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THE MCCARRAN AMENDMENT AND GROUNDWATER: WHY WASHINGTON STATE SHOULD REQUIRE INCLUSION OF GROUNDWATER IN GENERAL STREAM ADJUDICATIONS INVOLVING FEDERAL RESERVED WATER RIGHTS

Aubri Goldsby

Abstract: All water is connected through the hydrologic cycle.¹ When a farmer pumps water from an underground aquifer to irrigate crops, that act may affect a family relying on a nearby surface water stream for its water supply. Despite the scientific link between surface and groundwater,² the law often treats the two separately.³ The legal choice to ignore the interaction of surface and groundwater is particularly notable in “general stream adjudications.” States file these large-scale lawsuits against users in a particular stream or waterbody to determine, in a single lawsuit, all the rights existing in that water source.⁴ In 1952, Congress passed the McCarran Amendment, which allows states to adjudicate federal reserved water rights in state court in general stream adjudications.⁵ The United States Supreme Court has interpreted the Amendment as requiring that adjudications be “comprehensive” of all of the rights in a given water source, but has not yet ruled as to whether this requires inclusion of groundwater users.⁶ The Amendment itself is equally vague on this point. This Comment argues against Ninth Circuit precedent and asserts that for a general stream adjudication to be “comprehensive” under the McCarran Amendment, it must include users of hydrologically connected surface and groundwater.

INTRODUCTION

The federal government has water rights in all waters set aside for a federal purpose.⁷ Many states seek to delineate the size and scope of

1. 2 WATERS AND WATER RIGHTS § 18.02 (Robert E. Beck & Amy L. Kelly eds., 3d ed. LexisNexis/Matthew Bender 2009).

2. *Id.*

3. *Id.* (describing how courts sometimes apply different methods to quantify rights in surface water and groundwater).

4. Robert T. Anderson, *Indian Water Rights and the Federal Trust Responsibility*, 46 NAT. RESOURCES J. 399, 421 (2006).

5. See McCarran Amendment, ch. 651, 66 Stat. 560 (1952) (codified at 43 U.S.C. § 666(a) (2006)).

6. *Dugan v. Rank*, 372 U.S. 609, 618, 626 (1963).

7. *Cappaert v. United States*, 426 U.S. 128, 138 (1976) (“This Court has long held that when the Federal Government withdraws its land from the public domain and reserves it for a federal purpose, the Government, by implication, reserves appurtenant water then unappropriated to the extent needed to accomplish the purpose of the reservation.”); *Winters v. United States*, 207 U.S. 564, 577 (1908).

these “reserved rights” to determine what waters are available for state users.⁸ The most common way of resolving federal and state water rights claims is through general stream adjudications.⁹ General stream adjudications allow states to determine all rights to a given water source in a single lawsuit. In order to make these adjudications more efficient, Congress passed the McCarran Amendment.¹⁰

The McCarran Amendment waives federal sovereign immunity, enabling states to include federal water rights in general stream adjudications.¹¹ In order for the waiver to take effect, however, the adjudication must be sufficiently “comprehensive.”¹² All claimants to a water source must be included in the adjudication to meet the comprehensiveness requirement.¹³ The adjudication must be more than a mere attempt by private parties to establish their water rights with respect to the federal government.¹⁴

The United States may challenge a state’s general stream adjudication.¹⁵ Specifically, the United States may move to dismiss an adjudication on the grounds that it is insufficiently comprehensive to support a waiver of federal sovereign immunity.¹⁶ And while the United States Supreme Court has never decided whether an adjudication must include groundwater users connected to a surface water source in order to be considered comprehensive, the Ninth Circuit Court of Appeals has answered this question in the negative. In *United States v. Oregon*,¹⁷ the Ninth Circuit held that a general stream adjudication need not include groundwater users to be comprehensive under the McCarran Amendment.¹⁸ This Comment asserts that the Ninth Circuit’s decision

8. See, e.g., *In re Gen. Adjudication of Gila River Sys.*, 989 P.2d 739, 745 (Ariz. 1999); *In re Gen. Adjudication of the Big Horn Sys.*, 753 P.2d 76, 99–100 (Wyo. 1988).

9. See John E. Thorson et al., *Dividing Western Waters: A Century of Adjudicating Rivers and Streams, Part II*, 9 U. DENV. WATER L. REV. 299, 331–37 (2006) [hereinafter Thorson, *Dividing Western Waters II*].

10. *Colo. River Water Conservation Dist. v. United States*, 424 U.S. 800, 819 (1976).

11. 43 U.S.C. § 666(a) (2006); see *infra* Part II (detailing the passage, purpose, and effect of the McCarran Amendment).

12. Thomas H. Pacheco, *How Big Is Big? The Scope of Water Rights Suits Under the McCarran Amendment*, 15 *ECOLOGY L.Q.* 627, 643 (1988) (discussing *Dugan v. Rank*, 372 U.S. 609, 617–19 (1963)).

13. *Id.*

14. *Dugan*, 372 U.S. at 618, 626.

15. *United States v. Dist. Court in and for the Cnty. of Eagle Colo.*, 401 U.S. 520, 522 (1971).

16. *United States v. Oregon*, 44 F.3d 758, 768 (9th Cir. 1994).

17. *Id.*

18. *Id.*

was incorrect. In addition to being incorrect as a matter of law, the practical consequences that may result argue for the inclusion of both surface and groundwater in general stream adjudications. Because states have the power to determine their own adjudication procedures, Washington should not follow Ninth Circuit precedent when adjudicating federal water rights.

Part I of this Comment explains the doctrine of federal reserved water rights and the rights the federal government and Indian tribes maintain in the waters within a state.¹⁹ Part II explains the McCarran Amendment and analyzes the United States Supreme Court's treatment of the Amendment's comprehensiveness requirement. It also details the importance of water to tribal communities and their hesitancy to have their water rights determined in state court. Part III discusses the concept of hydrologic comprehensiveness and the relationship between surface and groundwater. Part IV describes the Ninth Circuit's decision in *United States v. Oregon*, where the court refused to require the inclusion of groundwater users for a waiver of federal sovereign immunity under the McCarran Amendment. Part V reviews Washington water law, including Washington's recognition of hydraulic continuity²⁰ between surface and groundwater. This Part explains the application of the principle of hydraulic continuity to state water rights conflicts and argues for its incorporation into disputes involving federal reserved water rights. Part V also discusses the general stream adjudication process in Washington. Finally, Part VI argues that the Washington State Supreme Court should require the inclusion of both surface and groundwater rights in general stream adjudications to satisfy the comprehensiveness requirement of the McCarran Amendment.

19. This Comment focuses primarily on tribal water rights within the overall scheme of federal reserved water rights. This focus predominates because tribes place great weight on water and generally desire to have their water rights adjudicated in federal court due to strained relations with the states. See Stephen M. Feldman, *The Supreme Court's New Sovereign Immunity Doctrine and the McCarran Amendment: Toward Ending State Adjudication of Indian Water Rights*, 18 HARV. ENV'T'L. L. REV. 433, 433 (1994).

20. Washington State cases refer to a "hydraulic" connection between surface and groundwater as opposed to a "hydrologic" connection, but the two words are interchangeable in this context. Compare *Postema v. Pollution Control Hearings Bd.*, 142 Wash. 2d 68, 86, 11 P.3d 726, 738 (2000) with *Oregon*, 44 F.3d at 768–69.

I. THE FEDERAL GOVERNMENT HAS RESERVED WATER RIGHTS IN LANDS REQUIRING WATER TO FULFILL THE PURPOSE FOR WHICH THE LANDS WERE SET ASIDE

Federal reserved water rights have been recognized since the early twentieth century and form the basis for numerous water rights disputes.²¹ State adjudications of water rights often implicate federal claims. The reserved rights doctrine was developed in *Winters v. United States*²² and provides the federal government with a water right at the time land is set aside for a federal purpose—if necessary to fulfill that purpose.²³ Modern treatment of the doctrine suggests that it should be extended to groundwater rights.²⁴

A. *Winters v. United States Established the Federal Reserved Water Rights Doctrine, Which Applies to Both Tribal and Non-Tribal Lands*

Most federal water rights are secured through the reserved rights doctrine, which the United States Supreme Court established in 1908 in *Winters v. United States*.²⁵ In *Winters*, the Court held that the Fort Belknap Indian Reservation had an implied water right dating back to the day the reservation was established.²⁶ In determining that an implied water right existed, the Court looked at the purposes of the reservation,²⁷ the practical need for water,²⁸ and Indian law canons of construction.²⁹ The Court held that the government's purpose of moving tribes to reservations in hopes of turning them into a "pastoral" people necessarily required the recognition of water rights.³⁰ Therefore, these

21. See *Winters v. United States*, 207 U.S. 564 (1908); Thorson, *Dividing Western Waters II*, *supra* note 9, at 323–24.

22. *Winters*, 207 U.S. at 577.

23. *Id.* at 576.

24. See *infra* Part I.B.

25. *Winters*, 207 U.S. at 564; COHEN'S HANDBOOK OF FEDERAL INDIAN LAW § 19.02, at 1172 (Nell Jessup Newton et al. eds., 2005) [hereinafter COHEN].

26. *Winters*, 207 U.S. at 576; COHEN, *supra* note 25, § 19.02, at 1172.

27. *Winters*, 207 U.S. at 576 ("It was the policy of the government, it was the desire of the Indians, to change those [nomadic] habits and to become a pastoral and civilized people.").

28. *Id.* ("The lands were arid, and, without irrigation, were practically valueless.").

29. *Id.* ("By a rule of interpretation of agreements and treaties with the Indians, ambiguities occurring will be resolved from the standpoint of the Indians."); COHEN, *supra* note 25, § 19.02, at 1172.

30. *Winters*, 207 U.S. at 576.

rights did not have to be explicit in the treaty creating the reservation.³¹ The *Winters* decision assured tribes enough water to carry out the purposes of the reservation, with a priority date³² reflecting the date on which the reservation was established.³³ The *Winters* doctrine allows the federal government to implicitly reserve waters when it enters into treaties with Indian tribes.³⁴ Initially, the *Winters* doctrine was thought to apply only to Indian lands.³⁵ As a result, although western states recognized the *Winters* doctrine, they largely ignored it.³⁶

On the other hand, the U.S. Supreme Court has addressed the merits of the *Winters* doctrine as well as its application to non-tribal lands. The Court's 1963 decision in *Arizona v. California*³⁷ answered any questions about the doctrine's vitality by extending the *Winters* doctrine to other, non-Indian, federal reservations of land.³⁸ Under this framework, if Congress today reserved land for "a park, national forest, wildlife refuge, military base, or other use of public land without explicitly addressing water, the reservation of land implies Congress' intention to reserve water sufficient to accomplish congressional purposes."³⁹ Similar to Indian water rights reservations in *Winters*, the Court established that the priority date of these non-tribal federal reserved

31. COHEN, *supra* note 25, § 19.02, at 1172. A reservation created by executive order or statute also enjoys the same reserved water rights. *Id.* § 19.03[2][a], at 1176.

