

September 1993

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### Recommended Citation

Robert F. Snow, *Platte River: Reservation and Quantification of Federal Reserved Water Rights - Firefighting & Administrative Purposes Only*, 11 Pace Envtl. L. Rev. 411 (1993)

DOI: <https://doi.org/10.58948/0738-6206.1459>

Available at: <https://digitalcommons.pace.edu/pelr/vol11/iss1/10>

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CASENOTE

**PLATTE RIVER: RESERVATION AND  
QUANTIFICATION OF FEDERAL  
RESERVED WATER RIGHTS\* —  
FIREFIGHTING &  
ADMINISTRATIVE PURPOSES ONLY!**

ROBERT F. SNOW

*This casenote addresses a decision of the Colorado Water Court interpreting whether the federal reserved water rights doctrine protects minimum quantities of streamflow in National Forests to protect the stability of stream banks. The author argues, in part, that because the court found that the flows sought by the Forest Service were necessary to protect*

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\* This author heartily endorses the sentiments of the former U.S. Dep't of the Interior Regional Solicitor of the Rocky Mountain Region, who cautioned that:

Any consideration of federal water rights in the West must start with certain assumptions and a great deal of humility. Humility is required because of the immense volume of worthwhile scholarship that has been devoted to the subject, commencing about 1955. One despairs of saying anything pertinent that has not already been said before and probably more than once.

John R. Little, Jr., *Administration of Federal Non-Indian Water Rights*, 27 ROCKY MTN. MIN. L. INST. 1709 (1982).

*one of the purposes of the National Forests, the water rights were improperly denied.*

*He is capable of any crime, from reviling the classics to diverting water courses.*

Ernest Bramah\*\*

## I. Introduction

### A. Background of Western Water Law

Not only is diversion of water *not* a crime, the practice is fully integrated into the legal framework of the western United States.<sup>1</sup> It is also responsible for the settlement of the West and it sustains human development in this arid and semi-arid region.<sup>2</sup> Diversion occurs on both micro and macro

\*\* THE LAWYER'S QUOTATION BOOK: A LEGAL COMPANION 79 (1991).

1. For a discussion of the historical and physical conditions which led to the legal system of prior appropriation and water diversion, see ROBERT G. DUNBAR, *FORGING NEW RIGHTS IN WESTERN WATERS* (1983); Terry L. Anderson & P.J. Hill, *The Evolution of Property Rights: A Study of the American West*, 18 J.L. & ECON. 163 (1975); WALTER P. WEBB, *THE GREAT PLAINS* (1931). In his later writings Webb described the area west of the 100th meridian as a land with "a great desert at its heart." Walter P. Webb, *Desert Is Its Heart*, 40 SATURDAY REVIEW 8-9 (Dec. 1957).

2. Precipitation in most parts of the western United States is, on average, less than twenty inches per year, and is usually insufficient to sustain traditional agricultural practices or the growing human population of the region. ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE, VOL. 20, NO. 13, CLIMATOLOGICAL DATA: NATIONAL SCIENCE SUMMARY, 43-49 (1969).

Wallace Stegner, a powerful voice whose writing captures the spirit and uniqueness of the American West, noted the impact of limited precipitation on the region:

The West is defined . . . by inadequate rainfall, which means a general deficiency of water. We have water only between the time of its falling as rain or snow and the time when it flows or percolates back into the sea or the deep subsurface reservoirs of the earth. We can't create water, or increase the supply. We can only hold back and redistribute what there is. If rainfall is inadequate, then streams will be inadequate, lakes will be few and sometimes saline, underground water will be slow to renew itself when it has been pumped down, the air will be very dry, and surface evaporation from lakes and reservoirs will be extreme. In desert parts of the West it is as much as ten feet a year.

....

scales; from the flooding of individual fields for crop irrigation, to the dependence of cities such as Phoenix, Los Angeles and San Diego on diversions from the Colorado River.<sup>3</sup>

The settlement of the West and the development of the area's irrigation systems and ranching and mining industries necessitated the development of a system by which to allocate the region's limited water supplies in a rational manner.<sup>4</sup> In the void of governmental authority in the area of water rights, the prior appropriation system evolved in the western United States. The prior appropriation doctrine is based on the common law principle that "[f]irst in time is first in right."<sup>5</sup> The development of the system of prior appropriation

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Aridity, and aridity alone, makes the various Wests one. The distinctive western plants and animals, the hard clarity (before power plants and metropolitan traffic altered it) of the western air, the look and location of western towns, the empty spaces that separate them, the way farms and ranches are either densely concentrated where water is plentiful or widely scattered where it is scarce, the pervasive presence of the federal government as landowner and land manager, the even more noticeable federal presence as dam builder and water broker, the snarling states'-rights and antifederal feelings whose burden Bernard DeVoto once characterized in a sentence — "Get out and give us more money" — those are all consequences, and by no means all the consequences, of aridity.

WALLACE STEGNER, *THE AMERICAN WEST AS LIVING SPACE* 6-9 (1987).

3. See generally J. FOLK-WILLIAMS ET AL., *WATER IN THE WEST: WESTERN WATER FLOWS TO THE CITIES* (1985); Paul Gray, *A Fight Over Liquid Gold*, TIME, July 22, 1991, at 24 (outlining the history of, and demand for, access to water in the Colorado River). See also A. Dan Tarlock, *Western Water Law, Global Warming, and Growth Limitations*, 24 LOY. L.A. L. REV. 979 (1991) (The article focuses on the need for federal reclamation and state water law to adjust to changes in available water supplies caused by global warming conditions. Tarlock analyzes this problem from the scientifically-valid perspective that water shortages are normal, rather than abnormal events.).

4. A. DAN TARLOCK, *LAW OF WATER RIGHTS AND RESOURCES* § 5.02[1], at 5-5 (Release #5 1993). See also WILLIAM GOLDFARB, *WATER LAW* 32-33 (2d ed. 1988) (explaining the development of the prior appropriation system in the West); FOLK-WILLIAMS ET AL., *supra* note 3, at 5-6.

5. GOLDFARB, *supra* note 4, at 32-33. This ethic was utilized by western settlers in both mineral and water rights disputes. Seniority in appropriation refers to temporal priority. Junior appropriators are later diverters, measured by date of appropriation or grant. *Id.*

was also influenced by the practices and legal traditions of the area's European and Mexican inhabitants.<sup>6</sup>

The doctrine "provides that water belongs to the public but recognizes private property rights to the use of water for specific purposes. It requires that the [appropriated] water be used continuously for the permitted purposes in order to avoid forfeiture."<sup>7</sup> According to the doctrine, "appropriation rights are based on priority of beneficial use, [and] not on ownership of riparian land[, therefore] anyone can acquire an appropriative right for use at any location. Realistically, appropriative rights are limited only by the economics of applying water from a particular source for use in a particular place."<sup>8</sup> An appropriative right exists for only a definite amount of water<sup>9</sup> and is of indefinite duration provided that the right is exercised in accordance with the law.<sup>10</sup>

In addition to the problem of water allocation in the West, the region has had to deal with the fact that great physical distance often separates the areas where water is located from the areas where it is needed.<sup>11</sup> As a result, almost every city in the region has been forced to import water from great distances.<sup>12</sup> It is within this context, and in response to

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6. See, e.g., W.A. HUTCHINS, 1 WATER RIGHTS LAWS IN THE NINETEEN WESTERN STATES 159-62 (1971-1977); CHARLES J. MEYERS ET AL., WATER RESOURCE MANAGEMENT 238-43 (3d ed. 1988) (discussing the impact of Spanish and Mexican settlement, mining, and the California Gold Rush on the development of the Western appropriation doctrine). The effects of the Mexican legal system on western water law are still apparent in modern day western water disputes. In a case argued before the Colorado Supreme Court on May 25, 1993, American Water Development, Inc. argued that the right to water underlying 100,000 acres of land purchased by the company could be traced back to an 1821 Spanish land grant. The company argued that, under the U.S.-Mexico Treaty of Guadalupe Hidalgo, the water accompanies the land. Fred Brown, *Spanish Land Grant of 1821 Gave Title to Water*, AWDI Says, DENV. POST, May 26, 1993, at 3. The company planned to drill wells 100 feet deep on its property in the San Luis Valley to withdraw sixty-five billion gallons of water a year to supply the needs of growing cities along the eastern slope of the Rocky Mountains. *Id.*

7. FOLK-WILLIAMS ET AL., *supra* note 3, at 5.

8. GOLDFARB, *supra* note 4, at 33.

9. *Id.*

10. *Id.*

11. FOLK-WILLIAMS ET AL., *supra* note 3, at 6.

12. *Id.*

these concerns, that the current framework of western water law evolved.

## B. Protection of Instream Flows

Over the last thirty years there has been a growing awareness of the need to maintain, and in some cases augment, the flow of water in streams that have been depleted by diversions to enhance riverine environmental, recreational and aesthetic quality.<sup>13</sup> This casenote addresses litigation currently before the Colorado Supreme Court in which the U.S. Forest Service (hereinafter "the Service") seeks to protect instream flows<sup>14</sup> for the maintenance of stream channels<sup>15</sup> in order to fulfill the purposes of the federal government's reservation of national forests.<sup>16</sup>

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13. Laurence R. Jahn, *Managing Riverine Values and Uses*, 1 RIVERS 1 (1990). Concern about protection of instream flows, while most acute in the western United States, is gaining attention in the east. For example, protection and enhancement of freshwater inflow to Florida Bay is a critical component of the ongoing efforts to protect the greater Everglades ecosystem. A recent conference held on October 21-22, 1993, by the Mid-Atlantic section of the American Water Resources Association focused on "Instream Flow Management and the Clean Water Act," and analyzed the economic, scientific and legal aspects of instream flow protection.

14. Instream flow refers to the amount of water physically present in a natural stream channel. This water may be derived from both natural runoff, return flows from water previously diverted from the stream and flows imported from other watershed basins. See Harvey R. Doerkson, *Two Decades of Instream Flow: A Memoir*, 2 RIVERS 2 (1991) (providing a narrative of the historical significance of the term instream flow).

