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STATE BAR SECTION NEWS

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WITHIN THE FLOOD PLAIN? AN ANALYSIS OF THE NEW "WATERS OF THE UNITED STATES" RULE IN THE CONTEXT OF HISTORY AND EXISTING REGULATIONS

By Nathan E. Vassar

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I. Introduction

 \dots [I]n this circuit the United States may not simply impose regulations over puddles, sewers, roadside ditches and the like. \dots 1

Few administrative rulemakings generate the amount of public attention and scrutiny as seen in the 2014-15 revisions to the "waters of the United States" definition (the "WOTUS Rule" or the "Rule"). Driven by efforts of the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers ("Corps") to affix parameters to jurisdictional provisions in question for nearly fifteen years, the WOTUS Rule has been cast by some interest groups as a much-needed clarification and by others as an example of regulatory overreach. Although many analysts and critics of the Rule have framed the action as novel and unprecedented, careful review of the Rule's broader context—including history of federal waters jurisdiction as well as pre-Rule interpretations and existing regulatory frameworks—reveals that the WOTUS Rule may not carry the farreaching impacts that many predict if it survives ongoing litigation.

¹ In re Needham, 354 F.3d 340, 345 (5th Cir. 2003).

The "navigable waters" uncertainty follows two U.S. Supreme Court opinions that struck down earlier interpretations of "navigable waters" and introduced a new framework for EPA and Corps jurisdiction. Solid Waste Agency of N. Cook Cnty. v. U.S. Army Corps of Eng'rs, 531 U.S. 159 (2001) (hereinafter "SWANCC"); Rapanos v. United States, 547 U.S. 715 (2006).

As highlighted by the 2003 Fifth Circuit excerpt above, courts have stepped in to regulate the high water mark of federal waters jurisdiction under the Clean Water Act (CWA),³ balancing agency authority against statutory and Constitutional restraints.⁴ The WOTUS Rule is already the subject of multiple lawsuits. Within hours of its publication in the *Federal Register*, the WOTUS Rule was targeted across federal district and circuit courts as interest groups sought judicial intervention.

A regulated community concerned about its impacts on projects, operations, permitting, and enforcement will be interested in federal agencies' interpretation and application, even before the WOTUS Rule is litigated through appellate courts. However, history may temper concerns fueled by the Rule's critics, as it provides an important perspective on one of the most publicized administrative actions in modern times. Predecessor statutes, rules, and interpretations reveal a long-standing federal concern with upstream waters, high watermarks, and even dry banks of navigable waters. Layers of overlapping requirements (even at the state level) have influenced CWA compliance in ways that the WOTUS Rule is not likely to alter. Accordingly, although the WOTUS Rule provides an important federal baseline for waters subject to regulation, examining the Rule in isolation ignores the broader regulatory overlay already in place and a history that demonstrates consistency with both current and prior interpretations, as well as the Rule's departure from earlier, much broader, interpretations.

Although this article examines a broader background of the WOTUS Rule,⁶ it is worth acknowledging several facts regarding its development and current status. First, the Rule expands federal reach to new waters.⁷ By EPA's own estimate, the Rule will capture up to 4.65% additional waters under the purview of CWA jurisdiction.⁸ Second, the Rule includes several important exemptions,⁹ many of which are included for the first time.¹⁰ Third, although the Rule establishes three categories of application—jurisdictional by rule,¹¹ excluded by rule,¹² and waters subject to significant nexus analysis¹³—ambiguities will continue as agencies interpret and apply new definitions and conduct case-by-case "significant nexus" examinations. The Rule does not resolve all

³ See Federal Water Pollution Control Act, 33 U.S.C. § 1251 (1973) ("Clean Water Act" or "CWA") (amended 1987).

⁴ See Rapanos, 547 U.S. at 715.

⁵ See CWA, 33 U.S.C. § 1251.

Clean Water Rule: Definition of "Waters of the United States," 80 Fed. Reg. 37,054 (May 27, 2015) (to be codified at 33 C.F.R. pt. 328 and 40 C.F.R. 110), available at http://www2.epa.gov/sites/production/files/2015-06/documents/epa-hq-ow-2011-0880-20862.pdf (last visited Aug. 7, 2015) (the "Rule" or the "WOTUS Rule").