32. The priority date of a water right establishes its place in temporal proximity to other rights. A right dated earlier (senior) to another right (junior) has priority over the other right. JOSEPH L. SAX ET AL., *LEGAL CONTROL OF WATER RESOURCES* 125–26 (4th ed. 2006).

33. *Winters*, 207 U.S. at 572, 576–77; COHEN, *supra* note 25, § 19.03[1], at 1174. *Winters* rights are distinguishable from *Winans* rights, established in *United States v. Winans*, 198 U.S. 371, 381 (1905), which are rights that are "necessarily and impliedly reserved by the tribes in order to give effect to their treaty rights." COHEN, *supra* note 25, § 19.02, at 1172. For example, a *Winans* right to hunt or fish would imply sufficient water to continue this practice, and thus a *Winans* right preserves a pre-existing use of water, rather than creating a new use (such as the rights in *Winters*, which were set aside for the tribes to take up new agrarian pursuits). See *United States v. Adair*, 723 F.2d 1394, 1408–15 (9th Cir. 1983); COHEN, *supra* note 25, § 19.02, at 1173; 2 *WATERS AND WATER RIGHTS*, *supra* note 1, § 37.02(a)(2).

34. John E. Thorson et al., *Dividing Western Waters: A Century of Adjudicating Rivers and Streams*, 8 U. DENV. WATER L. REV. 355, 376 (2005) [hereinafter Thorson, *Dividing Western Waters I*].

35. Reed D. Benson, *Deflating the Deference Myth: National Interests vs. State Authority Under Federal Laws Affecting Water Use*, 2006 UTAH L. REV. 241, 265 (2006).

36. Thorson, *Dividing Western Waters I*, *supra* note 34, at 460.

37. 373 U.S. 546 (1963).

38. *Id.* at 346; Thorson, *Dividing Western Waters I*, *supra* note 34, at 460.

39. Thorson, *Dividing Western Waters I*, *supra* note 34, at 460.

rights is the date when the land is withdrawn from the public domain or reserved for a particular purpose.⁴⁰

In addition to expanding the scope of federal reserved water rights, *Arizona v. California* also established the “practicably irrigable acreage” (PIA) standard.⁴¹ This standard quantifies Indian reserved rights for agricultural purposes by looking at the irrigation capabilities of the land at a reasonable cost and allowing for a definite quantification of water rights that can be prioritized within the appropriation system.⁴² The standard troubled the western states, which contain the vast majority of Indian lands.⁴³ With the large acreage of Indian lands in these states, there was a potential for extensive tribal claims to water.⁴⁴ The PIA standard thus prompted states to begin large-scale water rights adjudications.⁴⁵

B. The Modern Trend Is to Recognize that the Reserved Water Rights Doctrine Applies to Groundwater

The *Winters* doctrine refers only to surface waters, leaving uncertain whether there are federal reserved rights to groundwater.⁴⁶ The United States Supreme Court addressed this question in 1976 in *Cappaert v. United States*.⁴⁷ In that case, nearby groundwater pumping by farmers decreased the water in a part of Death Valley National Monument called Devil’s Hole—a deep cavern with an underground pool inhabited by a rare species of desert fish.⁴⁸ The Court recognized that “when the Federal Government withdraws its land from public domain and reserves it for a federal purpose, the Government, by implication, reserves appurtenant water then unappropriated to the extent needed to

40. *Id.*

41. *Arizona v. California*, 373 U.S. at 601.

42. *Id.* at 600–01; COHEN, *supra* note 25, § 19.03[5][b], at 1185–86.

43. Thorson, *Dividing Western Waters I*, *supra* note 34, at 460.

44. *Id.* In reality, the PIA standard often provides insufficient water for tribes with minimal irrigable acres but other important water needs. COHEN, *supra* note 25, § 19.03[5][b], at 1185. For more on the quantification of tribal waters for various uses, see Robert T. Anderson, *Indian Water Rights, Practical Reasoning, and Negotiated Settlements*, 98 CAL. L. REV. 1133, 1142–46, 1148–53 (2010).

45. Thorson, *Dividing Western Waters I*, *supra* note 34, at 460.

46. 2 WATERS AND WATER RIGHTS, *supra* note 1, § 37.02(d) (“The principal unresolved issue concerning the scope of waters subject to reserved rights is whether groundwater may be claimed.”). At its most simplistic level, surface water is water existing above ground, such as lakes and rivers, while groundwater can be viewed as “all water beneath the surface of the earth.” *Id.* § 18.02.

47. 426 U.S. 128 (1976).

48. *Id.* at 131–33.

accomplish the purpose of the reservation.”⁴⁹ In determining a reservation of water, the Court focused on the intent of the government in setting the land aside.⁵⁰ Intent could be inferred where unappropriated waters would be necessary to fulfill the purposes for which the reservation was made.⁵¹ Even though the actual water in Devil’s Hole was surface water, the Court held that the United States could protect itself from damaging groundwater diversions.⁵² While *Cappaert* did not explicitly declare that federal reserved rights extend to groundwater,⁵³ it has nevertheless served as a basis for recognizing federal groundwater rights in later cases.⁵⁴

The U.S. Supreme Court did not address tribal groundwater rights in *Cappaert*,⁵⁵ but many state courts have extended *Cappaert*’s reasoning to these rights.⁵⁶ The Arizona State Supreme Court was the first state supreme court to expressly acknowledge a tribal right to groundwater. In the *Gila River* general stream adjudication,⁵⁷ the Arizona State Supreme Court limited the tribal right to groundwater to times when other sources were inadequate to meet the purposes of the reservation.⁵⁸ The Montana State Supreme Court soon followed—holding that tribal reserved water rights extend to groundwater—but did not limit the right like the

49. *Id.* at 138 (stating further that this right vests on the date of the reservation and is superior to rights of subsequent appropriators).

50. *Id.* at 139.

51. *Id.* (finding that this intent existed for Devil’s Hole).

52. *Id.* at 142–43 (“[G]roundwater and surface water are physically interrelated as integral parts of the hydrologic cycle.” (quoting C. CORKER, GROUNDWATER LAW, MANAGEMENT, AND ADMINISTRATION, NAT’L WATER COMM’N LEGAL STUDY NO. 6, xxiv (1971))).

53. Thorson, *Dividing Western Waters II*, *supra* note 9, at 309.

54. 2 WATERS AND WATER RIGHTS, *supra* note 1, § 37.02(d).

55. *Id.*

56. *United States v. Wash. Dep’t of Ecology*, 375 F. Supp. 2d 1050, 1058 (W.D. Wash. 2005); *In re Gen. Adjudication of Gila River Sys.*, 989 P.2d 739, 745 (Ariz. 1999); *Confederated Tribes of the Flathead Reservation v. Stultz*, 59 P.3d 1093, 1098 (Mont. 2002).

57. *Gila River Sys.*, 989 P.2d at 745 (rejecting the previous decision by the Wyoming State Supreme Court to deny tribal rights to groundwater: “We can appreciate the hesitation of the *Big Horn* court to break new ground, but we do not find its reasoning persuasive”). The only court to rule on tribal rights to groundwater prior to Arizona was the Wyoming State Supreme Court in *In re Gen. Adjudication of the Big Horn Sys.*, 753 P.2d 76, 99–100 (Wyo. 1988). In that case, the Court recognized that “[t]he logic which supports a reservation of surface water to fulfill the purpose of the reservation also supports reservation of groundwater,” but then refused to find that a tribal right to groundwater existed because no previous court had ever recognized the right. *Id.*

58. *Gila River Sys.*, 989 P.2d at 747–48; COHEN, *supra* note 25, § 19.03[2][b], at 1178; 2 WATERS AND WATER RIGHTS, *supra* note 1, § 37.02(d).

Arizona court.⁵⁹ In Washington, a federal district court upheld the Lummi Indian Nation's reserved right to groundwater, also without limitation.⁶⁰ As cases such as *Cappaert* and *Gila River* indicate, it appears that the modern trend in western states is to recognize tribal reserved rights to groundwater.⁶¹

II. THE MCCARRAN AMENDMENT WAIVES FEDERAL SOVEREIGN IMMUNITY IN COMPREHENSIVE STATE WATER RIGHTS ADJUDICATIONS

After federal reserved water rights were recognized in *Winters*, states sought to delineate water rights within their boundaries through general stream adjudications.⁶² States were not comfortable with the unknown potential of tribal water rights claims and wanted to turn hypothetical rights into quantified rights.⁶³ The federal government frustrated this scheme by regularly refusing to waive its sovereign immunity.⁶⁴ Congress attempted to remedy this problem by enacting the McCarran Amendment.⁶⁵ The McCarran Amendment waives federal sovereign

59. *Flathead Reservation*, 59 P.3d at 1098; COHEN, *supra* note 25, § 19.03[2][b], at 1178; 2 WATERS AND WATER RIGHTS, *supra* note 1, § 37.02(d).

60. *United States v. Wash. Dep't of Ecology*, 375 F. Supp. 2d at 1058. This order was vacated due to a later settlement that allocated groundwater to the Lummi Peninsula portion of the Lummi Reservation. *United States ex rel. Lummi Indian Nation v. Wash. Dep't of Ecology*, No. C01-0047Z, 2007 WL 4190400 (W.D. Wash. Nov. 20, 2007); COHEN, *supra* note 25, § 19.03[2][b], at 1178-79 (2009 Supp. at 127).

61. *See also* COHEN, *supra* note 25, § 19.03[2][b], at 1177-78 ("Because of the hydrologic interrelationship of ground and surface waters, either source should be available to the extent necessary to satisfy the purposes of the reservation No reason has been advanced to exclude groundwater, while hydrology, logic, and, often, economics all prescribe that it should be included in the tribal right.").

62. General stream adjudications are lawsuits joining together all entities claiming a right to use water from a specific source in a single action to determine the rights and priorities for use of the water. JAMES K. PHARRIS & P. THOMAS McDONALD, WASH. STATE OFFICE OF ATT'Y GEN., AN INTRODUCTION TO WASHINGTON WATER LAW, at IV:5 (Jan. 2000), available at http://www.atg.wa.gov/uploadedFiles/Home/About_the_Office/Divisions/Ecology/Intro%20WA%20Water%20Law.pdf [hereinafter PHARRIS].

63. Thorson, *Dividing Western Waters I*, *supra* note 34, at 460 ("The potential of large Indian reserved water right claims on all of the West's major rivers sent shock waves through the region.").