While this article uses the term instream flow, recent commentators have suggested that "in-place use" is a preferable term. Teresa Rice, *Beyond Reserved Rights: Water Resource Protection for the Public Lands*, 28 IDAHO L. REV., 715 n.1 (1992) ("While the phrase 'instream flow' is the familiar term, a more recent trend is to replace the concept of 'instream flow' with in-place use, or the use of water resources undiverted from their natural place of occurrence.").

15. Maintenance of stream channels refers to preserving the physical characteristics of the area in which a stream flows.

16. Each assertion of federal reserved water rights requires analysis of the purpose for which the particular land reservation was made (e.g., national park, wildlife refuge, national forest). See, e.g., A. Dan Tarlock, *Protection of Water Flows for National Parks*, 22 LAND & WATER L. REV. 29 (1987) (discussing water use conflicts involving the Park Service and affirmative protection measures for water-related park values).

In addition to isolated federal efforts, many state systems have been developed to protect instream flows for recreational, biological and aesthetic purposes.<sup>17</sup> For example, Colorado law permits the Colorado River Conservation District to acquire water rights to any natural stream to maintain minimum streamflows that preserve the natural environment to a reasonable degree.<sup>18</sup> However, these water rights may not be appropriated or seized through the government's powers of eminent domain.<sup>19</sup> Thus, Colorado has mandated that the Conservation District may obtain water rights in the same manner as any other water rights owner in the marketplace — through the Colorado water courts.<sup>20</sup> While all other western states administer water rights through administrative agencies, Colorado is alone in that all

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17. James Huffman, *Instream Water Use: Public and Private Alternatives*, in WATER RIGHTS: SCARCE RESOURCE ALLOCATION, BUREAUCRACY, AND THE ENVIRONMENT 249, 260 & n.23 (Terry L. Anderson ed., 1983). See, e.g., IDAHO CODE § 42-1503 (1990) (allowing for approval of application for appropriation of minimum stream flow if, among other things, it "is necessary for the preservation of fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, navigation, transportation, or water quality of the stream"); WASH. REV. CODE § 75.20.050 (1962 & Supp. 1993) (allowing director of ecology to refuse to issue permits for diversion or storage of water if issuing permit "might result in lowering the flow of water in a stream below the flow necessary to adequately support food fish and game fish populations in the stream"); WASH. REV. CODE § 90.22.010 (1992) (allowing department of ecology to establish minimum water flows "for purposes of protecting fish, game, birds or other wildlife resources, recreational or aesthetic values" and to preserve water quality).

18. Huffman, *supra* note 17, at 270 (discussing the 1973 amendment to COLO. REV. STAT. ANN. § 37-92-103(3) (West 1993)).

19. *Id.* at 270-71.

20. MEYERS ET AL., *supra* note 6, at 407-08. A lighthearted description of the Colorado Water Courts states:

Since 1969, each of Colorado's seven water divisions (each covering a major river drainage), has had a specialized water court with exclusive jurisdiction over water matters. Each court or division is headed by a water judge, who is assisted by a water referee. The water referee makes an informal investigation of most applications in the first instance. If no one protests the referee's ruling, it is rubber-stamped and becomes the decree of the water court. If some mean-spirited soul does file a protest, the water judge conducts a new trial from scratch.

Michael D. White, *Colorado Instream Flows*, 4 RIVERS 55 (1993).

diversions and water rights within the state are decreed by the courts.<sup>21</sup>

In the present litigation, the U.S. Forest Service asserted its water rights in an attempt to prevent diversions which could negatively affect the physical integrity of stream channels in four national forests in Colorado. *In the Matter of the Amended Application of the United States of America for Reserved Water Rights in the Platte River*<sup>22</sup> represents the first time that a court has directly addressed the issue of whether there is an implied federal reservation of water to protect favorable conditions of flow in national forests.<sup>23</sup> In addition to the novel approach of asserting the right to water for the purpose of channel maintenance, the Forest Service relied for the first time on the science of fluvial geomorphology<sup>24</sup> to quantify its claims for minimum flows.<sup>25</sup> Despite its lack of success on the issue of the propriety of the reservation, the Forest Service is currently pressing its case on appeal before the Colorado Supreme Court.<sup>26</sup> The Service may also relitigate the issue of reserved water rights to protect stream channel maintenance in subsequent cases<sup>27</sup> involving the reservation doctrine in the Rocky Mountain and Zion National

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21. *Id.*

22. In the Matter of the Amended Application of the United States of America for Reserved Water Rights in the Platte River, consolidation of Case Nos. W-8439-76 (W-8977-77, W-9052-77, W-9064-77 and W-9065-77) (Dist. Ct. Water Div. #1, Colo. Feb. 12, 1993) [hereinafter *Platte River* (No. W-8439-76)], *on appeal sub nom.* United States v. Colorado (No. 93SA227 (Colo)) (the Colorado Supreme Court modified the caption of the case in a Feb. 15, 1994 order).

23. United States' Brief on Evidence Relating to the Science of Fluvial Geomorphology and Instream Flow Claims at 181, *Platte River* (No. W-8439-76) [hereinafter United States' Brief on Evidence].

24. Geomorphology is defined as the study of landforms. DALE F. RITTER, *PROCESS GEOMORPHOLOGY* 1 (1978). Fluvial geomorphology refers to the study of the interaction of moving water (streams and rivers) with the land over which it flows, primarily through the processes of erosion and deposition. *Id.* at 257.

25. United States' Brief on Evidence, *supra* note 23, at 3.

26. The Department of Justice filed its notice of appeal with the Colorado Supreme Court on Sept. 3, 1993, and as of this writing, final briefs are due to the Court on March 21, 1994.

27. As Judge Robert Behrman noted in the *Platte River* decision, "[T]his court . . . is under no apprehension that its word will be the final one on this question." *Platte River* (No. W-8439-76), slip op. at 32.

Parks.<sup>28</sup> Additionally, these issues are certain to arise in future litigation involving water rights and utilization of water in the Colorado River.<sup>29</sup>

### C. Scope of the Reserved Water Rights Issue

Due to the vast holdings of the federal government in western lands and the seemingly unquenchable demands of what are often incompatible uses, water rights litigation has occurred frequently during the last century.<sup>30</sup> Some of the many uses of water include domestic and industrial supplies, irrigation, hydroelectric generation, recreation and the preservation of ecosystems.<sup>31</sup> The fact that water supplies are both finite and variable highlights the need for all users to coexist harmoniously.<sup>32</sup> Since water is the life-blood of both economic and ecological systems,<sup>33</sup> local water users and the

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28. Telephone interview with Andrew Walsh, Assistant United States Attorney, Department of Justice Environment and Natural Resources Division (Sept. 21, 1992). Mr. Walsh was the lead attorney for the Department of Justice in the *Platte River* litigation.

29. *Id.*

30. See, e.g., D. Craig Bell & Norman K. Johnson, *State Water Laws and Federal Water Uses: The History of Conflict, the Prospects for Accommodation*, 21 ENVTL. L. 1 (1991) (stating that conflicts between state and federal water resource management can be minimized through recognition of state accommodation of federal interests); Heather Bloomfield Lee, Note, *Forcing the Federal Hand: Reserved Water Rights v. States' Rights for Instream Flows*, 41 HASTINGS L.J. 1271 (1990) (arguing that federal interests in instream flows under the reserved water rights doctrine will not adequately be protected by state water law, and proposing new legislation to protect federally reserved water rights).

31. MEYERS ET AL., *supra* note 6, at 2.

32. *A Fight Over Liquid Gold*, *supra* note 3, at 22. See also Jahn, *supra* note 13, at 1.

With continuous growth of the human population, demands on river systems and other features of the resource base have expanded substantially. As the U.S. population approached and surpassed 200 million, people gradually came to recognize that unbridled demands for water in rivers are not in the best public interest. Too many values and uses assumed to be never-ending have become threatened with degradation, and some have been lost.

*Id.*

33. *A Fight Over Liquid Gold*, *supra* note 3, at 23 (quoting California Congressman George Miller: "[t]he heart of the West is water. It's about winners and losers, the future and the past. It's about economics. It will be the most important commodity in dictating the future."). Professor John Leshy (the cur-

administrators of federal lands all have a strong interest in orderly and clearly defined allocations of water rights.<sup>34</sup>

The resolution of federal water rights (both reserved and non-reserved) is significant in the western United States because the federal government owns nearly one half of all western lands,<sup>35</sup> and because of the early priority dates (the date of the land reservation) that would attach to many federal holdings. Moreover, the majority of water flow in the western states either originates on or flows through federally reserved lands.<sup>36</sup> Some observers have speculated that the *Platte River* litigation may ultimately come before the U.S. Supreme Court<sup>37</sup> at a time when the Court may be increasingly interested in water rights and water quality issues.<sup>38</sup> As a result of the federal government's vast holdings in the

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rent Solicitor of the U.S. Dep't of the Interior) noted that "[l]egal protection for water uses . . . illustrate[s] the core features of the special subculture that is peculiarly Western — the importance of water in a generally arid zone, and the continuing conflict between development and preservation of natural resources in a region historically dependent upon resource extraction." John D. Leshy, *Water and Wilderness / Law and Politics*, 23 LAND & WATER L. REV. 389, 391 (1988).

34. For arguments that the most beneficial uses of instream flows will be realized if the allocation of water for consumptive uses is left to the private market, see Frank J. Trelease, *The Model Water Code, the Wise Administrator and the Goddam Bureaucrat*, 14 NAT. RESOURCES J. 207 (1974). But see Huffman, *supra* note 17, at 251 ("the allocation of water to minimum stream-flow maintenance has become the archetypal case for government intervention, as Ralph Johnson observes: 'In recent years it has become increasingly clear that the appropriation system, if allowed to continue unrestrained, will adversely affect and in some cases destroy valuable in-place commercial and recreational water uses.'") (citation omitted).

35. *United States v. New Mexico*, 438 U.S. 696, 699 n.3 (1978).

36. *Id.* at 705.

