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Determining Water Quality Standards on Tribal Reservations: A Cooperative Approach to Addressing Water Quality Under the Clean Water Act

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DETERMINING WATER QUALITY STANDARDS ON TRIBAL RESERVATIONS: A COOPERATIVE APPROACH TO ADDRESSING WATER QUALITY UNDER THE CLEAN WATER ACT

MARIA E. HOHN'

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INTRODUCTION

The debate over water quality standards on tribal reservations provides yet another example of the blurred demarcation between tribal sovereignty and federal law, a subject that is common in the discourse on Indian law.¹ This debate raises the pertinent question of which government, the tribe or the federal government, should be responsible for deciding water quality standards for watercourses on a reservation. In addressing and making such a determination, this article will consider the myriad of interests involved, including tribal, federal, state, and environmental concerns.

Poor water quality and environmental degradation are real and significant concerns on Indian reservations,² and are largely the result of federal neglect and mismanagement,³ exploitation by polluters,⁴ and confusion over jurisdictional authority.⁵ Yet water quality is an increasingly important question both on and off tribal reservations, as re-use options are becoming necessary and environmental concerns are becoming a priority.⁶ However, the nature of water quality regulation presents an administrative problem because watercourses are not commonly confined to one jurisdiction, one state, or one reservation. Therefore, deciding which government should be responsible for water quality issues is necessary for an effective resolution to the problem.

This article consists of two sections. The first section explores the current legal framework for addressing water quality on reservations

^{1.} See generally STEPHEN E. CORNELL, THE RETURN OF THE NATIVE: AMERICAN INDIAN POLITICAL RESURGENCE 4-8 (1988) (discussing the trend for the protection and reassertion of tribal sovereignty in Indian rights matters).

^{2.} A survey conducted by Americans for Indian Opportunity in 1986 assessed environmental needs in Indian Country. AMS. FOR INDIAN OPPORTUNITY, SURVEY OF AMERICAN INDIAN ENVIRONMENTAL PROTECTION NEEDS ON RESERVATION LANDS (1986) (noting water quality as a main concern for many of the forty-eight tribes surveyed, with seventeen tribes reporting violations of drinking water standards and nine tribes reporting outbreaks of waterborne diseases).

^{3.} THE HARVARD PROJECT ON AM. INDIAN ECON. DEV., THE STATE OF THE NATIVE NATIONS: CONDITIONS UNDER U.S. POLICIES OF SELF-DETERMINATION 177 (Oxford Univ. Press 2008).

^{4.} Allan Kanner et al., New Opportunities for Native American Tribes to Pursue Environmental and Natural Resource Claims, 14 DUKE ENVTL. L. & POL'Y F. 155, 156 (2003).

^{5.} Id.

^{6.} Robert Glennon, *Water Scarcity, Marketing, and Privatization*, 83 TEX. L. Rev. 1873, 1873, 1881-82 (2005) (discussing the impact of scarcity on water quality).

and some of the questions it raises. The Clean Water Act ("CWA") established the basic water quality standards in the United States.⁷ On tribal reservations, however, several complicating questions arise, including, but certainly not limited to: (1) whether the CWA should even apply on reservations, (2) how and to what extent the Environmental Protection Agency ("EPA") should delegate authority to tribes for regulatory purposes, and (3) how authority balances between the federal government, the tribe, and the state. The second section of this article analyzes and evaluates how the current legal framework addresses the various competing interests identified. Ultimately, this article suggests that the most effective approach to addressing water quality regulation on reservations is a cooperative scheme that recognizes both tribal sovereignty and the urgent need to address a complex environmental problem that does not recognize geopolitical or jurisdictional borders.

I. THE CURRENT LEGAL FRAMEWORK

A. THE CLEAN WATER ACT

1. Basics of the CWA

In 1972, Congress adopted the CWA to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."⁸ The Act even included a provision setting forth the lofty goal of requiring that "the discharge of pollutants into the navigable waters be eliminated by 1985."⁹ To accomplish these goals, the Act established that "except as in compliance with" its permit provisions, "the discharge of any pollutant by any person shall be unlawful."¹⁰ Thus, the Act creates a "permit to pollute" framework.¹¹

In order to understand the implications of the Act, it is necessary to first define a few of the key statutory phrases. The CWA defines "discharge of a pollutant" as "any addition of any pollutant to navigable waters from any point source" or "any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft."¹² The Act defines a "pollutant" to encompass "dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological mate-

^{7.} Clean Water Act of 1977, Pub. L. No. 95-217, 91 Stat. 1566 (codified as amended at 33 U.S.C. §§ 1251-1387 (2000)).

^{8.} Id. § 1251(a).

^{9.} Id. § 1251(a)(1).

^{10.} Id. § 1311(a).

^{11.} See Richard Caplan, U.S. Public Interest Research Group Educ. Fund, Permit to Pollute: How the Government's Lax Enforcement of the Clean Water Act Is Poisoning Our Waters 7 (2002).

^{12. 33} U.S.C. § 1362(12).

rials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water."¹³

"Navigable waters" means "the waters of the United States, including the territorial seas."¹⁴ The EPA has defined "Waters of the United States" as

- a. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- b. All interstate waters, including interstate "wetlands;"
- c. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce ...
- d. All impoundments of waters otherwise defined as waters of the United States under this definition;
- e. Tributaries of waters identified in paragraphs (a) through (d) of this definition;
- f. The territorial sea; and
- g. "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.¹⁵

Lastly, "point source" means "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged."¹⁶ However, this term "does not include agricultural stormwater discharges and return flows from irrigated agriculture."¹⁷

- 15. 40 C.F.R. § 122.2 (2007).
- 16. 33 U.S.C. § 1362(14).
- 17. Id.