⁷ U.S. Envil. Prot. Agency and U.S. Dept. of Army, Economic Analysis of the EPA-Army Clean Water Rule 53 (May 20, 2015), available at http://permanent.access.gpo.gov/gpo57987/final_clean_water_rule_economic_analysis_5-15_2.pdf (last visited Sep. 24, 2015) [hereinafter Economic Analysis Report].

⁸ Id.

⁹ WOTUS Rule, 80 Fed. Reg. at 37,059; see also id. at 37,057.

¹⁰ *Id.* at 37,059 (including certain artificial impoundments, stormwater control features created on dry land, and a variety of ditches).

¹¹ Id. at 37,057.

¹² Id.

¹³ *Id.* at 37,057, 37,104-37,105.

uncertainties, thus exposing the EPA and the Corps to criticism that they have only substituted one fragmented jurisdictional rubric for another.¹⁴

To appreciate the Rule's impacts on the regulated community in Texas—particularly public and commercial interests¹⁵—the Rule must be examined vis-à-vis the Texas Water Code. Thus, to the extent that state regulators capture a broader "waters" definition, or that the federal government has historically exerted jurisdiction over dry features, the Rule's impacts may not extend beyond the proverbial high watermarks already established by the state.

This contextual review does not dismiss the significance of the WOTUS Rule. The "waters of the United States" definition is the cornerstone of the CWA and the foundation for a variety of federal agency programs. As the EPA and the Corps apply the Rule in jurisdictional determinations, permitting actions, and enforcement cases, regulated entities may learn that regulators' actions are, in fact, different under the Rule, either because the Rule has made clear jurisdiction that was murky after the Supreme Court decisions in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* ("SWANCC") and *Rapanos v. United States* ("Rapanos")¹⁷ (in which case, such waters may not have changed classification, but agencies did not assert jurisdiction as boldly in light of the Supreme Court case law), or because a project implicates new waters covered under the Rule. Thus, many critics' concerns are rightly placed in the contingencies of agency interpretation and application. Time will reveal whether the agencies' actions under the Rule realize the fears of critics, or whether its impacts—when viewed in the context analyzed below—are more limited.

II. WET JURISDICTION: WATER-BASED JURISDICTION

A review of the federal history of water regulations gives an appreciation of the Rule's lineage, as Congress and federal agencies over time have expanded their protections of waters, with courts sometimes curbing the extent of the agencies' regulatory reach. Analysis of the activities and areas subject to federal jurisdiction over 130 years suggests a sometimes surprising resemblance to its familial ancestors. However, when compared to some of the more recent archives, the Rule has lost many of the qualities found objectionable.

¹⁴ This concern is without foundation, however, as EPA and the Corps have consistently maintained the interpretive deference to which administrative agencies are entitled.

The focus of this article is primarily upon the Rule's impacts to National Pollutant Discharge Elimination System ("NPDES" or, in Texas, "TPDES") permit holders in Texas. Although much of the opposition to the Rule has focused upon regulation of ditches, cropland, irrigation/drainage structures, this article highlights impacts to entities subject to the NPDES program, and entities pursuing projects with Section 404 permitting implications.

^{16 531} U.S. 159 (2001).

^{17 547} U.S. 715 (2006).

¹⁸ ECONOMIC ANALYSIS REPORT, *supra* note 7; See WOTUS Rule, 80 Fed. Reg. at 37,059 and accompanying text at *supra* note 10.

One reason for the modern debate over the WOTUS Rule is the Rule's legal versus scientific basis. Opponents emphasize the CWA's grant of authority for the regulation of "navigable" waters, 19 whereas the agencies' position notes the interdependency of tributaries and connected waters to such navigable streams. 20 The current WOTUS Rule's foundation is the hydrological connectivity between water bodies 21 and the significant environmental impacts of tributaries, wetlands, and streams upon downstream waters. This foundation arises from the Congressional charge to protect the "chemical, physical, and biological integrity" of America's waters. 22 The EPA and the Corps note that feeder and neighboring waterbodies are already included in existing regulations 23 (a point that is often overlooked). Thus, from the EPA's and the Corps' perspective, the recent rulemaking represents a logical legal extension (or even continuation) of control over upstream water because those same waters eventually flow downstream to the "traditionally" jurisdictional waters. 24