37. Roberto Suro, *U.S. Fights Colorado for Rockies Water*, N.Y. TIMES, Feb. 4, 1990, at A28.

38. A recent book about the U.S. Supreme Court, compiled from extensive interviews with members of the Court, solicitors general and Supreme Court clerks, suggests that the Court may become more active in water rights issues. This is based, in part, upon the interests of western members of the Court, including Chief Justice Rehnquist and Justice O'Connor. Tony Mauro, *Two New Books are Must-Reads for High Court Watchers*, CONN. L. TRIB., May 11, 1992, at 14 (reviewing H.W. PERRY JR., *DECIDING TO DECIDE: AGENDA SETTING IN THE UNITED STATES SUPREME COURT* (1992)). It should be noted however, that with the resignation in March 1993 of Justice White, a Colorado native, the Court lost one of its few members with a personal interest in Western water issues.

region, the ultimate resolution of these complex legal and political issues will impact the government's reserved water claims in over 170 million acres of land<sup>39</sup> and will, therefore, influence the nature and extent of development in the entire area.<sup>40</sup>

## II. Background

### A. Historical Origins of the National Forests

The need for a continuous supply of timber for the nascent settlements in the western territories, and the recognition of the vital role of favorable water flows in the development of the arid west, formed the impetus for the Creative Act of 1891.<sup>41</sup> This legislation empowered the President to reserve portions of federal public lands as national forests. The anger of western legislators over the aggressive program

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Richard C. Reuben, *White's Choice to Leave Court Will Shift Tack*, L.A. DAILY J., Mar. 22, 1993, at 1, 10.

Important issues regarding instream water flows and the ability of states to protect such flows was raised in a Washington case recently granted certiorari by the U.S. Supreme Court. The Court's decision in *Department of Ecology v. Public Util. Dist. No. 1*, 849 P.2d 646 (Wash. 1993), cert. granted, 114 S. Ct. 55 (1993) (No. 92-111), will address the question of whether the Washington State Department of Ecology can require minimum instream flows as part of a hydroelectric power project under the authority of the federal Clean Water Act, 33 U.S.C. §§ 1251-1387 (1987).

39. *Forest Service Loses Water Rights Case*, ROCKY MTN. NEWS, Feb. 17, 1993, at 12 (Regional ed.).

40. See e.g., Geoffrey A. Campbell, *High Court Says Western States Must Bear Cost Burden of Water Rights Claims*, THE BOND BUYER, May 4, 1993, at 5, Adjudication of water rights is a serious concern in the arid West, where the specter of unquantified federal water rights has inhibited development by people who fear that their water rights could be trumped by the federal government.

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When [federal] reserved water rights are not quantified, as often is the case, junior rights-holders under state law do not have any way of knowing when the federally reserved rights would be put to use or how much water is at stake. That uncertainty has had a dampening effect on development, especially as water use in the West has come close to or exceeded the available supply.

41. Act of Mar. 3, 1891, ch. 561, 26 Stat. 1095, 1103, repealed by Act of Oct. 21, 1976, Pub. L. No. 94-579, tit. VII, § 704(a), 90 Stat. 2792. For a discussion of the political climate in Congress at the time of the enactment of legislation authorizing national forests, see STEGNER, *supra* note 2, at 39.

of federal land reservation undertaken by Presidents Harrison and Cleveland provided political support for the passage of the Organic Administration Act of June 4, 1897<sup>42</sup> (hereinafter "the Organic Act").<sup>43</sup> These concerns over what many Westerners considered unnecessary federal intrusion were expressed in the restrictive language of the Organic Act. The Act defined the purposes for which national forests could be reserved and provided a charter for the management and economic uses of the forests:

No national forest shall be established, except to improve and protect the forest within the boundaries, or for the purpose of securing the favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States. . . .<sup>44</sup>

In *United States v. New Mexico*, the U.S. Supreme Court upheld a denial of federal reserved water rights in the Gila National Forest.<sup>45</sup> The Court interpreted the Organic Act as empowering the federal government to reserve portions of unappropriated lands as national forests for *only* two purposes: 1) to furnish a continuous supply of timber, and 2) to secure favorable conditions of flow.<sup>46</sup> Thus, the Court rejected the federal government's argument that Congress intended to reserve minimum instream flows for aesthetic, recreational and fish-preservation purposes.<sup>47</sup> This strict interpretation has been criticized by some as being unduly narrow. Professor Tarlock, for instance, contends that reservations for recreation and fish and wildlife preservation are purposes which are consistent with the language, early interpretation and administration of the Act.<sup>48</sup>

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42. Act of June 4, 1897, ch. 2, § 1, 30 Stat. 34, 36 (codified at 16 U.S.C. §§ 473-482 (1978 & Supp. 1993)).

43. *United States v. New Mexico*, 438 U.S. 696, 706 (1978).

44. 16 U.S.C. § 475 (1978 & Supp. 1993).

45. 438 U.S. 696.

46. *Id.* at 706 (citing 16 U.S.C. § 475).

47. *Id.* at 705.

48. A. DAN TARLOCK, *supra* note 4, § 9.08[2] at 9-53. See also A. Dan Tarlock & Sally K. Fairfax, *Federal Proprietary Water Rights for Western Energy Development: An Analysis of a Red Herring*, 3 J. ENERGY LAW & POL'Y 1

To date, the need for a continuous supply of timber has served as the exclusive basis for claims of federal water reservations in the national forests.<sup>49</sup> In *Platte River* however, the Forest Service sought to utilize the "favorable conditions of flow" language of the Organic Act as an independent source of federal water rights reservation. *Platte River* is the first case in which a reservation for stream channel maintenance, in order to fulfill the purpose of favorable conditions of flow, has been litigated.<sup>50</sup>

## B. Legal Battles Over Reserved Water Rights

The continued existence of individuals, society and ecosystems in the arid regions of the West is dependent upon access to water and ownership of water rights. Conflicts between federal, state and private interests over the acquisition of water have continued in recent years.<sup>51</sup> These conflicts have been attributed, in part, to the increasing reach of federal authority through extensive water development and flood protection projects undertaken during this century by various agencies of the federal government.<sup>52</sup> Conflicts involving the acquisition of water rights by prior use and by

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(1982) (arguing that federal reserved water rights should not be expanded to include energy development); Sally K. Fairfax & A. Dan Tarlock, *No Water for the Woods: A Critical Analysis of United States v. New Mexico*, 15 IDAHO L. REV. 509 (1979) (examining the implications of *United States v. New Mexico* and urging a broad reading of the Organic Act); Susan Hoffman Adams, Note, *Water Rights and National Forests - Narrowing the Implied Reservation Doctrine: United States v. New Mexico*, 40 OHIO ST. L.J. 729 (1979) (discussing the development of implied reserved water rights and the effects of the *United States v. New Mexico* decision).

49. United States' Brief on Evidence, *supra* note 23, at 181. See, e.g., *United States v. New Mexico*, 438 U.S. 696 (1978); *United States v. Jesse*, 744 P.2d 491 (Colo. 1987); *United States v. City & County of Denver*, 656 P.2d 1 (Colo. 1982); *Mimbres Valley Irrigation Co. v. Salopek Dep't of Agriculture Forest Service*, 564 P.2d 615 (Ariz. 1977).

50. *Id.*

51. See Lawrence J. MacDonnell, *Federal Interests in Western Water Resources: Conflict and Accommodation*, 29 NAT. RESOURCES J. 389, 389 (1989).

52. *Id.* (specifically, the author points to the extensive efforts of the Bureau of Reclamation and the Army Corps of Engineers).

federal reservation have provided fertile ground for litigation since the admission of the western states into the Union.<sup>53</sup>

One issue often faced in federal-state conflicts over water rights is the question of whether Congress intended to reserve water at the time it reserved land holdings.<sup>54</sup> The doctrine of federal reserved water rights is a judicial recognition of the intent of Congress at the time of the original land reservation. This doctrine holds that when lands are reserved by the federal government, an implicit reservation of water appurtenant to those lands accompanies the reservation.<sup>55</sup> The existence of certain federal reservations of water rights is well settled law. The origin of the doctrine is found in *Winters v. United States* where, in the context of a dispute over rights to water on the Fort Belknap Reservation in Montana, Justice McKenna stated that "[t]he power of the government to reserve the waters and exempt them from appropriation under the state laws is not denied, and could not be."<sup>56</sup> *Winters* confirmed the existence of reserved Indian rights to waters pursuant to the treaty creating the Fort Belknap Reservation under either the property or treaty powers of the U.S. Constitution.<sup>57</sup>

Non-Indian reserved water rights were later suggested in *Federal Power Commission v. Oregon*, when the U.S. Supreme Court held that the Federal Power Commission had exclusive jurisdiction to grant the license for a water power project on federally reserved lands in Oregon.<sup>58</sup> The govern-

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53. See *id.* at 390; Charles F. Wilkinson, *Western Water Law in Transition*, 56 U. COLO. L. REV. 317, 319-20 (1985).

54. See, e.g., *United States v. New Mexico*, 438 U.S. 696 (1978); *Sierra Club v. Yeutter*, 911 F.2d 1405 (10th Cir. 1990).

55. See 438 U.S. 696, 715; *Cappaert v. United States*, 426 U.S. 128, 137 (1976); *Arizona v. California*, 373 U.S. 546, 557 *reh'g denied*, 375 U.S. 892 (1963); *Winters v. United States*, 207 U.S. 564, 577 (1908).

56. 207 U.S. at 577. See generally MICHAEL C. NELSON, UNIVERSITY OF ARIZONA, ARID LANDS RESOURCE INFORMATION PAPER NO. 9, THE WINTERS DOCTRINE: SEVENTY YEARS OF APPLICATION OF 'RESERVED' WATER RIGHTS TO INDIAN RESERVATIONS (1977).

57. *Id.* (citing *United States v. Rio Grande Dam & Irrig. Co.*, 174 U.S. 690 (1899) (property power) and *United States v. Winans*, 198 U.S. 371 (1905) (treaty power)).

58. 349 U.S. 435 (1955).

ment's jurisdiction in this case was based on federal ownership and control of the reserved lands themselves.<sup>59</sup> However, it was not until *Arizona v. California* that the Court expressly declared the unquestionable power of the federal government to reserve water rights on federally reserved lands.<sup>60</sup> The Court acknowledged that this federal reservation of water rights is founded upon both the Commerce Clause<sup>61</sup> (permitting federal regulation of navigable waters) and the Property Clause<sup>62</sup> (permitting federal regulation of federal lands) of the U.S. Constitution.<sup>63</sup>

In *Cappaert v. United States*<sup>64</sup> the U.S. Supreme Court articulated the basis of the federal reserved water rights doctrine: "Congress, in giving the President the power to reserve portions of the federal domain for specific federal purposes, *impliedly* authorized him to reserve 'appurtenant water then unappropriated to the extent needed to accomplish the purposes of the reservation'."<sup>65</sup> The Court also established a two-part test for analyzing federal reserved water rights: 1) did the federal government intend to reserve any quantity of

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59. *Id.* at 442.