^{13.} Id. § 1362(6). The Act also notes several things that do not constitute a pollutant, including "sewage from vessels or a discharge incidental to the normal operation of a vessel of the Armed Forces" or:

[[]W]ater, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if such State determines that such injection or disposal will not result in the degradation of ground or surface water resources.

Id.

^{14.} Id. § 1362(7).

As mentioned, discharges of pollutants are lawful as long as the polluter obtains a valid permit.¹⁸ The EPA may issue a National Pollution Discharge Elimination System ("NPDES") permit as long as the permitted discharge will comply with CWA standards and any other permit-specific conditions that the EPA chooses to require.¹⁹ The Army Corps of Engineers may issue a Section 404 permit for the discharge into navigable waters of dredged and fill materials.²⁰

2. Federalism under the CWA

While the CWA seeks to establish a rather stringent federal program for water quality regulation, at the same time, it also provides several important safeguards for federalism.²¹ In the first section of the Act, Congress expressly provided for the recognition, preservation, and protection of "the primary responsibilities and rights of States²² Accordingly, "[i]t is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources²³ Furthermore, each state retains "the authority . . . to allocate quantities of water within its jurisdiction²⁴

In addition to these basic provisions of state authority, the CWA also provides for state administration and enforcement of NPDES and Section 404 permitting, albeit with some retained EPA oversight.²⁵ States seeking to establish their own program must submit a complete description of the proposed program along with a statement from the state attorney general establishing that the appropriate authority exists to execute the program.²⁶ Based on this proposal, the Administrator of the EPA makes a determination as to whether the state can effectively undertake the permitting program in a manner consistent with the standards established in the CWA.²⁷

- 25. Id. §§ 1342(b), 1344(g).
- 26. Id. §§ 1342(b), 1344(g)(1).
- 27. Id. § 1344(h).

^{18.} Id. § 1311(a) ("Except as in compliance with this section and sections 1312, 1316, 1317, 1328, 1342, and 1344 of this title, the discharge of any pollutant by any person shall be unlawful.").

^{19.} Id. § 1342(a)(1).

^{20.} Id. § 1344(a).

^{21.} See Christopher Rycewicz & Dan Mensher, Growing State Authority under the Clean Water Act, 22 NAT. RESOURCES & ENV'T 57, 57 (2007).

^{22. 33} U.S.C. § 1251(b).

^{23.} Id.

^{24.} Id. § 1251(g).

3. Treatment as States

Similar to the cooperative federalism provided for in the Act, the 1987 Amendments to the CWA provide that the EPA shall treat tribes as states for the purposes the Act.²⁸ The Amendment limits EPA's authority to treat tribes as states "to the degree necessary to carry out the objectives" of the Act.²⁹ Since the passage of this amendment twenty years ago, only 43 of the nation's 290 federally recognized tribes have attained treatment as states ("TAS") status.³⁰ This low number is likely the consequence of the fact that achieving TAS status is a demanding two-part process.³¹ First, the tribe must become federally recognized and must be "exercising governmental authority over a Federal Indian reservation."³² If a tribe is federally recognized, then it must meet these additional statutory requirements for TAS status:

- 1. [T]he Indian tribe has a governing body carrying out substantial governmental duties and powers;
- 2. [T]he functions to be exercised by the Indian tribe pertain to the management and protection of water resources which are held by an Indian tribe, held by the United States in trust for Indians, held by a member of an Indian tribe if such property interest is subject to a trust restriction on alienation, or otherwise within the borders of an Indian reservation; and
- 3. [T]he Indian tribe is reasonably expected to be capable, in the Administrator's judgment, of carrying out the functions to be exercised in a manner consistent with the terms and purposes of this chapter and of all applicable regulations.³³

^{28.} Id. § 1377(a).

^{29.} Id. § 1377(e).

^{30.} von Briesen & Roper, *Clean Water Act Tribe Treatment as States*, INDIAN L. UPDATE, March 2007, at 1 (stating that 34 federally recognized tribes had obtained TAS status); EPA, Authorizations Table, Tribes: Water Quality Standards & Criteria, http://nsdi.epa.gov/waterscience/tribes/approvtable.htm (last visited Aug. 28, 2008) (listing 43 tribes approved for the Water Quality Standards Program). The number of federally recognized Indian tribes varies by source, with one report from the U.S. EPA Division 9 finding 572 federally recognized tribes and intertribal consortia. U.S. Envtl. Prot. Agency, Pac. Sw. Region 9, Tribal Water Quality Accomplishments 4 (2006), http://epa.gov/region09/water/tribal/pdf/tribal-water-quality-accomplishments.pdf. This article used the more conservative number because it still demonstrates that not a significant percentage of tribes have achieved TAS.

^{31.} See generally 40 C.F.R. § 131.8(a) (2007) (describing the requirements for TAS); see also Montana v. U.S. Envtl. Prot. Agency, 137 F.3d 1135, 1139 (9th Cir. 1998).

^{32. 33} U.S.C. § 1377(h)(2); Kathleen A. Kannler, The Struggle Among the States, the Federal Government, and Federally Recognized Indian Tribes to Establish Water Quality Standards for Waters Located on Reservations, 15 GEO. INT'L ENVTL. L. REV. 53, 66 (2002). 33. 33 U.S.C. § 1377(e).

