continued appropriations for Tellico did not exempt it from FESA's provisions,¹³⁷ and that completion of the dam therefor should be enjoined.¹³⁸

Nebraska v. Rural Electrification Administration. A second FESA decision Nebraska v. Rural Electrification Administration, 139 influenced Congressional deliberations on the 1978 FESA amendments. 140 It was the first Nebraska water project lawsuit based on the FESA, foreshadowing what would happen under state endangered species statutes in Little Blue II.

The issue was the effect of the proposed Grayrocks dam and reservoir on North Platte River flows from Wyoming into Nebraska. Grayrocks would impound approximately 104,000 acre feet of water, ¹⁴¹ and is part of the Laramie River Station, a three unit 1500 megawatt coal-fired electric generating station located on the Laramie river near

135. *Id.* at 178. The Court quoted from H.R. Rep. No. 93-412, 93d Cong., 1st Sess. 1, 4-5 (1973).

From the most narrow possible point of view, it is in the best interests of mankind to minimize the losses of genetic variation. The reason is simple: they are potential resources. They are keys to puzzles which we cannot solve, and may provide answers to questions which we have not yet learned to ask.

To take a homely, but apt, example: one of the critical chemicals in the regulation of ovulations in humans was found in a common plant. Once discovered, and analyzed, humans could duplicate it synthetically, but had it never existed—or had it been driven out of existence before we knew its potentialities—we would never have tried to synthesize it in the first place.

Who knows, or can say, what potential cures for cancer or other scourges, present or future, may lie locked up in the structures of plants which may yet be undiscovered, much less analyzed? . . . Sheer self-interest impels us to be cautious.

TVA v. Hill, 437 U.S. 153, 178 (1978) (emphasis in original).

- 136. Id. at 185-88.
- 137. Id. at 189-93.
- 138. Id. at 193-95. Justices Powell, Blackmun and Rehnquist dissented.
- Nebraska v. Rural Electrification Admin., 12 ENV'T REP. CAS. (BNA) 1156 (D. Neb. 1978).
- 140. The Tellico and Grayrocks dams, were the first two projects to be evaluated for critical habitat protection exemptions under the 1978 amendments. Endangered Species Act Amendments of 1978, Pub. L. No. 95-632, § 5(i), 92 Stat. 3751, 3761.
- 141. Letter from Lynn A Greenwalt, Director, U.S. Fish and Wildlife Service to Lt. Gen. John W. Morris, Chief, U.S. Army Corps of Engineers 4 (December 8, 1978) (discussing effects of Grayrocks on Central Platte critical crane habitat) [hereinafter Grayrocks Biological Opinion].

An acre foot of water is enough water to cover an acre of land to a depth of one foot, or 325,851 gallons. R. HARNSBERGER & N. THORSON, supra note 7, at 7.

Wheatland, Wyoming.¹⁴² The Laramie River Station is part of the Missouri Basin Power Project, a joint regional power supply project of six consumer-owned electric systems, then including the Lincoln Electric System. The project manager is Basin Electric Power Cooperative. Project financing was based on Rural Electrification Administration (REA) loan guarantees.

The Laramie River is the major tributary to the North Platte River in Wyoming, contributing approximately seventeen percent of its annual flow at the Nebraska-Wyoming border. 143 The power project alone would have reduced flows into Nebraska by approximately 23,000 acre feet of water per year.144 An additional 22,500 acre feet of water from Grayrocks was to be allocated to the proposed Corn Creek irrigation project.¹⁴⁵ The North Platte River was allocated by Nebraska v. Wyoming,146 in which a divided Court granted Nebraska seventy-five percent of the river flow. The allocation of the Laramie River, however, is subject to some dispute.¹⁴⁷ The flow reductions from Grayrocks would most directly have affected water storage in Lake McConaughy for irrigation and power production purposes. The flow reductions also had the potential to impact whooping crane habitat designated critical by the U.S. Fish and Wildlife Service (FWS) in the Central Platte river region. 148 The Central Nebraska Public Power and Irrigation District (Tri-County), which owns and operates Lake McConaughy, sought to have the Nebraska Attorney General challenge Grayrocks for violating the North Platte River decree of *Ne*braska v. Wyoming. 149 When Nebraska did file suit, however, it al-

Nebraska v. Rural Electrification Admin., 12 ENV'T. REP. CAS. (BNA) 1156, 1157
 (D. Neb. 1978).

^{143.} Id. at 1161.

^{144.} Grayrocks Biological Opinion, supra note 141, at 12.

Nebraska v. Rural Electrification Admin., 12 ENV'T. REP. CAS. (BNA) at 1156, 1164 (D. Neb. 1978).

^{146. 325} U.S. 589 (1945).

^{147.} Professor Tarlock suggests that the Laramie River was not affected by the Nebraska v. Wyoming decree because the Laramie had been apportioned between Colorado and Wyoming in Wyoming v. Colorado, 259 U.S. 419 (1922). Tarlock, supra note 114, at 20 n.97. Nebraska irrigation interests are not yet willing to concede that, however.

^{148.} On May 15, 1978, the U.S. Fish and Wildlife Service, Department of the Interior, designated the "Platte River bottoms" from Lexington to Shelton as critical habitat for the endangered Whooping Crane. 43 Fed. Reg. 20,938, 20,941 (1978) (codified at 50 C.F.R. § 17.95(b) (1985)). The Platte River bottoms are defined as the Platte River channel and immediately adjacent wetlands. Id. at 20,938. The designation is in the heart of the Platte River, where several proposed water development projects would either divert or impound water for irrigation. The Central Platte critical habitat designation would later drive the legal and political impasse over Platte River water projects leading to LB 1106.

^{149.} The author attended a dinner sponsored by Tri-County some months prior to the filing of the case. At the dinner, Tri-County officials lobbied the Attorney General's office to file suit but not on NEPA or FESA grounds. Tri-County, being in

leged NEPA and FESA violations.

The suit sought to enjoin construction of Grayrocks by Basin Electric, alleging that the REA had violated NEPA and FESA in (1) failing to consider the project's environmental impacts in making loan guarantees of approximately \$120 million, 150 and (2) in failing to insure that critical habitat was not jeopardized as required by section 7 of FESA. The suit also alleged that the Army Corps of Engineers had similarly failed to consider the project's environmental impacts in Nebraska and had similarly failed to insure that critical habitat in Nebraska was not jeopardized when the Corps granted a section 404 dredge and fill permit. 151 Nebraska was joined in its suit by national wildlife groups and their local affiliates, which significantly affected the terms of the settlement. 152

The court ruled that the REA's EIS was deficient and should have included an evaluation of (1) the possible impacts of Grayrocks on downstream fish and wildlife habitat, 153 (2) the effect of other proposed water depletions, 154 (3) the effect of project ground water

the electricity generation business itself, did not oppose the power project as such although it would have preferred that project evaporation be reduced thorough nonevaporative water cooling methods. See Nebraska v. Rural Electrification Admin., 12 ENV'T REP. CAS. (BNA) 1156, 1164 (D. Neb. 1978). Tri-County did oppose Basin Electric's agreement to provide water from Grayrocks to Corn Creek. There was general agreement that the suit was necessary to protect Nebraska irrigation interests. Environmental concerns were never considered. Water availability from the North Platte River for endangered species in the Central Platte region (see supra note 149, regarding the Central Platte critical habitat designation) would be little affected by developments upstream from McConaughy. However, Tri-County officials were strongly opposed to the suit's being filed on environmental grounds, realizing that any environmental allegations made against Grayrocks could be made just as easily (indeed, with greater justification) against pending Nebraska Platte River water projects. The Attorney General, however, realized that litigation under the Supreme Court decree would be very difficult and uncertain, and properly elected to file suit on NEPA and FESA violations. Accord Tarlock, supra note 114, at 20.

- Nebraska v. Rural Electrification Admin., 12 ENV'T REP. CAS. (BNA) 1156, 1159
 (D. Neb. 1978), appeal vacated & dismissed, 594 F.2d 870 (8th Cir. 1979).
- Id. at 1157. Separate proceedings against the REA and the Corps were consolidated in a single proceeding. Id.
- 152. Id. at 1157. The national wildlife groups were the National Audubon Society, the National Wildlife Federation, and the Nebraska Wildlife Federation. AGREE-MENT OF SETTLEMENT AND COMPROMISE 12 (December 4, 1978) [hereinafter SETTLEMENT].
- 153. Nebraska v. Rural Electrification Admin., 12 ENV'T REP. CAS. (BNA) 1156, 1161-63 (D. Neb. 1978). The EIS had stopped measuring environmental impacts at the Nebraska-Wyoming border.
- 154. Id. at 1164-65. The court ruled that NEPA requires a consideration of the cumulative effect of the proposed action in light of other geographically and environmentally related actions, citing Kleppe v. Sierra Club, 427 U.S. 390, 409-10, 413 (1976). Corn Creek, the federally authorized Narrows irrigation project on the South Platte River in Colorado, and agricultural ground water pumping in Ne-

pumping in Wyoming,¹⁵⁵ and (4) the effect of flow reductions on the fisheries downstream from McConaughy, Platte River ground water recharge, and Nebraska surface water irrigators.¹⁵⁶ The court also ruled that the EIS prepared by the Corps was similarly deficient.¹⁵⁷

Regarding endangered species, the court ruled that the REA should have consulted with the FWS.¹⁵⁸ FWS had sought consultation with REA, but the agency declined on the basis that REA itself had concluded that there were no adverse impacts on downstream critical habitat or endangered species.¹⁵⁹ FWS then issued its jeopardy opinion,¹⁶⁰ stating that Grayrocks would jeopardize the continued existence of the whooping crane by destroying or adversely modifying its critical habitat, and indicated that further studies would be needed.¹⁶¹

braska's Platte River valley were determined to be necessary considerations in the EIS. Nebraska v. Rural Electrification Admin., 12 ENV'T REP. CAS. (BNA) 1156, 1164-65 (D. Neb. 1978).

- Nebraska v. Rural Electrification Admin., 12 ENV'T REP. CAS. 1156, 1167-68 (D. Neb. 1978).
- 156. Id. at 1169.
- 157. Id. at 1180.
- 158. Id. at 1169-71.
- Regarding the propriety of the REA's making its own determination of no jeopardy, the court stated,

As to the first point—that REA was justified in concluding that no adverse impact on the habitat had been demonstrated at the time of the making of the [loan guarantee commitments]—the difficulty is that the Endangered Species Act places the burden upon the agencies who are authorizing, funding, or carrying out programs to insure that those programs do not jeopardize endangered species or the habitat of the species. The burden is not upon someone else to demonstrate that there will be an adverse impact. It may well be true that REA was justified in concluding that no adverse impact has been demonstrated, but the question is whether it has met its burden of insuring that there will be no jeopardy. Unless REA has done that, it has not complied with the Act. That is true, even though the whooping crane issue was first raised well after many of the plans had been made and a great deal of money already spent. This is one of the principal teachings of Tennessee Valley Authority v. Hill. . . .

Id. at 1171 (emphasis in original).

- 160. Under the 1978 amendments, the opinion of a Secretary is the result of the FWS interagency consultation, stating FWS's conclusions regarding the effects of the proposed agency action on endangered species and their habitat. 16 U.S.C. § 1536(b) (1982). See infra text accompanying notes 175-77. If the biological opinion concludes that the proposed agency action will jeopardize the continued existence of endangered species and their habitat the opinion is often referred to as a jeopardy opinion.
- 161. Nebraska v. Rural Electrification Admin., 12 ENV'T REP. CAS. (BNA) 1156, 1170 (D. Neb. 1978). After the Grayrocks decision the Corps requested consultation with FWS. Grayrocks Biological Opinion, supra note 141, at 1. The FWS reiterated its earlier conclusion that Grayrocks would jeopardize the continued existence of the whooping crane by destroying or adversely modifying its critical habitat. FWS proposed two alternatives that would avoid jeopardy: that Basin Electric either (1) replace the water removed from the Laramie River at the ap-

The court also ruled that REA (and the Corps) had a duty under section 7 of FESA to insure endangered species or their critical habitat would not be jeopardized. Finally, the court determined that REA had violated FWS regulations prohibiting an irreversible or irretrievable commitment of federal resources. The action of REA foreclosed consideration of modifications or alternatives to the proposed agency action before FWS consultation was completed and a biological opinion could be issued. The court also determined that the Corps had violated the same FESA requirements. The court set aside the REA loan guarantees and the Corps' section 404 permit as unlawful. 165

With the adverse ruling, Basin Electric was faced with the prospect of having to prepare a new EIS, taking the potential effect of Grayrocks on the downstream critical habitat into consideration. As this would have taken several months, if not years, especially if the adequacy of the new EIS were litigated, Basin elected to settle the case. The settlement had to satisfy both the Nebraska irrigation interests responsible for initiating the suit and the wildlife interests that had joined the suit. It also had to take into account the 1978 FESA Amendments, to which we now turn. 167

1978 Amendments. The Tellico decision led to a public outcry that the FESA valued a three inch fish above a \$120 million dam representing economic progress. Congressional reactions were grouped in three camps: (1) retaining the FESA as interpreted in TVA v. Hill with no amendment, (2) amending the FESA to exempt projects which were significantly under way when the FESA was adopted, or (3) develop a method for conflict resolution on a case by case method. The latter view prevailed and resulted in the 1978 FESA

proximate time the water was being removed, or (2) establish a trust for the maintenance and improvement of whooping crane habitat on the Platte River.

^{162.} Nebraska v. Rural Electrification Admin., 12 ENV'T REP. CAS. (BNA) 1156, 1171-72 (D. Neb. 1978).

^{163.} Id. at 1172.

^{164.} Id. at 1172-73. The court determined that the issuance of the § 404 permit was premature; the Corps failed to consider the environmental effects of other water depletions (Corn Creek, Narrows, and Nebraska groundwater pumping), potential damage to the Lake McConaughy trout fishery, and the effects of reduced North Platte River flows on Nebraska ground water resources and Nebraska agricultural activities. Id. at 1175-77.

^{165.} Id. at 1180-81.

^{166.} It is common practice for the applicant for a federal permit, license, funding, etc. to prepare a draft EIS itself which is then presented to the agency responsible for preparing the EIS. The circuits are divided on whether this practice is acceptable. See Fisher, The CEQ Regulations: New Stage in the Evolution of NEPA, 3 HARV. ENVIL L. REV. 347, 369-70 (1979).

^{167.} The Grayrocks settlement is discussed infra text accompanying notes 193-95.

^{168.} Comment, supra note 120, at 298.