60. 373 U.S. at 601 (holding that claims by the U.S. and several states against California for water in the Colorado River are governed by federal statutes and executive orders creating the reservations). For a discussion of the extension of the *Winters* doctrine, see TARLOCK, *supra* note 4, § 9.08[1] at 9-48, § 9.08[2] at 9-49. See generally Frank J. Trelease, *Arizona v. California: Allocation of Water Resources to People, States, and Nation*, 1963 SUP. CT. REV. 158 (discussing state and federal implications of *Arizona v. California* as related to the building and operation of irrigation projects by new authorities); Roger Florio, *Arizona v. California: Finality As a Water Management Tool*, 33 CATH. U. L. REV. 457 (1984) (outlining the development of the federal reserved water rights doctrine).

61. U.S. CONST. art. I, § 8.

62. U.S. CONST. art. IV, § 3.

63. 373 U.S. at 597-98. See also *Cappaert v. United States*, 426 U.S. at 138; *Federal Power Comm'n v. Oregon*, 349 U.S. at 443.

64. 426 U.S. 128 (1976) (holding that when federal government reserved Devil's Hole, an underground pool in Nevada inhabited by a unique species of fish (*cyprinodon diabolis*), it acquired water rights sufficient to maintain the level of the pool to preserve the species). For a contemporaneous discussion of the implications of the *Cappaert* decision on western water law and the need for explicit congressional direction to guide resolution of federal-state tension over control of water rights, see Frank J. Trelease, *Federal Reserved Water Rights Since PLLRC*, 54 DENV. L.J. 473 (1976).

65. 426 U.S. at 138 (emphasis in original).

water at the time it enacted the legislation reserving the federal lands?<sup>66</sup> and 2) if there is a reservation entitlement, whether implicit or explicit, what quantity of water is necessary to fulfill the purposes of the reservation?<sup>67</sup> Thus, the crucial issue in determining the existence of an implied federal water reservation is the government's intent.<sup>68</sup> The government's intent to reserve unappropriated water is inferred if "previously unappropriated waters are necessary to accomplish the purposes for which the reservation was created."<sup>69</sup>

Regarding the amount of water reserved, the *Cappaert* court reasoned that, due to the implicit nature of the federal water reservation doctrine, only the minimal amount of water necessary to fulfill the purposes of the original land reservation is reserved.<sup>70</sup> As the Court stated, "[t]he implied-reservation-of-water-rights doctrine . . . reserves only that amount of water necessary to fulfill the purpose of the reservation, no more."<sup>71</sup> Thus, the quantification of federal reserved water rights includes a determination of the amount of water required to fulfill the purpose of the original land reservation.

### C. Background of the *Platte River* Litigation

In *Platte River* the Forest Service argued that the federal government is entitled to an implied reservation of water in national forests to protect the purposes for which the lands were originally reserved.<sup>72</sup> The Service further argued that channel maintenance is one of the purposes for which the national forests were reserved.<sup>73</sup> The parties objecting to the Service's application opposed the recognition of any federal

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66. *Id.* at 139.

67. *Id.* at 141.

68. *Id.* at 139-40.

69. *Id.*

70. 426 U.S. at 139-40. *See also* *Arizona v. California*, 373 U.S. at 600-01.

71. 426 U.S. at 141.

72. United States' Post-trial Brief Concerning Purposes of the National Forests at 6, *Platte River* (No. W-8439-76) [hereinafter United States' Post-trial Brief].

73. *Id.* at 3-4.

reserved water rights.<sup>74</sup> The objectors maintained that the only purposes of the national forests are the preservation of the forest cover and the enhancement of a usable supply of water.<sup>75</sup> Further, the objectors argued that the claimed flows are not necessary for channel maintenance.<sup>76</sup>

The reservation sought by the Service would prohibit owners of junior water rights from making diversions or withdrawals in the national forests that would prevent streams from reaching bankfull stage on a semi-annual basis.<sup>77</sup> The Service argued that bankfull stage is the amount of water necessary to satisfy the purpose of the reservation.<sup>78</sup> Hydrologic studies conducted by and for the Forest Service indicated that maintaining annual flows equal to bankfull level is necessary to protect the integrity and viability of stream channels.<sup>79</sup> Channel integrity impacts a stream's ability to transmit sustained high-quality flows, to mitigate against flooding and to provide favorable conditions of flow.<sup>80</sup> The Forest Service argued that if the required flow is not protected, the channel morphology<sup>81</sup> will change due to the ac-

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74. United States' Reply Brief to Certain Objectors Opening Post-trial Brief Regarding the Necessity of Channel Maintenance Flows at 2, *Platte River* (No. W-8439-76) [hereinafter United States' Reply Brief].

75. *Id.* at 12 (citing Certain Objectors' Joint Opening Post-trial Brief Regarding the Necessity and Quantification of Channel Maintenance Flow at 15, *Platte River* (No. W-8439-76)).

76. *Id.* at 1.

77. Bankfull stage refers to the level at which water occupies a stream channel without overtopping the channel or occupying the adjacent flood plain, measured in a direction perpendicular to flow. United States' Brief on Evidence, *supra* note 23, at 11 n.15. A break in slope is often used to identify the top of the bank. United States' Reply Brief, *supra* note 74, at 25.

The District Court interpreted the term "bankfull" in the same manner as the Forest Service and its experts. According to the court, this stage represents the amount of water required for channel forming flows; i.e. flows occurring once or twice a year which carve and maintain the stream channel. This flow may be less than actual channel capacity, as the physical bank may be capable of containing flows greater than the "bankfull" flows. *Platte River* (No. W-8439-76), slip op. at 15 n.2.

78. United States' Reply Brief, *supra* note 74, at 2.

79. United States' Brief on Evidence, *supra* note 23, at 12.

80. United States' Reply Brief, *supra* note 74, at 79.

81. Channel morphology, one aspect of fluvial geomorphology, includes channel diversions, shape, gradient and pattern. Sediment and moving water

cumulation of vegetation and sediment in the stream channel, thus increasing the risk of downstream flood damage.<sup>82</sup> The objectors, however, argued that bankfull flows are not necessary to maintain channel integrity due to the steep, sedimentary nature of mountain streams.<sup>83</sup> Consequently, neither changes in channel morphology nor the risk of downstream flood damage presents an issue, according to the objectors.<sup>84</sup>

If granted, the reservations claimed by the Service would require maintenance of minimum instream flows. However, these reserved flows would be nontransformational and non-consumptive<sup>85</sup> because instream flow reservations do not *remove or use* any water, but rather seek to maintain certain quantities of water in the stream channel. Since the reservation seeks to protect instream flows, and since much of the watershed above the national forests has not yet been appropriated, all of the water of the reservation would be available for appropriation once the streams leave the national forests.<sup>86</sup> This would result in an increase in the amount of water available downstream of the national forest boundary.<sup>87</sup>

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are independent variables affecting modern channel morphology. *Id.* at 47 n.42.

82. Flood damage is the most costly natural disaster (excluding drought) that commonly occurs in the United States. This is significant because land surface conditions (including stream channel morphology) affect surface water runoff. Flooding in the Midwest during the summer of 1993 alone caused at least \$12 billion in damage and claimed forty-seven lives. Michael A. Lev and Staci D. Kramer, *As Water Recedes, the Loss Rises*, CHI. TRIB., Aug. 9, 1993, at 1. The Army Corps of Engineers counted over \$100 million worth of breaches in thirty-four of the 275 federal levees in the area, in addition to damage to at least 800 of the more than 1,000 locally owned levees. *Id.* Previously, flood damage records had been set in 1986, when damages were estimated at \$6 billion. In addition, 208 people were killed that year due to flooding. U.S. GEOLOGICAL SURVEY, U.S. DEPT OF THE INTERIOR, WATER-SUPPLY PAPER No. 2375, NATIONAL WATER SUMMARY 1988-89: HYDROLOGIC EVENTS AND FLOODS AND DROUGHTS 66-67, 125 (1991).

83. United States' Reply Brief, *supra* note 74, at 3-4.

84. *Id.*

85. United States' Brief on Evidence, *supra* note 23, at 2.

86. United States' Post-trial Brief, *supra* note 72, at 4-5.

87. The district court noted this effect of the reservation, but considered the augmentation of downstream flow to be a reason *against* granting the reserva-

D. Procedural Setting of the *Platte River* Litigation

Adjudication of federal water rights in the South Platte and Laramie river basins falls within the jurisdiction of the Colorado District Court for Water Division One.<sup>88</sup> While suits against the United States are generally prohibited under the doctrine of sovereign immunity, the McCarran Amendment, passed by Congress in 1952, waives sovereign immunity in general water rights adjudications.<sup>89</sup> The Act expresses the congressional intent that water rights issues be litigated in state courts.<sup>90</sup>

The United States filed a general application in 1976 in Colorado District Court for Water Division One<sup>91</sup> to adjudi-

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tion, as potential for downstream flood damage would be increased, in contravention of the purpose of favorable conditions of flow. *Platte River* (No. W-8439-76), slip op. at 8.

88. COLO. REV. STAT. § 37-92-201(a) (1990).

89. Act of July 10, 1952, ch. 651, tit. II, § 208(a)-(c), 66 Stat. 560 (codified at 43 U.S.C. § 666 (1980)).

90. The Act provides:

Consent is hereby given to join the United States as a defendant in any suit (1) for the adjudication of rights to the use of water of a river system or other source, or (2) for the administration of such rights, where it appears that the United States is the owner of or is in the process of acquiring water rights by appropriation under State law, by purchase, by exchange, or otherwise, and the United States is a necessary party to such suit. The United States . . . shall (1) be deemed to have waived any right to plead that the State laws are inapplicable or that the United States is not amenable thereto by reason of its sovereignty, and (2) shall be subject to the judgments, orders, and decrees of the court having jurisdiction. . . .