Once achieved, TAS status for tribes can apply to the setting of water quality standards for waters within reservations.³⁴ The application prompts the question, though, about the extent of the tribe's authority. Overall, the policy of TAS is consistent and resonates with the principles of federalism that the Act espouses, yet it conflicts with the basic notion of tribal sovereignty.³⁵ Tribes are not states; they are sovereign nations with the inherent right or power to govern.³⁶

B. IMPLICATIONS OF TRIBAL SOVEREIGNTY AND THE TRUST RELATIONSHIP

The United States recognizes Indian tribes as sovereign powers, a status dating to time immemorial.³⁷ When European settlers first began colonizing the continent, they treated tribes as separate nations, evidenced by the fact that they executed treaties with them and required Indian consent to acquire title to lands.³⁸ Consequently, it is from the tribes' status as recognized sovereign entities within the U.S. federal system that Indian tribal governmental authority within the boundaries of a reservation derives.³⁹

According to the Tenth Circuit in *City of Albuquerque v. Browner*, tribes with TAS status have the authority to set more stringent standards than those required by the EPA because of their sovereignty.⁴⁰ The court engaged in a close statutory analysis to reach this outcome.⁴¹ The City of Albuquerque argued that because section 1377 of the CWA⁴² does not expressly include a reference to section 1370, which provides that states must meet federally imposed minimum requirements under the CWA but are not limited in their inherent right to create stricter

^{34.} See infra Part I.D (discussing further the jurisdictional issues pertaining to tribal authority to regulate water quality). TAS status can also apply to the administration of the NPDES and Section 404 permitting programs, and certain grant programs under the CWA. JUDITH V. ROYSTER & MICHAEL C. BLUMM, NATIVE AMERICAN NATURAL RESOURCES LAW: CASES AND MATERIALS 228 (2002).

^{35.} Kannler, *supra* note 32, at 55 ("[I]t is unclear why the federal government feels it has the power to grant tribes TAS status" when tribes have clearly retained their sovereign status).

^{36.} THE HARVARD PROJECT ON AM. INDIAN ECON. DEV., supra note 3, at 9.

^{37.} Kannler, supra note 32, at 55.

^{38.} Id. at 55-56; see also Lynn Elisabeth Zender, Solid Waste Management on Indian Reservations: Limitations of Conventional Solid Waste Management Engineering 66-67 (1999) (unpublished Ph.D. dissertation, University of California - Davis), available at http://www.zender-engr.net/diss/chapter5.pdf.

^{39.} Edmund J. Goodman, Indian Tribal Sovereignty and Water Resources: Watersheds, Ecosystems and Tribal Co-Management, 20 J. LAND RESOURCES & ENVTL. L. 185, 186 (2000).

^{40.} City of Albuquerque v. Browner, 97 F.3d 415, 423 (1996); see also infra Part I.D (discussing the jurisdictional issues raised in Albuquerque).

^{41.} See Albuquerque, 97 F.3d at 423.

^{42.} Section 1377 of the CWA explains the relationship between tribes and the Act. See 33 U.S.C. § 1377 (2006).

standards, tribes then do not have the power to create more stringent standards.⁴³ The court reasoned, nonetheless, that tribes do possess the authority to create stricter standards because one should read section 1370 as a savings clause, which merely affirms the inherent powers reserved by the states.⁴⁴ By analogy then, "Congress's failure to incorporate § 1370 into § 1377 does not prevent Indian tribes from exercising their inherent sovereign power to impose standards or limits that are more stringent than those imposed by the federal government."⁴⁵

As a result of this tenuous scheme of modified sovereignty, questions naturally arise as to whether the CWA should apply to tribes at all, and whether TAS is a legitimate policy. The Tenth Circuit Court of Appeals decision in *Phillips Petroleum Co. v. United States Environmental Protection Agency*⁵¹ provides some pragmatic guidance on this question. In *Phillips Petroleum*, an oil company petitioned for review of the EPA's

^{43.} Albuquerque, 97 F.3d at 423 (explaining that EPA standards serve as the floor, and not the ceiling, for water quality regulations, regardless of whether those regulations were established by a state or a tribe).

^{44.} Id.

^{45.} Id.

^{46.} United States v. Mazurie, 419 U.S. 544, 557 (1975).

^{47.} See Andrea K. Leisy, Comment, Inherent Tribal Sovereignty and the Clean Water Act: The Effect of Tribal Water Quality Standards on Non-Indian Lands Located Both Within and Outside Reservation Boundaries, 29 GOLDEN GATE U. L. REV. 139, 143 (1999) (citing DAVID H. GETCHES ET AL., FEDERAL INDIAN LAW 74 (5th ed. 2005)).

^{48.} Three provisions of the United States Constitution confer to Congress the power to interfere in Indian affairs on tribal reservations - the Treaty Clause, the Indian Commerce Clause, and the Supremacy Clause. *See* Morton v. Mancari, 417 U.S. 535, 551-52 (1974).

^{49.} Cherokee Nation v. Georgia, 30 U.S. (5 Pet.) 1, 2 (1831).

^{50.} Kannler, supra note 32, at 62.

^{51.} Phillips Petroleum Co. v. U.S. Envtl. Prot. Agency, 803 F.2d 545 (10th Cir. 1986).

authority to establish an underground injection control program pursuant to the Safe Drinking Water Act of 1974 ("SDWA") for the Osage Indian Mineral Reserve.⁵² The oil company argued that "[a]s passed in 1974, the SDWA made no mention of Indian tribes or Indian lands other than to include an 'Indian tribal organization' within the definition of 'municipality[,]'" and therefore, the SDWA did not apply to Indian lands.⁵³ The Tenth Circuit rejected this argument, finding that the legislative history of the SDWA allowed for a broader reading of the Act, one that included EPA authority over tribal land.⁵⁴ The court concluded that the SDWA's national policy of clean water necessitated inclusion of tribal lands, noting that "water in the hydrologic cycle does not respect State borders."⁵⁵

Applying the court's reasoning in *Phillips Petroleum* to the CWA context, it would be legitimate to conclude that the CWA should apply on tribal lands for pragmatic considerations despite tribal sovereignty. The fact that water bodies often cross jurisdictional boundaries, combined with the migratory nature of water pollution, creates a situation where contaminants flow both to and from Indian reservations. Isolated sections of unregulated lands within states would frustrate the national goals of the CWA.