^{169.} Id. at 299.

amendments.170

The most important change made by the 1978 amendments was the exemption procedure added to section 7. Under the 1973 act, section 7 required federal agencies to consult with the Interior Secretary regarding the potential impacts of agency action on listed species or their critical habitat, and to then insure that the agency's action did not jeopardize listed species or their critical habitat. The section 7 consultation requirement, now denominated section 7(a), reads:

Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded or carried out by such agency (hereinafter referred to in this section as an "agency action") is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with affected States, to be critical, unless such agency has been granted an exemption for such action by the [Endangered Species] Committee pursuant to subsection (h) of this section.¹⁷²

The only major changes in the section 7(a) consultation requirement, aside from the exemption possibility and additional consultation procedures, are the definition of agency action and the clarification that only adverse habitat modifications need be prevented. Thus the basic duties to consult and to insure no jeopardy were preserved in the 1978 amendments.

The consultation procedure was expanded and formalized in the 1978 amendments. Consultation must be concluded within ninety days, and the Secretary must issue a "Secretary's opinion" stating the Secretary's position and summarizing the information upon which it is based, detailing how the proposed agency action would affect the species or its habitat.¹⁷³ The Secretary must also suggest any "reasonable and prudent alternatives" that the Secretary believes would avoid jeopardy.¹⁷⁴ Federal agencies are prohibited from making irreversible resource commitments foreclosing implementation of any prudent al-

^{170.} Endangered Species Act Amendments of 1978, Pub. L. No. 95-632, 92 Stat. 3751 (1978) (codified as amended at 16 U.S.C. § 1532-36, 1538-40, 1542 (1982 & Supp. I 1983)). For a discussion of the legislative debate over the 1978 amendments, see Comment *supra* note 120, at 299-309.

The 1978 amendments defined critical habitat which had not been previously defined, and required the Interior Secretary to identify critical habitat when proposing to list endangered species. 16 U.S.C. §§ 1532(5), 1533(a) (1978). In 1982, the current cost-benefit requirement for critical habitat designation was added. Critical habitat designations must take into account the economic impact and other relevant impacts of the habitat designation. *Id.* at § 1533(b)(4). The Secretary may exclude an area from critical habitat designation if the benefits of exclusion outweigh the benefits of listing unless the best available scientific and commercial data indicate that exclusion will result in species extinction. *Id.*

^{171. 16} U.S.C. § 1536 (1976).

^{172.} Id. at § 1536(a)(2).

^{173.} Id. § 1536(b).

^{174.} Id.

ternatives which would avoid jeopardy.¹⁷⁵

Exemptions may be obtained for jeopardy agency actions for which there are no reasonable and prudent alternatives, if the agency action benefits clearly outweigh the jeopardy caused, the agency action is in the public interest and of regional or national significance, and the jeopardy can be mitigated. Agencies, governors of states in which the proposed agency action would occur, or permit or license applicants may apply for an exemption if consultation indicates that jeopardy may occur. The exemption application is initially considered by a review committee, with the final determination being made by the Endangered Species Committee.

The review board is composed of three individuals: one appointed by Interior Secretary, one state representative appointed by the President based upon gubernatorial nominations, and one administrative law judge. The board reviews the exemption application and reports its findings to the Committee. The board must determine by a majority vote (1) whether the proposed action would jeopardize endangered species or their habitat, and (2) whether such exemption applicant has acted in good faith in attempting to comply with endangered species requirements. If the board determines that these criteria are met, it submits a report to the Committee discussing available alternatives, whether the proposed agency action is in the public interest and of national or regional significance, and proposed mitigation and enhancement measures. 182

The Endangered Species Committee makes a final decision on the exemption application with ninety days of receiving the review board report. 183 The Committee is composed of seven members: the Secretary of Agriculture, the Secretary of the Army, the Chairman of the Council of Economic Advisors, the EPA Administrator, the Secretary of the Interior, the National Oceanic and Atmospheric Administration, and a state representative appointed by the president based on

^{175.} Id. § 1536(b), (d). This provision codified the earlier FWS endangered species regulations enforced by the court in Nebraska v. Rural Electrification Admin., 12 ENV'T REP. CAS.(BNA) 1156 (D. Neb. 1978).

^{176. 16} U.S.C. § 1536(h)(1) (1982).

^{177.} Id. § 1536(g)(1). The application must state the reasons why the applicant believes it would qualify for an exemption. Id. at § 1536(g)(2)(A). Any federal agency applying for an exemption must in its application include a statement describing why the proposed agency action cannot be altered or modified to avoid jeopardy. Id. at § 1536(f).

^{178.} Id. § 1536(g)(1).

^{179.} Id. § 1536(g)(3)(A)(i)-(iii).

^{180.} Id. § 1536(g)(3)(A).

^{181.} Id. § 1536(g)(5).

^{182.} Id. § 1536(g)(6)-(7).

^{183.} Id. § 1536(h)(1).

gubernatorial nominations.¹⁸⁴ The Committee must grant an exemption if, with at least five members voting, it determines that (1) there are no reasonable and prudent alternatives to the agency action, (2) the benefits of the agency action clearly outweigh the benefits of alternative courses of action avoiding jeopardy, and the action is in the public interest, (3) the action is of regional or national significance, and (4) the Committee establishes mitigation requirements to minimize jeopardy.¹⁸⁵

In addition to the general exemption procedure, the 1978 amendments required the Committee to conduct an expedited consideration of exemptions for Tellico and Grayrocks within ninety days of the Act's effective date. Project exemptions would be granted if there were no reasonable and prudent alternatives to the projects, if the project benefits clearly outweighed alternative courses of actions avoiding jeopardy, and if the projects were in the public interest. 186

Tellico. The Committee unanimously rejected the Tellico exemption application.¹⁸⁷ The Committee concluded that there was a reasonable and prudent alternative to the agency action and that the benefits of the proposed agency action did not clearly outweigh the benefits of alternative actions avoiding jeopardy.¹⁸⁸ The Committee determined that the benefits from not completing the dam and reservoir were greater than those from completing Tellico.¹⁸⁹ Congress subsequently exempted Tellico from FESA and "any other law" prohibiting its construction.¹⁹⁰

^{184.} Id. § 1536(e)(3).

^{185.} Id. at § 1536(h)(1). Any exemptions granted are permanent exemptions if a biological assessment has been conducted, unless the Secretary determines that the exemption will result in extinction of a species not identified in the biological assessment. Id. at § 1536(h)(2)(A)-(B). If so, the Committee has 30 days within which to grant the exemption notwithstanding the exemption finding. Id. at 1536(h)(2)(B). Any takings of endangered or threatened species that occur pursuant to an exempted action are not considered takings under the FESA. Id. at § 1536(o). Incidental takings were authorized by the 1982 amendments if approved by the Secretary. Id. at § 1539(a)(2) (B). The 1978 amendments also added a self-defense exception to the takings prohibition. Id. at § 1540(a)(3), (b)(3).

^{186.} Id. Pub. L. No. 95-632, § 5, 92 Stat. 3761. The requirements for the Tellico and Grayrocks exemptions were the same as for exemptions generally except that the regional and national significance and mitigation requirements were waived. However, the amendments imposed a no jeopardy requirement on the Missouri Basin Power Project (i.e., Grayrocks) should jeopardy be indicated in a biological opinion. Endangered Species Act Amendments of 1978, Pub. L. No. 95-632, § 5, 92 Stat. 3761 (1982).

^{187.} ENDANGERED SPECIES COMMITTEE, U.S. DEP'T OF INTERIOR, APPLICATION FOR EXEMPTION FOR TELLICO DAM AND RESERVOIR PROJECT 1, 4 (1979).

^{188.} Id. at 2.

^{189.} Id. at 2-4.

Energy and Water Development Appropriation of 1980, Pub. L. No. 96-69, 93 Stat.
 449 (1979). See Goplerud, The Endangered Species Act: Does It Jeopardize the Continued Existence of Species?, 1979 ARIZ. St. L.J. 487, 507.

Grayrocks. After conclusion of the Grayrocks litigation the parties elected to seek a settlement. Principal terms of the settlement were (1) agreeing to reduce project water consumption principally to satisfy Nebraska irrigation interests (represented by the state of Nebraska)¹⁹¹ and (2) to establish the \$7.5 million Platte River Whooping Crane Habitat Maintenance Trust.¹⁹² The Endangered Species Committee granted the project an exemption, stipulating that the mitigation requirements contained in the settlement agreement be implemented.¹⁹³

The FESA established, in effect, regulatory water rights for endangered species and their habitat to which federal water projects were subject. FESA litigation delayed at least two federal major water projects, forcing significant environmental concessions in Grayrocks. Grayrocks, in addition to the earlier Norden dam decision, sent a collective shiver through Nebraska irrigation interests. Prior to these decisions, Nebraska water developers had enjoyed the belief that federal environmental restrictions would not affect their water projects. Norden and Grayrocks proved conclusively that this belief was wrong.

The FESA was to play another crucial role in Nebraska water politics. A state endangered species act, enacted to qualify for federal endangered species program funding, would contain a consultation/no-jeopardy requirement very similar to FESA's section 7.194 The state consultation/no-jeopardy requirement would temporarily derail all Platte River water projects, creating one of the major political pressures leading to LB 1106.

E. Water Policies for the Future

While federal environmental legislation was creating legal road-

^{191.} SETTLEMENT, supra note 152, at 4.

^{192.} *Id.* The primary purpose of the trust is to protect and maintain the Central Platte critical habitat. The Platte River Whooping Crane Habitat Maintenance Trust Declaration 2 (Dec. 4, 1978). The trustees are authorized to, among other things, purchase land and water rights for habitat maintenance and to manage habitat controlled by the trust (including maintaining the open roosting areas in sandbars and other riparian habitat areas by keeping them clear of trees and similar vegetation). *Id.* 3-4. Regarding the whooping crane's habitat needs and habitat maintenance requirements, see U.S. DEPARTMENT OF THE INTERIOR, GRAYROCKS DAM AND RESERVOIR: STAFF REPORT TO THE ENDANGERED SPECIES COMMITTEE 4.3-4.4, 4.11-4.12 (1979).

Basin Electric resented the role of Nebraska irrigation interests in instigating the Grayrocks litigation, and has sought unsuccessfully to intervene on behalf of endangered species in water appropriation proceedings in Nebraska. Basin Elec. Power Co-op. v. Little Blue Natural Resources Dist., 219 Neb. 372, 363 N.W.2d 500 (1985).

ENDANGERED SPECIES COMMITTEE, U.S. DEP'T OF INTERIOR, APPLICATION FOR EX-EMPTION FOR GRAYROCKS DAM AND RESERVOIR PROJECT 3 (1979).

^{194.} See infra text accompanying notes 238-40.

blocks for implementing irrigation projects, water project financing and the substantial federal subsidy involved also came under scrutiny. Federal reclamation projects have been heavily subsidized, first from public land sales and later from direct congressional appropriations and power revenues. In addition, reclamation project beneficiaries are not required to pay interest on project construction funds. The reclamation subsidies were initially justified as encouraging settlement of the West, and later, during the Depression, as providing needed public employment. Those justifications have since lost their basis.

The first critical examination of federal cost-sharing policies on water projects came in the final report of the National Water Commission (NWC). The NWC was established in 1968 to examine national water problems and policies. The NWC final report addressed many topics, ranging from Indian and federal reserved water rights to interbasin water transfers. However, probably the most controversial NWC recommendations dealt with integrating a "user pay" principle into federal water project financing policies. In this regard the NWC report was very important, as it politically legitimized criticism of federal reclamation projects on economic grounds.

The final report noted the important federal subsidy of irrigation projects.

A primary weakness of the Federal water resources development projects is that they have been heavily subsidized by the Federal Government; that is, by all the taxpayers of the Nation, to provide benefits for a few. The water users on some modern Federal Reclamation projects, for example, repay no more than 10 percent of the construction costs attributable to irrigation, the remaining cost being borne by the Federal Government in three ways: [1] by not requiring water users to reimburse the Treasury for the interest on the capital advanced for project construction, [2] by permitting power revenues and sometimes other nonirrigation revenues to be credited towards irrigation reimbursement, and [3] by allocating an unduly large part of the costs to nonreimbursable purposes.²⁰⁰

^{195.} For a discussion of the financing of reclamation projects, see supra text accompanying notes 51-59.

^{196.} Water Policies for the Future, supra note 40.

^{197.} Pub. L. No. 90-515, 82 Stat. 868 (1968). Regarding earlier national water study commissions, see HOLMES I, *supra* note 1, at 6, 40-43; HOLMES II, *supra* note 2, at 37-52.

^{198.} For a general discussion of the recommendations made by the Commission, see Meyers, The Busy Practitioner's Guide to the National Water Commission Report, 19 ROCKY MTN. MIN. L. INST. 513 (1974). Legal studies prepared for the NWC are the most useful materials on water law available. For a list of NWC legal studies, see WATER POLICIES FOR THE FUTURE, supra note 40, at 544-45, 547, 551-53.

^{199.} Meyers, supra note 198, at 514-16.

^{200.} WATER POLICIES FOR THE FUTURE, supra note 40, at 128. (Nonreimbursable costs include cost for navigation, flood control, fish, wildlife, and recreation benefits. Sax, supra note 50, at 144.) The NWC report cites testimony that irrigators in the Columbia River basin project in Washington paid less than 8% of the cost of deliv-

The NWC then noted that the probable effect of the subsidy on irrigators is wasteful water use.²⁰¹ While irrigation project subsidies do benefit irrigators, the NWC concluded that they were not in the national interest because farmers used publicly subsidized irrigation water from reclamation projects to grow surplus crops for which federal price supports were (and are) available, increasing the cost of the price support programs.

The Commission finds . . . that to continue subsidization of new irrigation projects does have serious disadvantages for the Nation. The most serious is the expansion of the productive capacity of the Nation's agricultural plant when there is a surplus of many crops—a surplus that is expected to continue into the future. Reclamation projects add to that surplus, to the detriment of farmers already in business and at a high cost to the taxpayer. Not only must the taxpayer pay a large portion of the costs of bringing new land into production [via irrigation projects], but he must also pay for farm price-support programs, the cost of which go up as farm production of price-supported crops increases. . . .