As examined below, long before the WOTUS Rule's existence, Congress and federal agencies recognized the connection between feeder waters and downstream, traditionally "navigable" waters. Hydrological connectivity is neither a new concept as a matter of science, nor is it unfamiliar in the context of waters regulation. Nonetheless, in January 2015, a report was released in support of the EPA's WOTUS Rule (the "Connectivity Report") regarding the "connectivity and mechanisms by which streams and wetlands. . . affect the physical, chemical, and biological integrity of downstream waters." The Rule cites the Connectivity Report as the agency's scientific and technical basis for the Rule (referring to it as the "Science Report"), and states that various water bodies, including tributary streams, wetlands, and intermittent/ephemeral waters impact the ecological integrity of downstream waters. Nevertheless, the agencies then acknowledge the line-drawing challenge, as the agencies must decide where upon the "gradient of chemical, physical, and biological connection" jurisdictional lines shall lie. 27

The EPA and the Corps did not graft the Connectivity Report's conclusions onto the Rule itself (otherwise, one might expect to see all water that contributes to hydrolog-

Complaint and Petition for Review at 6, Texas v. U.S. Envtl. Prot. Agency No. 3:15-cv-00162 (S.D. Tex. June 29, 2015), available at https://www.texasattorneygeneral.gov/files/epress/files/2015/June/1%20-%20State's%20Complaint(1).pdf (last visited Sep. 25, 2015).

²⁰ See U.S. Envtl. Prot. Agency, What The Clean Water Rule Does, http://www2.epa.gov/cleanwaterrule/what-clean-water-rule-does (last visited Sep. 25, 2015).

²¹ See WOTUS Rule, 80 Fed. Reg. at 37,054, 37,058, 37,066.

²² Id. at 37,055; 33 U.S.C. § 1251(a) (1987).

WOTUS Rule, 80 Fed. Reg. at 37,056 (referencing 33 C.F.R. § 328.3 (2015) and 40 C.F.R. § 122.2 (2015)).

See Economic Analysis Report, supra note 7, at 16 (claiming that the Rule reduces costs of rehabilitating impaired waters by allowing "more efficient control of upstream and other watershed sources of pollution[.]").

U.S. Envil. Prot. Agency, Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence (Final Report) ES-1 (2015), available at http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=296414 (last visited Sep. 25, 2015) [hereinafter Connectivity Report].

²⁶ WOTUS Rule, 80 Fed. Reg. at 37,057.

²⁷ Id

ically connected flow deemed jurisdictional).²⁸ As stated in the Technical Support Document for the WOTUS Rule, a "mere hydrologic connection" is not sufficient to convey jurisdictional status upon a water body.²⁹ Rather, the Connectivity Report's most significant impact upon the Rule is likely found in the Rule's inclusion of new definitions for "tributaries" and "adjacent waters,"³⁰ as the EPA and the Corps have cited "scientific consensus on the strength of the effects of upstream tributaries and adjacent waters . . . on downstream traditional navigable waters, interstate waters, and the territorial seas."³¹

The survey below dissects language from the predecessors to the CWA to track the development of upstream protections and to contrast the current Rule against versions that no longer have import.

A. LEGAL FOUNDATIONS PRECEDING THE WOTUS RULE

The origin of the modern "waters of the United States" definition can be traced to the late nineteenth century with the enactment of the 1890 and 1899 Rivers and Harbors Appropriation Acts (collectively the "Rivers and Harbors Acts"),³² which prohibited the construction of bridges, dikes, dams, or causeways over "navigable water of the United States"³³ and any "obstruction not affirmatively authorized by Congress, to the navigable capacity of any of the waters of the United States."³⁴ The Rivers and Harbors Acts asserted federal control to maintain navigability in the interests of protecting and encouraging commerce.³⁵ In 1899, the U.S. Supreme Court stated that the Riv-

For example, the Connectivity Report notes that groundwater flows provide regular and significant water conveyance between waterbodies that often influence variations in downstream waters' physical and chemical integrity (see Connectivity Report, supra note 25, at ES-12, 1-3, 1-9), yet the Rule retains its groundwater carve-out. WOTUS Rule, 80 Fed. Reg. at 37,105.

U.S. Envil. Prot. Agency and U.S. Dept. of the Army, Technical Support Document for the Clean Water Rule: Definition of Waters of the United States 65 (2015), available at http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/news/tech spt doc for CWR.pdf (last visited Sep. 25, 2015).

³⁰ WOTUS Rule, 80 Fed. Reg. at 37,075, 37,080.