C. APPLICATION OF GENERAL PRINCIPLES OF THE RESERVED RIGHTS DOCTRINE

Similar questions to those raised by the principles of tribal sovereignty also arise with respect to the reserved rights doctrine. The following section will explain the basic principles of the doctrine, and explore and evaluate its implications on the regulation of water quality on reservations.

1. Treaties: Grants or Acknowledgements of Tribal Authority?

In 1908, the U.S. Supreme Court decided Winters v. United States, establishing the Winters Doctrine.⁵⁶ The Winters Doctrine provides a legal basis for a tribe's water rights.⁵⁷ In Winters, the Court decided that "[b]y a rule of interpretation of agreements and treaties with the Indians, ambiguities occurring will be resolved from the standpoint of

^{52.} Id. at 547.

^{53.} Id. at 548.

^{54.} *Id.* at 553-54. Interestingly, the court noted, before it even began its analysis, that the issue of EPA authority over Indian lands "cannot recur and in the future will be no more than a historical curiosity, probably confined to this case." *Id.* at 551-52.

^{55.} Id. at 555 (emphasis removed). The court further noted, "[c]onsidering the amount of oil and gas exploration and production on Indian lands from 1974 to 1986, the SDWA would be eviscerated in large part" by excluding Indian lands. Id. at 553.

^{56.} Winters v. United States, 207 U.S. 564 (1908).

^{57.} See id. at 576.

the Indians."⁵⁸ Thus, based on the intent of the tribe and the intent behind the creation of the reservation, the Court determined that the Indians did not cede the water rights appurtenant to the reservation.⁵⁹ Although the treaty at issue did not expressly reserve water rights, it did not expressly give away water rights either.⁶⁰

Based on the Winters Doctrine, it appears that treaties are grants of rights from the tribe to the United States.⁶¹ This construction leads to the logical conclusion that tribes have reserved both water rights and the power to regulate the quality of the water. Yet the current TAS policy suggests the contrary interpretation that the United States merely acknowledged tribes' limited rights in treaties.⁶² The current TAS policy essentially gives the United States "the power to treat the tribes as instrumentalities" and "to specify the means by which the tribes are to regulate reservation water quality."⁶³

2. What is Reserved: Purpose of the Reservation and Quantity

If a tribe has established water rights, the next question is what does that reserved right consist of? "Generally, the 'purpose of a federal reservation of land defines the scope and nature of impliedly reserved water rights.'"⁶⁴ Thus, the congressional intent behind the treaty at the time of its creation generally defines the primary purpose of the reserved right. For many of the treaties, the congressional intent was to turn the Indians into sedentary farmers, requiring them to abandon their more nomadic lifestyle.⁶⁵

The method devised for determining the quantity of the reserved right, the practicably irrigable acreage formulation, supports this purpose.⁶⁶ In Arizona v. California, the U.S. Supreme Court determined that "enough water was reserved to irrigate all the practicably irrigable acreage on the reservations."⁶⁷ This standard serves to create a predictable and relatively consistent method for determining the quantity of

^{58.} Id.

^{59.} See id. at 577.

^{60.} See id.; United States v. Winans, 198 U.S. 371, 381 (1905) ("[T]he treaty was not a grant of rights to the Indians, but a grant of rights from them-a reservation of those not granted.").

^{61.} Winans, 198 U.S. at 381.

^{62.} See Kannler, supra note 32, at 62.

^{63.} Id. at 63.

^{64.} In re Gila River Sys., 35 P.3d 68, 73 (Ariz. 2001) (quoting United States v. Adair, 723 F.2d 1394, 1419 (9th Cir. 1983)).

^{65.} See Winters v. United States, 207 U.S. 564, 566-67 (1908).

^{66.} Arizona v. California, 373 U.S. 546, 600 (1963), subsequent determination, 530 U.S. 392 (2000).

^{67.} Id., subsequent determination, 530 U.S. 392, 394-96 (2000).

water rights to encourage and promote agricultural projects.⁶⁸ These limitations on the extent of reserved rights are important to consider in the context of the applicability of the CWA because they highlight the importance of considering the intent behind the treaty for ascertaining the scope of the reserved right. It seems a logical conclusion that treaties *intended* to include the reservation of *clean* water.

3. A Water Right's Bundle of Sticks: Comparing Reserved Rights and State Rights

There is a general notion in state water law, under both the prior appropriation and riparian systems, that one of the sticks in the bundle for a water right is implicitly water quality. In the prior appropriation system, the "introduction of pollutants into a water supply constitutes injury to senior appropriators if the water is no longer suitable for the senior appropriator's normal use because of the substitute supply."⁶⁹ Therefore, a water right in a prior appropriation state includes a water quality consideration vis-à-vis the protection against injury to other appropriators.⁷⁰ Similarly, under the riparian system, riparian owners can use water of a surface stream so long as that use is reasonable and allows the water to return to the stream without corruption or sensible diminution in quality.⁷¹ By analogy then, one could argue that a reserved water right should also include this implicit water quality consideration and the corresponding right to regulate it, in its own bundle of sticks.

4. Implications of the Reserved Rights Doctrine

The application of the reserved rights doctrine raises the same questions as those addressed above regarding tribal sovereignty.⁷² The principles of the reserved rights doctrine emphasize the intent of the tribe and the intent behind the treaty, and suggest that tribes have reserved rights to clean water to fulfill the purposes of the treaty. Therefore, should the CWA apply to reservations and is TAS an appropriate policy? Again, the Tenth Circuit in *Phillips Petroleum* provides guidance.⁷³ For pragmatic considerations, the important question is not necessarily the applicability of the CWA or the legitimacy of TAS as a policy, but rather how to incorporate the principles of sovereignty and

^{68.} See id. See also In re Big Horn River Sys., 753 P.2d 76, 94, 97-98, 101 (Wyo. 1988), aff'd, 492 U.S. 406, 407 (1989).