It is doubtful that taxpayers as consumers benefit greatly from these pricesupport expenditures or from subsidizing irrigation projects. For those crops which come under farm price-support programs, prices at the food store will be as high as they would otherwise be. But with greater production from subsidized irrigation, more tax funds will be required (1) to maintain price-support levels and (2) to underwrite the irrigation subsidy.²⁰²

The Commission concludes that subsidization of new irrigation projects is not justified on . . . economic grounds. . . . [F]ederally subsidized irrigation does increase farm surpluses, increasing the costs of price-support programs and disadvantaging farmers in other parts of the country. Direct beneficiaries of Federal irrigation developments should, therefore, be compelled to pay in full the costs of projects allocation to irrigation in conformity to the general principle of full-cost repayment proposed for other water development projects elsewhere in this report. 203

In its formal conclusions the NWC recommended new federal water project cost-sharing legislation be developed, and that irrigators be required to pay their proportionate share of reclamation project costs,

ering water to irrigated fields. Gross (not net) crop receipts would cover only 53% of the costs of irrigation water. In that project, irrigators would pay less than 24% of total project costs; the balance would be covered by hydroelectric power revenues. WATER POLICIES FOR THE FUTURE, *supra* note 40, at 129-30.

^{201. &}quot;When irrigators receive water on a subsidized basis, incentives to use water carefully and efficiently are often removed. Where water is priced substantially below cost, it will be to the advantage of irrigators to be lavish in its use and neglectful of programs to stretch supplies and improve the productivity of water." WATER POLICIES FOR THE FUTURE, supra note 40, at 129.

^{202.} Id. at 147-48. Earlier in its report the NWC detailed the effect of the then current and projected crop surpluses on future federal reclamation projects. The Commission concluded that subsidized water development could not be justified by a need to increase agricultural production since current capacity should be adequate until at least the year 2000. Id. at 141-42.

^{203.} Id. at 148. When the NWC report was published approximately 37% of land irrigated with reclamation water produced price-supported crops. Id. at 129.

including interest.204

The NWC report signaled the end of an era regarding public attitudes towards reclamation projects. No longer would reclamation projects automatically be assumed to be worthy of significant public subsidies. The West had been won, the Depression was over, and irrigation projects should therefore be evaluated on a more conventional basis: whether they represented a sound investment which could meet realistic payback requirements. Unfortunately the NWC recommendations were politically ahead of their time. The recommendations were not embraced by Congress, which traditionally has been reluctant to adopt reclamation policy reforms.²⁰⁵ However, the NWC's recommendations were revived in 1978 with President Carter's water project hit list and water policy proposals. The project funding stalemate which has resulted from the Carter water policy initiatives may lead to the ultimate implementation of NWC recommendations.

F. Ground Water Management: Regulations and Rescue Projects

The original purpose of the reclamation project was to allow farmers in river valleys to reclaim arid lands to cultivation under irrigation. However, irrigation projects have also been developed to supply irrigation and municipal water to regions where ground water supplies were being depleted, most notably in southern California. This rescue project²⁰⁷ aspect of new reclamation projects has become the driving force for surface water development as regions of Nebraska dependent on ground water irrigation realize that local ground water supplies ultimately will be depleted and a source of supplemental water will be needed to maintain irrigation.

Ground water has been the major source of irrigation water in Nebraska since the late 1950s.²⁰⁸ Of the 7.3 million acres irrigated in Nebraska, 6.2 million are irrigated with ground water.²⁰⁹ As a result of this heavy ground water use for irrigation²¹⁰ several areas of the state

^{204.} Id. at 497.

^{205.} See HOLMES I, supra note 1, at 31-38.

^{206.} Aiken, supra note 66, at 934-35; Aiken, Ground Water Mining Law and Policy, 53 Colo. L. Rev. 505, 518-21 (1982) [hereinafter Ground Water Mining].

^{207.} The term "rescue project" was coined by Professor Charles Corker. C. CORKER, GROUNDWATER LAW, MANAGEMENT AND ADMINISTRATION 256-60 (1971) (Nat'l Water Comm'n Report No. NWC-72-026, Legal Study No. 6).

^{208.} In 1959 the number of acres irrigated with ground water in Nebraska surpassed for the first time the number of acres irrigated with surface water. Aiken, *supra* note 66, at 948.

^{209.} M. ELLIS & D. PEDERSON, GROUND WATER LEVELS IN NEBRASKA, 1985, at 58 (1986) (Neb. Water Survey Paper No. 61, Univ. of Neb. Conservation & Survey Div.). The statistics regarding the number of irrigated acres in Nebraska are not consistent. Aiken, supra note 66, at 918 n.5.

^{210.} Ground water use for irrigation constitutes 87% of total Nebraska ground water use and is the major reason that ground water levels are declining in several re-

are facing ground water depletion.²¹¹ Projections to the year 2020 suggest that approximately one million acres of land currently irrigated will be lost to irrigated production, and approximately one million acres will receive only partial irrigation because of ground water depletion.²¹²

Theoretically there are three public policy responses to the threat of ground water depletion: do nothing, regulate ground water development and use to stretch aquifer life, or develop a rescue project to substitute impounded surface water for depleted ground water.²¹³ Most western states have elected to merely regulate ground water development, i.e., installation of new wells in areas facing depletion, in effect rewarding those who caused the problem by allowing them to monopolize the remaining supply.²¹⁴ California has pioneered the rescue project approach of dealing with depletion by obtaining supplemental water to maintain current uses.²¹⁵ While Nebraska statutes have authorized ground water regulations to control depletion for the last decade, the hope of obtaining a rescue project has allowed Nebraska irrigators to resist ground water controls. Probably the major reason LB 1106 was enacted was to facilitate development of rescue projects for Nebraska ground water irrigators.

Nebraska was one of the last western states to authorize ground water regulations.²¹⁶ Although depletion was apparent in the 1950s, ground water regulations were not authorized until the 1959 legislature authorized irrigators to create ground water conservation districts (GWCDs).²¹⁷ Effective ground water regulations did not

- gions of the state. See W. Solley, E. Chase & W. Mann, Estimated Use of Water in the United States in 1980, at 18, 36 (1983) (Geological Survey Circular 1001, U.S. Dept. of the Interior, Geological Survey); Aiken, supra note 66, at 918-19.
- 211. The regions include the Alliance area in Box Butte county; the Upper Republican area of Chase, Perkins and Dundy counties; the Central Platte area of Buffalo and Hall counties, the Little Blue area of Adams, Clay, Fillmore, Thayer, and Nuckolls counties; the Upper Big Blue area of Hamilton, York, Seward and Polk counties, and the O'Neil [Holt county] area. M. ELLIS & D. PEDERSON, supra note 209, at 3. For a discussion of what constitutes ground water depletion, see Aiken, supra note 206, at 509-14.
- 212. NEB. NATURAL RESOURCES COMMISSION, SUMMARY OF THE NEBRASKA RESEARCH FOR THE SIX STATE HIGH PLAINS OGALLALA AQUIFER STUDY 28 (1981) [hereinafter High Plains Study].
- 213. See Aiken, supra note 66, at 930-35; Ground Water Mining, supra note 206, at 513-14.
- 214. Ground Water Mining, supra note 206, at 514-18.
- 215. See id. at 518-21.
- 216. For a discussion of western ground water depletion statutes, see Aiken, *supra* note 66, at 931-34.
- 217. Ground Water Conservation Act of Nebraska, 1959 Neb. Laws ch. 221, LB 554 (codified at NEB. REV. STAT. §§ 46-614 to -634 (1984)) (repealed, effective Jan. 1, 1987). See Aiken, supra note 66, at 950-51. The GWCDs implemented ground water runoff controls, which subsequently were applied statewide in the Ground

develop until the 1975 Ground Water Management Act (GWMA) was enacted.²¹⁸ The GWMA follows a local control rather than a state control philosophy in that local natural resources districts (NRDs) have the sole authority to initiate control area proceedings by requesting the Nebraska Department of Water Resources (DWR) to hold a control area designation hearing.²¹⁹ If the DWR determines that a control area should be designated,²²⁰ the NRD may (subject to DWR approval) regulate well spacing,²²¹ require rotation of pumping, allocate the quantity of ground water to be withdrawn, and ban the installation of new wells.²²²

Six control area hearings have been requested by NRDs, but only three have been designated by the DWR,²²³ indicating that the state-

Water Management Act. The GWCDs, in cooperation with the University of Nebraska Extension Service, also pioneered demonstrations of irrigation scheduling, whereby crop water needs are monitored during the growing season and irrigation water applications are scheduled in quantity and amount to supply only as much water as the crop then requires. *Id.* at 951 n.163. For a brief discussion of irrigation scheduling, see Aiken, *The National Water Policy Review and Western Water Rights Law Reform: An Overview*, 59 NEB. L. REV. 327, 329-33 (1980). Even though the GWCDs did not directly regulate ground water withdrawals, which would be necessary to significantly extend aquifer life, their experiences with runoff regulations and irrigation scheduling were significant in formulating subsequent ground water management policies.

- 218. Nebraska Ground Water Management and Protection Act 1975, Neb. Laws 1975, LB 577 (codified at Neb. Rev. Stat. §§ 46-656 to -674 (1984 & 1986 Cum. Supp.)). See R. Harnsberger & N. Thorson, supra note 7, at 247-57; Aiken, supra note 66, at 960-62; Aiken & Supalla, Ground Water Mining and Western Water Rights: the Nebraska Experience, 24 S.D.L. Rev. 607, 620-29 (1979).
- 219. Neb. Rev. Stat. § 46-658(3) (1984 & 1986 Cum. Supp.). The fear of state regulation of ground water led to deletion on the floor of a provision authorizing the DWR to initiate ground water control proceedings on its own motion. Aiken & Supalla, *supra* note 218, at 620.
- 220. A control area may be designated if the DWR director concludes, after a public hearing, that the uncontrolled development and use of ground water has caused or is likely to cause an inadequate ground water supply to meet present or reasonably foreseeable needs. Neb. Rev. Stat. § 46-658(1)(a) (1984 & 1986 Cum. Supp.). In making that determination, the DWR director's considerations must include: (1) whether conflicts between ground water users are occurring or may reasonably be anticipated, and (2) whether ground water users are experiencing, or likely to experience in the foreseeable future, substantial economic hardship as a direct result of current or anticipated ground water development or use. Id. § 46-658(2).
- 221. State statutes require new irrigation wells to be located at least 600 feet from existing registered irrigation wells owned by another and at least 1000 feet away from existing registered municipal or industrial wells. Neb. Rev. Stat. § S 46-609, -651 (1984). Greater spacing requirements may be established in control areas. For a more complete discussion of well-spacing statutes see R. Harnsberger & N. Thorson, supra note 7, at 231-33. For a discussion of well registration requirements, see Aiken, supra note 66, at 976-80; R. Harnsberger & N. Thorson, supra note 7, at 230-31.
- 222. Neb. Rev. Stat. § 46-666(1)(5) (1984 & 1986 Cum. Supp.).
- 223. Aiken, supra note 66, at 962-67. All three unsuccessful control areas designation

local checks and balances built into the GWMA were present.²²⁴ Of the three control areas designated, in only the Upper Republican control area has the NRD adopted regulations with the potential to significantly extend aquifer life through reduced irrigation withdrawals.²²⁵ Control area irrigators, and irrigators in other regions facing ground water depletion²²⁶ are looking to the Platte River to supply water for rescue projects to supplement declining ground water supplies and to forestall imposition of ground water controls.²²⁷

requests were denied by the DWR director on the basis that the problems complained of were simply well interference problems. *Id.* at 962-63, 965-67. The last unsuccessful control area designation request, made by the Lower Loup NRD to deal with well interference, soil erosion, and water quality problems associated with sandhills irrigation development, was denied on the additional basis that erosion and water quality concerns were beyond the scope of the GWMA. *Id.* at 966-67. The GWMA was subsequently amended to address ground water pollution from irrigation. Act of May 15, 1981, 1981 Neb. Laws, LB 146, § 6 (codified at NEB. REV. STAT. § 46-658(1)(b) (1984)) repealed by 1986 Neb. Laws, LB 894, § 22.

- 224. The requirement for DWR approval of control area designation requests reflected the conservative philosophy that control area designation should be limited to circumstances where controls are truly needed to deal with depletion, and that one state role should be to prevent hasty NRD action in reaction to local ground water concerns. The § 46-658(1) designation requirement of present or prospective inadequacy of ground water supply, the condition not met for the three unsuccessful control area designation requests, precludes control areas being used as a method for dealing with well interference conflicts if depletion is not present or imminent.
- 225. The political difficulty associated with adopting effective ground water controls, aside from the obvious one of interfering with the farmer's traditional freedom in making agricultural production decisions, is that irrigators will ultimately be required to reduce irrigated acreage, grow crops using less water, or both to live within their reduced allocations. The benefit of this, of course, is that irrigators will irrigate longer than they could if they were not regulated. See Ground Water Mining, supra note 206, at 507, 512-13, 517-18.
- 226. The areas facing depletion that have not requested control area designation include the O'Neill area of Holt county, where Lower Niobrara NRD irrigators hope to be served by the Norden irrigation project; the Central Platte area within Hall and Buffalo counties, where Central Platte NRD irrigators hope to be served by the Prairie Bend and Twin Valley irrigation projects; and the Alliance area in Box Butte county where Upper Niobrara-White NRD irrigators have not yet begun to pursue either a rescue project or ground water controls. M. ELLIS & D. PEDERSON, supra note 209, at 3; NEB. DEP'T OF WATER RESOURCES, SUMMARY OF PROPOSED PROJECTS FROM THE PLATTE AND SOUTH PLATTE RIVERS (1985) [hereinafter PLATTE PROJECTS SUMMARY] (copy available from author upon request).
- 227. All three control area NRDs have their own rescue project that they are pursuing: the Enders project for the Upper Republican, Catherland for the Little Blue NRD, and the Landmark project for the Upper Big Blue NRD. PLATTE PROJECTS SUMMARY, supra note 226. Of the three, however, only the Upper Republican NRD is also implementing a ground water control strategy to slow depletion.

The Enders application was denied by the Department of Water Resources. Application A-15738 for a Permit to Divert Water from the South Platte River for Storage in Enders Reservoir, (Nov. 4, 1985) (Neb. Dep't of Water Resources) (copy available from author upon request). The application was denied, because sufficient unappropriated water was not available for appropriation. *Id.* at 5. The

The GWMA became the Ground Water Management and Protection Act (GMPA) in 1981. The denial of control area status for the Lower Loup NRD was the impetus for expanding the GWMA to include ground water quality protection as a control area designation and administration objective.²²⁸ However no NRD has attempted to utilize this new feature of the statute. The GMPA was expanded again in 1982 when ground water management areas were established as an alternative to ground water control areas.²²⁹ Management areas may be established unilaterally by an NRD after it has prepared a ground water management plan. The plan must include establishment of a ground water reservoir life goal and a discussion of how ground water controls would be used to accomplish that life goal.²³⁰ Management plans have been prepared by all NRDs as required by LB 1106,²³¹ but no management areas have been implemented.