*Id.* For a general discussion of the McCarran Amendment, see Thomas H. Pacheco, *How Big is Big? The Scope of Water Rights Suits Under the McCarran Amendment*, 15 *ECOLOGY L.Q.* 627 (1988); Michael D. White, *McCarran Amendment Adjudications — Problems, Solutions, Alternatives*, 22 *LAND & WATER L. REV.* 619 (1987).

91. Water Division One "consists of all lands in the State of Colorado in the drainage basins of the South Platte river, the Big Laramie river, the Arikaree river, the north and south forks of the Republican river, the Smokey Hill river, Sandy and Frenchman creeks, and streams tributary to said rivers and creeks." COLO. REV. STAT. § 37-92-201(a) (1990).

The Colorado District Court for Water Division One sits in Greeley, Colorado. The origins of this town are documented in a leading casebook on water resource law:

Western history shows that the earliest irrigation developed around various quasi-utopian colony schemes, and these colonies

cate all reserved and appropriated water rights within the South Platte and Laramie watersheds in the Arapaho, Pike, Roosevelt and San Isabel National Forests in western Colorado.<sup>92</sup> The government amended its application in 1977 to identify the specific forest lands where the claims were being made.<sup>93</sup> The claims were first quantified in an amendment in 1984, subsequent to the U.S. Supreme Court decision in *United States v. New Mexico*<sup>94</sup> and were made for the purpose of securing favorable conditions of water flow and providing a continuous supply of timber.<sup>95</sup> The government's application was further amended in 1989 to reserve rights to a portion of the instream flow in streams within the Colorado national forests.<sup>96</sup> These flows were claimed to preserve and maintain stream channels in order to secure favorable conditions of water flow.<sup>97</sup>

Statements of opposition were filed by water users whose ability to divert water for consumptive uses would be diminished by a federal water reservation.<sup>98</sup> These objectors included the water-conservancy districts in northern Colorado,<sup>99</sup> which serve the South Platte basin — an area which is home to over seventy percent of the state's population and includes the cities of Denver, Boulder and Fort Collins.<sup>100</sup> Over seventy local businesses and public interest

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were receptive to a variety of water allocation practices. Irrigation colonies in southern California and Colorado following the Mormon model were founded in the 1870's and early 1880's. In Colorado Nathan C. Meeker, the agricultural editor of Horace Greeley's enormously influential New York Tribune, founded a utopian irrigation colony in 1870 along the Cache la Poudre River. The settlement was named Greeley.

MEYERS ET AL., *supra* note 6, at 248.

92. *Platte River* (No. W-8439-76), slip op. at 7.

93. United States' Post-trial Brief, *supra* note 72, at 9 n.4.

94. 438 U.S. 696 (1978).

95. United States' Post-trial Brief, *supra* note 72, at 9 n.4.

96. Notice of Appeal at 3, *Platte River* (No. W-8439-76) [hereinafter Notice of Appeal].

97. *Id.*

98. *Forest Service Loses Water-Rights Case*, *supra* note 39, at 12.

99. *Id.*

100. *Platte River* (No. W-8439-76), slip op. at 5.

groups also filed statements of opposition.<sup>101</sup> The objectors were concerned that future development of water storage projects would be hampered because of the required minimum streamflows,<sup>102</sup> or that their appropriation rights would otherwise be adversely affected by the federal claim.<sup>103</sup>

In an earlier Colorado case, *United States v. City & County of Denver*, the U.S. claimed reserved water rights in seven national forests, three national monuments, one national park, over 1,500 public waterholes and springs, two mineral hot springs and the public domain administered by the Bureau of Land Management.<sup>104</sup> The Colorado Supreme Court applied the analytical framework set forth in prior U.S. Supreme Court decisions on the federal reserved water rights doctrine, as articulated in both *Cappaert* and *New Mexico*.<sup>105</sup> As a result, the court set out a four-step analysis for Colorado courts to apply when adjudicating federal water reservation claims. The first step is to examine the documents reserving the land from the public domain and the underlying legislation authorizing the reservation (in this case, the Organic Act).<sup>106</sup> The second step is to determine the federal purposes to be served by such legislation.<sup>107</sup> The third step is to determine whether water is essential for the primary purposes of the reservation.<sup>108</sup> The final step is to determine the precise quantity of water necessary to satisfy these purposes.<sup>109</sup>

In reaching its decision, the *Denver I* court emphasized the holding in *New Mexico* that instream flows for recreational, wildlife and scenic purposes are not provided for under the Organic Act.<sup>110</sup> Further, the court determined that the U.S. did not present sufficient evidence to support its claim that instream flows serve the national forest purposes of wa-

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101. Notice of Appeal, *supra* note 96, at 6-8.

102. *Forest Service Loses Water-Rights Case*, *supra* note 39, at 12.

103. *U.S. Fights Colorado for Rockies Water*, *supra* note 37, at A28.

104. 656 P.2d 1, 11 (Colo. 1982) [hereinafter *Denver I*].

105. *Id.* at 20.

106. *Id.*

107. *Id.*

108. *Id.*

109. 656 P.2d at 20.

110. *Id.* at 22 (citing *United States v. New Mexico*, 438 U.S. at 705).

tershed and timber protection.<sup>111</sup> Thus, the court denied the government's instream flow claim for reserved water rights in the national forests.<sup>112</sup> The government's claim to a reserved instream flow water right for the purposes of recreational boating in Dinosaur National Monument was also denied.<sup>113</sup> The court determined that Congress did not intend to establish a recreational purpose when it created the Monument.<sup>114</sup> The court did, however, confirm the existence of federal reserved water rights to the public springs and waterholes in order to prevent the monopolization of water needed for domestic and stockwatering purposes.<sup>115</sup>

In another case involving federal reserved water rights, the U.S. filed an application for a comprehensive adjudication of water rights in Water Division Number Two, including the Pike and San Isabel National Forests.<sup>116</sup> In *United States v. Jesse*, the government argued that the reservation of these lands from the public domain included an implicit reservation of appurtenant water necessary to maintain minimum instream flows within the forests.<sup>117</sup> The government relied on the science of fluvial geomorphology to show that minimum instream water flows are necessary to preserve stream channels in the forests and to secure favorable conditions of flow.<sup>118</sup>

In *Jesse*, the U.S. contended that "frequently recurring flows form and maintain natural stream channels . . . in a state of relative equilibrium."<sup>119</sup> Without this channel equilibrium, the government argued, stream channels are unable to maintain favorable flows.<sup>120</sup> The court noted that the leg-

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111. *Id.*

112. *Id.* at 23.

113. *Id.* at 27.

114. 656 P.2d at 27. The court noted that the Monument was originally established to preserve prehistoric fossils. *Id.*

115. *Id.* at 31-32.

116. *United States v. Jesse*, 744 P.2d 491, 493 (Colo. 1987).

117. *Id.*

118. *Id.*

119. *Id.* at 498.

120. *Id.*

islative history of the Organic Act<sup>121</sup> indicates that the concept of favorable flows includes the minimization of spring freshet<sup>122</sup> flood conditions and the augmentation of flow during low flow conditions.<sup>123</sup> The court held that:

[a]lthough the record of the proceedings on the Organic Act does not disclose an explicit Congressional intent to reserve sufficient water to preserve instream water flows in the national forests, we are not convinced that the federal government, by implication, did not intend to recognize such a right so long as it furthers a primary purpose of the Organic Act.<sup>124</sup>

The "favorable flows" purpose of the national forests had previously never been utilized as an independent source of federal water reservation, but had been a collateral aspect of the economic and natural benefits for which the national parks were set aside.<sup>125</sup>

The *Jesse* court noted that *Denver I* lacked a factual basis upon which to determine the necessity of instream flows.<sup>126</sup> Therefore, the court's decision in *Denver I* did not "foreclose the United States from asserting a claim that the Organic Act implicitly reserves appurtenant water necessary to maintain instream water flows in the national forests. . . ." <sup>127</sup> The trial court in *Jesse* had dismissed the government's claim on opponent's motion for summary judgment. However, the government had put forth an affidavit in support of its opposition to summary judgment which set forth facts regarding the necessity of instream flows. The Colorado Supreme Court reversed the trial court's dismissal and held that the affidavit estab-

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121. 16 U.S.C. §§ 473-482 (1978 & Supp. 1993).

122. Spring freshet is defined as "1. A flood or overflowing of a stream or river caused by heavy or long-continued rains or melted snow. 2. A stream of fresh water." ROBERT W. DURRENBERGER, *DICTIONARY OF ENVIRONMENTAL SCIENCES* 93 (1973).

123. 744 P.2d at 500-01 (citing 30 CONG. REC. 966, 1399 (1897)).

124. *Id.* at 502.

125. *United States v. New Mexico*, 438 U.S. 696, 718 (1978).

126. 744 P.2d at 503.

127. *Id.* at 500.

lished genuine issues of material fact.<sup>128</sup> As the court stated, "federal reserved water rights involve complex issues that should not be determined on the basis of a record devoid of facts."<sup>129</sup> Thus, the court determined that dismissal on a motion for summary judgment was inappropriate.<sup>130</sup>

The *Jesse* court also reversed the water court's holding that the doctrine of collateral estoppel prevented the government from relitigating the existence of reserved water rights for the purpose of maintaining instream flows in the national forests.<sup>131</sup> The court determined that because the federal government in *Denver I*, did not claim or prove instream flow rights necessary for the purposes of the Organic Act, the issue was not actually litigated and necessarily adjudicated.<sup>132</sup> Thus, the court's decision in *Denver I* did not collaterally estop the U.S. from litigating its claims in *Jesse*.<sup>133</sup>

While the court's decision in *Jesse* intimated approval of the existence of a federal reserved water right,<sup>134</sup> the court remanded this issue and the quantification of that right for trial in the water court.<sup>135</sup> The Colorado Supreme Court indicated that, on remand, the water court should apply the four-step analysis articulated in *Denver I* to determine the propriety of the government's claims.<sup>136</sup> These issues were subsequently decided in the *Platte River* litigation in nearby Water Division One.

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128. *Id.* at 503. The affidavit of Hilton L. Silvey, a Forest Service hydrologist, concluded that "instream flows are required to maintain the natural channels in a state of relative equilibrium in order to deliver water to the ultimate user under favorable conditions." *Id.* at 498-99 n.8.