^{69.} In re Plan for Augmentation of City & County of Denver, 44 P.3d 1019, 1030 (Colo. 2002).

^{70.} Id.

^{71.} See Kundel Farms v. Vir-Jo Farms, Inc., 467 N.W.2d 291, 294 (Iowa Ct. App. 1991).

^{72.} See Implications of Tribal Sovereignty and the Trust Relationship, supra Part I.B.

^{73.} See discussion of Phillips Petroleum, supra Part I.B.

the reserved rights doctrine into the foundation that the current legal system provides.⁷⁴

D. JURISDICTIONAL CONSIDERATIONS

Assuming that the CWA does apply on reservations and that the TAS policy is a legitimate means of delegating regulatory authority, the jurisdictional question remains. In the current legal framework, the balance of authority between the federal government, the tribe, and the state in applying and enforcing the CWA is complex. As a general principle, tribal sovereignty has a "significant geographical component" and is limited to the power to manage the use of the tribe's territory and resources.⁷⁵ However, there are several circumstances that do not clearly fit into a precise delineation, complicating the issue; these include watercourses that flow *through* a reservation, the checkerboard nature of Indian Country, and ground water. Consequently, "[e]nvironmental regulation in Indian country often suffers from enforcement gaps, in part because battles over jurisdiction create uncertainty and inertia, resulting in *no* government taking adequate action."⁷⁶

1. Waterbodies Exclusively Contained Within a Reservation versus Those that Flow Through a Reservation

If tribes acquire TAS status, then one of the remaining questions is whether they can regulate only those waterbodies completely within the reservation or whether the tribe can regulate those waterbodies that flow through the reservation. *City of Albuquerque v. Browner*, discussed above, also addressed this question, and answered it in the affirmative: tribes do have the authority to regulate water that merely passes through the reservation.⁷⁷

In Albuquerque, the Pueblo of Isleta ("Isleta Pueblo") in New Mexico acquired TAS status from the EPA under the CWA.⁷⁸ Pursuant to this status, the Isleta Pueblo established water quality standards for the Rio Grande River that were more stringent than the state of New Mexico's water quality standards.⁷⁹ The City of Albuquerque challenged the application of these standards to its NPDES permit, arguing that as a city upstream from the Isleta Pueblo, the tribe's water quality stan-

^{74.} See infra Part II (discussing how to incorporate these concerns into a cooperative approach for managing water quality).

^{75.} New Mexico v. Mescalero Apache Tribe, 462 U.S. 324, 335, 335 n.18 (1983).

^{76.} Kevin Gover & James B. Cooney, Cooperation Between Tribes and States in Protecting the Environment, 10 NAT. RESOURCES & ENV'T 35, 35 (1996) (emphasis in original).

^{77.} See City of Albuquerque v. Browner, 97 F.3d 415, 424 (10th Cir. 1996).

^{78.} Id. at 419.

^{79.} Id.; see also Implications of Tribal Sovereignty and the Trust Relationship, supra Part I.B. (discussing the first question raised in Albuquerque).

dards cannot be applicable to city.⁸⁰ While the court expressly mentioned that its decision does not mean that tribes can apply or enforce their water quality standards beyond reservation boundaries, it concluded nonetheless that the "EPA has the authority to require upstream NPDES dischargers, such as Albuquerque, to comply with downstream tribal standards."⁸¹ Therefore, tribes can regulate water quality standards on watercourses that flow through a reservation.⁸²

2. Checkerboard Nations

The history of allotments, re-acquired lands, off-reservation land holdings, and non-Indian fee ownership of land within reservation boundaries all further complicate the jurisdictional issue of CWA enforcement. The General Allotment Act of 1887, also referred to as the Dawes Act,⁸³ began a period of sectioning-off portions of tribal reservation lands to individual Indians.⁸⁴ The Act provided that "after allotments are approved the Secretary of the Interior shall issue patents declaring [that] the United States will hold the land for twenty-five years in trust" and then will convey that land by patent to the Indian "in fee, discharged of said trust and free of all charge or [e]ncumbrance whatsoever."⁸⁵ The Act resulted in the fractionated ownership of tribal lands and the loss of roughly 100 million acres of tribal lands to non-Indian private owners.⁸⁶ While subsequent legislative acts, including the Indian Reorganization Act⁸⁷ and the Indian Land Consolidation Act,⁸⁸ have aided tribes in re-acquiring some of

^{80.} Albuquerque, 97 F.3d at 423.

^{81.} Id. at 424.

^{82.} See id.

^{83.} General Allotment Act of 1887, Ch. 119, 24 Stat. 388 (codified as amended in scattered sections of 25 U.S.C.).

^{84.} United States v. Powers, 305 U.S. 527, 530 (1939) (the Allotment Acts provided "for allotments in severalty to Indians upon any reservation created for their use whenever in the President's opinion any part is advantageous for agricultural and grazing purposes"). In 1886, the Commissioner of Indian Affairs "aptly" explained the policy behind this Act, stating that "[the Indian] must be imbued with the exalting egotism of American civilization so that he will say 'I' instead of 'We,' and 'This is mine' instead of 'This is ours.'" NATIVE AMERICAN TESTIMONY: A CHRONICLE OF INDIAN-WHITE RELATIONS FROM PROPHECY TO THE PRESENT, 1492 – 1992, at 233 (Peter Nabokov ed., 1991).

^{85.} Powers, 305 U.S. at 530 (citing General Allotment Act of 1887, Ch. 119, 24 Stat. 388 (codified as amended in scattered sections of 25 U.S.C.)).

^{86.} Native Am. Rights Fund, *Justice Newsletter* (Fall 1998), *available at* http://www.narf.org/pubs/justice/1998fall.html ("Between 1903 and 1993, one million acres of Indian lands passed into non-Indian hands each year.").