The GWMA (and subsequently the GMPA) have provided NRDs with administrative authorities which would extend aquifer life by reducing ground water withdrawals.²³² However, the local option fea-

DWR director also concluded that the applicants had not meet the burden of proof that the proposed reservoir would not jeopardize downstream endangered species or their habitat. *Id.* at 11. The order denying the appropriation is on appeal to the Nebraska Supreme Court.

- 228. Groundwater Management and Protection Act, 1981 Neb. Laws, LB 146, § 6 (codified at NEB. REV. STAT. § 46-658(1)(b) (1984)) repealed by 1986 Neb. Laws, LB 894, § 22. Regarding the Lower Loup control area denial, see Aiken, supra note 66, at 966-67. Interestingly, the Lower Loup did not reapply for control area designation when designation criteria were expanded to include ground water pollution resulting from irrigation.
- Act of March 11, 1982, 1982 Neb. Laws, LB 375 (codified at NEB. REV. STAT. § 46-673.01 to -673.13 (1984 & 1986 Cum. Supp.)). See R. HARNSBERGER & N. THORSON, supra note 7, at 257-61.
- 230. NEB. REV. STAT. § 46-673.01(12), (13) (1984). Authorized management area regulations parallel authorized control area regulations. Id. at § 46-673.09 (1984 & 1986 Cum. Supp). However, well drilling moratoria are not available in management areas. Id. Well spacing restrictions may be imposed only to the extent that they would not preclude a landowner from developing irrigation. Id. at § 46-673.12 (1984). If ground water allocations are established, they must be based on the number of acres being irrigated, rather than on another basis (such as irrigable acres). Id. at § 46-673.10. The irrigated acres requirement is a response to the realization that ground water allocations could be used to restrict irrigation to lands that met land suitability criteria if water were allocated on the basis of land suitability rather than water availability. Such an approach would have severely limited irrigation development in the Nebraska sandhills where most land is unsuited for irrigation due to steep slopes and sandy soils. See NEBRASKA NATURAL RESOURCES COMMISSION, PROGRESS REPORT ON THE SANDHILLS AREA STUDY(1984). For a discussion of alternative bases of ground water allocation, see Aiken & Supalla, supra note 218, at 635-37.
- Act of April 10, 1984, 1984 Neb. Laws, LB 1106, § 37, (codified at Neb. Rev. Stat. § 46-673.01 (1984)).
- 232. Regarding the effect of ground water regulations on aquifer life, see *Ground Water Mining*, supra note 206, at 509-14.

ture²³³ and the lure of rescue projects have combined to create a political climate in which effective controls have been rejected in all but the Upper Republican control area. The hope of developing a rescue project has led to a de facto do nothing ground water management approach in Nebraska as irrigators politically resist imposition of ground water controls on the ground that the rescue project will extend aquifer life just as ground water controls would, although in a different fashion. Nebraska should consider the recently enacted Arizona statute which authorizes state officials to require ground water controls to control depletion,²³⁴ particularly given the limited effect rescue projects can have in sustaining ground water based irrigation in Nebraska.²³⁵

G. Nebraska Endangered Species Act

In addition to the GWMA, the 1975 Nebraska Unicameral enacted the Nebraska Endangered Species Act (NESA).²³⁶ NESA was passed primarily to obtain federal funding for state endangered species programs.²³⁷ However, section 6(3) of LB 145 (and the current statute)

- 233. The requirement that only NRDs may initiate ground water control proceedings by requesting a DWR control area designation hearing has already been noted. This local control feature is compounded by a strong rural bias on NRD boards: NRD board members are not elected by population but rather by subdistricts. Board members are nominated by subdistricts based on area rather than population, and then are elected at large. NEB. REV. STAT. § 2-3214(2), (3) (1983 & 1986 Cum. Supp.). This gives rural residents (and in heavily irrigated NRDS, irrigators) a disproportionate voice in NRD governance. One wonders if NRDs would be so slow to act to deal with depletion if they were not dominated by irrigators reluctant to regulate themselves to stretch the life of local ground water supplies.
- 234. ARIZ. REV. STAT. ANN. § 45-412 to -414 (Supp. 1985). See generally Kyl, The 1980 Arizona Groundwater Management Act: From Inception to Current Constitutional Challenge, 53 U. Colo. L. Rev. 471 (1982).
- 235. Even if all hoped for rescue projects were developed, they would keep only a small fraction of the acres otherwise reverting to dryland production in irrigated production. See infra text accompanying notes 354-56.
- 236. Nongame and Endangered Species Conservation Act, 1975 Neb. Laws, LB 145 (codified at Neb. Rev. Stat. §§ 37-430 to -438 (1984)). LB 145 was based on a model bill drafted by professional wildlife conservation organizations and the Council on State Government. LB 145 Hearing 10 Committee on Constitutional Revision and Recreation Interim Study Committee, 84th Leg., 1st Sess. (Jan. 23, 1975) (statement of Bill Bailey, Neb. Game & Parks Comm'n) [hereinafter LB 145 Hearing].
- 237. Federal grants for state endangered species programs meeting federal requirements are available pursuant to 16 U.S.C. § 1535(c) (1973) (amended 1978).
 - It is the intent of LB 145 to provide adequate statutory authority to the Game and Parks Commission to enter into a cooperative agreement with the Federal Government as provided by the Endangered Species Act of 1973. Entry into such agreement would: (1) preclude federal pre-emption of the State's authority to regulate the "taking" of resident threatened or endangered wildlife and (2) make the state eligible to participate in the grant in-aid [sic] provisions of the Federal Act.

contained nonjeopardy language virtually identical to the 16 U.S.C. § 1536(c) nonjeopardy language of the 1973 FESA.

The Governor shall review other programs administered by him and utilize such programs in furtherance of the purposes of the act. All other state departments and agencies shall, in consultation with and with the assistance of the [Nebraska Game and Parks] commission, utilize their authorities in furtherance of the purposes of this act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 5 of this act, and by taking such action necessary to insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of such endangered species or result in the destruction or modification of habitat of such species which is determined by the commission to be critical.²³⁸

Compare the italicized language with the corresponding language of section 7 of the 1973 FESA:

and by taking such action necessary to insure that actions authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with affected States, to be critical.²³⁹

Both provisions require state and federal agencies, respectively, to insure that agency action does not jeopardize endangered species or their critical habitat. The only significant difference between the two is that section 37-435(3) is absolute in its nonjeopardy requirement. Section 37-435(3) requires state agencies to take such action as to insure that agency actions do not jeopardize endangered species or their critical habitat, an absolute prohibition. Section 1536(c), in contrast, only requires that federal agencies take action to insure that their agency actions "are not likely" to jeopardize endangered species or their critical habitat. Thus Nebraska state agencies are under a greater requirement to avoid jeopardizing endangered species or their habitat than are federal agencies.²⁴⁰

LB 145 was debated prior to the 1978 Tellico and Grayrocks decisions. Thus the legislative debate completely missed the important point that the nonjeopardy provisions could interfere with state-authorized construction projects, particularly water projects.²⁴¹ The leg-

LB 145 Statement of Intent, Committee on Constitutional Revision & Recreation Interim Study Committee, 84th Leg., 1st Sess. (Jan. 21, 1975) (copy available from author upon request).

^{238.} LB 145, § 6(3) (1975) (emphasis added). The language of the bill as introduced was not modified when enacted and is currently codified at NEB. REV. STAT. § 37-435(3) (1984).

^{239. 16} U.S.C. § 1535(c) (1973) (emphasis added) (amended 1978).

^{240.} While § 1535(c) was amended in 1978, the agency duty to insure no jeopardy was not changed, although the possibility of obtaining an exemption was created.

^{241.} LB 145 Floor Debate at 602-03, 84th Leg., 1st Sess. (1975) (statement of Senator Kime). Id. at 613-14, 617. Another issue that generated some debate was whether LB 145 authorized the Game and Parks Commission to condemn private property

islative debate focused instead on whether a new state program could be financially justified,²⁴² and whether endangered species conservation would better be assumed by the U.S. Fish and Wildlife Service rather than by the Game and Parks Commission.²⁴³ It would not be until the national snail darter controversy and the Grayrocks decision that Nebraska water developers would realize the threat that NESA posed to their pending water projects. *Little Blue II* would raise NESA in the water project context for the first time, and create the legal and political impasse that resulted in LB 1106.

H. Federal and State Water Project Funding

As noted earlier, federal water project funding through the reclamation program has driven western surface water development. While state law provides the framework within which appropriations are acquired and administered, federal programs provide the funding that makes water project development possible. Thus, while state law authorizes formation of reclamation districts and the grant and administration of appropriations, the key to successful water project development is federal funding.²⁴⁴

The Carter Hit List. One of the most controversial water policy developments in recent times was President Carter's controversial water project hit list.²⁴⁵ However, the Carter list was controversial

for endangered species conservation purposes without express legislative approval. *Id.* at 613-14, 617.

- 242. The only reference to the jeopardy was an unexplained reference to state agency cooperation in testimony presented by the Nebraska Game and Parks Commission, the agency that would administer LB 145. LB 145 Hearing, *supra* note 236 at 11 (statement of Bill Bailey, Neb. Game & Parks Comm'n).
- 243. The issue was whether the Game and Parks Commission was so dominated by hunting interests that it would not properly administer a program dealing with non-game wildlife species. Id. at 18 (statement of Dorothy Wheeler). This was probably the result of Commission support of an unsuccessful bill to establish a hunting season for the mourning dove. Id. at 17. The bill was very controversial. Id. at 23 (statement of Bob Wick, Grand Island Audubon Soc'y). However, a representative of the Nebraska Sierra Club expressed confidence in the Game and Parks Commission to even-handedly administer LB 145. Id. at 19 (statement of Tim Hergenrader).
- 244. The High Plains Study illustrates the importance of federal funding to water project development. See Ground Water Mining, supra note 206, at 522-26. Because the study ultimately recommended against developing a rescue project importing Missouri River water to the High Plains region of Nebraska, Colorado, Kansas, Oklahoma, New Mexico and Texas because of excessive project costs, the hopes of that gigantic water diversion have been dashed, at least temporarily. A second illustration is Arizona's adoption of relatively effective ground water regulations to obtain continued federal support for the massive Central Arizona Project. Regarding the CAP, see id. at 521. Regarding the federal role in adopting the ground water code, see Kyle, supra note 234, at 502.
- 245. The hit list was so named because President Carter proposed deleting from the 1978 federal budget funding for 19 water projects that had been previously au-

not only because it proposed to deauthorize for the first time water projects previously authorized by Congress. Perhaps more significantly, the hit list's accompanying water policy initiatives also proposed to modify federal water project funding policies and to require substantive reforms of state water laws if states wished to qualify for federal water project funding. To better understand the Carter water policy initiatives we must first review the interaction between state water development and appropriation policies and federal water project funding policies.

As discussed earlier, development of a water project is a process that involves both state and federal laws. First, local project sponsors, if they believe that they may eventually qualify for federal water project funding, will establish the local district (reclamation district, irrigation district, etc.) to serve as the local project sponsor. This typically involves holding an election to establish the district.²⁴⁶ The next step is then to develop preliminary project plans, often referred to as prefeasibility studies, upon which to base an appropriation application for the project. The prefeasibility studies may be undertaken with or without federal assistance. If the district obtains the state appropriation, it then can qualify for federal project planning assistance.²⁴⁷ If the federal agency, typically the Bureau of Reclamation, determines that the proposed project meets feasibility standards, it will recommend that the project be authorized by Congress and that project planning and construction funds be appropriated.²⁴⁸ The time period from initial district organization to project construction may be twenty to thirty years.249

As described earlier, this process, complicated enough, has been further complicated by federal environmental laws (notably NEPA, section 404 of the Clean Water Act, and FESA), which require that environmental impacts of proposed federal actions be identified, and that certain environmental effects be avoided. These project challenges are typically made after the project has been authorized by Congress, when project planning and development is fairly advanced

thorized by Congress but which had not yet been completed. President Carter proposed to deauthorize those projects. Scheele, *President Carter and the Water Projects: A Case Study in Presidential and Congressional Decision-Making*, 8 PRESIDENTIAL STUDIES QUARTERLY 348 (1978). Interestingly the 19 projects represented only a small proportion of the 342 projects then authorized. *Id.* at 352.

^{246.} See supra text accompanying notes 43-47.

^{247.} The district must hold a state appropriation for the proposed project to qualify for federal planning assistance. The water right, even though it is not perfected, is mandatory to obtain federal project assistance. Regarding appropriation perfection, see R. HARNSBERGER & N. THORSON, supra note 7, at 84-86. See also supra note 39.

^{248.} Sax, supra note 50, at 138-40. Regarding the test for project feasibility, see id. at 141-47.

^{249.} See WATER POLICIES FOR THE FUTURE, supra note 40, at 393-94.

and completion becomes more likely. If the project state has enacted similar environmental statutes, challenges to the project may be made at an earlier stage in the development process when the district applies for its project water appropriation.

The Carter hit list did not propose to alter significantly this process, but merely to deauthorize 19 of the over 300 water projects then authorized. However, the water policy initiatives proposed in Carter's 1977 environmental address proposed going beyond mere project deauthorization. Drawing heavily from the water policy reforms proposed by the NWC, the Carter water policy initiatives would have imposed cost-sharing requirements on project water users. The policies would have required states to make substantive changes in their water laws to qualify for federal project cost sharing assistance. These water law changes included recognition of instream values, ground water management requirements to prevent or control ground water depletion, and efficient use requirements to reduce irrigation water demands.²⁵⁰

The Carter water policy initiatives aroused a storm of protest in western governors' mansions and in Congress. The governors accused the Carter administration of being ignorant of western water needs.²⁵¹ Congress resented the intrusion in what it considered a useful and important political prerogative, as water projects for a home district usually can be translated into votes.²⁵² In the end, however, Carter was able to make most of his project deauthorizations stick, and the 1977 water resources bill was the last one enacted to date.²⁵³ Even though Carter's water policy initiatives were not implemented by Congress during his term, elements of them will undoubtledly be included in the ultimate federal cost sharing programs, if water developers can obtain any federal assistance at all.

The Reagan administration proved to be no more a friend to water development than its predecessor. Reagan abolished the regional river basin commissions²⁵⁴ and has been willing to try to balance the budget at the expense of new water projects. Only recently has a federal water resources bill, the Water Resources Development Act of 1986, been enacted.²⁵⁵ The Act establishes new cost sharing require-

See id. at 230-43, 247-52, 256-59, 271-79. See also Hillhouse & Hannay, Practical Implications of the New National Water Policy, 25 ROCKY MTN. MIN. L. INST. 22-1 (1979).