64. *Id.* at 452-56. The basic meaning of sovereign immunity is that the sovereign, here the federal government, cannot be sued without its consent. Feldman, *supra* note 19, at 454. The doctrine of federal sovereign immunity originally appeared in *Cohens v. Virginia*, 19 U.S. (6 Wheat.) 264, 411-12 (1821), and was soon expressly affirmed by the United States Supreme Court in *United States v. Clarke*, 33 U.S. (8 Pet.) 463, 444 (1834). Feldman, *supra* note 19, at 455-56. Only an act of Congress, such as the McCarran Amendment, can waive federal sovereign immunity. Feldman, *supra* note 19, at 456.

65. Feldman, *supra* note 19, at 456.

immunity in state general stream adjudications where the adjudication covers all users of a given water source.⁶⁶

A. *Congress Enacted the McCarran Amendment in 1952 to Allow State Adjudications of Federal Water Rights, Including Tribal Water Rights*

In July 1952, Congress passed the McCarran Amendment, waiving federal sovereign immunity for adjudications of federal water rights.⁶⁷ Patrick McCarran, a United States senator from Nevada, opposed the federal government's frequent refusal to litigate water rights in state courts.⁶⁸ Senator McCarran sought to enable states to take control of their own water resources.⁶⁹ By waiving federal sovereign immunity, his amendment paved the way for the modern general stream adjudication.⁷⁰ States have the authority to allocate and quantify the surface and groundwaters found within state boundaries.⁷¹ When federal reserved water rights are adjudicated in a state proceeding, state laws regarding the priority of water rights and the adjudication process apply.⁷²

The McCarran Amendment created concurrent state and federal jurisdiction over federal water rights controversies.⁷³ In *Colorado River*

66. *Id.*

67. McCarran Amendment, ch. 651, 66 Stat. 560 (1952) (codified at 43 U.S.C. § 666(a) (2006)). The text of the McCarran Amendment states:

Consent is 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, when a party to any such suit, shall (1) be deemed to have waived any right to plead that the State laws are inapplicable or that the United States is not amendable thereto by reason of its sovereignty, and (2) shall be subject to the judgments, orders, and decrees of the court having jurisdiction, and may obtain review thereof, in the same manner and to the same extent as a private individual under like circumstances: *Provided*, That no judgment for costs shall be entered against the United States in any such suit.

68. Thorson, *Dividing Western Waters I*, *supra* note 34, at 442–43.

69. *Id.* at 443.

70. *Id.* at 443, 458.

71. 2 WATERS AND WATER RIGHTS, *supra* note 1, § 36.02 (“[A]s to the day-to-day actual governmental control of the rights to use the waters of the United States, Congress has left allocation decisions to the states” (citing *California Oregon Power Co. v. Beaver Portland Cement Co.*, 295 U.S. 142 (1935) as the “leading case summarizing the early statutes and cases and ratifying the states’ freedom to develop the water law rules of their choice”)); *see also id.* § 35 (describing situations where state authority yields to federal law, such as through the navigation servitude).

72. 43 U.S.C. § 666(a) (2006) (“The United States, when a party to any such suit [adjudication], shall (1) be deemed to have waived any right to plead that the State laws are inapplicable.”).

73. *Colo. River Water Conservation Dist. v. United States*, 424 U.S. 800, 809 (1976).

Water Conservation District v. United States,⁷⁴ the United States Supreme Court upheld a Colorado federal district court's abstention from a tribal water rights case in favor of a concurrent state proceeding.⁷⁵ Despite the heavy obligation on federal courts to exercise their jurisdiction,⁷⁶ the Court pointed to multiple factors supporting the continuation of the suit in state court.⁷⁷ These factors included the policy underlying the McCarran Amendment to prevent piecemeal adjudication of water rights.⁷⁸

In the same case, the U.S. Supreme Court also held that the McCarran Amendment extends to state adjudications of Indian water rights.⁷⁹ In *Colorado River*, the Court noted that its previous cases concerning the McCarran Amendment did not distinguish between Indian and non-Indian water rights.⁸⁰ The Court additionally observed that the legislative history of the Amendment evinced a clear understanding by both its proponents and opponents that it would include tribal water rights.⁸¹ Later, in *Arizona v. San Carlos Apache Tribe*,⁸² tribes argued that the McCarran Amendment waives only *federal* sovereign immunity and not *tribal* sovereign immunity, particularly in states that have enacted

74. *Id.*

75. *Id.* at 820.

76. *Id.* at 817–18 (stating that there is a “virtually unflagging obligation of the federal courts to exercise the jurisdiction given them”).

77. *Colo. River*, 424 U.S. at 817, 819–20 (stating additional factors of “(a) the apparent absence of any proceedings in the District Court, other than the filing of the complaint, prior to the motion to dismiss, (b) the extensive involvement of state water rights occasioned by this suit naming 1,000 defendants, (c) the 300-mile distance between the District Court in Denver and the court in Division 7, and (d) the existing participation by the Government in Division 4, 5, and 6 proceedings”); see also Thorson, *Dividing Western Waters II*, *supra* note 9, at 359–63 (describing the status of both state and federal water rights cases following the McCarran Amendment and the Supreme Court's decision in *Colorado River*).

78. *Colo. River*, 424 U.S. at 817, 819–20; Thorson, *Dividing Western Waters II*, *supra* note 9, at 359–63.

79. *Colo. River*, 424 U.S. at 810–12; COHEN, *supra* note 25, § 19.05[1], at 1206.

80. *Colo. River*, 424 U.S. at 810.

81. *Id.* at 811. In 1983, the Supreme Court reiterated the congressional intent to avoid piecemeal litigation in favor of larger state court adjudications in *Arizona v. San Carlos Apache Tribe*:

The McCarran Amendment, as interpreted in *Colo. River*, allows and encourages state courts to undertake the task of quantifying Indian water rights in the course of comprehensive water adjudications. Although adjudication of those rights in federal court instead might in the abstract be practical, and even wise, it will be neither practical nor wise as long as it creates the possibility of duplicative litigation, tension and controversy between the federal and state forums, hurried and pressured decisionmaking, and confusion over the disposition of property rights.

463 U.S. 545, 569 (1983).

82. 463 U.S. 545 (1983).

enabling statutes giving the federal government absolute control over Indian lands.⁸³ The Court agreed that the Amendment waived only federal sovereign immunity, but then left tribes with the choice either to allow the federal government to uphold their water rights as a trustee or to waive tribal sovereign immunity and intervene in the state court adjudications.⁸⁴ The Court also held that states could quantify Indian water rights in general stream adjudications despite the existence of an enabling act disclaiming state jurisdiction.⁸⁵ However, the Court asserted that it would scrutinize any allegations of abuse of Indian water rights in state courts.⁸⁶

Even though the McCarran Amendment provides an avenue for state determinations of federal water rights, tribes generally prefer determination of their rights in a federal forum.⁸⁷ As Frank Tenorio, the governor of the San Felipe Pueblo, explained, “water is the blood of our tribes.”⁸⁸ The long history of conflict between tribal communities and the states has caused tribes to distrust the states’ ability to protect tribal interests.⁸⁹ Tensions often escalate when natural resources such as water are involved, where both the tribe and the state want access to the disputed water resource.⁹⁰ Senator Edward Kennedy noted that “Indian water rights—no matter how critical to a tribe’s future, no matter how well inventoried, no matter how brilliantly defended by government attorneys, cannot receive full protection in State court forums.”⁹¹ Tribes thus prefer to maintain water rights proceedings in federal court

83. See *San Carlos Apache Tribe*, 463 U.S. at 549; Thorson, *Dividing Western Waters II*, *supra* note 9, at 335; COHEN, *supra* note 25, § 19.05[1], at 1207.

84. *San Carlos Apache Tribe*, 463 U.S. at 566 n.17; COHEN *supra* note 25, § 19.05[1], at 1207.

85. *San Carlos Apache Tribe*, 463 U.S. at 563–64; Thorson, *Dividing Western Waters II*, *supra* note 9, at 336.

86. *San Carlos Apache Tribe*, 463 U.S. at 571. Additionally, federal courts have not actually been divested of jurisdiction to determine reserved water rights and courts can in fact refuse to abstain in favor of state court jurisdiction. For example, the Ninth Circuit upheld a district court’s right to do so in *United States v. Adair*, 723 F.2d 1394, 1404–07 (9th Cir. 1983). COHEN, *supra* note 25, § 19.05[1], at 1208.

87. Feldman, *supra* note 19, at 434.

88. *Id.* at 433 (quoting Frank Tenorio, *Epigraph* to AM. INDIAN LAWYER TRAINING PROGRAM, INC., INDIAN WATER POLICY IN A CHANGING ENVIRONMENT: PERSPECTIVES ON INDIAN WATER RIGHTS, at 2 (Patricia Zell ed., 1982)).

89. See Feldman, *supra* note 19, at 435–53.

90. *Id.* at 445 (“The primary reason for states’ potential animosity toward Indians seeking water is that water is a valuable and scarce resource, especially in the thirsty American West.”).

91. *Id.* at 449 (quoting *Indian Water Rights: Hearings Before the Subcomm. on Admin. Practice and Procedure of the Comm. on the Judiciary*, 94th Cong., 2d Sess. 2 (1976)).

whenever possible.⁹² This was made substantially more difficult following the passage of the McCarran Amendment.⁹³ With firm jurisdiction over federal water rights, including tribal rights, states began to quantify these rights actively through modern general stream adjudications.⁹⁴

B. Adjudications Under the McCarran Amendment Must Be Comprehensive and Include All of the Rights Asserted in the Water Source

Determining what qualifies as a general stream adjudication is one of the most contentious issues resulting from the McCarran Amendment.⁹⁵ The McCarran Amendment itself mentions only adjudications of “a river system or other source,”⁹⁶ leaving little guidance for states to determine exactly what waters this includes.⁹⁷ The United States Supreme Court clarified this somewhat in 1963 by establishing a comprehensiveness requirement for general stream adjudications in *Dugan v. Rank*.⁹⁸ This comprehensiveness requirement means that the adjudication must be inclusive of all of the rights of owners on a stream.⁹⁹ The suit in *Dugan* was a private suit to determine water rights between certain individuals and the United States.¹⁰⁰ Because it was a private suit, the action was not

92. Feldman, *supra* note 19, at 434.

93. *Id.* at 442 (“Many observers, including some on the [Supreme] Court, have viewed with skepticism this application of the McCarran Amendment’s waiver of sovereign immunity to Indian water rights and the resulting adjudication of Indian water claims in state courts. Not surprisingly, the loudest voices of opposition have come from the Indian community.”).