^{87.} Indians Reorganization Act, Ch. 576, 48 Stat. 984 (1934) (codified as amended at 25 U.S.C. §§ 461-94 (2000)).

^{88.} Indian Land Consolidation Act of 1983, Pub. L. No. 97-459, 96 Stat. 2517 (codified as amended at 25 U.S.C. §§ 2201-2219 (2000)).

these lands lost to allotment, they did not erase the harm done by the Dawes Act because they did not formally repeal it.⁸⁹

The significance of this history of transfers in ownership for water quality regulation is that it created "checkerboard nations," holdings of non-Indian fee ownership of lands within reservation boundaries.⁹⁰ This fragmented ownership creates significant problems for tribes in asserting jurisdiction over these lands. The Ninth Circuit Court of Appeals addressed this problem in *Montana v. United States Environmental Protection Agency.*⁹¹ In this case, the EPA granted Flathead Lake Reservation's TAS application, which included authority for the Tribe to regulate the permitting of non-Indian fee owners of land within the reservation boundaries.⁹² The court noted that one of the important and defining characteristics that shaped this litigation was that the land within the reservation boundaries "reflects a pattern of mixed ownership and control between tribal and non-tribal entities."⁹⁵ In addressing whether the Tribe could legitimately assert permitting authority over the non-Indian fee owners, including the state, county, and several municipalities, the court looked to whether the Tribe could meet the standard enunciated in *Montana v. United States.*⁹⁴

In Montana v. United States, the United States Supreme Court held that there are two exceptions to the general rule that "absent express authorization by federal statute or treaty, Indian tribes lack civil authority over the conduct of non-members on non-Indian land within a reservation."⁹⁵ Of importance to the Ninth Circuit's decision in Montana v. United States Environmental Protection Agency was the second exception, which involves conduct that "threatens or has some direct effect on the political integrity, the economic security, or the health or welfare of the tribe."⁹⁶ The Ninth Circuit held that EPA should determine whether the tribe qualifies for this exception on a case-by-case basis, but noted that a tribe's TAS application will likely satisfy this test due to the relationship between water quality and human health and

^{89.} Christopher A. Karns, Note, County of Yakima v. Confederated Tribes & Bands of the Yakima Indian Nation: *State Taxation as a Means of Diminishing the Tribal Land Base*, 42 AM. U. L. REV. 1213, 1223-24 (1993) (while the Indian Reorganization Act repudiated the Dawes Act, it did not formally repeal allotment); *see also generally* 25 U.S.C. §§ 334, 339, 341, 348-349, 354, 381 (2000) (containing the current version of General Allotment Act).

^{90.} See Zender, supra note 38, at 68.

^{91.} Montana v. U.S. Envtl. Prot. Agency, 137 F.3d 1135, 1136 (9th Cir.1998).

^{92.} Id. at 1139-40.

^{93.} Id. at 1139.

^{94.} Id. at 1140 (citing Montana v. United States, 450 U.S. 544, 566 (1981)).

^{95.} Id. (citing Montana v. United States, 450 U.S. at 564).

^{96.} Montana v. United States, 450 U.S at 566; see also Daniel I.S.J. Rey-Bear, The Flathead Water Quality Standards Dispute: Legal Bases for Tribal Regulatory Authority over Non-Indian Reservation Lands, 20 AM. INDIAN L. REV. 151, 170 (1995-1996).

welfare.⁹⁷ As the court quoted, "'[a] water system is a unitary resource. The actions of one user have an immediate and direct effect on other users."⁹⁸ Therefore, the Ninth Circuit concluded that the Tribe qualified for the second exception and could regulate the non-Indian fee owners within the reservation boundaries.⁹⁹

3. Surface Water and Ground Water Regulation

Another jurisdictional question that the current legal framework left largely unanswered is whether tribes can regulate water quality for both surface waters and ground water, and if so, to what extent. If tribes have authority over watercourses that pass through reservations per *Albuquerque v. Browner*,¹⁰⁰ then it would seem logical that tribal standards would also be applicable to ground water, because ground water is conceptually similar to a watercourse that flows through a reservation.

According to EPA guidance, water quality standards formally promulgated by the tribe and accepted by the EPA only pertain to surface waters.¹⁰¹ However, the broader question of tribal authority over ground water quality remains unclear. The United States District Court for the District of New Mexico provides some direction in *State of New Mexico ex rel. Reynolds v. Aamodt.*¹⁰² In *Aamodt*, the court found that a Pueblo's water rights, which were appurtenant to their lands, "are the

(1) the general importance of clean water and critical habitat for tribal survival; (2) an implicit congressional finding that "activities which affect surface waters and critical habitat quality may have serious and substantial impacts"; (3) EPA disfavor for checkerboard regulation of reservations, given the likely difficulty of separating the effects of tribal and non-Indian reservation lands; (4) implicit congressional preference for tribal regulation of reservation water; (5) a distinction between land use planning and environmental regulation; (6) the centrality of such protection of health and safety to self-government; and (7) EPA's regulatory discretion.

Rey-Bear, supra note 96, at 188 (citing 56 Fed. Reg. at 64,876, 64,878-79).

98. Montana v. U.S. Envtl. Prot. Agency, 137 F.3d at 1141 (quoting Colville Confederated Tribes, 647 F.2d at 52); see also Lauren B. Fechter, Note, Upholding Tribal Rights to Exercise Civil Regulatory Authority Over Non-Indian Lands on Reservations: An Analysis of Montana v. EPA, 5 ENVTL. LAW. 871, 884-85 (1999) (adding to the Montana v. U.S. EPA analysis that "it would be very difficult to separate the harmful effects on water quality arising on non-Indian lands from those arising on tribal land within the reservation.").