^{251.} Matheson, President Carter's Water Policy: Partnership or Preemption? 25 ROCKY MTN. MIN. L. INST. 1-1 (1979) (the author is the Governor of Utah); Scheele, supra note 245, at 353 n.24.

^{252.} Scheele, supra note 245, at 353 n.24.

^{253.} While existing projects have been provided continuing funding in annual federal appropriation bills, no new projects have been authorized since 1977.

^{254.} B. ANDREWS & M. SANSONE, supra note 39, at 221-22.

^{255.} Water Resources Development Act of 1986, Pub. L. No. 99-662.

ments for Corps of Engineers projects: 35% local cost sharing for flood control, 100% for hydropower generation, 100% for municipal and industrial water supply, 35% for irrigation water supply, and 50% for recreation benefits.²⁵⁶ The Act does not specify what local interests would be responsible for providing the local cost share. Thus the local interests could include the state, the region in which the project would be constructed, the local water users directly benefiting from the project, or some combination of these interests. Significantly, the Act does not establish cost sharing requirements for reclamation projects.²⁵⁷

The stalemate over federal funding for reclamation projects stemming from the Carter hit list has yet to be resolved. However, given the current concern with balancing the federal budget, it seems clear that any new reclamation projects constructed in the future will require significant state and/or local cost sharing to qualify for federal funding, if federal funding is available at all. The golden era of reclamation has ended, and the water policy future identified by the National Water Commission has begun.

IV. LITTLE BLUE

By 1980 the water development picture in Nebraska had become uncertain. Intensive ground water use for irrigation had led to widespread ground water level declines, creating a demand for rescue projects. Traditional federal reclamation policies had lulled ground water users into a false sense of security that ground water depletion would be offset through project development. This expectation was reflected in state "local option" ground water policies of no regulation, which were based on the hope that supplemental water supply development would forestall the need for meaningful ground water regulations. However, the hope that rescue projects could be developed was becoming less realistic: federal environmental policies had by this time slowed the Norden project on the Niobrara river, and the snail darter and Grayrocks cases suggested that reclamation projects themselves would become endangered if they jeopardized endangered species or their habitat. The Grayrocks litigation had resulted in creating the Platte River Whooping Crane Trust, which was viewed by developers as a standing guarantee that environmental interests would get their day in court if the Platte were developed. The Carter water project hit list sent shock waves throughout the water development community, raising the frightening specter that the days of federal

^{256.} Id. § 103(c).

^{257.} Many observers expect the 35% irrigation cost share for Corps projects to be extended to the Bureau of Reclamation as well.

subsidies were over and that states or (worse yet) irrigators would be required to provide significant funding for reclamation projects.

But more water policy controversy was to surface. The judicial reversal of a longstanding prohibition against interbasin surface water transfers led to the current Platte River water wars, pitting developer against developer in a legal battle that would do more arid states proud. The Little Blue cases would create the policy impasse engendering the Water Independence Congress and LB 1106.

A. Little Blue I

While ground water irrigation development increased the potential demands on the Platte for supplemental irrigation water, and federal environmental policy changes were making water project implementation more difficult, the Platte valley was still quiet, at least on the surface. Irrigation interests in the Blue and Republican River basins, who lacked the surface water resources to augment declining ground water supplies, felt stymied by the 1936 Osterman decision prohibiting interbasin transfers of streamflow.²⁵⁸ Attempts to overrule Osterman through legislation had failed, resulting in stormy, divisive legislative debates.²⁵⁹ Platte River interests were secure in the feeling that there was sufficient streamflow available to support their needs.

This calm was shattered by the first salvo in the present Platte River wars, the 1980 decision of Little Blue Natural Resources Dist. v. Lower Platte North Natural Resources Dist. (Little Blue I). Little Blue proposed to divert water coming from the Tri-County irrigation system to irrigate land in the Blue River basin originally proposed to be part of the Tri-County project but eliminated by Osterman. The DWR found that there was sufficient unappropriated water available for the irrigation project, but concluded that Osterman legally prevented the DWR from granting the appropriation. Little Blue appealed the decision of the department, and the Nebraska Supreme Court overruled Osterman in a unanimous decision. The court

^{258.} Regarding Osterman, see R. HARNSBERGER & N. THORSON, supra note 7, at 355-57. Regarding interbasin transfers, see id. at 353-54.

^{259.} See Interbasin Transfers, supra note 63, at 98-103.

 ^{260. 206} Neb. 535, 294 N.W.2d 598 (1980); see also Pearson, Constitutional Restraints on Water Development in Nebraska, 16 CREIGHTON L. REV. 695 (1983); Note, Water Law—Transbasin Diversion in Nebraska, 14 CREIGHTON L. REV. 887 (1981).

^{261.} Applications 15146 and 15148 of the Little Blue Natural Resources District; Order of Denial (June 25, 1979) (Neb. Dep't of Water Resources) (copy available from author upon request). The DWR relied on an attorney general's opinion concluding that Osterman precluded granting the application. Letter from Paul L. Douglas, Nebraska Attorney General, to John W. Neuberger, Director of Water Resources (June 21, 1979) (copy available from author upon request).

^{262.} Little Blue Natural Resources Dist. v. Lower Platte North Natural Resources

ruled that the constitutional dedication of water to the people of the state did not dedicate that use to a particular river basin. ²⁶³ The court also interpreted section 46-205 to authorize interbasin transfers if the water diverted would be returned to the river of origin or to the Missouri. ²⁶⁴ This also overruled that portion of the *Osterman* decision which had interpreted the Missouri River basin proviso of section 46-205 as having no meaning. The court ruled, however, that section 46-235 required the DWR director to determine whether the Little Blue appropriation was in the public interest before deciding whether to issue the permit. As the director had not done so, the court remanded the order back to the DWR to make the requisite findings. ²⁶⁵ The court did not discuss what should be taken into consideration in determining the public interest.

Little Blue I triggered a rush for Platte River water. Out-of-basin interests went to work to develop project proposals for which they could file appropriation applications. Those Platte River interests that had not yet filed their appropriation applications for their Platte projects rushed to do so, in order to file before any out-of-basin interests filed. The previous calm was gone forever; now Platte River water was up for grabs and every water developer wanted its share. Developers also recognized that there was not enough water to meet all project needs. They girded themselves to do battle with other project sponsors to see whose application would survive for possible implementation. Those with later filing dates had even more incentive to derail opposing applications; unless they could do so their appropriation would be worthless as there would be insufficient unappropriated water available for diversion and storage after senior rights were served.

B. Little Blue II

After Little Blue I, the DWR subsequently determined that the Little Blue project was in the public interest.²⁶⁷ That decision was immediately appealed to the Nebraska Supreme Court. Before the

Dist., 206 Neb. 535, 294 N.W.2d 598 (1980) [Little Blue I]. For a discussion of Little Blue I, see R. HARNSBERGER & N. THORSON, supra note 7, at 362-64. The irrigation defendants in Little Blue I far outnumbered the environmental defendants, indicating that the real controversy with Platte River water projects is not simply an environmentalist versus developer conflict but a project versus project conflict. Id. at 362.

^{263. 206} Neb. 535, 543, 294 N.W.2d 598, 602 (1980).

^{264.} Id. at 546, 294 N.W.2d at 603.

^{265.} Id. at 548, 294 N.W.2d at 604.

^{266.} See Platte Projects Summary, supra note 226.

^{267.} Applications 15146 and 15148 of the Little Blue Natural Resources District; Order of Approval (Dec. 29, 1980) (Neb. Dept. of Water Resources) (copy available from author upon request). See R. HARNSBERGER & N. THORSON, supra note 7, at 366.

court could issue its Little Blue II opinion, however, legislation was enacted defining public interest considerations for interbasin transfer appropriation applications.²⁶⁸ Interbasin transfer appropriations can be granted, after considering the economic and environmental costs and benefits of the proposed appropriation and water supply alternatives, if the benefits to the state of granting the application outweigh the benefits to the state of denying the appropriation.²⁶⁹ Unfortunately the Nebraska Supreme Court did not have the opportunity to interpret these provisions in Little Blue II. Instead, the court ruled that the application should be remanded for further proceedings under NESA.²⁷⁰ As noted above, the act requires state agencies to consult with the Game and Parks Commission to determine whether the proposed agency action would interfere with the continued existence of threatened or endangered species or their critical habitat.²⁷¹ NESA also prohibits state agencies from taking actions that would jeopardize the continued existence of threatened or endangered species or their critical habitat. The DWR had not consulted with the Commission regarding possible effects of the Little Blue project on

^{268.} Act approved May 22, 1981, 1981 Neb. Laws, LB 252 §§ 5, 6 (codified at NEB. REV. STAT. §§ 46-288 to -289 (1984 & 1986 Cum. Supp.)). See R. HARNSBERGER & N. THORSON, supra note 7, at 364-66.

^{269.} The specific criteria required to be considered in making this public interest determination are: (1) the economic, environmental, and other benefits of the proposed interbasin transfer and use; (2) any adverse impacts of the proposed interbasin transfer and use; (3) the current and reasonably foreseeable beneficial uses of water in the basin of origin; (4) the economic, environmental and other benefits of leaving the water in the basin of origin for current or future beneficial uses; (5) alternative sources of water available to the applicant; and (6) alternative sources of water available to the basin of origin for future beneficial uses. NEB. REV. STAT. § 46-289 (1984 & 1986 Cum. Supp.). Beneficial uses are defined to include but not to be limited to the reasonable and efficient use of water for domestic, municipal, agricultural, industrial, commercial, power production, subirrigation, fish and wildlife, ground water recharge, interstate compact requirements, water quality maintenance, or recreational purposes. Id. at § 46-288. The public interest criteria were modified in 1986. Act approved April 18, 1986, 1986 Neb. Laws, LB 309 § 2 (codified at NEB. REV. STAT. 46-289 (Cum. Supp. 1986)). Now § 46-289 authorizes the DWR to grant an interbasin transfer appropriation application if the benefits to the receiving basin and the state equal or exceed the adverse impacts of the transfer to the state and the transferring basin. These provisions are ambiguous regarding whether the benefits of the receiving basin should be counted in the state benefits, i.e., whether the receiving basin benefits (and the transferring basin adverse impacts) will be counted twice. See Aiken, Nebraska Water Law Update No. 78 5-6 (Feb. 11, 1986) (Univ. of Neb. Dep't of Ag. Econ.) (copy available from author upon request). Presumably this change is intended to make it easier to obtain appropriation permits for interbasin transfers.

^{270.} Little Blue Natural Resources Dist. v. Lower Platte North Natural Resources Dist., 210 Neb. 862, 871-72, 317 N.W.2d 726, 732 (1982) (Little Blue II). See R. HARNSBERGER & N. THORSON, supra note 7, at 366-70.

NEB. REV. STAT. § 37-435(3) (1984). See supra notes 238-239 and accompanying text.

endangered species, and it therefore was not authorized to issue the appropriation.

Little Blue II provided even more of a shock to project developers than its predecessor. Most developers had come to oppose the prohibition of interbasin transfers,²⁷² and thus were not disappointed with Little Blue I (Platte basin project sponsors excepted of course). Little Blue II was something entirely different. While project sponsors had reluctantly realized that environmental considerations would come into play when dealing with federal permits and funds for water projects, environmental constraints had not intruded into state proceedings. No doubt sponsors expected that they would be able to obtain an endangered species exemption should a water project violate federal jeopardy requirements. At least such considerations were decades away. Little Blue II changed the environmental complacency of water developers: now they would have to contend with endangered species protection in state appropriation proceedings. Although it was not clear how the Game and Parks Commission would interpret the NESA jeopardy requirements, developers were aware that the critical whooping crane habitat had been designated in the central Platte region.²⁷³ The critical habit was, in turn, under the watchful eye of the whooping crane trust. It was no longer business as usual when project sponsors were applying for appropriations from a basically sympathetic DWR. Water development in Nebraska had finally been thrust into the modern world.

Based on the *Little Blue II* decision the Little Blue NRD formally consulted with the Game and Parks Commission to determine the impact of its project on endangered species or their critical habitat. The Commission issued a biological opinion that unless the project were substantially modified (and it could be inferred that such modifications were feasible) substantial interference with the critical habitat of several endangered species would occur.²⁷⁴ The jeopardy opinion by the Commission confirmed the worst fears of project sponsors and brought water development in Nebraska to a standstill.

^{272.} See R. HARNSBERGER & N. THORSON, supra note 7, at 353.

^{273.} See supra note 148.

^{274.} Nebraska Game & Parks Commission, Biological Opinion, Little Blue-Catherland Project (1985). The Commission concluded that "the Little Blue-Catherland project will jeopardize the continued existence of the whooping crane, bald eagle, and the least tern.... To the best of our knowledge, there are no reasonable or prudent alternatives that would avoid jeopardy should the Little Blue-Catherland project with or without Prairie Bend be constructed and operated as currently proposed." Id. at 6. The opinion did suggest that modifying project operation and/or providing substitute water to compensate for diversions could be used to avoid jeopardy. Id. at 7-8.

V. LB 1106

A. The Water Independence Congress

The Game and Parks Commission biological opinion was the coup de grace that halted Nebraska surface water development at least temporarily. The reasons for this stalemate included: (1) disagreements about allocation of surface water between instream environmental uses and out of stream uses (as reflected in the endangered species and NEPA litigation), and a realization (in some quarters) that a mechanism was needed to resolve such conflicts other than through litigation;²⁷⁵ (2) the belief that additional surface water development was feasible and desirable, particularly to provide supplemental water to irrigators depleting local ground water supplies; and (3) the realization that state (or local) water project funding was required to compensate for reduced federal financial assistance. These concerns led Governor Kerrey to establish his Water Independence Congress on May 26, 1983, to develop water policy recommendations for legislative and gubernatorial consideration.²⁷⁶

The Congress submitted its final report to Governor Kerrey on December 7, 1983.²⁷⁷ Congressional recommendations included (1) legally recognizing instream flows for fish, wildlife and ground water recharge; (2) requiring natural resource districts to prepare ground water management plans; (3) pursuing additional surface water impoundment; (4) amending the Nebraska Constitution to authorize state general obligation bonds for impoundment projects; (5) authorizing state financial assistance for impoundments only when public and private benefits exceed project costs; (6) requiring project beneficiaries to pay their share of project costs based on the benefits received; (7) establishing a Natural Resources director to replace the

^{275.} Most irrigation interests persist in denying environmental instream water uses any real legitimacy. This development bias will probably persist for some time. It is unlikely that environmental interests would receive any legal protection in Nebraska in the absence of federal environmental safeguards or judicial adoption of the public trust doctrine. Regarding the latter, see R. HARNSBERGER & N. THORSON, supra note 7, at 296-320.