94. Thorson, *Dividing Western Waters II*, *supra* note 9, at 337. The large stream adjudications seen in Western states today took off in the 1970s as Wyoming, Arizona, Colorado, Montana, New Mexico, Washington, and Idaho all undertook “massive” water rights adjudications. *Id.* at 304. There are several reasons why states began to undertake these huge endeavors, including (but not limited to) a fear of large unadjudicated federal reserved water rights, a desire to restore state authority over water, a need to quantify and confirm existing rights, and the importance of developing a centralized system of monitoring water use. *Id.* at 305–06.

95. Thorson, *Dividing Western Waters I*, *supra* note 34, at 458–59.

96. 43 U.S.C. § 666(a) (2006).

97. Thorson, *Dividing Western Waters II*, *supra* note 9, at 364 (“Water rights can be included or not included in an adjudication based on source, geographic location, priority date, legal basis, or type of water use, and it is unclear what exclusions are tolerable under the McCarran Amendment.”); Pacheco, *supra* note 12, at 646.

98. *Dugan v. Rank*, 372 U.S. 609, 610, 626 (1963) (denying the ability of riparian and other overlying landowners to join the United States in a private suit to enjoin the Bureau of Reclamation from diverting water at the Friant Dam on the San Joaquin River in California).

99. Anderson, *supra* note 4, at 421.

100. *Dugan*, 372 U.S. at 618.

a general adjudication of “all of the rights of various owners on a given stream” and was therefore not comprehensive enough for the McCarran Amendment to apply.¹⁰¹ By requiring that the suit include all claimants to water rights on the river and establish priority of water rights between all users, the Court established the McCarran Amendment’s comprehensiveness requirement.¹⁰²

The U.S. Supreme Court again addressed comprehensiveness under the McCarran Amendment in *United States v. District Court in and for the County of Eagle*.¹⁰³ In that case, the United States opposed an order to file a claim to rights in the Eagle River, a tributary of the Colorado River.¹⁰⁴ The United States argued that Colorado’s adjudication was not for a “river system” as called for under the McCarran Amendment because it did not include the entire Colorado River.¹⁰⁵ The Court deemed this contention to be “almost frivolous” and held that the state need only adjudicate a river system within its own jurisdiction.¹⁰⁶

Scholars typically divide comprehensiveness inquiries into three categories: use comprehensiveness, temporal comprehensiveness, and hydrologic comprehensiveness.¹⁰⁷ Use comprehensiveness focuses on how the water is used and seeks to include all uses in an adjudication.¹⁰⁸ Such uses include domestic, stock watering, or agricultural uses.¹⁰⁹ Temporal comprehensiveness concerns what priority dates are included

101. *Id.* at 618–19 (quoting S. REP. NO. 755, at 9 (1951)). The Court also ruled that a suit could not be brought against the Bureau of Reclamation officials because the relief sought in the suit (an injunction and government funding of ten additional dams) would operate against the United States and therefore violate sovereign immunity. *Id.* at 621. Respondents were forced to pursue another avenue for relief by asserting that the Bureau’s action constituted a taking. *Id.* at 626.

102. Pacheco, *supra* note 12, at 643.

103. 401 U.S. 520 (1971).

104. *Id.* at 521–22.

105. *Id.* at 523.

106. *Id. Eagle County* also held that the adjudication of rights under the McCarran Amendment would include appropriative rights, riparian rights, and reserved rights. *Id.* at 524. In *Eagle County*’s companion case, *United States v. District Court for Water Division No. 5*, 401 U.S. 527 (1971), the U.S. Supreme Court stated that the words “general adjudication” were used in *Dugan v. Rank* to demonstrate that Congress intended for the McCarran Amendment only to reach adjudications where all users in a water system were joined. *Id.* at 529. The Amendment was not intended to serve as a means for individual claims to be brought against the United States. *Id.* The Colorado adjudication process in *Water Division No. 5*, in which a water referee would sit and hear new water rights applications on a monthly basis, was held to be comprehensive because it reached all claims in the totality. *Id.*

107. Thorson, *Dividing Western Waters II*, *supra* note 9, at 363–68.

108. *Id.* at 366–67.

109. *Id.*

in an adjudication.¹¹⁰ A temporal comprehensiveness requirement would suggest that all priority dates should be adjudicated together.¹¹¹ Finally, hydrologic comprehensiveness focuses on the link between surface and groundwater and would require a general stream adjudication to include all hydrologically connected water sources.¹¹²

III. APPLICATION OF HYDROLOGIC COMPREHENSIVENESS CREATES A LEGAL LINK BETWEEN SURFACE AND GROUNDWATER

Because the McCarran Amendment is ambiguous, it is difficult for states to decide whether groundwater must be included in general stream adjudications.¹¹³ Hydrologic comprehensiveness focuses on the source of water that must be included in an adjudication of federal rights under the McCarran Amendment.¹¹⁴ Scientists have recognized the hydrologic link between surface and groundwater.¹¹⁵ So has the United States Supreme Court.¹¹⁶

Water continuously moves through the hydrologic cycle, and it is difficult to distinguish between surface and groundwater.¹¹⁷ In fact, “[a]ll groundwater in motion . . . ultimately will supply some stream. Hence, arguments that all groundwater is tributary to a stream are scientifically sound.”¹¹⁸ Despite the scientific recognition of the hydrologic link

110. *Id.* at 368. For example, Oregon adjudicates only pre-1909 water rights, asserting that all subsequent rights have been adequately addressed through administrative procedures. *See* *United States v. Oregon*, 44 F.3d 758, 767–68 (9th Cir. 1994).

111. Thorson, *Dividing Western Waters II*, *supra* note 9, at 367–68.

112. *Id.* at 364. This Comment addresses only hydrologic comprehensiveness, asserting that it is the most essential to having productive stream adjudications due to the impact that groundwater withdrawal can have on surface water rights regardless of type of use or temporal proximity. *See generally* 2 *WATERS AND WATER RIGHTS*, *supra* note 1, § 18.02 (describing the science of groundwater and its relationship to surface water).

113. Thorson, *Dividing Western Waters II*, *supra* note 9, at 365. Hydrological comprehensiveness may also look at how much of a river and how many tributaries should be included in an adjudication. This Comment, however, focuses on the groundwater and surface water aspects of hydrological comprehensiveness.

114. Thorson, *Dividing Western Waters II*, *supra* note 9, at 364.

115. 2 *WATERS AND WATER RIGHTS*, *supra* note 1, § 18.02 (quoting Mary P. Anderson, *Hydrogeologic Framework for Groundwater Protection*, in *PLANNING FOR GROUNDWATER PROTECTION* 1, 1–2 (G. William Page ed., 1987)).

116. *Cappaert v. United States*, 426 U.S. 128, 142–43 (1976).

117. 2 *WATERS AND WATER RIGHTS*, *supra* note 1, § 18.02 (quoting Mary P. Anderson, *Hydrogeologic Framework for Groundwater Protection*, in *PLANNING FOR GROUNDWATER PROTECTION* 1, 1–2 (G. William Page ed., 1987)).

118. *Id.*

between surface and groundwater, the law has been slow to acknowledge this connection.¹¹⁹ Since the first half of the twentieth century, prominent water law scholars such as Samuel Wiel have pushed states to recognize the unavoidable connection between surface and groundwater and to unify the laws regulating the two.¹²⁰ Similarly, noted natural resources scholar Charles Wilkinson has observed that the traditional legal approach to surface and groundwater fails to acknowledge the “hydrologic reality” of their connection.¹²¹

One way of responding to this “hydrologic reality” is to pursue an integrated approach to surface and groundwater.¹²² Because so much more information regarding hydrology is now available, courts are able to identify specific groundwater rights and the way in which groundwater pumping affects surface water.¹²³ States adjudicating federal water rights now have the capability to map both the location of groundwater and its interaction with surface water.¹²⁴ Some western states, such as Colorado, Idaho, Nevada, and Utah, adjudicate both surface and groundwater sources together.¹²⁵ Even the United States Supreme Court has recognized the hydraulic link between surface and groundwater.¹²⁶ In *Cappaert v. United States*, the Court allowed protection of federal water rights from nearby groundwater withdrawals because “groundwater and surface water are physically interrelated as integral parts of the hydrologic cycle.”¹²⁷

119. *Id.*

120. Samuel C. Wiel, *Need of Unified Law for Surface and Underground Water*, 2 S. CAL. L. REV. 358, 362 (1929); 2 WATERS AND WATER RIGHTS, *supra* note 1, § 18.03.

121. Charles F. Wilkinson, *Western Water Law in Transition*, 56 U. COLO. L. REV. 317, 321–22 (1985) (“[W]e have learned that ground water is usually hydrologically related to surface water, so that the traditional system of managing surface water and ground water separately fails to reflect the hydrologic reality: conjunctive management of underground and surface resources is required when the two connect up.”).

122. 2 WATERS AND WATER RIGHTS, *supra* note 1, § 18.03 (citing Earl Finbar Murphy, *Some Legal Solutions for Contemporary Problems Concerning Groundwater and Aquifers*, 4 J. MIN. L. & POL’Y 49 (1988)).

123. *Id.* (“[G]roundwater management or litigation does not require, in many cases, massive research for new knowledge and it provides a method for evaluation that can direct: the use of scarce resources; the way surface land is used; and the impact of demand of many kinds upon the groundwater resource.”).

124. *See id.* § 18.03(a).

125. Thorson, *Dividing Western Waters II*, *supra* note 9, at 365 (citing COLO. REV. STAT. § 37-82-101 (2005); IDAHO CODE ANN. § 42-103 (2005); NEV. REV. STAT. ANN. § 533.030 (LexisNexis 2005); UTAH CODE ANN. § 73-4-3 (2005)).

126. *Cappaert v. United States*, 426 U.S. 128, 142–43 (1976).

127. *Id.* (quoting C. CORKER, GROUNDWATER LAW, MANAGEMENT, AND ADMINISTRATION, NAT’L WATER COMM’N LEGAL STUDY NO. 6, xxiv (1971)).

Still, other states such as New Mexico maintain separate procedures for adjudicating groundwater and surface water claims.¹²⁸ Likewise, in Arizona and Texas, the “hydrologic myth that groundwater is somehow separate from surface water prevails.”¹²⁹ Washington State uses the same statutory procedure to adjudicate surface and groundwater, but has yet to include groundwater in a surface water general stream adjudication.¹³⁰

IV. IN *UNITED STATES V. OREGON*, THE NINTH CIRCUIT HELD THAT THE MCCARRAN AMENDMENT DOES NOT REQUIRE HYDROLOGIC COMPREHENSIVENESS

The Ninth Circuit Court of Appeals is the only federal appellate court to address a claim of hydrologic comprehensiveness in detail. In 1990, the State of Oregon began an adjudication of the Klamath River Basin and attempted to include the United States as a defendant on behalf of several federal agencies and as a trustee for the Klamath Tribe.¹³¹ The United States responded by filing suit in federal court seeking a declaratory judgment that the United States had not waived its sovereign immunity.¹³² The United States claimed that its sovereign immunity had not been waived because Oregon’s adjudication was not comprehensive for purposes of the McCarran Amendment.¹³³

The United States’ primary comprehensiveness argument was that the adjudication failed to include groundwater claims in the Klamath Basin.¹³⁴ The United States stressed that the McCarran Amendment’s overarching purpose was to avoid piecemeal litigation.¹³⁵ In supporting

128. Thorson, *Dividing Western Waters II*, *supra* note 9, at 365 (citing N.M. STAT. ANN. § 72-5A-1 (2005)).

129. *Id.* (citing ARIZ. REV. STAT. ANN. § 45-141(A) (2005); TEX. WATER CODE ANN. § 11.312 (West 2005)).