129. *Id.* at 503.

130. *Id.*

131. 744 P.2d at 504.

132. *Id.* at 504.

133. *Id.*

134. *Id.* at 502. See generally Lawrence J. MacDonnell & Teresa A. Rice, *National Interests in Instream Flows*, in *INSTREAM FLOW PROTECTION IN THE WEST* 69, 71 n.17 (noting that the *Jesse* decision was the first legal hurdle for the theory of a reserved right for instream flows to maintain stream channels).

135. *Id.* at 504.

136. 744 P.2d at 503 n.11.

III. *Platte River*: Decision of the Court

## A. Issue of Necessity

The *Platte River* trial began in January 1990, included over 100 days of testimony and cost the litigants over \$10 million.<sup>137</sup> On February 12, 1993, a thirty-two page decision was issued by Judge Robert A. Behrman. The decision set forth the main reasons for rejecting the Forest Service's claims and, although not necessary for the decision, rejected the quantification tool proposed by the Service.<sup>138</sup>

As the U.S. Supreme Court previously held in *United States v. New Mexico*, there are only two purposes for the national forests: 1) to conserve water flows, and 2) to furnish a continuous supply of timber.<sup>139</sup> Justice Rehnquist, writing for the majority, stated that "Congress intended that water would be reserved [in National Forests] only where necessary to preserve the timber or to secure favorable water flows for private and public uses under state law."<sup>140</sup> Defining the statutory language "favorable water flows" was a central issue before the court in *Platte River*.

In the *Platte River* decision, Judge Behrman noted that the *New Mexico* court had determined that the primary definition of favorable conditions included water use for irrigation and domestic use.<sup>141</sup> These uses furthered the intent of the federal government to encourage development in the western United States during the late nineteenth century.<sup>142</sup> Irrigation is still a major use of flows in the South Platte ba-

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137. *Platte River* (No. W-8439-76), slip op. at 21. See also *Forest Service Loses Water Rights Case*, *supra* note 39, at 12.

138. *Platte River* (No. W-8439-76), slip op. at 1, 32. Judge Behrman explicitly noted that the written opinion did not purport to summarize the massive amount of information presented at trial. *Id.* at 1. Subsequent to the *Platte River* decision, Judge Behrman retired from the court. *Law Encourages Individualism, Retiring State Water Judge Says*, ROCKY MTN. NEWS, Oct. 30, 1993, at 19A.

139. 438 U.S. 696, 707 (1978).

140. *Id.* at 718.

141. *Platte River* (No. W-8439-76), slip op. at 4. These uses (irrigation and domestic) are by definition offstream uses and thus conflict with instream uses (such as channel maintenance or ecological protection).

142. *Id.*

sin, and the court considered municipal supplies to be the modern equivalent of domestic usage.<sup>143</sup> The court went on to link the usage for irrigation and municipal supplies, which are within the purposes of the national forest reservation, with the reservoir and diversion system that delivers water to users.<sup>144</sup> The court stressed the importance of diversions and storage higher up in the system to water conservation, flexibility of operation, gravity delivery, and the associated financial benefits of the system.<sup>145</sup> The court also noted that multiple use of the same water via use of return flows was a benefit of the current system.<sup>146</sup> Thus, according to the court, the purpose of favorable conditions of flow was met by the usage and delivery system currently in place.

The court noted that since the statutes reserving the national forests are silent on the issue of reserved water rights, congressional intent must be divined from the statutory language and the circumstances at the time of enactment, in a framework that fulfills the underlying purpose of the legislation.<sup>147</sup> While channel maintenance is within the purpose of the reservation, "such maintenance is required only to a reasonable degree consistent with both the requirements of stream flows and the necessities of efficient irrigation and domestic use."<sup>148</sup> Thus, under the *Platte River* court's reading, channel maintenance is not entitled to protection under the federal reserved water rights doctrine to the extent that it interferes with other necessary uses, such as domestic or irrigation uses.<sup>149</sup>

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143. *Id.* at 5-6. As of 1989, over 2.3 million people lived in the area involved in this case. It is estimated that this figure will rise to 3.3 million people within fifteen years. *Id.* In addition, over 1.5 million acres of land were irrigated within the South Platte drainage basin. *Id.* at 6.

144. *Id.* at 6-7.

145. *Id.* at 6.

146. *Platte River* (No. W-8439-76), slip op. at 6. See, e.g., MEYERS ET AL., *supra* note 6, at 327-42 (discussing case law on the re-use of appropriated water).

147. *Platte River* (No. W-8439-76), slip op. at 2.

148. *Id.* at 20.

149. *Id.*

The court further noted that if granted, the "federal claims would be in direct competition with rights for storage high in the system. Reservoirs below the national forests may well receive a bonanza, but overall the flexibility and efficiency of the system would be seriously decreased."<sup>150</sup> In addition, the court indicated that, even though the same amount of water, or more, would be available downstream if reserved rights were found to exist, the claimed reservations would have adverse impacts on the timing of stream runoff and the gravity delivery systems.<sup>151</sup> Specifically, flood flows in the spring would increase, thus decreasing the amount of water available for use in the gravity delivery systems.<sup>152</sup> As a result, "many advantages of storage high in the system would be greatly diluted or lost entirely."<sup>153</sup>

The *Platte River* court stressed that the Forest Service has broad powers to regulate irrigation structures within the national forests and, "as a practical matter, to control the ability of others to make diversions within the forests."<sup>154</sup> The Service argued that the availability of other mechanisms to regulate water use had no effect on its assertions of reserved water rights.<sup>155</sup> The court, however, found the alternative methods relevant to its decision and dismissed the assertions of the Service as being "rather legalistic."<sup>156</sup> The

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150. *Id.* at 8.

151. *Platte River* (No. W-8439-76), slip op. at 7-8.

152. *Id.* at 8.

153. *Id.* Advantages of upstream storage include:

- 1) construction of reservoirs is easier and less costly due to the presence of certain geologic formations;
- 2) rock underlying these sites is less prone to seepage than reservoirs in lower areas;
- 3) evaporation is reduced because of the cooler temperatures and the greater depth at mountain sites;
- 4) delivery by gravity conserves energy and is cheaper because less pumping is needed;
- 5) water use is more flexible because the higher up in the system the storage is, the more often the water can be reused; and
- 6) equable flows can be maintained throughout the season of use.

*Id.* at 6-7.

154. *Id.* at 9.

155. *Id.*

156. *Platte River* (No. W-8439-76), slip op. at 14.

court also stressed the adequacy to date of the Service's administrative system.<sup>157</sup> However, it is interesting that the court placed such faith in the continued success of this system in light of the judicially-noted explosion in the region's population, and the associated increases in water demand that accompany population growth.<sup>158</sup>

Regarding the issue of necessity of flows to the channel itself, the Service argued that the streams at issue were "adjustable in nature and that their channels are formed by fluvial processes. . . ." <sup>159</sup> However, the objectors to the Forest Service applications contended that "th[e] streams flow in channels cut in materials which are large in size and are not easily moved, even by the sort of flows contemplated by the applications herein."<sup>160</sup> The objectors argued that the "channels are resistant to the usual processes of fluvial geomorphology associated with fully adjustable streams, and are controlled by much larger and less frequently occurring floods."<sup>161</sup> The court determined that a high percentage of the streams in the South Platte basin were located in areas that would be highly resistant to modification.<sup>162</sup> This fact impacted the court's decision that the requested flows were not necessary for the instream reservation.<sup>163</sup>

In determining whether channel maintenance is implicit in the term "favorable conditions of flow," the court held that "maintaining a reasonable degree of integrity for the water courses was implicit," but this does not necessitate maintaining streams in their present condition.<sup>164</sup> The Organic

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157. *Id.* at 9-12. The court considered the testimony of Gary Edward Cargill, Regional Forester of the Forest Service for the Rocky Mountain Region, and Gray Francis Reynolds, Director of Watershed and Air Management of the Forest Service, and concluded that the U.S. conceded having "effective means at their disposal to control harmful diversions." *Id.* at 12.

158. *Id.* at 5-6 n.1.

159. *Id.* at 15.

160. *Id.* at 17.

161. *Platte River* (No. W-8439-76), slip op. at 17-18.

162. *Id.*

163. *Id.*

164. *Id.* As the court noted, the Forest Service's request would mandate that present conditions be preserved because *pristine* conditions were eliminated in parts of the basin nearly a century ago. *Id.* at 19.

Act's<sup>165</sup> approval of water for offstream uses such as mining and irrigation, convinced the court that Congress contemplated some effect on stream channels at the time the legislation was passed.<sup>166</sup> The court also indicated that, while some channel maintenance is necessary to insure that the purposes of irrigation and domestic use are met, such maintenance may be fully achieved through the continuing use of administrative regulations.<sup>167</sup> The court noted that the legislative history of the Organic Act, as well as the evidence presented at trial, demonstrates that Congress intended administrative regulation to achieve stream channel maintenance, as it has for almost one hundred years.<sup>168</sup>

Furthermore, after viewing streams in the South Platte and Laramie river basins,<sup>169</sup> the court determined that the actual condition of these streams supported a finding that any stream channel changes as a result of diversions: 1) did not seriously impair the channels, and 2) were within the zone of reasonableness contemplated by Congress in the national forest enabling legislation.<sup>170</sup> The court also noted that it is unlikely that streams would be depleted to levels which would entirely defeat the purposes of the national forests because: 1) administrative remedies would prevent such depletion, and 2) most senior water rights holders are in areas *below* the national forests, thus their water rights do not affect flows in the upstream forests.<sup>171</sup>

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165. Act of June 4, 1897, ch. 2, § 1, 30 Stat. 34, 36 (codified at 16 U.S.C. §§ 473-482 (1978 & Supp. 1993)).

166. *Platte River* (No. W-8439-76), slip op. at 19.

167. *Id.* at 20. In a similar effort by the federal government to protect aquatic habitats (a purpose *not* entitled to any reserved rights), the Forest Service has attempted to require four cities in the South Platte basin (Greeley, Fort Collins, Loveland and Boulder) to release water from their mountain reservoirs. *Water Plan Criticized*, ROCKY MTN. NEWS, Jan. 2, 1993, at 10. Sen. Hank Brown of Colorado termed this plan "the greatest endangerment of Colorado water rights the state has ever faced. . . ." *Id.*

168. *Platte River* (No. W-8439-76), slip op. at 20.