^{276.} Aiken, Nebraska Water Law Update No. 60 2-7 (Oct. 14, 1983) (Univ. of Neb. Ag. Econ. Dep't) (copy available from author upon request). The author was a member of the Water Congress.

^{277.} Nebraska Water Independence Congress, Final Report (Dec. 7, 1983). The author filed a dissenting opinion, and joined a dissenting opinion prepared by Creighton University Law Professor Eric Pearson. Letter from J. David Aiken to Governor Bob Kerrey (Dec. 14, 1983); Dissenting remarks of J. David Aiken and Eric Pearson, members, Nebraska Water Independence Congress, Dec. 7, 1983 (copy available from author upon request). The author's dissent emphasized that the Water Congress had avoided coming to grips with the reality of ground water depletion and the limited effect of rescue projects to significantly affect depletion rates statewide.

^{278.} Most Water Congress members did not realize that in the absence of federal pro-

Executive Director of the Natural Resources Commission; and (8) establishing a Water Management Board to review and approve proposed major impoundments, as well as providing an administrative forum for project conflict resolution. The recommendations of the Congress represented a major victory for the Governor, who sought increased political control over the Nebraska Natural Resources Commission. In total, however, the recommendations largely sought to maintain the status quo of seeking rescue projects at primarily federal expense to maintain ground water-based irrigation. The instream flow recommendation was only a gesture and did not reflect a political consensus that environmental values were legitimate water policy concerns.²⁷⁹

B. The Governor's Bill

Based on the Congress's recommendations, Senator Loren Schmit introduced LB 1106 for Governor Kerrey in the 1984 legislative session. The original bill established a Water Management Board with broad water project review authorities, established a director of Natural Resources to replace the Natural Resources Commission (NRC) executive secretary, established a water management fund to provide state funding for major water projects, authorized the NRC to obtain instream appropriations, and required NRDs to prepare ground water management plans. Portions of the Governor's bill were very controversial, leading to significant committee amendments and a second hearing. Each major portion of LB 1106 represented a significant water policy change.

The first major change proposed by the Governor's bill was establishment of the Water Management Board (WMB). The purpose of establishing the WMB was to help resolve conflicts over water projects

ject cost sharing this recommendation would preclude irrigation projects in the absence of sustained high crop prices, as irrigators typically can afford to pay only a fraction of the cost of water from reclamation projects. See supra note 202. However most Congress members assumed that federal water project subsidies would be available, and that the state's share of project costs would not exceed 35%.

^{279.} The instream flow recommendations were controversial and limited. The author recalls a stormy meeting where he presented specific alternatives for granting instream appropriations that had been prepared at the request of Congress Co-Chairman John Cavanaugh. These proposals met violent opposition from agricultural interests on the Congress, who stated rather forcefully that they were in favor of going on record as supporting instream flows but would not favor going the next step of actually allowing water to be legally allocated to instream flows. The actual position was that instream flows were acceptable as long as the water was not needed for agriculture, at which point agriculture would be entitled to all the water it needed. This philosophy is reflected in the take-away provision of the instream flow portions of LB 1106. See infra text accompanying notes 326-28.

so development could occur.²⁸⁰ WMB authorities were not as controversial as other features of the Governor's bill, and were not significantly changed as LB 1106 was enacted.²⁸¹ The WMB would have included the Game and Parks director, the newly created director of Natural Resources and one gubernatorial appointee with demonstrated natural resources experience.²⁸² The WMB would have major water project review responsibilities, including determining whether a proposed project was consistent with NRC state water use goals; determining whether a proposed project was technically, environmentally, financially and economically feasible; attempting to resolve project conflicts including the authority to modify project design and operation; and determining whether a project was in the state's interest.²⁸³ The WMB would also consult and make endangered species determinations with Game and Parks for projects reviewed by the WMB.²⁸⁴ Any project sponsor seeking state project planning assist-

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It is the intent of the Legislature that an organizational structure be established within state government to identify, propose, support, advocate, resolve conflicts regarding, and expedite water development projects in the state in the most efficient manner possible. The Legislature further intends that the Water Management Board be the entity for such purposes.

LB 1106 § 1, 88th Leg. 2nd Sess. (1984) (codified at NEB. REV. STAT. § 2-15.107 (Cum. Supp. 1986)) [hereinafter Governor's Bill].

281. Creation of the WMB was opposed, however, by the Nebraska Association of Resources Districts, composed of state Natural Resource Districts. Hearings on LB 1106 Before the Committee on Public Works 31 (1984) (statement of Gordon Kissel) [hereinafter Governor's Bill Hearing]. The WMB was also opposed by the Natural Resource Commission, the Nebraska Farm Bureau Federation and three NRDs. Id. at 40, 41 (statement of Clinton VonSeggren, Neb. Natural Resources Comm'n), 56 (statement of Bruce Neidig, Neb. Farm Bureau Federation), 64 (statement of Steve Oltmans, Lower Elkhorn NRD), 66 (statement of Paul Mann, Upper Elkhorn NRD), 72 (statement of Mel Sahs, Lower Platte North NRD).

282. Governor's Bill, *supra* note 280, § 2, at 1, 2 (codified as amended at NEB. REV. STAT. § 2-15.108 (Cum. Supp. 1986)).

283. Id. § 4, at 4 (codified at NEB. REV. STAT. § 2-15,110 (Cum. Supp. 1986)).

284. Id. § 5, at 4 (codified at NEB. REV. STAT. § 2-15,111 (Cum. Supp. 1986)). See also id. § 21, at 22, 23 (codified at NEB. REV. STAT. § 37-435(2) (1984 Cum.Supp.)). Section 5 of the Governor's Bill was intended to clarify an ambiguity created in Little Blue Natural Resources Dist. v. Lower Platte North Natural Resources Dist., 210 Neb. 862, 317 N.W.2d 726 (1982). In that case the Supreme Court ruled that state agencies were required to consult with the Game and Parks Commission under NEB. REV. STAT.§ 37-435(3) (Cum. Supp. 1984) and that NRDs were state agencies. This ruling is clearly wrong: NRDs are political subdivisions, not state agencies. The issue addressed by § 5, however, was that multiple Game and Parks endangered species consultations would have been present in any event and the Little Blue ruling only increased the number of formal consultations involved. Section 5 attempts to resolve this by having the WMB engage in a single endangered species consultation for a project, and by not requiring an additional consultation when the DWR rules on a project's application. However, this presumes that the WMB will determine the final form of the project, which is not necessar-

ance, state financial support, state advocacy assistance, or for an appropriation exceeding either 10,000 acre feet per year or ten cubic feet per second²⁸⁵ of natural flow would be required to submit their project to the WMB.²⁸⁶ Project sponsors with appropriation applications already filed with the DWR would be authorized but not required to file with the WMB.²⁸⁷ If the determinations made by the WMB were favorable, and Game and Parks endangered species consultation was successful, the WMB would be authorized to support and financially participate in the proposed project.²⁸⁸ If the proposed project were not economically feasible, but otherwise met project approval requirements, the WMB could not oppose water rights being obtained for the proposed project.²⁸⁹ If the WMB determined that the project did not meet approval requirements, the WMB would be required to oppose any appropriation even if the project were economically feasible.²⁹⁰ The DWR director would be authorized, but not required, to refer appropriation applications to the WMB for its evaluation.²⁹¹

The project approval authorities of the WMB, which were enacted without substantial change, were substantial. Because state political support is indispensable to obtain federal project funding, WMB approval carries substantial weight.²⁹² Moreover, the WMB was given broad authorities to force a compromise on project sponsors and oppo-

- 285. One cubic foot of water equals 7.48 gallons. One cubic foot per second (cfs) equals 448.8 gallons of water per minute. HARNSBERGER & THORSON, supra note 7, at 7-8.
- 286. Governor's Bill, *supra* note 280, § 8, at 5, (codified as amended at NEB. REV. STAT. § 2-15,114(1) (Cum. Supp. 1986)).
- 287. Id. § 8, at 5 (codified as amended at NEB. REV. STAT. 2-15,114(2) (Cum. Supp. 1986)).
- 288. Id. § 10(2), at 6 (codified at NEB. REV. STAT. 2-15,116(2) (Cum. Supp. 1986)).
- 289. Id. § 10(3), at 6 (codified as amended at NEB. REV. STAT. 2-15,116(2) (1986 Cum.Supp.)).
- 290. Id. § 10(4), at 6 (codified at Neb. Rev. Stat. 2-15,116(2) (Cum. Supp. 1986)).
- 291. Id. § 35, at 30, 31 (codified at NEB. REV. STAT. § 46-209 (1984)).
- 292. A good illustration is the Norden project on the Niobrara River. The original Bureau of Reclamation project was delayed through litigation. See supra text accompanying notes 97-101. Subsequently project opponents were able to convince Congressman Cavanaugh and later Congressman Bereuter to withdraw support for the project. Ultimately supporters were able to obtain a political reevaluation of the project including consideration of an irrigation water supply project that would not dam the Niobrara river. Neb. Dep't of Water Resources, Nebraska State-Led O'Neill Unit Alternatives Study (1985). While the fate of the Norden project is unclear, it is likely that if any irrigation supply project is implemented it will be the alternative plan rather than the original Norden dam. Given the uncertainty regarding federal and state project funding, the lack of political unanimity means that even a substitute may never be implemented. See supra note 86.

ily the case. See infra text accompanying notes 335-39. Thus multiple consultations on a project may be justified where the project, and especially its endangered species effects, have been modified. As the endangered species effects are likely to be among the most controversial features of any Platte River water project, project modification to avoid jeopardy seems likely.

nents. As Governor Kerrey noted in his testimony, LB 1106 was intended to get water projects proposals moving towards completion rather than being tied up in environmental and water rights litigation.²⁹³ Moreover, as Congress Co-Chairman John Cavanaugh noted, the WMB was intended to sort through all project proposals, and to recommend project funding priorities to the Unicameral.²⁹⁴ However, the projects currently involved in the Platte River war have already filed their appropriations applications and would be beyond the WMB's review.²⁹⁵ Thus, the DWR would continue to be the battle-ground for Platte River projects unless either the DWR referred the applications to the WMB, or the Governor insisted that WMB approval be obtained before the state provide any tangible assistance to water project sponsors. Neither has proved to be the case.

The second major innovation proposed in the Governor's bill was the establishment of the Director of Natural Resources (DNR). Under existing law the NRC, the water planning agency for the state and focal point for water development promotion, was headed by an executive secretary appointed by it.²⁹⁶ As the NRC is dominated by river basin representatives elected by local NRDs,²⁹⁷ the executive director was perceived as being politically accountable to the NRDs. As NRD directors are elected by subdistrict rather than on the basis of population,²⁹⁸ NRDs and the NRC have a pro-development philosophy. LB 1106 proposed to eliminate the NRC executive secretary position and create the DNR as a gubernatorial appointee subject to confirmation by two-thirds of the NRC.²⁹⁹ The DNR also could be removed by a two-thirds NRC vote.³⁰⁰

This proposal was very controversial, as it essentially shifted NRC control from NRDs to the Governor. Proponents of the DNR argued that for the Governor to support increased appropriations for water development and to be able to take the political heat for those increased appropriations, the Governor needed greater political control over the water development process.³⁰¹ Opponents charged that gubernatorial appointment of the DNR would politicize water develop-

^{293.} Governor's Bill Hearing, supra note 281, at 2 (statement of Gov. Bob Kerrey).

^{294.} Id. at 17 (statement of John Cavanaugh). Mr. Cavanaugh was the Governor's representative on, and Co-Chairman of, the Water Congress.

^{295.} See Platte Projects Summary, supra note 226.

^{296.} There were no statutory references to the administrative head of the NRC. However, the NRC has general authority to hire employees. NEB. REV. STAT. § 2-1506 (1983).

^{297.} Id. at § 2-1504.

^{298.} See supra note 233.

^{299.} Governor's Bill, supra note 280, § 12, at 8, 9 (codified as amended at NEB. REV. STAT. § 2-1504.03 (Cum. Supp. 1986)).

^{300.} Id.

^{301.} Governor's Bill Hearing, supra note 281, at 7 (statement of Gov. Bob Kerrey), 15-17 (statement of John Cavanaugh, Water Congress Co-Chairman).

ment and weaken local control over water development policies.³⁰² Gubernatorial appointment of the DNR was one issue that was significantly modified by committee amendment.

The third major feature of LB 1106 was the Water Management Fund, from which the WMB could provide cost sharing for up to 75% of a water project's cost.³⁰³ Section 16 further limited NRC grants from the existing Resources Development Fund to \$10 million dollars, limiting NRDF grants to smaller projects and giving the WMB (rather than the NRC) control over state cost sharing for major irrigation projects.³⁰⁴ LB 1106 contained no source of funding for the Water Management Fund, however, suggesting that appropriations would be made for specific projects on a case by case basis as recommended by the WMB.³⁰⁵

The fourth major feature of LB 1106 was authorization of instream appropriations. Nebraska had not yet adopted instream flow legislation, 306 and the issue is still controversial. The LB 1106 approach to instream flows can only be described as cautious. Under the Governor's bill, instream appropriations could be obtained from the DWR by the NRC for fish and wildlife purposes only. 307 NRDs and the Game and Parks Commission would nominate stream segments to the NRC which had "critical needs" for instream flow protection. 308 After a public hearing, the NRC would file an appropriation application with the DWR to reserve a priority date. 309 The NRC then would study the proposed instream appropriated natural flow, from existing reservoirs or from new reservoirs. 310 After the study, the NRC would request that the DWR proceed with the instream appropriation application only if the NRC determined that sufficient unappropriated nat-

^{302.} Id. at 31 (statement of Gordon Kissel, Neb. Ass'n of Resources Districts), 36 (statement of Clinton VonSeggren, Neb. Natural Resources Comm'n), 64 (statement of Steve Oltmans, Lower Elkhorn NRD), 65 (statement of Paul Mann, Upper Elkhorn NRD), 72 (statement of Mel Sahs, Lower Platte North NRD).

^{303.} Governor's Bill, *supra* note 280, § 15, at 13 (codified as amended at NEB. REV. STAT. 2-15,117 (Cum. Supp. 1986)).

^{304.} *Id.* § 16, at 14, 15 (codified as amended at NEB. REV. STAT. § 2-1588 (Cum. Supp. 1986)) (transferred from NEB. REV. STAT. § 2-3265 (1983)).