130. *See infra* Part V.

131. *United States v. Oregon*, 44 F.3d 758, 762 (9th Cir. 1994). This is Oregon’s second adjudication of the Klamath River Basin. In 1975, Oregon notified the United States and the Klamath Tribe of its intent to adjudicate, and the United States instituted a federal suit seeking a declaration of federal water rights in the basin, subsequently halting the adjudication. The federal suit went to the Ninth Circuit in *United States v. Adair*, 723 F.2d 1394 (9th Cir. 1983), where the court held that while the United States and the Klamath Tribe did have water rights, quantification was left to the state in a general stream adjudication. Oregon renewed its attempt to adjudicate the Klamath River Basin in 1990. *Oregon*, 44 F.3d at 762.

132. *Oregon*, 44 F.3d at 762.

133. *Id.*

134. *Id.* at 768.

135. Brief for the United States in Reply as Appellant and in Response as Cross-Appellee at 30, *United States v. Oregon*, 44 F.3d 758 (9th Cir. 1994) (Nos. 92-36983, 92-36985, 92-36987, 92-37001), 1993 WL 13099176 [hereinafter *United States Reply Brief*].

this argument, the United States pointed to cases holding that the McCarran Amendment requires adjudicating interrelated water rights in the same proceeding.¹³⁶ The United States argued that the McCarran Amendment's comprehensiveness requirement "makes no sense if an adjudication excludes adjudication of groundwater rights claims, the exercise of which could impair surface water rights."¹³⁷ The United States also emphasized that the U.S. Supreme Court has never ruled on the specific question of groundwater inclusion under the McCarran Amendment, and thus no prior precedent was entirely on point.¹³⁸

The Ninth Circuit, in an opinion by Judge William A. Norris, rejected these arguments.¹³⁹ The court focused first on the language of the McCarran Amendment, which states that it applies to "water of a river system or other source."¹⁴⁰ The court interpreted "or" to mean that a state had a choice between adjudicating surface water or adjudicating groundwater,¹⁴¹ and held that the state did not have to do both.¹⁴² While the court acknowledged that one of the main purposes of the McCarran Amendment was to avoid piecemeal litigation, it relied heavily on the

136. *Id.* at 30–31 (citing, among others, *Colo. River Water Conservation Dist. v. United States*, 424 U.S. 800, 810–11 (1976) (cannot exclude Indian water rights); *United States v. Dist. Court in and for the Cnty. of Eagle Colo.*, 401 U.S. 520, 524 (1971) (cannot exclude federal reserved rights); *Metro. Water Dist. of S. Cal. v. United States*, 830 F.2d 139, 144 (9th Cir. 1987) (need all claimants on the stream); *S. Delta Water Agency v. Dep't of the Interior*, 767 F.2d 531, 542 (9th Cir. 1985) (need all conflicting claims for joinder of U.S.); *In re Snake River Basin Water Sys.*, 764 P.2d 78, 86 (Ida. 1988) (joinder of U.S. required joinder of two hydrologically related sub-basins)).

137. United States Reply Brief, *supra* note 135, at 29–30 n.14. The United States specifically noted that an adjudication without groundwater: "(1) would not include all users of the river system's water, (2) would not include all rights in the river system's water, and (3) would not include all water sources of the river system." Brief for the United States of America as Appellant at 43, *United States v. Oregon*, 44 F.3d 758 (9th Cir. 1994) (Nos. 92-36983, 92-36985, 92-36987, 92-37001), 1993 WL 13011224.

138. United States Reply Brief, *supra* note 135, at 28. In the Senate Report on the McCarran Amendment, a reference is made to the adjudication in *Pacific Live Stock Co. v. Lewis*, 241 U.S. 440 (1916), as an example of a valid adjudication under the Amendment. Because that particular adjudication did not include groundwater, Oregon argued that groundwater inclusion was not necessary. Appellees'/Cross-Appellants' Brief at 17–18, *United States v. Oregon*, 44 F.3d 758 (9th Cir. 1994) (Nos. 92-36983, 92-36985, 92-36987, 92-37001), 1993 WL 13011225. The United States pointed out that groundwater was not an issue in that particular adjudication and that the quote used in the Senate Report (that an adjudication "is intended to be universal and to result in a complete ascertainment of all existing rights") does not make sense if groundwater claims that would impact surface water are not included. United States Reply Brief, *supra* note 135, at 28–29 n.14 (citing S. REP. NO. 755, at 5 (1951)).

139. *Oregon*, 44 F.3d at 758.

140. *Id.* at 768 (quotation marks omitted) (citing 43 U.S.C. § 666(a) (2006)).

141. *Id.*

142. *Id.* at 768.

United States Supreme Court's decision in *Eagle County*.¹⁴³ *Eagle County* stands for the proposition that it is not necessary to include every single hydrologically connected water source in a general stream adjudication, particularly where those water sources extend beyond the state's boundaries.¹⁴⁴ The court used *Eagle County* to support its holding that hydrologic comprehensiveness was unnecessary and that groundwater rights need not be included.¹⁴⁵

The Ninth Circuit then analyzed how the law has responded to the science of hydrologically related water sources. The court stated that the law traditionally treated surface and groundwater differently by applying different regulatory schemes to the two types of water.¹⁴⁶ It also noted that different states apply riparian, absolute dominion, American reasonable use, and correlative rights doctrines to groundwater, none of which establish temporal priority by use.¹⁴⁷ In determining that some states did not apply prior appropriation to groundwater, thereby not assessing rights by temporal proximity, the court concluded that the adjudication procedure's major function—determining the priority of water rights—was absent.¹⁴⁸ The court then looked to which groundwater regimes states used in 1952, the year the McCarran Amendment took effect. Because not all states used prior appropriation for groundwater in 1952, the court found that the law was not yet ready to embrace a hydrologic continuity approach to stream adjudications.¹⁴⁹

143. *Id.* at 768–70.

144. *United States v. Dist. Court in and for the Cnty. of Eagle Colo.*, 401 U.S. 520, 523 (1971); *see supra* notes 103–106 and accompanying text.

145. *Oregon*, 44 F.3d at 769 (stating that the discussion of an adjudication touching many states in *Eagle County* “suggests that, contrary to the United States’ assertions, the comprehensiveness requirement does not mandate that every hydrologically-related water source be included in the adjudication”).

146. *Id.* (“One of the ways in which the law has traditionally ignored the exhortation of the scientists is by treating ground and surface water as distinct subjects, often applying separate law to each. While rights to surface water in the Western states have generally been allocated under the appropriation doctrine, the rights to groundwater were traditionally riparian.”).

147. *Id.* at 769; *see also* SAX, *supra* note 32, at 415–17 (describing the five primary means by which American jurisdictions quantify groundwater rights: (1) capture, which operates on a “first come, first serve” basis; (2) American reasonable use, in which the water must be put to reasonable use on the overlying tract with no limit to amount provided use is reasonable; (3) correlative rights, which requires equal sharing of the water between overlying landowners; (4) the Restatement (Second) of Torts reasonable use, which lays out specific rules of allocation; and (5) prior appropriation, which applies a “first in time, first in right” framework to water rights).

148. *Oregon*, 44 F.3d at 769.

149. *Id.* at 769–70 & n.9 (noting that in 1952 prior appropriation for groundwater was used in Idaho, Kansas, Nevada, Oklahoma, and Utah, while riparian doctrines applied in Arizona, California, Colorado, Montana, Nebraska, South Dakota, Texas, Washington, and Wyoming). The

The court did acknowledge that since 1952 some states have moved toward better coordination between quantifying surface and groundwater rights.¹⁵⁰ The court concluded, however, that the “recognition is too recent and too incomplete” to require disposition of groundwater rights in general stream adjudications under the McCarran Amendment.¹⁵¹ The court thus held that hydrologic comprehensiveness was not required to waive federal sovereign immunity under the McCarran Amendment.¹⁵²

After the Ninth Circuit’s decision, the Klamath Tribe petitioned the United States Supreme Court for a writ of certiorari.¹⁵³ The Office of the United States Solicitor General submitted a brief to the Court in opposition to the cert petition.¹⁵⁴ While the Solicitor General ultimately concluded that the time was not right for the Court to review the Ninth Circuit’s decision, the Solicitor General expressed the opinion that the Ninth Circuit was actually in error. The Solicitor General noted that the surface and groundwater in the Klamath Basin were hydrologically connected and that the purpose of the McCarran Amendment was to require comprehensive adjudications of entire river systems.¹⁵⁵ The Solicitor General went on to state that an adjudication excluding hydrologically connected groundwater “defeats ‘Congress’ purposes’ by encouraging future piecemeal adjudication.”¹⁵⁶ However, despite the assertion that the Ninth Circuit had incorrectly ruled on the groundwater issue in *United States v. Oregon*, the Solicitor General recommended that the U.S. Supreme Court not grant the cert petition because the issue had not received significant consideration in other courts of appeals or the highest courts of the various states.¹⁵⁷

court was incorrect here regarding its characterization of Washington water law. Washington has applied a prior appropriation system to groundwater since 1945. *See* Act of Mar. 19, 1945, ch. 263, 1944–45 Wash. Sess. Laws 826 (current version at WASH. REV. CODE ch. 90.44 (2010)); PHARRIS, *supra* note 62, at V:9.

150. *Oregon*, 44 F.3d at 769 (“[A]n increased recognition of the relationship between ground and surface water has led some states to attempt better coordination between the allocation of surface and groundwater rights . . .”).

151. *Id.* at 770.

152. *Id.*

153. *United States v. Oregon*, 516 U.S. 943 (1995) (denying certiorari).

154. Brief for the United States in Opposition at 10, *Klamath Tribe v. Oregon*, 516 U.S. 943 (1995) (No. 95-151), 1995 WL 17047729.

155. *Id.* at 10–11.

156. *Id.* at 11.

157. *Id.* The Solicitor General also noted the existence of other, “albeit less effective,” remedies available to the Klamath Tribe, such as adjudicating groundwater in federal court. *Id.* 11–12.