169. The Laramie river site was the only one of the numerous sites visited by the court "which may have shown the grievous effects predicted by the [Service]." *Id.* at 22.

170. *Id.*

171. *Id.* at 23. The court stressed that "[i]f actual rather than theoretical necessity is the test, then necessity has not been shown in this case." *Id.* at 24.

## B. Proposed Quantification Standard

Applying the restrictive language previously used by courts regarding the quantification standard,<sup>172</sup> the *Platte River* court had little problem rejecting the quantification approximations submitted by the Forest Service.<sup>173</sup> The court was particularly troubled by the approximations and equations used by the Service to estimate the flow necessary to maintain the stream channels.<sup>174</sup> Specifically, the court noted that discharge was not measured at all the points which would be used to monitor the reserved flow.<sup>175</sup> The court also noted that the Service's equations produced inconsistent results.<sup>176</sup> Furthermore, the court determined that bankfull stage, the quantification tool proposed by the Service, did not accurately quantify the minimum amount of water necessary to fulfill the purposes for which the reservation was sought.<sup>177</sup>

Significantly, the court went further and stated that the reservation claimed by the Service would not produce the "bankfull" discharge the Service desired.<sup>178</sup> This is because

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172. See, e.g., *United States v. New Mexico*, 438 U.S. 696, 700 (1978) ("only that amount of water necessary to fulfill the purpose"); *United States v. Jesse*, 744 P.2d 491, 503 (Colo. 1987) ("the *minimum* amount of water needed"); *Jesse*, 744 P.2d at 503 n.11 ("finally determine the *precise quantity* of water necessary") (emphases added).

173. *Platte River* (No. W-8439-76), slip op. at 25-30. The court also reiterated its earlier refusal to allow the Forest Service to modify its original claims with revised quantification methods proposed in 1990. *Id.* at 31. However, the court did use the *difference* in the equations' results to bolster its decision that the original claims did not represent the minimum quantity necessary to fulfill the purposes of the reservation. *Id.* at 30.

174. *Id.* at 29-30. It is difficult to discern from the language of the decision whether the inconsistencies noted merely represent problems in the Forest Service's technical evidence or were the basis for the court's rejection of the Service's quantification methods.

175. *Id.* at 25.

176. *Id.* at 27.

177. *Id.* at 24-30, 32. In addition to extensive litigation over the federal reservation issue, the quantification issue was litigated extensively in a "battle of the experts". These experts included Dr. Luna Leopold (former Chief Hydrologist of the U.S. Geological Survey and son of noted writer Aldo Leopold) and Dr. Stanley Shum (an eminent fluvial geomorphologist and member of the faculty of Colorado State University).

178. *Platte River* (No. W-8439-76), slip op. at 28-29.

the Service wanted to reserve bankfull flows for a specified period and, during most years, the flows in the streams are not sufficient to capture bankfull flow.<sup>179</sup> In addition, the court stated that other "appropriators would be handicapped in diverting during the time the claims of the applicant were in priority, yet [the Forest Service] would not secure the benefit it seeks. This is an irrational result."<sup>180</sup>

The court did, however, approve the Forest Service's claims for reserved flows for fire fighting<sup>181</sup> and administrative purposes.<sup>182</sup> The court granted the Service an unlimited amount of water for fire fighting purposes<sup>183</sup> and not more than ten acre feet<sup>184</sup> of water per 100,000 acres of forest for administration of the national forests.<sup>185</sup>

#### IV. Analysis of the Court's Decision

In *Platte River*, the federal government failed to prove that minimum instream flows are necessary to achieve the narrow purposes of the National Forest Organic Act to the extent that such flows are required to protect the integrity of

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179. *Id.*

180. *Id.* at 29.

181. *Id.* at 30. The court noted that the "purposes of the national forests cannot be fulfilled if the forests are not protected from fire." *Id.*

182. *Id.* at 31. The court indicated that the administration of the national forests requires administrative sites and that "[i]t is reasonable to assume that Congress intended to reserve sufficient water to serve those sites." *Id.*

183. *Platte River* (No. W-8439-76), slip op. at 30. The court agreed with expert testimony presented at trial establishing that it is impossible to predict what kind of fire season will occur from one year to the next. Thus, the court found it impossible to determine the amount of water that will be used from year to year for fire fighting purposes, as this amount may vary significantly. *Id.*

184. "One acre-foot is the amount of water necessary to cover one acre of land with water one foot deep." *United States v. Bell*, 724 P.2d 631, 635 n.5 (Colo. 1986).

185. *Platte River* (No. W-8439-76), slip op. at 31. "The actual amount reserved for each site shall be determined as the need may arise, and the court should retain jurisdiction for that purpose." *Id.* A calculation of the figure for administrative purposes yields a water reservation of approximately 326,000 gallons per site. For conversion tables explaining these calculations, see CHARLES W. FETTER, JR., *APPLIED HYDROGEOLOGY* 467, app. 9 (1980).

stream channels.<sup>186</sup> This decision is currently before the Colorado Supreme Court, which has, to date, sought to methodically follow the strict standards for analysis of federal reserve water rights set out by the U.S. Supreme Court in *Cappaert v. United States*<sup>187</sup> and *United States v. New Mexico*.<sup>188</sup>

Beyond approving the status quo of diversions for municipal use and irrigation, *Platte River* does not bring the federal reserved water rights doctrine any closer to a definitive or useful definition of the phrase "favorable conditions of flow." The court's use of the term, while quite narrow, follows the strict construction of the purposes of the national forests set forth by Justice Rehnquist in his majority opinion in *New Mexico*.

The first topic analyzed by the *Platte River* court regarding the issue of necessity was not *whether* channel maintenance flows are necessary for the purposes of the national forests, but that existing withdrawals for irrigation and domestic uses (including municipal supplies) *are* within the primary purposes of the forests.<sup>189</sup> The Service presented strong and logical arguments that the congressional intent underlying the reservation of federal lands includes an intent to maintain forests in a state of sustainable development. According to this argument, the court should find that maintaining stream channels is a primary purpose, thus preventing even theoretical removal of all water from the reservation.<sup>190</sup>

The court's decision also emphasized the benefits of the current administrative system that licenses diversions within

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186. In several other recent cases, the United States also failed to present sufficient evidence to prove that minimum stream flows are necessary to achieve the purposes of the Organic Act. See *United States v. Alpine Land & Reservoir Co.*, 697 F.2d 851, 858-59 (9th Cir. 1983), *cert. denied*, 464 U.S. 863 (1983); *United States v. City & County of Denver*, 656 P.2d 1, 22-23 (Colo. 1982); *Avondale Irrigation Dist. v. North Idaho Properties, Inc.*, 577 P.2d 9, 18 (Idaho 1978).

187. 426 U.S. 128 (1976).

188. 438 U.S. 696 (1978).

189. *Platte River* (No. W-8439-76), slip op. at 3-4.

190. United States' Post-trial Brief, *supra* note 72, at 3.

the national forests,<sup>191</sup> and the burdens that would be placed upon the system if the Service's claims were validated.<sup>192</sup> This analysis of the impact of potential claims is similar to a balancing analysis undertaken in equitable considerations. However, the U.S. Supreme Court stated definitively in *Cappaert v. United States* that balancing of competing interests is not the test to be applied in cases analyzing the implied reservation of water doctrine.<sup>193</sup>

Regarding the current administrative system, the court noted that, although it lacked detailed guidance on the effect of alternate protection,<sup>194</sup> it believed the current system indicates that judicial recognition of federal reserved water rights is unnecessary.<sup>195</sup> However, the existence of a long-standing administrative program could actually serve as proof of the necessity for protection of minimal streamflows. The program itself is perhaps the most visible evidence of the need to protect some aspect of streamflows in the national forests. Moreover, the mere existence of a parallel administrative system does not lessen the propriety of the assertion of federal claims to reserved flows. This administrative solution lacks the force of a judicially decreed reserved right and is dependent upon political viability for survival. However, the interests which drive political viability are often short-term in nature, while concerns of system sustainability are driven by long-term interests.<sup>196</sup> As stress on the system increases,<sup>197</sup> the

191. *Platte River* (No. W-8439-76), slip op. at 9-15.

192. *Id.* at 5-7.

193. 426 U.S. 128, 138-39 (1976). "[S]ince balancing the equities is not the test, these cases [establishing the doctrine of federal reserved water rights] need not be disturbed." *Id.* at 139 n.4.

194. *Platte River* (No. W-8439-76), slip op. at 12.

195. *Id.* at 12-13.

196. The dichotomy between short term and long term interests has been described as the "first law of environmental decline." Eugene Linden, *Will the System Defeat Al Gore?*, *TIME*, Feb. 1, 1993, at 74. Linden explains this tension: [t]he long-term health of an ecosystem recedes in importance when people are fighting over access to specific resources for their short-term economic interests. This is hardly surprising in a country that cannot come to grips with the long-term problems of its budget deficit and whose major corporations are dominated by managers who will not look past the next fiscal quarter. The difference is that while people adjust to shortsightedness and compromise, nature

court's confidence in the ability of existing administrative systems to protect stream channel integrity in national forests may be overly optimistic.<sup>198</sup>

In rejecting the use of "bankfull stage" as a quantification method,<sup>199</sup> the court noted that even if the case were reversed on the issue of necessity of flows, a new trial would be required on any new quantification methodology proposed by the Forest Service.<sup>200</sup> While not without its limitations, the method proposed by the Service in *Platte River* utilizes current scientific understanding of the role of sedimentation principles and stream channel hydraulics to protect the integrity of the stream system.<sup>201</sup> Protection of stream flows for the perpetuation of aesthetic, recreational or wildlife-preservation purposes is not appropriate under the statutory framework authorizing the national forests.<sup>202</sup> However, as Justice Powell noted in his partial dissent in *United States v. New Mexico*, it may turn out that "the waterflow necessary to maintain the watershed including the forest will be sufficient for the wildlife."<sup>203</sup> It is also likely that the protection of "bankfull stage" would have collateral benefits on fishery populations and other ecological systems. Ultimately, any

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only reacts. The results can be irreversible and belie any rhetorical airbrushing.