^{305.} Governor's Bill Hearing, supra note 281, at 17 (statement of John Cavanaugh, Water Independence Congress Co-Chairman).

^{306.} Regarding legal aspects of instream flows in Nebraska, see, J. AIKEN, OPPORTUNITIES FOR INSTREAM FLOWS IN NEBRASKA AND KANSAS (U.S. Fish & Wildlife Service 1983); HARNSBERGER & THORSON, supra note 7, at 315-20; Comment, Minimum Streamflows: The Legislative Alternatives, 57 NEB. L. REV. 704 (1978).

Governor's Bill, supra note 280, § 23, at 12, 13; (codified at NEB. REV. STAT. § 46-2,108 (1984)).

^{308.} Id. § 24, at 24 (codified at NEB. REV. STAT. § 46-2,109 (1984)).

^{309.} Id. § 24-25, at 24, 25 (codified at NEB. REV. STAT. §§ 46-2,109 to -2,110 (1984)).

^{310.} *Id.* § 26, at 25 (codified at NEB. REV. STAT. § 46-2,111 (1984)) repealed by 1985 Neb. Laws, LB 102 § 22, at 13 (1985).

ural flow were available for appropriation.³¹¹ If the NRC determined that sufficient unappropriated flow were not available, the appropriation application would be abandoned, and the NRD would instead cooperate with the NRDs or the Game and Parks to establish the water storage necessary to provide water for instream flows.³¹² After a public hearing, the DWR could grant the instream appropriation if the appropriation is necessary to sustain fish and wildlife, the appropriation would not interfere with senior appropriations, the rate and timing of flow is the minimum necessary to sustain fish and wildlife, and the state benefits from granting the appropriation equal or outweigh the benefits from denying the appropriation.³¹³

The instream flow proposal was controversial. Developers opposed the concept of instream flows. The Environmentalists were unsatisfied because of the cumbersome procedures required and because the water-development-prone NRC was the agency seeking the instream appropriations. It seemed unlikely that the NRC would seek an instream appropriation where it would conflict with a proposed water project. But LB 1106 generated additional controversy by inserting instream flows into the water preferences statutes, and failing to give agriculture a preference over instream flows. Instead the Governor's bill put instream flows and agriculture on an equal basis so that neither use could be condemned by the other. This provision of the instream flow proposal generated the most negative comments at the hearing on the Governor's bill. The instream flow provisions of LB

^{311.} Id. § 27, at 25, 26 (codified at NEB. REV. STAT. § 46-2,112 (1984)) repealed by 1985 Neb. Laws, LB 102 § 22, at 26.

^{312.} *Id.* § 28, at 26 (codified at NEB. REV. STAT. § 46-2,113 (1984)) repealed by 1985 Neb. Laws, LB 102 § 22, at 13.

^{313.} Id. §§ 29-30 (codified at Neb. Rev. Stat. §§ 46-2,114 to -2,115 (1984)). In making the state benefit determination, the DWR director would consider the economic, social and environmental value of the instream uses versus those of reasonably foreseeable out-of-stream uses. Id. at § 31 (codified at Neb. Rev. Stat. § 46-2,116 (1984)).

^{314.} Governor's Bill Hearing, supra note 281, at 37-38 (statement of Clinton VonSeggren, Neb. Natural Resources Comm'n).

^{315.} *Id.* at 34 (statement of Francis Moul, Neb. Wildlife Federation), 52 (statement of Phil James, Neb. Water Conservation Council).

^{316.} Water preferences are one of the most misunderstood features of prior appropriation. The surface water preference ordering in Nebraska prefers domestic over all other uses, and agricultural uses are preferred over industrial and manufacturing uses. The legal effect of a preference is that a junior preferred user (i.e., a junior appropriator with a higher preference) can condemn a senior inferior use (i.e., a senior appropriation for a less preferred purpose). Most do not understand that exercising a preference involves compensating the inferior user. See NEB. NATURAL RESOURCES COMM'N, PREFERENCES TO THE USE OF WATER (1981); Fischer, Harnsberger & Oeltjen, supra note 12, at 356-57.

^{317.} Governor's Bill, supra note 280, § 34, at 28, 29.

^{318.} Governor's Bill Hearing, supra note 283, at 57 (statement of Bryce Neidig, Neb. Farm Bureau), 60 (statement of Rich Martin, Neb. Ass'n of Commerce & Indus-

1106 were substantially revised in the Committee amendments.

The last component of the Governor's bill required all NRDs in which ground water control or management areas had not already been designated to prepare ground water management plans by January 1, 1986.³¹⁹ As discussed earlier, the purpose of the plan was to identify any likely ground water depletion or pollution problems and to identify what regulations would be necessary. On the one hand, LB 1106 stopped short of requiring NRDs facing ground water depletion to establish effective control programs as a condition of state financial support for rescue projects. However, requiring all NRDs to prepare the plans was a significant step away from the traditional local control approach to ground water management. The proposal was opposed only by the NRC, which preferred a more modest program requiring NRDs to inventory existing supplies and concerns, but stop short of considering alternatives to deal with those concerns.³²⁰

The Governor's bill was a significant water policy proposal of historic proportions. The WMB's project review authorities would ideally allow project disputes to be resolved prior to obtaining an appropriation, thus avoiding costly environmental and water rights litigation. The instream flow provisions held the promise that environmental values could be protected through instream appropriations and would not need to be raised on a project by project basis through endangered species or section 404 litigation. However, LB 1106 contained significant gaps and created new problems. The status of proposed projects for which appropriations had already been sought vis-a-vis the WMB was ambiguous. While project sponsors presumably would be required to apply for WMB approval to obtain state planning, financial or advocacy assistance, the provision giving them the option of ignoring WMB approval if they had already filed with the DWR clouded this. Moreover, the WMB's authority to consult and make determinations with the Game and Parks Commission regarding endangered species unnecessarily suggested that jeopardy determinations will be made jointly by the WMB and the Game and Parks rather than by Game and Parks alone. Finally, the instream appropriation requirements made the protection accorded to environmental values in water more illusory than real. It seems unlikely that environmental interests would forego delaying litigation in the hope that

try). The controversy over the instream flow preferences reflected the general misunderstanding of the preferences concept, as was correctly recognized by John Cavanaugh. *Id.* at 12-13. That is, junior agricultural users were unlikely to be able to afford to condemn senior instream uses and vice versa unless Game and Parks were authorized to condemn senior appropriations for instream purposes.

^{319.} Governor's Bill, *supra* note 280, § 36, at 32 (codified at NEB. Rev. STAT. § 46-673.01 (1984)).

^{320.} Governor's Bill Hearing, supra note 281, at 31 (statement of Clinton VonSeggren, Neb. Natural Resources Comm'n).

the state's water development agency would obtain an instream appropriation.

C. The Committee's Bill

Controversy over the organizational changes proposed in the Governor's bill and continuing irrigator opposition to instream flows led to significant committee amendments and an unusual second public hearing. The committee amendments modified the DNR appointment procedures, expanded the WMB membership, removed the preferences language for instream flows, added a take-away provision for instream flows, and provided funding for ground water management plan preparation.³²¹

The Governor's bill would have allowed the Governor to appoint the DNR subject to NRC confirmation. The Committee bill proposed instead that the NRC would present the Governor with a list of at least five nominees from which the Governor would make his choice. The DNR would serve at the pleasure of the Governor, and could not be removed by the NRC.³²² This modification was opposed by the NRC and NRDs, as was the original DNR provision.³²³

The Committee bill expanded the membership of the WMB. Under the Governor's bill the WMB would have included the director of Game and Parks, the DNR, and a gubernatorial appointment with demonstrated natural resources experience. The Committee bill expanded the WMB to include the director of the Conservation and Survey Division of the University of Nebraska, the Game and Parks director, the DNR, and two gubernatorial appointees, both with natural resources experience and one an expert in water project development and management.³²⁴ There was no remaining opposition to the WMB.³²⁵

^{321.} NRDs could apply for state funds if the costs of ground water management plan preparation exceeded 25% of the operating budget for the district. *Committee on Public Works, Committee Amendments to LB 1106 sec. 37* (AM2257, 1984) [hereinafter *Committee Bill*]; cf. NEB. REV. STAT. § 46-673.01 (1984).

^{322.} Id. § 12 (codified at NEB. REV. STAT. § 2-15,108). If the governor did not make the DNR appointment within 45 days of the receipt of the NRC list, the NRC would make the appointment. If the NRC did not submit a list of nominees to the governor within 45 days, the governor would make the appointment. Id.

^{323.} Committee on Public Works, LB 1106 Committee Amendments Hearing (Feb. 23, 1984) at 46 (statement of Gordon Kissel, Neb. Ass'n of Resources Districts), 47-48 (statement of Clinton VonSeggren, Neb. Natural Resources Comm'n), 50 (statement of Wayne Warner, North Platte NRD), 55-56 (statement of Ken Regier, Upper Big Blue NRD), 66-67 (statement of Don Hood, Nemaha NRD) [hereinafter Committee Bill Hearing].

^{324.} Committee Bill, supra note 321, § 2 (codified at NEB. REV. STAT. § 2-15,108 (Cum. Supp. 1986)).

^{325.} Committee Bill Hearing, supra note 323, at 45 (statement of Gordon Kissel, Neb. Ass'n of Resources Districts).

The instream flow provision of the Committee bill added a takeaway provision to render the potential instream appropriations even more insecure. Under the Committee bill, the WMB would be required to review instream appropriations if the appropriations potentially interfered with an irrigation project submitted for WMB review. The WMB would determine whether the interest of the state required modification of the instream appropriation. The DWR would be authorized to legally modify the instream appropriation as recommended by the WMB, although the DWR director could elect not to modify the appropriation. Modification could include reducing the volume or rate approved for the instream appropriation.³²⁶ This provision largely nullified whatever instream flow protection could be obtained through an instream appropriation, and reflected the continuing hostility to instream flows on the part of water development interests. The take-away provisions were opposed by environmental groups.³²⁷ The Committee bill also did not include the instream flow preference provision of the Governor's bill.328

The Committee amendments made the Governor's bill more acceptable to water development interests, and in so doing made LB 1106 less attractive to environmentalists.³²⁹ Opposition by water developers (and by Senator Schmit) probably could have killed any chance of enactment, so the Committee amendments probably were politically necessary to get a bill enacted.

D. LB 1106

The Unicameral enacted the Committee bill, and added water project revenue bonding.³³⁰ The final bill gave the DNR rather than the

^{326.} Committee Bill, supra note 321, § 34 (codified at NEB. REV. STAT. § 46-2,117 (1984)).

^{327.} Committee Bill Hearing, supra note 323, at 17 (statement of Mike Dennis, Neb. Water Conservation Council). Natural flow instream flow appropriations were opposed by the Nebraska Water Resources Association, a water development association. Id. at 34 (statement of Jack Odgaard).

^{328.} Committee Bill, supra note 321, § 35 (codified at NEB. REV. STAT. § 46-2,119 (1984)).

^{329.} The Nebraska environmental lobby has never been strong, in part because no commercial interests are served thereby. Indeed, the Water Congress and LB 1106 would have ignored instream flows completely were not environmental values protected through the federal § 404 and FESA programs. If Nebraska had instream appropriations which protected significant environmental values § 404, NESA, and FESA litigation over water projects would be sharply reduced. If instream flows had greater commercial significance, e.g., for outdoor recreation, Nebraska probably would have had instream flow legislation years ago.

^{330. 1984} Neb. Laws, LB 1106, 88th Leg., 2d Sess. The revenue bonding program is at §§ 44-71 (codified at NEB. REV. STAT. §§ 2-4501 to -4528 (Cum. Supp. 1986)). Revenue bonding allows project operators to issue bonds based on future project revenues, such as from water sales to irrigators. Water project revenue bonds were

NRC the responsibility for establishing state water use goals, with which the WMB would evaluate proposed water projects.³³¹ The final bill substituted a \$10 million figure for the water diversion volume requirements as the project size threshold for WMB project review authority.³³² The purposes for which instream appropriations could be acquired were broadened from fish and wildlife to also include recreation.³³³

The WMB project review function was amended in 1985 to require existing projects seeking state advocacy for federal construction funding, or Water Management Fund planning or construction grants to be reviewed by the WMB.334 This provision brought existing projects within the WMB's jurisdiction, although the point at which that occurred could apparently be delayed as long as state water planning assistance was not requested. Under this amendment, projects for which appropriations had been filed prior to the effective date of LB 1106, February 15, 1985,335 need not apply for WMB approval until they request state planning assistance, which could be delayed until after project water rights had been obtained from the DWR.336 If they forego state planning assistance altogether, project sponsors with pre-LB 1106 appropriation filings need file with the WMB only when they request state construction grants or state advocacy for federal construction grants, which would occur long after project water rights had been obtained.337 The result is that the WMB will not review projects with pre-LB 1106 appropriation filings before the project appropriations are considered by the DWR, but will review all post-LB 1106 projects before project sponsors can file with the DWR for water appropriations. All major Platte River projects have pre-LB 1106 ap-

authorized by constitutional amendment in 1982. Neb. Const.art. XIII \S 1 (1985). Revenue bonds do not represent direct public subsidies of water projects.

^{331. 1984} Neb. Laws, LB 1106, 88th Leg., 2d Sess. § 7 (codified as amended at NEB. REV. STAT. § 2-15,113(1) (Cum. Supp. 1986)). Section § 2-15,113 was amended in 1985; the DNR proposes state water use goals to the NRC, which accepts, modifies, or rejects them. See 1985 Neb. Laws, LB 102, 89th Leg., 1st Sess. 5. The NRC may also request the DNR to modify the state water use goals. Id. (codified at NEB. REV. STAT. § 2-15,113(2) (Cum. Supp. 1986)).

^{332.} Id. § 8 (codified at NEB. REV. STAT. § 2-15,114(1) (Cum. Supp. 1986)).

^{333.} Id. § 24 (codified at NEB. REV. STAT. § 46-2,108 (Cum. Supp. 1986)). However, the DWR director may consider municipal ground water recharge and water quality maintenance from instream flows in considering instream appropriation applications. Id. § 32(1) (codified at NEB. REV. STAT. § 46-2,116(1) (Cum. Supp. 1986)).

^{334. 1985} Neb. Laws, LB 1106, 88th Leg., 1st Sess. §§ 5, 6 (codified at NEB. REV. STAT. §§ 2-15,114(2), 15,116(2) (Cum. Supp. 1986)). A less formal WMB project review is required to obtain state advocacy for federal planning funds. *Id.* § 2-15,116(3). However, pre-LB 1106 projects routinely obtain state advocacy for federal planning assistance without first obtaining § 2-15,116(3) WMB approval.