V. WASHINGTON RECOGNIZES HYDRAULIC CONTINUITY,
BUT HAS NOT APPLIED IT IN GENERAL STREAM
ADJUDICATIONS

Since 1944, Washington has applied the prior appropriation system to both surface and groundwater.¹⁵⁸ The Washington State Legislature and the Washington State Supreme Court have both acknowledged the science of hydraulic continuity between surface and groundwater and the impact that groundwater withdrawal can have on surface waters.¹⁵⁹ Washington has accepted the science of hydraulic continuity in resolving state water rights disputes.¹⁶⁰ However, Washington's general stream adjudication process permits, but does not require, the inclusion of both surface and groundwater users.¹⁶¹ Even so, conflicts involving federal reserved water rights could draw from state case law to incorporate the principle of hydraulic continuity into general stream adjudications.

A. *Washington Applies the Prior Appropriation System to Both
Surface and Groundwater and Accepts the Science of Hydraulic
Continuity*

Washington State has established the prior appropriation system for both surface and groundwater.¹⁶² To regulate surface water, the state legislature enacted the Water Code of 1917.¹⁶³ The Code established the prior appropriation system for surface water and created a permit system to govern surface water use.¹⁶⁴ To regulate groundwater, the legislature

158. WASH. REV. CODE ch. 90.03 (2010) (Surface Water Code); WASH. REV. CODE ch. 90.44 (2010) (Groundwater Code); Tom McDonald, *Washington, in 4 WATERS AND WATER RIGHTS* § I(A)(4),(6) (Robert E. Beck & Amy L. Kelly eds., 3d ed. LexisNexis/Matthew Bender 2009). Prior appropriation is based on a "first in time, first in right" approach to water rights. WASH. REV. CODE § 90.03.010 (2010).

159. *Postema v. Pollution Control Hearings Bd.*, 142 Wash. 2d 68, 95, 11 P.3d 726, 742 (2000); *Rettkowski v. Dep't of Ecology*, 122 Wash. 2d 219, 226 n.1, 858 P.2d 232, 236 n.1 (1993); WASH. REV. CODE § 90.44.030 (2010).

160. *See, e.g. Postema*, at 95, 11 P.3d at 742.

161. *See, e.g.*, WASH. REV. CODE § 90.44.220 (2010) (allowing the Department of Ecology to have a general stream adjudication include "either rights to the use of surface water or to the use of groundwater, or both").

162. States have the power to regulate waters within their boundaries. *See supra* note 71 and accompanying text.

163. Act of Mar. 14, 1917, ch. 117, 1917 Wash. Sess. Laws 447 (codified as amended at WASH. REV. CODE ch. 90.03 (2010)).

164. WASH. REV. CODE § 90.03.010 (2010) ("[A]s between appropriations, the first in time shall be the first in right."). The Washington State Supreme Court gave riparian owners fifteen years

adopted the Groundwater Code in 1945.¹⁶⁵ The Groundwater Code extended the prior appropriation system to groundwater and made the permit system the sole method for obtaining groundwater rights.¹⁶⁶

Washington's statutory regime recognizes hydraulic continuity between surface and groundwater. In enacting the Groundwater Code, the Washington State Legislature acknowledged the potential for conflict between surface and groundwater users and stressed the priority of surface water rights.¹⁶⁷ The legislature also directed the Washington State Department of Ecology, the state agency responsible for determining water rights, to give "[f]ull recognition . . . in the administration of water allocation and use programs to the natural interrelationships of surface and groundwaters."¹⁶⁸ The Washington State Supreme Court recognized this legislative intent in *Rettkowski v. Department of Ecology*,¹⁶⁹ holding that groundwater rights should "be considered a part of the overall water appropriation scheme, subject to the paramount rule of 'first in time, first in right.'"¹⁷⁰

In addition to *Rettkowski*, two other Washington cases have positively addressed the hydraulic continuity between surface and groundwaters.

(until 1932) to develop their riparian water rights and put them to beneficial use before they became subject to abandonment or forfeiture. *In re Deadman Creek*, 103 Wash. 2d 686, 695, 694 P.2d 1071, 1076 (1985).

165. Act of Mar. 19, 1945, 1944–45 Wash. Sess. Laws 826 (current version at WASH. REV. CODE ch. 90.44 (2010)). WASH. REV. CODE § 90.44.035 (2010) defines groundwaters:

[A]ll waters that exist beneath the land surface or beneath the bed of any stream, lake or reservoir, or other body of surface water within the boundaries of this state, whatever may be the geological formation or structure in which such water stands or flows, percolates or otherwise moves. There is a recognized distinction between natural groundwater and artificially stored groundwater.

166. PHARRIS, *supra* note 62, at V:9; McDonald, *supra* note 158, § I(A)(6). WASH. REV. CODE § 90.44.060 (2010) specifically references §§ 90.03.250–.340 of the surface code to describe the permitting system. However, the Groundwater Code contains an exemption from the permitting process for stockwater, domestic uses on less than one-half acre of land, and industrial or domestic uses of less than 5,000 gallons per day. WASH. REV. CODE § 90.44.050 (2010); McDonald, *supra* note 158, § I(A)(6). For more information on litigation surrounding the stockwater exemption, see *State Water Use Laws: The Groundwater Permit Exemption RCW 90.44.050*, WASH. DEP'T OF ECOLOGY, http://www.ecy.wa.gov/programs/wr/comp_enforce/gwpe.html (last visited Jan. 26, 2011).

167. WASH. REV. CODE § 90.44.030 (2010) ("[T]o the extent that any underground water is part of or tributary to the source of any surface stream or lake, or that the withdrawal of groundwater may affect the flow of any spring, water course, lake, or other body of surface water, the right of an appropriator and owner of surface water shall be superior to any subsequent right hereby authorized to be acquired in or to groundwater.").

168. WASH. REV. CODE § 90.54.020(9) (2010).

169. *Rettkowski v. Dep't of Ecology*, 122 Wash. 2d 219, 226 n.1, 858 P.2d 232, 236 n.1 (1993).

170. *Id.*; PHARRIS, *supra* note 62, at V:29.

First, in *Hubbard v. State*,¹⁷¹ the Washington Court of Appeals upheld the Department of Ecology's decision to place conditions on groundwater permits where groundwater use would result in the Okanogan River being below minimum instream flows.¹⁷² The court focused on a finding of "significant hydraulic continuity" between the Wagonroad Coulee aquifer and the Okanogan River.¹⁷³ The court stated that where significant hydraulic continuity exists, "the groundwater rights permit must be subject to the same conditions, i.e., restrictions on withdrawal, as the affected surface water."¹⁷⁴

The second case to recognize hydraulic continuity between surface and groundwater was *Postema v. Pollution Control Hearings Board*.¹⁷⁵ In *Postema*, the Washington State Supreme Court held that the state must deny a groundwater permit when there is hydraulic continuity and when groundwater withdrawal would negatively impact surface water rights.¹⁷⁶ Furthermore, the court held that when a basin is closed to appropriations, a groundwater permit in hydraulic continuity with the basin must be denied if there is evidence that the withdrawal will affect flow or surface water levels.¹⁷⁷ These two cases demonstrate that Washington courts recognize the necessity of addressing hydraulic continuity when permitting both surface and groundwater uses.

171. 86 Wash. App. 119, 936 P.2d 27 (1997)

172. *Id.* at 121, 936 P.2d at 28.

173. *Id.* at 125, 936 P.2d at 29 (quoting WASH. ADMIN. CODE § 173-549-060 (2009)).

174. *Id.* The court in *Hubbard* relied upon the Washington Administrative Code (WAC) governing water rights for that particular region of Washington. This code provision applied the same requirements to hydraulically linked surface and groundwater. *Id.* at 126, 936 P.2d at 30 (citing WASH. ADMIN. CODE § 173-549-060 (2009)). Washington is divided into Water Resource Inventory Areas (WRIA), with each WRIA adopting resource protection plans for the area. Not all WRIsAs will have the same standards, meaning that different WAC provisions apply to the various areas. Jeffrey S. Myers, *Water Rights Responsibilities for Counties in the Wake of 1997 AGO No. 6*, WAPA Summer Training Program: Civil Track (June 24–26, 1998), <http://www.mrsc.org/Subjects/Environment/water/WAPAMY.aspx>.

175. 142 Wash. 2d 68, 11 P.3d 726 (2000).

176. *Id.* at 95, 11 P.3d at 742. The court looked only to "hydraulic continuity" instead of "significant hydraulic continuity" because the WRIA at issue in *Postema* did not fall under the same WAC as in *Hubbard*. *Id.* at 86, 11 P.3d at 738.

177. *Id.* at 95, 11 P.3d at 742.

B. Washington's Statutory General Stream Adjudication Process Does Not Require Inclusion of Both Surface and Groundwater

In Washington, the general stream adjudication process is the only way to give legal certainty to water rights.¹⁷⁸ General stream adjudications are governed by the Surface Water Code for surface water¹⁷⁹ and the Groundwater Code for groundwater.¹⁸⁰ The Washington State Department of Ecology begins the adjudication process by filing suit in superior court.¹⁸¹ Water rights holders in the adjudicated area are then notified of the suit and the holders are required to file a claim in order to become a defendant.¹⁸² Each claimant—the defendant in an adjudication—must file evidence with the court to support the water right they claim.¹⁸³ The Department of Ecology then holds an evidentiary hearing regarding the water right.¹⁸⁴ The adjudication statute instructs the Department of Ecology and the claimants to confer together when appropriate and also encourages settlement agreements at the hearing stage.¹⁸⁵

After the evidentiary hearing, the Department of Ecology issues a report of findings and recommendations to the superior court.¹⁸⁶ Based on the evidence and findings, the Department of Ecology either files a motion for a partial decree in favor of the claims it has deemed substantiated, or a motion seeking in-court determinations of contested claims.¹⁸⁷ Should a claimant disagree with the Department of Ecology,

178. *Water Right General Adjudications*, STATE OF WASH. DEP'T OF ECOLOGY, <http://www.ecy.wa.gov/programs/WR/rights/adjhome.html> (last visited Jan. 30, 2011).

179. See WASH. REV. CODE §§ 90.03.110–90.03.240 (2010). There have been eighty-two stream adjudications in Washington since the Water Code of 1917 was enacted. *Water Right General Adjudications*, STATE OF WASH. DEP'T OF ECOLOGY, <http://www.ecy.wa.gov/programs/WR/rights/adjhome.html> (last visited Jan. 30, 2011). The longest running adjudication is the Yakima River Basin Surface Water Adjudication (also known as the *Acquavella* adjudication), which began in 1977 and is now in its final stages. Barbara Markham, Asst. Att'y Gen., Ecology Div., Water Section, Wash. State Office of the Att'y Gen., Presentation at the 22nd Annual University of Washington Indian Law Symposium (Sept. 11, 2009).