99. Montana v. U.S. Envtl. Prot. Agency, 137 F.3d at 1136, 1142.

100. City of Albuquerque v. Browner, 97 F.3d 415, 424 (10th Cir. 1996).

101. U.S. Envtl. Prot. Agency, How Water Quality Standards Protect Tribal Waters (2002), *available at* http://www.epa.gov/waterscience/tribes/files/howwqsprotect.pdf.
102. New Mexico *ex rel*. Reynolds v. Aamodt, 618 F.Supp. 993, 1010 (D.N.M. 1985).

^{97.} Montana v. U.S. Envtl. Prot. Agency, 137 F.3d at 1139, 1141 (citing Colville Confederated Tribes v. Walton, 647 F.2d 42, 52 (1981) (supporting the proposition that the second exception includes conduct that involves the tribe's water rights)); see also Amendments to the Water Quality Standards Regulation That Pertain to Standards on Indian Reservations, 56 Fed. Reg. 64,876, 64,877-79 (Dec. 12, 1991). These regulations contain the EPA's generalized findings concerning the relationship of water quality to tribal health and welfare. Id. Specifically, these findings include:

surface waters of the stream systems and the ground water physically interrelated to the surface water as an integral part of the hydrologic cycle."¹⁰³ While this is only a district court decision, and other courts have held differently,¹⁰⁴ it suggests that some courts might consider ground water as a part of the reserved right,¹⁰⁵ especially if the governing documents contain the requisite intent.¹⁰⁶ If so, then one can make an argument that ground water is within the tribe's authority to regulate for water quality under the TAS approach.

Overall, these jurisdictional considerations illustrate both the impediments to independent tribal regulation of water quality and the limitations of the current TAS approach.

II. EVALUATION AND PROPOSAL: A COOPERATIVE APPROACH

In consideration of the current legal framework, the best approach to addressing the important water quality issues on reservations is a move toward a more cooperative effort undertaken by the tribe, the federal government, and the state. While in theoretical terms one might consider the policy of TAS an assault on tribal sovereignty,¹⁰⁷ in practice, the best solution to water quality issues involves all the parties working together to solve the problem. This approach has the potential to help achieve the noble standards and objectives aspired to in the CWA.

A. THE BEST OPTION AVAILABLE

1. Tribal Limitations

Several factors create significant limitations on independent tribal efforts to address water quality on reservations. First, as compared with states and the federal government, tribes' size and limited infrastructure significantly restrains them. Tribes often lack the necessary technicians, funds, or knowledge to address water quality issues on their own.¹⁰⁸ Furthermore, based on the jurisdictional issues discussed above, it is unclear as to whether tribes can always prosecute non-

^{103.} Id. (citing Cappaert v. United States, 426 U.S. 128, 142 (1976)).

^{104.} See In re Big Horn River Sys., 753 P.2d 76, 99-100 (Wyo. 1988).

^{105.} See Aamodt, 618 F.Supp. at 1010.

^{106.} See generally Pyramid Lake Paiute Tribe v. Morton, 354 F. Supp. 252, 254-55, 258 (D.D.C. 1973) rev'd on other grounds, 499 F.2d 1095 (D.C. Cir. 1974) (demonstrating the importance of the intent behind the creation of the reservation in the courts' analysis of the scope of a reserved right).

^{107.} See Implications of Tribal Sovereignty and the Trust Relationship, *supra* Part I.B. (discussing the principles of tribal sovereignty).

^{108.} See generally U.S. Envtl. Prot. Agency, supra note 101 (noting the requisites of tribal administration).

Indian fee owners within reservation boundaries, much less offreservation polluters that commit water quality offenses affecting tribal waters.¹⁰⁹ A recent First Circuit case, *Maine v. Johnson*, which demonstrates that the existing case law is, at best, imprecise regarding the division of regulatory authority between the state, the tribe, and the federal government, exemplifies the latter of these two concerns.¹¹⁰ Therefore, based on these concerns, among others, tribes are not well equipped to address water quality issues on their own.

2. Cooperation Increases Credibility of Tribal Authority

One clear benefit of a cooperative approach to regulating water quality on reservations is that with EPA approval of a tribe's actions comes the increased credibility of tribal authority to adjacent states. For example, when the EPA approved tribal water quality standards for the White Mountain Apache Tribe,¹¹¹ they gained credibility from the perspective of the adjacent state of Arizona. The court echoed the effect of EPA approval in *Wisconsin v. United States Environmental Protection Agency*,¹¹² which confirmed that "Indian tribes with 'Treatment as a State' status are co-equal sovereign regulatory bodies of the same class as individual states under the Clean Water Act."¹¹³ In sum, "[a]fter approval by the EPA and implementation by the tribes, adjacent states cannot second-guess the quality standards imposed on waters. . . . [T]he CWA has empowered tribes with some measure of the inherent tribal sovereignty they had in generations past, at least in the context of clean water."¹¹⁴

3. Cooperation between Tribes and States

This proposed cooperative scheme must include not only collaboration between the tribe and the federal government, but also between the tribe and the state. The 1987 Amendments to the CWA explicitly provided the authority for tribes and states to use intergovernmental agreements to implement water quality programs.¹¹⁵ These agreements are gaining popularity because they offer a mutually beneficial ap-

^{109.} Jessica Owley, Tribal Sovereignty Over Water Quality, 20 J. LAND USE & ENVTL. L. 61, 62 (2004).

^{110.} See generally Maine v. Johnson, 498 F.3d 37 (1st Cir. 2007) (discussing the exemption of two tribal owned facilities from the State's CWA permitting program).

^{111.} The EPA approved water quality standards for the White Mountain Apache Tribe on September 27, 2001. U.S. Envtl. Prot. Agency, *supra* note 30, at 15.

^{112.} Wisconsin v. Envtl. Prot. Agency, 266 F.3d 741, 745, 749 (7th Cir. 2001).