^{335.} Id. § 72.

^{336.} Neb. Rev. Stat. § 2-15,114(1) (Cum. Supp. 1986).

^{337.} Id. § 2-15,116(2).

propriation filings.³³⁸ Thus, the result of the 1985 amendment is to clearly signal that the WMB will be on the sidelines during the current Platte River wars unless project sponsors voluntarily submit to WMB project review pursuant to section 2-15,144(3), or the DWR voluntarily refers appropriation applications to the WMB pursuant to section 46-209. Neither action is likely, so the WMB will be merely a paper tiger.

The instream flow provisions were also amended in 1985 to delete the NRC instream flow study requirements³³⁹ and to authorize the Game and Parks Commission and NRDs to apply for instream appropriations rather than the NRC.³⁴⁰ However, the take-away provisions remain, as well as the restrictions that natural flow instream appropriations may be granted only if sufficient unappropriated natural flow is available to completely satisfy the instream flow requirements.³⁴¹

VI. NEW DIRECTIONS IN NEBRASKA WATER POLICY?

LB 1106 represented a good faith political attempt to establish a mechanism to resolve the environmental and water rights controversies attending Platte River development. However, the water project management system it established is unlikely ultimately to succeed. Water developers insist (1) that local control be preserved, (2) that instream flows be accommodated only when they would not limit water development options, (3) that significant state funding be provided for water projects with no conditions, and (4) that ground water regulations not be established. These values are reflected throughout LB 1106. Until these positions change, there will be no progress in reaching a broader consensus on Platte River water allocation, and decisions will continue to be made through litigation. Political leaders should persuade water developers that they must accommodate a broader set of political and environmental values in order to accomplish their objectives. If they fail to do so, developers run the risk that when they finally succumb to current fiscal, environmental, and polit-

^{338.} See PLATTE PROJECTS SUMMARY, supra note 226.

NEB. REV. STAT. §§ 46-2,111 to -2,113 (1984) (repealed by 1985 Neb. Laws, LB 102 § 22).

^{340. 1985} Neb. Laws, LB 102 § 15 (codified at Neb. Rev. Stat. § 2-1,110 (Cum. Supp. 1986)).

^{341.} This means that instream appropriations must either be satisfied completely from natural flow or completely from storage. Natural flow instream appropriations cannot be issued where the flows come both from natural flow and from storage. This curious legal discrimination against instream appropriations makes no sense at all: all modern irrigation projects depend on both natural flow and stored water to meet their water supply objectives. Precluding instream appropriations to be met both from natural flow and stored water is only another example of the legislative hostility to instream flows.

ical realities via the blunt instruments of litigation and political defeat, it will be too late to salvage any of their original objectives.

The more significant issue is whether a rescue project policy, the preservation of which was the major objective of LB 1106, is itself doomed to failure. If water developers do become more politically accommodating in order to realize some of their objectives, will they have achieved anything substantial? The answer is no: a policy of ground water management policy through impoundment will provide water to only a small fraction of those irrigators facing depletion. This does not mean, however, that LB 1106 and the public policy issues it represents are of no consequence. Rather, policy makers must be careful to guard against impoundment policies that unnecessarily jeopardize our environment and threaten our state's financial capacities, while failing to significantly extend the life of ground water-based irrigation in Nebraska.

A. Director of Natural Resources: Gubernatorial Involvement in Water Policy Making

The only significant legislative challenge to LB 1106 has been the passage of LB 778 in 1986. Under LB 778, the DNR would have been appointed by the NRC rather than the Governor. Governor Kerrey vetoed LB 778, thus preserving the governor's more direct involvement in state water policy making.342 The passage of LB 778 reflects the strong political sentiment in favor of local control. Yet insistence on local control ignores the fact that if the Governor is not directly involved in water development policy making, he will not be willing to support the appropriations necessary to build water projects. Water developers are unwilling to accept that local responsibility comes with local control—if local irrigators are unwilling to forego local control over water development policies they must be ready to finance water development themselves. At this point, irrigators have not accepted that responsibility. They insist on maintaining local political control over water development decisions but expect the state to provide whatever funding is needed to accomplish these local objectives. If local control parochialism is allowed to dominate water policy decisions, water project development in Nebraska will not occur. If water developers expect significant state financial support for water projects, they will have to relinquish local control over water development policies and begin to view water issues in a less parochial fashion.

^{342.} Neb. Leg. J. 1864 (1986). The bill originally proposing to give the DNR appointment authority to the NRC was LB 920, which was added to LB 778 by floor amendment.

B. Water Management Board: Accommodating Competing Projects and Values

Under LB 1106 projects with pre-LB 1106 appropriation filings are grandfathered out of WMB water project review. Neither the DWR nor grandfathered project sponsors have shown any indication to submit to WMB project review.³⁴³ Unless the Governor can persuade the parties to submit to WMB arbitration, or unless LB 1106 is amended, the WMB will have no significant role in the current Platte River water war.

A recent University of Nebraska study indicates what optimally could be achieved with WMB water project review. The study evaluated differing water allocations to the Central Platte, Little Blue, and Upper Big Blue projects (the three major Platte River project proposals), plus maintenance of instream flows. The study concluded that maximum economic benefits would occur if all three projects could be built at a smaller scale than currently proposed.³⁴⁴ This conclusion supports the notion that a negotiated settlement on the Platte would yield greater irrigation benefits than would the project-by-project determination which is currently occurring. The study also concluded that the environmental-irrigation trade-offs would be less than is generally presumed; while the instream flow regimes defined by the Game and Parks Commission as necessary to avoid jeopardy would reduce the water available for diversion, the economic benefits lost would be relatively small.³⁴⁵ If this is recognized by developers, the likelihood for a negotiated settlement between environmental interests and developers improves. Finally, the study estimated that constructing the projects could be financed by user fees if irrigators and ground water recharge beneficiaries were charged between 30-60% of the economic benefits received. Capital construction needs could be met through relatively modest annual appropriations of less than \$15 million annually, solely through revenue bonds, or through a combination of the two.346 While the results from the Platte River study are almost too good to be true, they do suggest that compromises are available that would accommodate most, if not all, competing values. The possibility of such alternatives suggest that WMB arbitration should be pursued if developers and policy makers truly wish to develop the Platte.

However, even in the best of circumstances, Platte River develop-

^{343.} The possibility exists, however, that the parties could negotiate a compromise privately and then submit the compromise to the WMB for ratification.

^{344.} A. Bleed, N. Gollehon, D. Razavian & R. Supalla, Economic, Environmental and Financing Optimization Analysis of Platte River Development Alternatives 161 (Univ. of Neb. Conservation & Survey Div., June 1986).

^{345.} *Id*. at 162.

^{346.} Id. at 163-65.

ment would be extremely controversial. Major water project development was intensely controversial long before endangered species considerations appeared on the water policy horizon. The opponents to Tri-County development, the last major Platte River water war, were competing project sponsors, downstream water interests, and local landowners facing condemnation. Much of this opposition is an inescapable part of major water project development. However, forced project negotiations through the WMB could resolve many of the environmental disputes and intra-project disputes. If only that were accomplished, it probably would be enough to insure implementation of the compromise.

C. Water Management Fund: Financing Water Development

While the WMB is authorized to provide up to 75% funding for major water projects from the Water Management Fund, the fund itself is empty. Thus, a major issue is how the state will obtain the funding necessary either to qualify for federal water project cost sharing assistance, or to finance projects on its own. Projects could be funded on a project-by-project basis. This would force a project-by-project appraisal, a broader political accommodation of state-wide interests, and probably would make project financing more difficult. It is difficult to imagine the Nebraska Unicameral approving a direct water project appropriation for \$150 to \$300 million in the near future.

A second approach is to earmark funds, e.g., a one-percent sales tax, for water development. Again, with the current financial difficulties in the agricultural community it is difficult to imagine the Unicameral authorizing a state-wide tax to help only a relatively few agricultural producers. This approach would also bypass the political scrutiny entailed in direct legislative appropriations for each project.

A third approach, as suggested in the University of Nebraska Platte River study, would be revenue bonds. This option is already available, and would be the fairest way to finance projects since they would be paid for primarily through user fees. Agriculture would need to be more profitable than it is now, however, for this approach to make economic sense.

The absence of a funding mechanism is no real hindrance to water development. It would be foolish to undergo the political cost involved in adopting a water financing mechanism when development is still the subject of intense litigation and debate with little sign of compromise or consensus.

D. Instream Flows and Endangered Species

A basic cause of the current Platte River water wars is the failure of the Nebraska appropriation system to reliably allocate water to instream uses. If Nebraska's appropriation system included recognition of instream uses, NESA, FESA, and section 404 litigation would be less of a threat to water project implementation. If instream uses are not accommodated in water development proposals, water projects will be subject to costly, disruptive and delaying environmental litigation at state and federal levels.

An interesting question is whether NESA will ultimately be interpreted by the Nebraska Supreme Court as limiting appropriations. In Little Blue II Chief Justice Krivosha suggested in dictum that the jeopardy provisions of NESA might interfere with the state constitutional right to divert unappropriated water in Nebraska.³⁴⁷ This dictum ignores the fact that the constitutional right to divert conditioned by the public interest, which could be defined in part through NESA.³⁴⁸ However, in view of the source, the suggestion that the NESA jeopardy provision may be unconstitutional is worth exploring.

If section 37-435(3) is unconstitutional as applied to appropriation of unappropriated water, then the endangered species issue would merely be deferred to the federal level. When project sponsors apply for a section 404 permit they will face the same endangered species issues they had managed to avoid at the state level. Project sponsors might expect to receive an endangered species exemption, but that would require at least, a good faith effort on the part of project sponsors to avoid jeopardy, something project sponsors have been loath to do to date.³⁴⁹ If, however, section 37-435(3) is interpreted as prohibiting appropriations that jeopardize endangered species or their critical habitat, water developers would likely propose to either repeal NESA or to amend it to include an exemption process. If the exemption process were modeled after the federal system, project sponsors would still be required to make a good faith effort to avoid jeopardy and to mitigate habitat disruption they caused.

A recent DWR ruling, which will lead to *Little Blue III*, suggests that NESA indeed may not significantly influence Platte River appropriation decisions. In that order, the DWR director determined that the effect of the Little Blue project on endangered species habitat was not significant, despite the Game and Parks opinion to the contrary.³⁵⁰ While a thorough analysis of this order is beyond the scope of this Article, it is worth noting that treating the Game and Parks Commission as a witness and its biological opinion as mere testimony probably

Little Blue Natural Resources Dist. v. Lower Platte North Natural Resources Dist., 210 Neb. 862, 874, 317 N.W.2d 726, 733 (1982).

^{348.} NEB. CONST. art. XV, § 6.

^{349.} Regarding the FESA exemption process, see *supra* text accompanying notes 176-

^{350.} In re Applications A-15145, A-15146, A-15147 & A-15148 assigned to the Catherland Reclamation District, Dept. of Water Resources, July 29, 1986 (order of approval).

does not constitute consultation as required by section 37-435(3).351

E. Ground Water Management v. Rescue Projects

One of the underlying justifications for LB 1106's aggressive support of surface water development is the notion that impoundments ("rescue projects") are needed to sustain ground water based irrigation in the face of ground water depletion. This justification assumes that most if not all of current ground water irrigation development can be maintained through rescue projects. This assertion does not bear close scrutiny.

University of Nebraska scientist Ray Bentall has estimated that approximately 300,000 acre feet of Platte river water are reliably available for development. However, this is far less than the major projects propose to use. Prairie Bend-Twin Valley would use 387,100 acre feet, Landmark would use 300,000 acre feet and Catherland would use 125,000 acre feet. Even assuming that only half the water impounded is consumed through evapotranspiration and other unavoidable losses, this is still far less water than is available. One understands why project sponsors are competing so vigorously for project appropriations.

Moreover, the High Plains Study estimates that in the central Platte and Blue River basins approximately 788,000 ground water irrigated acres will revert to dryland production by 2020 if ground water withdrawals are not regulated.³⁵⁴ Even if all three proposed major projects are fully implemented they will supply water only for an estimated 272,000 acres, far less than the total loss of irrigated acres for the region. The number of acres converted from ground water irrigation water supply to impounded surface water supply is even less: 176,000 acres. Thus full irrigation development of the Platte, if that were possible, would supply supplemental water for less than a quarter of the areas threatened with reversion to dryland production. The supply benefits of these three major projects, at an estimated cost of \$827.5 million, are much less than is generally appreciated.³⁵⁵

^{351.} Moreover, in discussing the possible effect of the project on the endangered whooping crane the order notes the lack of specific information gauging the effects of flow reductions on crane habitat, but nonetheless concludes that it is "inconceivable" that the Little Blue project would affect the whooping crane or its critical habitat. *Id.* at 10, 15. While this candor is refreshing, it probably does not measure up to the DWR director's duty to insure no jeopardy. NEB. REV. STAT. 37-435(3).

^{352.} R. BENTALL, NEBRASKA'S PLATTE RIVER: A GRAPHIC ANALYSIS OF FLOWS 45 (Univ. of Neb. Conservation & Survey Div. Neb. Water Paper 45, July 1982).

^{353.} Nebraska Natural Resources Commission, Platte River Forum For The Future 20 (Jan. 1985).

^{354.} HIGH PLAINS STUDY, supra note 212, at 28.

^{355.} A. BLEED, N. GOLLEHON, D. RAZAVIAN & R. SUPALLA, supra note 344, at 135, 116-

Ironically, a policy of regulating ground water withdrawals could make an impoundment policy more successful. The High Plains Study estimated that the number of irrigated acres reverting to dryland in the central Platte-Blue River region would fall from 788,000 to 310,000, a 61% reduction, if ground water withdrawals were reduced 30%.356 This would significantly reduce the gap between irrigated acres lost to depletion and irrigated acres maintained by impoundment. In this writer's opinion the "need" for water projects would be significantly reduced if not obviated by strict ground water regulations. However, this alternative has not yet received serious policy consideration.

The belief that Nebraska can prevent the reversion of thousands of acres to dryland production through impoundment alone is an expensive mirage. Only through significant restrictions on irrigation ground water withdrawals can a sustainable level of irrigation be established. Focusing on this issue, rather than how impoundment projects can be implemented and financed, would better serve Nebraska's long range water policy interests.

^{24,} estimate that the total cost of economically and environmentally feasible water projects would be less, as would be the total irrigation water supply benefits.

^{356.} HIGH PLAINS STUDY, supra note 212, at 28.