180. See WASH. REV. CODE § 90.44.220 (2010) (applying the provisions of WASH. REV. CODE §§ 90.03.110–.240 (2010) to groundwater adjudications); see also McDonald, *supra* note 158, § I(A)(5).

181. WASH. REV. CODE § 90.03.110(1) (2010).

182. WASH. REV. CODE § 90.03.120 (2010).

183. WASH. REV. CODE § 90.03.635 (2010).

184. WASH. REV. CODE §§ 90.03.640(1), .160(2) (2010).

185. WASH. REV. CODE § 90.03.640(2)(b) (2010).

186. WASH. REV. CODE § 90.03.640(3) (2010).

187. *Id.*

that claimant may file an exception to the report.¹⁸⁸ Once all of the exceptions are decided, the superior court issues a final decree and the Department of Ecology provides a Certificate of Adjudicated Water Right for each affirmed right.¹⁸⁹ This certificate represents a legally valid right and will include the priority date, purpose of use, quantity, point of diversion, place of use, and any limitations on the right.¹⁹⁰

The legislature amended Washington's general stream adjudication statutes in July 2009.¹⁹¹ The changes require the Department of Ecology to review all claims filed and then move to either accept the claims or have them be determined by a court.¹⁹² The new legislation also encourages the Department of Ecology and claimants to "work closely together" to resolve claims outside of court.¹⁹³ The 2009 amendments do not mandate that groundwater be included in a surface water adjudication where federal reserved water rights are at issue. The Department of Ecology, however, does have the ability to define the scope of an adjudication through both the Surface Water¹⁹⁴ and Groundwater Code, with the Groundwater Code providing that the adjudication may include "either rights to the use of surface water or to the use of groundwater, or both."¹⁹⁵ Thus, while the Department of Ecology can include both surface and groundwater within the same adjudication, it is not required to do so.¹⁹⁶ The statute, except for fee exemptions, is silent on situations involving federal reserved water rights.¹⁹⁷

188. WASH. REV. CODE § 90.03.160(1) (2010).

189. WASH. REV. CODE § 90.03.240 (2010).

190. *Id.*

191. Act of May 5, 2009, ch. 332, 2009 Wash. Sess. Laws 1663 (current version at WASH. REV. CODE ch. 90.03).

192. WASH. REV. CODE § 90.03.640(3) (2010); Barbara Markham, *supra* note 179.

193. WASH. REV. CODE §§ 90.03.640(2)(b), 90.03.645 (2010); Barbara Markham, *supra* note 179.

194. WASH. REV. CODE § 90.03.110(1) (2010) ("Upon the filing of a petition with the department by a planning unit or by one or more persons claiming the right to divert any waters within the state or when, after investigation, in the judgment of the department, the public interest will be served by a determination of the rights thereto, the department shall prepare a statement of the facts, together with a plan or map of the locality under investigation, and file such statement and plan or map in the superior court of the county in which said water is situated.").

195. WASH. REV. CODE § 90.44.220 (2010).

196. *Id.*

197. The United States government and Indian tribes are exempt from paying filing and other fees in adjudications under the McCarran Amendment because the Amendment specifically states that "no judgment for costs shall be entered against the United States." 43 U.S.C. § 666(a) (2006). In Washington, this is codified at WASH. REV. CODE §§ 90.03.180, .200 (2010).

C. *Washington's Yakima River Basin Adjudication Did Not Include Groundwater*

The longest running general stream adjudication in Washington State is the *Acquavella* surface water adjudication in the Yakima River Basin.¹⁹⁸ In *Acquavella*, the Yakima County Superior Court rejected the assertion that joinder of groundwater users is required for a waiver of federal sovereign immunity under the McCarran Amendment.¹⁹⁹ In August of 1984, ten years before the Ninth Circuit's decision in *United States v. Oregon*, the United States filed a motion in the *Acquavella* adjudication to join groundwater users as necessary parties or dismiss the United States.²⁰⁰ The superior court, in a decision by Judge Walter A. Stauffacher, began its opinion by discussing groundwater use in the Yakima River Basin.²⁰¹ The court noted that there were three principal aquifers in the region and approximately 19,000 known claimants to groundwater rights.²⁰² The court also acknowledged, to the agreement of all parties, that groundwater in the area was "hydrologically connected to the Yakima River and its tributaries."²⁰³ The court noted that groundwater pumping would diminish surface stream flow.²⁰⁴

The court then discussed general stream adjudications, focusing on the McCarran Amendment's text and what Congress knew in 1952 when the Amendment was passed.²⁰⁵ Because Congress had acknowledged the existence of groundwater in the Senate Report on the McCarran Amendment, the court asserted that the language "river system or other source" in the McCarran Amendment "clearly" distinguished between surface water and groundwater.²⁰⁶ The separation of "river system" and

198. The *Acquavella* adjudication began in October 1977 and continues through the present day. Memorandum Opinion re: Motion to Join Parties or Dismiss the United States at 1, Dep't of Ecology v. *Acquavella*, No. 77-2-01484-5 (Wash. Super. Ct. Mar. 12, 1985). This opinion is not available in most legal databases. It is on file with *Washington Law Review*. For updates on the progress of the *Acquavella* adjudication see *Water Right General Adjudications*, STATE OF WASH. DEP'T OF ECOLOGY, <http://www.ecy.wa.gov/programs/wr/rights/adjhome.html> (last visited Jan. 30, 2011).

199. Memorandum Opinion re: Motion to Join Parties or Dismiss the United States at 1, Dep't of Ecology v. *Acquavella*, No. 77-2-01484-5 (Wash. Super. Ct. Mar. 12, 1985). This opinion is not available in most legal databases. It is on file with *Washington Law Review*.

200. *Id.* at 3.

201. *Id.* at 3–5.

202. *Id.*

203. *Id.* at 4.

204. *Id.*

205. *Id.* at 9–10.

206. *Id.* at 10.

“other source” with an “or” in the McCarran Amendment was held to allow for comprehensive adjudications of either surface water *or* groundwater.²⁰⁷ In addition, the court found that Congress implicitly accepted Washington’s adjudication process because it existed at the time Congress passed the Amendment.²⁰⁸ Finally, the court relied on the fact that it was not then “presently possible to” predict the impact groundwater pumping would have on surface water streamflow.²⁰⁹ The court maintained its jurisdiction over the United States through the McCarran Amendment and allowed the adjudication to proceed.²¹⁰

VI. WASHINGTON SHOULD INCLUDE GROUNDWATER IN GENERAL STREAM ADJUDICATIONS INVOLVING FEDERAL WATER RIGHTS

Washington should require the inclusion of hydrologically connected surface and groundwater users when adjudicating federal reserved water rights. The Washington State Supreme Court should reject the Ninth Circuit’s reasoning in *United States v. Oregon*. The Washington State Supreme Court is not bound by Ninth Circuit precedent and can choose to interpret the McCarran Amendment to include groundwater.²¹¹ Washington should also re-examine the Yakima County Superior Court’s outdated understanding of hydraulic continuity in the *Acquavella* adjudication. By doing so, the Washington State Supreme Court would re-affirm the connection between surface and groundwater and protect federal reserved water rights, including the important water rights of Indian tribes. Adjudicating surface and groundwater users together would also avoid piecemeal litigation, accomplishing the McCarran Amendment’s primary purpose. This is especially true as Washington faces ongoing water rights disputes across the state in the years ahead.

207. *Id.*

208. *Id.* at 14.

209. *Id.* at 17.

210. *Id.* at 19.

211. *In re Detention of Turay*, 139 Wash. 2d 379, 402, 986 P.2d 790, 802 (1999) (“[F]ederal case law interpreting a federal rule is not binding on [the Washington State Supreme Court] even where the rule is identical ‘this court is the final authority insofar as interpretations of this State’s rules is concerned.’” (quoting *State v. Copeland*, 130 Wash. 2d 244, 258–59, 922 P.2d 1304, 1314 (1996))).

A. *The Washington State Supreme Court Should Reject the Ninth Circuit's Flawed Reasoning in United States v. Oregon*

The Ninth Circuit's decision in *United States v. Oregon* that groundwater was not necessary for a comprehensive adjudication under the McCarran Amendment was incorrect for two reasons. First, the Ninth Circuit failed to distinguish groundwater users from the out-of-state water right holders at issue in *Eagle County*. This omission ignores the importance of hydrologic continuity, similar to the Yakima County Superior Court's ruling in the *Acquavella* adjudication. Second, the Ninth Circuit incorrectly reasoned that water law treats surface and groundwater separately. This narrow conception of water law ignores important considerations for treating surface and groundwater together, including the consistent adjudication of tribal water rights.

The Ninth Circuit placed too much precedential value upon the United States Supreme Court's decision in *Eagle County*. In *Eagle County*, the United States argued that all connected water sources need to be adjudicated at the same time in order to join the federal government under the McCarran Amendment.²¹² The Court properly held that the McCarran Amendment's comprehensiveness requirement did not require states to include all connected water sources that ran into other states.²¹³ In its heavy reliance on *Eagle County*, the Ninth Circuit failed to properly distinguish in-state groundwater users from the out-of-state water users at issue in *Eagle County*. In *Eagle County*, the U.S. Supreme Court said the government's argument for state adjudication of out-of-state water rights was "almost frivolous."²¹⁴ Arguing that hydrologically connected surface and groundwater be adjudicated at the same time is not "almost frivolous." It is an argument based on sound science and a growing legal trend. The U.S. Supreme Court itself has acknowledged that "groundwater and surface water are physically interrelated as integral parts of the hydrologic cycle."²¹⁵ The unfounded claims rejected in *Eagle County* should not tarnish the important and legitimate connection between surface and groundwater.

In Washington, the Yakima County Superior Court made a similar ruling to *United States v. Oregon*, holding in 1985 that a general stream

212. *United States v. Dist. Court in and for the Cnty. of Eagle Colo.*, 401 U.S. 520, 523 (1971).

213. *Id.*

214. *Id.*

215. *Cappaert v. United States*, 426 U.S. 128, 142 (1976) (quoting C. CORKER, GROUNDWATER LAW, MANAGEMENT, AND ADMINISTRATION, NATIONAL WATER COMMISSION LEGAL STUDY NO. 6, xxiv (1971)).

adjudication did not require groundwater.²¹⁶ This decision should not be conclusive. First, the court recognized hydraulic continuity, a science that has been further developed and incorporated into the Washington legal system in cases such as *Hubbard*²¹⁷ and *Postema*.²¹⁸ Importantly, in *Postema*, the Washington State Supreme Court stated that “[The Department of] Ecology may use new information and scientific methodology as it becomes available and scientifically acceptable for determining hydraulic continuity and the effect of groundwater withdrawals on surface waters.”²¹⁹ The inclusion of both surface and groundwater in future adjudications would be consistent with this important directive.