^{113.} Paul M. Drucker, Wisconsin v. EPA: Tribal Empowerment and State Powerlessness Under § 518(e) of the Clean Water Act, 5 U. DENV. WATER L. REV. 323, 325 (2002).

^{114.} Robert Erickson, Comment, Protecting Tribal Waters: The Clean Water Act Takes over Where Tribal Sovereignty Leaves Off, 15 TUL. ENVIL. L.J. 425, 441 (2002).

^{115. 33} U.S.C. § 1377 (2000).

proach for both parties.¹¹⁶ While these agreements may not be realistic in all circumstances, they provide a valuable method with which to work together on maintaining water quality.¹¹⁷

B. ADDRESSING POTENTIAL LIMITATIONS OF A COOPERATIVE SCHEME

While there are many benefits to a cooperative system, there are also some potential drawbacks. As alluded to previously, when several entities are responsible for achieving a common goal, an enforcement gap can result with *no* government taking responsibility for implementation because no one is independently responsible.¹¹⁸ However, with an increased emphasis on tribal sovereignty, this problem would become less of a concern because it would reinforce tribal authority and the corresponding responsibility that comes along with it.

C. THE NAVAJO NATION – AN EXAMPLE OF A SUCCESSFUL COOPERATIVE SCHEME

Despite the potential problems with a cooperative approach to addressing the problem of maintaining clean water, it presents the best option available. The Navajo Nation provides a good example of the success of such a cooperative approach. More than ten years ago, the Tribe created the Navajo Nation Environmental Protection Agency ("NNEPA").¹¹⁹ In 1999, the Tribe created the Navajo Nation Clean Water Act and has received aid for its enforcement from EPA grants.¹²⁰ The cooperation between the Tribe and the EPA has also allowed for significant water quality monitoring and the assessment of water quality standards on several of the water bodies within the reservation.¹²¹ Just recently, on January 20, 2006, the Tribe achieved TAS status and on April 11, 2006, received approval for their initial water quality stan-

^{116.} Jane Marx, Jana L. Walker, & Susan M. Williams, Tribal Jurisdiction Over Reservation Water Quality and Quantity, 43 S.D. L. REV. 315, 378 (1998).

^{117.} Id.

^{118.} See supra Part I.D. See also Gover & Cooney, supra note 76, at 35.

^{119.} Jill Elise Grant, The Navajo Nation EPA's Experience with "Treatment as a State" and Primacy, 21 NAT. RESOURCES & ENV'T 9, 9 (2007).

^{120.} U.S. Envtl. Prot. Agency, *supra* note 30, at 12-13. Tribes can use Section 106 grants to fund a wide range of water pollution control activities, including: water quality planning, assessments, and studies; ambient monitoring; community outreach and education activities; source water, surface water, ground water, and wetland protection; non-point source ("NPS") control activities (including NPS assessment and management programs); development of water quality standards; development of watershed-based plans; development of total maximum daily loads; and data management and reporting. *Id.* at 5-6. Furthermore, the quantity of the funding is significant. In 2006 alone, EPA Region 9 had nearly \$8 million available for funding. *Id.* at 8. 121. *Id.* at 13.

dards; both parties continue to work together toward securing clean water on the reservation.¹²²

The key to the success of this program has been the willingness of both the Tribe and the federal government to work together. While the EPA has been involved in the process, the agency did not completely take over.¹²³ To the contrary, the Tribe has initiated and followed through with several measures addressing the protection of clean water.¹²⁴ As outside counsel for the NNEPA remarked, achieving primacy under the CWA has allowed:

[T]he Navajo Nation [to continue to assert] its sovereignty with regard to environmental regulation and improve[] the degree of environmental protection in Navajo Indian country. If Congress, by enacting the TAS provisions, and [the] EPA, by providing for their implementation, intended to encourage the development of comprehensive tribal environmental programs, they accomplished that goal with NNEPA.¹²⁵

CONCLUSION

As this article suggests, the most pragmatic and effective approach to addressing water quality on reservations is a cooperative approach that recognizes tribal sovereignty yet utilizes the knowledge and funding available from federal involvement. The TAS approach provides a good place to start, but requires refinement with a continued emphasis on the tribe's inherent right of sovereignty. Perhaps requiring the negotiation of bi-lateral agreements between the federal government and all the tribes to work together to address water quality issues would accomplish this. Such an agreement would serve to recognize the inherent status of the tribes and cement the cooperative approach, rather than relying solely on the somewhat paternalistic nature of the CWA. A stronger interpretation of tribal sovereignty would also serve to ameliorate some of the jurisdictional questions and uncertainties raised above.

For TAS, or a modified TAS approach, to prove successful, the federal government and the states must recognize the tribal perspective. In an address to President Bill Clinton in April 1994, gaiashkibos, the president of the National Congress of American Indians, succinctly stated:

With respect to natural resource management concerns, Mr. President, no one has greater respect and reverence for the land than the

^{122.} EPA, supra note 30.

^{123.} U.S. Envtl. Prot. Agency, supra note 30, at 12-13.

^{124.} Id.

^{125.} Grant, supra note 119, at 15.

original inhabitants of this continent. Although there are differences among the tribes, we have a common set of beliefs and traditions regarding our responsibilities as caretakers for the natural world. In our philosophy, we are part of and inseparable from the natural world, linked together by the gifts of life and spirit. The remaining base of Indian lands is doubly precious to us and must be managed for preservation and production purposes. . . . [W]e seek your support for the rights of Indian tribes to exercise primary jurisdiction over natural resource management within the boundaries of our reservations.¹²⁶

By recognizing the sovereign status of tribes, the federal government and states could most effectively assist tribes in creating successful water quality management.

126. James M. Grijalva, Tribal Governmental Regulation of Non-Indian Polluters of Reservation Waters, 71 N.D. L. REV. 433, 433 (1995) (internal quotation omitted).