*Id.*

197. *Platte River* (No. W-8439-76), slip op. at 5-6. The court recognized population growth and agricultural irrigation needs as two sources of stress on system integrity. *Id.* at 6.

198. It is precisely this case-by-case, patchwork system of decisionmaking that has led to calls for a more uniform system of instream flow protection. *See generally* Doerksen, *supra* note 14, at 99-104 (discussing the growth and development of the instream flow field).

199. *Platte River* (No. W-8439-76), slip op. at 32.

200. *Id.* This observation by the court seems *quite* plausible as the case proceeds to the Colorado Supreme Court at the time this article goes to print.

201. The court noted that in light of the importance of this claim to the millions of inhabitants of the South Platte basin, it hoped that future claims would be founded on more scholarly methods. *Id.* at 32. *See also* NATIONAL RESEARCH PROGRAM OF THE WATER RESOURCES DIVISION, U.S. GEOLOGICAL SURVEY, FISCAL YEAR 1991 63-84 (1991) (for a partial listing of recent scientific efforts conducted by the federal government aimed at understanding fluvial geomorphology and sedimentation processes).

202. *United States v. New Mexico*, 438 U.S. 696, 705 (1978).

203. *Id.* at 724 n.5.

methodology must present a workable and scientifically-valid standard for the quantification of minimum instream flows required to meet the purposes of national forest reservation.

While law and science are based on distinct conceptual systems, "law is a dynamic process that remains as consonant with science as possible in light of the fundamental differences between the two systems."<sup>204</sup> "Determinations should be made as to whether or not the legal decisions governing the use of water are based on sound scientific inquiry. . . ."<sup>205</sup> It appears from the available evidence that the preservation of at least *some* flows, as advocated by the Forest Service in *Platte River*, incorporates a viable scientific theory into an evolving legal framework.

## V. Alternatives & the Need for Legislative Solutions

Recent writings have stressed the need to conceptualize watershed thinking in all facets of water management and adjudication.<sup>206</sup> Holistic notions of watershed management recognize the interdependent aspects of "water quantity, water quality, riparian zones, soil, soil stability, flora, fauna, wetlands, hydrologic cycles, evapotranspiration, buffer zones, slope and fish habitat."<sup>207</sup> Such notions seek to highlight the

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204. GOLDFARB, *supra* note 4, at 6.

205. William F. Hardt, *Hydrology and Water Law - Cooperation for the Future*, in WATER RESOURCES LAW 216, 216-17 (American Soc'y of Agricultural Engineers 1986).

206. See, e.g., George C. Coggins, *Watershed as a Natural Resource on the Federal Lands*, 11 VA. ENVTL. L.J. 1 (1991) (discussing statutory and case law gradually changing water law to allow managing the watershed as an ecosystem).

207. *Id.* at 10. These concepts also interlock with issues of biodiversity and ecosystem protection, which are beyond the scope of this casenote. See generally Julie B. Bloch, *Preserving Biological Diversity in the United States: The Case For Moving to an Ecosystems Approach to Protect the Nation's Biological Wealth*, 10 PACE ENVTL. L. REV. 175 (1992) (analyzing four possible methods to protect biodiversity in the U.S. and advocating an ecosystems protection act as the best approach to the preservation of biological diversity).

Ecosystem protection has garnered wide attention in recent debate about implementation of environmental statutes, especially the reauthorization of the Endangered Species Act. 16 U.S.C. §§ 1531-44 (1993). Interior Secretary Bruce Babbitt has proposed a plan to establish the National Biological Survey (NBS), a new agency within the Department of the Interior. The function of the NBS

conflict between water protection<sup>208</sup> and water production practices. The reservation and quantification methodology analyzed in the *Platte River* decision would have provided a balanced approach to the resolution of this problem. The reservation sought by the government acknowledged the needs of water users, but also sought to protect the minimum amount of water necessary to maintain stream and forest integrity. It is unlikely that there will be any more explicit legislation to guide resolution of this dilemma, and it is questionable whether such legislation, if enacted, would not in fact harm the existing legal reserved water rights analysis.<sup>209</sup>

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will be to conduct an inventory of the nation's biological resources and establish methods to protect ecosystems. *Studds, Miller Back Appropriation for Proposed Biological Survey*, INSIDE ENERGY WITH FEDERAL LANDS, May 17, 1993, at 12. A spokesperson for the NBS stressed that the agency "will assure a focus for the Clinton administration's commitment to preserving ecosystems and will be dedicated to the 'research needs of land managers of the [D]epartment'." Sheryl Morris, *Fish and Wildlife R&D Unit to Join New Biological Survey Oct. 1*, INSIDE ENERGY WITH FEDERAL LANDS, Sept. 15, 1993, at 15. However, implementation of such an approach will still require substantial political will. For a bitter attack on the early environmental results under the Clinton Administration, see Alexander Cockburn, *Ulterior Secretary: Babbitt Makes Me Miss Jim Watt*, WASH. POST, Aug. 29, 1993, at C1.

In its proper usage, an "ecosystem" approach is laudable. It implies a respect for the relationships among forests, fisheries, water, soil, air, wildlife and people. But as now being employed by Babbitt and by looters of the public domain, an ecosystem approach is just a piece of conceptual flim-flam disguising dismemberment of existing environmental protections.

*Id.*

208. Four methods of flow preservation have been proposed by one commentator: 1) flow reservation systems, 2) flow appropriation systems, 3) administrative review of new diversion permits, and 4) federal reserved rights for instream uses. A. Dan Tarlock, *The Recognition of Instream Flow Rights: "New" Public Western Water Rights*, 25 ROCKY MTN. MIN. L. INST. 24-1 to 24-64, 24-12 (1979). See also Huffman, *supra* note 17, at 255-59 (illustrating various approaches to instream flow maintenance).

209. See, e.g., Lee, *supra* note 30, at 1297-99. The Multiple-Use Sustained Yield Act of 1960, 16 U.S.C. §§ 528-531 (1985), which outlines the goals of forest management, without modifying the applicable priority date of reservation, may be the clearest formulation for resolving conflicting goals achievable by Congress. See George C. Coggins & Parthenia B. Evans, *Multiple Use, Sustained Yield Planning on the Public Lands*, 53 U. COLO. L. REV. 411 (1981). See also Leshy, *supra* note 33, at 415 (noting that in the context of wilderness designations, any "raft of express [water rights] designations could give a court eager

## VI. Conclusion

In a decision which may become a significant precedent throughout the western United States, the Colorado District Court for Water Division One determined that the federal government is not entitled to a reservation of instream flows in order to maintain stream channels in their present condition. Despite the court's holding that, while channel maintenance is necessary to fulfill the purpose of the national forests, the forests could be maintained and protected through administrative regulation rather than through a judicially-decreed federal reservation of water rights. This decision, despite the finding of necessity, in effect raises the level of necessity to a new and higher standard. In *dicta*, the court also rejected the bankfull standard proposed by the U.S. Forest Service as an appropriate quantification of the implied federal water rights reservation.

Resolution of water issues (both quantity and quality) will require a balance between human demands and ecosystem requirements.<sup>210</sup> The *Platte River* case has not yet yielded a standard that acknowledges this dichotomy and presents a workable resolution to the inherently incompatible goals of water diversion and instream flow protection.<sup>211</sup> As noted by one of this nation's most important conservationists, "A thing is right when it tends to preserve the integrity, sta-

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to diminish the scope of the *Winters* doctrine an opportunity to reverse the traditional presumption in favor of implying water rights in federal lands designations, at least where new land designations are involved").

210. See SEN. AL GORE, *EARTH IN THE BALANCE: ECOLOGY AND THE HUMAN SPIRIT* 1-35 (1992) (resolving the conflicts which arise between human needs and balance in ecological systems is a theme throughout the book).

The strategic nature of the threat now posed by human civilization to the global environment and the strategic nature of the threat to human civilization now posed by changes in the global environment present us with a similar set of challenges and false hopes . . . . But the real solution will be found in reinventing and finally healing the relationship between civilization and the earth.

*Id.* at 35 (emphasis in original).

211. F. Dale Robertson, former chief of the U.S. Forest Service, recognized this need:

[T]he Forest Service is committed to using an ecological approach in the future management of the National Forests and Grasslands . . . .

bility, and beauty of the biotic community. It is wrong when it tends otherwise."<sup>212</sup>

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[W]e must blend the needs of people and environmental values in such a way that the National Forests and Grasslands represent diverse, healthy, productive, and sustainable ecosystems . . . .

[W]e must put the management of the National Forests and Grasslands on an ecological basis . . . .

. . . .

[B]y sustaining what Aldo Leopold (1949) called the land community, meeting this generation's resource needs, and maintaining options for future generations to also meet their needs.

*Forest Service Chief Announces New Ecosystem Management Policy for National Forests and Grasslands*, EPA NEWS-NOTES, June-July, 1992, at 8.

In light of the *Platte River* decision, the lofty goals of the Forest Service will be implemented without benefit of any reserved federal water rights or reserved flows for purposes of channel maintenance.

212. ALDO LEOPOLD, A SAND COUNTY ALMANAC 224-25 (1987). See also Luna B. Leopold, *Ethos, Equity and the Water Resource*, GEOTIMES, Dec. 1991, at 6-7:

The hydrologic continuum has absorbed marked but gradual changes in climate, but its integrity has been violently disrupted in some places by over-pumped aquifers and by deprivation of the throughflow of sediment due to water withdrawal. Water withdrawal, storage, and pollution by sediment and wastes will have effects, often adverse, to this continuum. Some are unavoidable. But preservation of the integrity of the continuum ought to be an objective of resource use. *As we dry up mountain streams to provide subsidized irrigation water to grow surplus crops, the sediment continues to reach these streams and clog the channels.*

. . . .

The natural resources of the United States are a key aspect in the growing world competition. Their management is not guided by an ethos of long term sustainability. Resource management is stressed by a plague of special interests, and a disdain for equity. Without fundamental metamorphosis, the public will continue to be the loser.

*Id.* (emphasis added).



# **PACE ENVIRONMENTAL LAW REVIEW**

**CUMULATIVE ARTICLES  
INDEX  
Fall 1993**



**Pace University School of Law  
White Plains, New York**



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