In addition to its improper reading of *Eagle County*, the Ninth Circuit in *United States v. Oregon* incorrectly reasoned that state water law treats surface and groundwater separately. The court quoted a portion of Beck’s treatise *Waters and Water Rights* indicating that states have not adopted a legal regime for uniform treatment of surface and groundwater.²²⁰ By relying on this narrow statement, the court failed to acknowledge states, such as Washington,²²¹ that do recognize the science of hydrologic continuity and have integrated it into water rights adjudications. Simply because states have not adopted a uniform system for *managing* surface and groundwater together does not mean states should not *adjudicate* surface and groundwater together. There are circumstances in which the two must be considered together, such as when a state is attempting to quantify tribal water rights.

Furthermore, the United States Solicitor General’s brief in opposition to the Klamath Tribe’s petition for writ of certiorari supports a finding that the Ninth Circuit was in error. The Solicitor General explicitly stated that the Ninth Circuit was wrong in ruling that the McCarran Amendment does not require the inclusion of hydrologically connected

216. See *supra* notes 198–210 and accompanying text (discussing the *Acquavella* litigation).

217. *Hubbard v. State*, 86 Wash. App. 119, 122, 936 P.2d 27, 28 (1997).

218. *Postema v. Pollution Control Hearings Bd.*, 142 Wash. 2d 68, 93, 11 P.3d 726, 741 (2000).

219. *Id.* at 93, 11 P.3d at 741.

220. *United States v. Oregon*, 44 F.3d 758, 769 (9th Cir. 1994) (“[S]cientists have long delighted in pointing out to lawyers that all waters are interrelated in one continuous hydrologic cycle. As a result, it has become fashionable to argue that an effective legal regime should govern all forms and uses of water in a consistent and uniform manner. The law is otherwise.” (quoting 1 *WATERS AND WATER RIGHTS*, § 6.02) (Robert E. Beck & Amy L. Kelly eds., 3d ed. LexisNexis/Matthew Bender 2009)).

221. See *supra* Part V.A.

groundwater.²²² The Solicitor General referenced the congressional intent behind the Amendment of the need to avoid piecemeal litigation of water rights and emphasized that comprehensiveness should include hydrologically connected groundwater.²²³ Although the cert petition was denied for lack of extensive consideration by other courts, perhaps now, nearly seventeen years after the Ninth Circuit's decision, the time is ripe to re-address this issue.

In Washington, there is even another reason not to follow the Ninth Circuit: the importance of water to tribal communities²²⁴ and the hesitancy of tribes to trust state court adjudications of water rights.²²⁵ These factors argue in favor of including groundwater in general stream adjudications. Even though the United States Supreme Court promised exacting scrutiny should a state court abuse tribal water rights,²²⁶ adjudications can “linger indefinitely in the lower courts,” waiting for the final judgment that is needed for appeal to the U.S. Supreme Court.²²⁷ State court adjudications of tribal water rights should therefore be allowed to proceed only where all the prerequisites for a waiver of federal sovereign immunity under the McCarran Amendment are met, including hydrological comprehensiveness.

222. Brief for the United States in Opposition at 10, *Klamath Tribe v. Oregon*, 516 U.S. 943 (1995) (No. 95-151), 1995 WL 17047729 (citing the U.S. Supreme Court's decisions in *Dugan*, *Colorado River*, and *Eagle County* to support the argument that comprehensiveness under the McCarran Amendment would require the inclusion of groundwater in general stream adjudications).

223. *Id.* at 11 (“The United States and the Tribe will be forced to bring numerous federal or state court actions to address issues concerning competing claims to the same water, which necessarily will be left unresolved by Oregon's incomplete proceeding.”).

224. See Feldman, *supra* note 19, at 433 (stating “water is the blood of our tribes” (quoting Frank Tenorio, *Epigraph* to AM. INDIAN LAWYER TRAINING PROGRAM, INC., INDIAN WATER POLICY IN A CHANGING ENVIRONMENT: PERSPECTIVES ON INDIAN WATER RIGHTS, at 2 (Patricia Zell ed., 1982))).

225. *Id.* at 449 (“Indian water rights—no matter how critical to a tribe's future, no matter how well inventoried, no matter how brilliantly defended by Government attorneys, cannot receive full protection in State court forums.” (quoting Senator Edward Kennedy in *Indian Water Rights: Hearings Before the Subcomm. on Admin. Practice and Procedure of the Comm. on the Judiciary*, 94th Cong., 2d Sess. 2 (1976))).

226. *Arizona v. San Carlos Apache Tribe*, 463 U.S. 545, 571 (1983).

227. *Id.*

*B. Including Groundwater in General Stream Adjudications
Comports with Congressional Intent in Passing the McCarran
Amendment*

In passing the McCarran Amendment, Congress sought to prevent piecemeal litigation of federal reserved water rights.²²⁸ Subsequent U.S. Supreme Court cases have recognized Congress' intent.²²⁹ Requiring that surface and groundwater be adjudicated together would be consistent with Congress' intent to promote holistic, as opposed to piecemeal, litigation. General stream adjudications including both surface and groundwater rights will allow the federal government to litigate its water rights only once for each water source. Conversely, treating surface and groundwater separately would require the federal government to participate in multiple legal actions, with the possibility of decades lapsing between adjudications due to their high cost and extensive scope.²³⁰

In Washington, the Yakima County Superior Court rejected hydrological comprehensiveness in the *Acquavella* adjudication based on the court's interpretation of the McCarran Amendment.²³¹ This interpretation, however, ignores Congress' intent in passing the McCarran Amendment—to avoid piecemeal adjudications of federal water rights.²³² It is only through comprehensive adjudication of both surface and groundwater that priorities and quantities of use in a hydrologically connected water source can be articulated with sufficient

228. *United States v. Oregon*, 44 F.3d 758, 769 (9th Cir. 1994) (“We agree that the McCarran Amendment was motivated in large part by the recognition of the interconnection of water rights among claimants to a common water source and the desire to avoid piecemeal adjudication of such rights.”).

229. *Colo. River Water Conservation Dist. v. United States*, 424 U.S. 800, 811–13 (1976); *United States v. Dist. Court in and for the Cnty. of Eagle Colo.*, 401 U.S. 520, 525 (1971); *Dugan v. Rank*, 372 U.S. 609, 618–19 (1963).

230. *See, e.g.*, BENNO BONKOWSKI, WATER RES. PROGRAM, STATE OF WASH. DEP'T OF ECOLOGY, PUB. NO. 09-11-017, FREQUENTLY ASKED QUESTIONS: WATER RIGHTS ADJUDICATION WILL PROTECT WATER RIGHTS IN SPOKANE AREA 1 (June 2009), available at <http://www.ecy.wa.gov/pubs/0911017.pdf> (discussing the large amount of preparatory work that goes into an adjudication, the “importance and enormity of the task,” the expense of an adjudication, and the delay in time from the beginning of preparations for an adjudication and the actual filing of the case in court).

231. Memorandum Opinion re: Motion to Join Parties or Dismiss the United States at 19, Dep't of Ecology v. *Acquavella*, No. 77-2-01484-5 (Wash. Super. Ct. Mar. 12, 1985). This opinion is not available in most legal databases. It is on file with *Washington Law Review*.

232. *Colo. River*, 424 U.S. at 819 (“The clear federal policy evinced by [the McCarran Amendment] is the avoidance of piecemeal adjudication of water rights in a river system.”).

legal clarity. This is necessary to enable holders of federal reserved water rights to enjoin interfering uses.

As the *Acquavella* adjudication in Washington draws to a close after more than thirty years, a second adjudication for groundwater rights in the Yakima River Basin may be necessary.²³³ This further demonstrates the inefficiency of not adjudicating groundwater rights during the surface water adjudication. Before that proceeds, the Department of Ecology will likely begin an adjudication of the Spokane River area.²³⁴ Any future general stream adjudication in Washington that includes federal reserved water rights should address both surface and groundwater use. This will guarantee compliance with the McCarran Amendment's comprehensiveness requirement and ensure waiver of federal sovereign immunity for the adjudication.²³⁵

CONCLUSION

If a state wishes to adjudicate a federal water right in a general stream adjudication, then federal sovereign immunity must be waived under the McCarran Amendment. The United States Supreme Court has determined that the waiver of sovereign immunity is effective only when the adjudication is comprehensive, meaning that it covers all of the rights in the river system being adjudicated. The Court's comprehensiveness requirement for the McCarran Amendment comports with Congress' intent to avoid piecemeal adjudications of federal water rights. In addition, the tribal preference for a federal forum in water rights determinations further stresses the importance of only waiving sovereign immunity when a state adjudication is truly comprehensive. Scientists recognize the hydrologic connection between surface and

233. Judge Stauffacher noted that there were at least 19,000 groundwater claimants, a number which has surely grown since 1985. *Acquavella*, No. 77-2-01484-5, at 5; Memorandum from the Water Res. Advisory Comm., Yakima Basin Water Res. Agency, at 2 (July 18, 2007), available at http://www.yakimacounty.us/ybwra/2007_DIP_Final/Appendices%20A,%20C-J%5CJ%20Inchoate%20Water%20Rights.doc. ("The Yakima Basin has been in the process of adjudicating surface water rights for the last thirty years. This has been conducted at great expense to the state and all parties involved. . . . Some discussion has centered on the need for future groundwater adjudication.")

234. BENNO BONKOWSKI, WATER RES. PROGRAM, STATE OF WASH. DEP'T OF ECOLOGY, PUB. NO. 09-11-017, FREQUENTLY ASKED QUESTIONS: WATER RIGHTS ADJUDICATION WILL PROTECT WATER RIGHTS IN SPOKANE AREA 1 (June 2009), available at <http://www.ecy.wa.gov/pubs/0911017.pdf>

235. Although this Comment focused on the necessity of hydrologic comprehensiveness for a waiver of federal sovereign immunity under the McCarran Amendment, the principles of hydrologic continuity discussed support the inclusion of both surface and groundwater in any general stream adjudication regardless of whether federal reserved water rights are involved.

groundwater, and the law has increasingly come to acknowledge this link. A comprehensive adjudication under the McCarran Amendment should always include hydrologically connected surface and groundwaters. Without a requirement of hydrological comprehensiveness, a surface water adjudication would be incomplete. Numerous groundwater users would be left out of the adjudication and would not have clearly defined rights in respect to their connected surface water counterparts. This would result in the federal government, including tribes, having to litigate for groundwater rights separately.

As Washington State prepares for new adjudications involving federal and tribal water rights, it is imperative that the adjudications cover both surface and groundwater in order to fulfill the comprehensiveness requirement of the McCarran Amendment.