³¹ *Id.* at 37,056. In light of EPA's hydrological connectivity basis and its inclusion of waters (and waterbeds) with evidence of a defined bed and banks and ordinary high water mark, it is clear that EPA and the Corps rejected the plurality opinion of Justice Antonin Scalia in *Rapanos* (asserting jurisdiction only over "relatively permanent" waters). Rapanos v. United States, 547 U.S. 715, 716 (2006).

³² Rivers and Harbors Act of Sept. 19, 1890, 26 Stat. 454, ch. 907 § 10 (1890) (repealed 1899) ("1890 Act"); Rivers and Harbors Act of Mar. 3, 1899, 30 Stat. 1151, ch. 425 § 9 (1899) (codified at 33 U.S.C. §§ 401 et seq.) ("1899 Act").

^{33 1899} Act § 9 ("That it shall not be lawful to construct or commence the construction of any bridge, dam, dike, or causeway over or in any port, roadstead, haven, harbor, canal, navigable river, or other navigable water of the United States until the consent of Congress to the building of such structures shall have been obtained and until the plans for the same shall have been submitted to and approved by the Chief of Engineers and by the Secretary of War. . .").

³⁴ Id. § 10.

United States v. Rio Grande Dam & Irrigation Co., 174 U.S. 690, 708 (1899) ("[I]t is obvious that congress meant that thereafter no state should interfere with the navigability of a stream without the condition of national assent. It did not, of course, [disturb] any of

ers and Harbors Acts do not just prohibit "any obstruction to the navigation, but any obstruction to the NAVIGABLE CAPACITY... of one of the navigable waters of the United States." Notably, section 6 of the 1890 Rivers and Harbors Act and section 13 of the 1899 version outlawed, among other things, disposal into navigable waters, and onto the banks of navigable waters "or on the bank of any tributary of any navigable water, where the same shall be liable to be washed into such navigable water." The Rivers and Harbors Acts were concerned with navigation interference (not the integrity of water quality), but the navigation concern resulted in the prohibition of activities regarding both the flow of commerce as well as the contribution of garbage to navigable waters. Although the sections of the 1899 Rivers and Harbors Act remain a foundation for the Corps' current statutory authority, to the Rivers and Harbors Acts' prohibition of waste disposal in navigable waters (including the 1899 Act's prohibition of disposal into tributaries) indicate Congress' early intent to regulate activities that could harm the use of waters, including downstream impacts from both intentional actions and negligence upstream.

In 1948, Congress passed the Water Pollution Control Act (WPCA), with a pivot from the commerce-based interests of the Rivers and Harbors Acts to a water quality protection concern.⁴¹ The WPCA called for the Surgeon General's coordination with state and federal agencies to "adopt comprehensive programs for eliminating or reducing the pollution of interstate waters and tributaries thereof and improving the sanitary condition of surface and underground waters."⁴² Congress declared the pollution "of interstate waters in or adjacent to any State or States (whether the matter causing or contributing to such pollution is discharged directly into such waters or reaches such waters after discharge into a tributary of such waters)" as a "public nuisance and subject to abatement as

the provisions or prior statutes in respect to the mere appropriation of water of non-navigable streams in disregard of the old common law rule of continuous flow, and its only purpose, as is obvious, was to affirm that as to navigable waters nothing should be done to obstruct their navigability without the assent of the National Government.").

³⁶ *Id.* (emphasis added).

³⁷ It was illegal to "cast, throw, empty, or unlade, or cause, suffer, or procure to be cast. . . gravel, earth, rubbish, wreck, filth, . . . refuse, or other waste of any kind." 1890 Act § 6; see also 1899 Act § 13 (Language adopted provided that "any refuse matter of any kind or description whatever other than that flowing from streets and sewers . . . into any navigable water of the United States, or into any tributary of any navigable water. . .") (emphasis added).

^{38 1899} Act § 13 (emphasis added); see also 1890 Act § 6.

³⁹ See United States v. U.S. Steel Corp., 482 F.2d 439, 449 (7th Cir. 1973) ("But even if when enacting and amending the Federal Water Pollution Control Act of 1948 while preserving the Refuse Act of 1899 Congress saw the latter as a 'navigational statute,' that hardly means Congress thought pollutant discharges were outside of the Refuse Act's embrace.").

⁴⁰ See U.S. Army Corps of Eng'rs, Regulations and Guidance Overview, http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/FederalRegulation.aspx (last visited Sep. 25, 2015).

Water Pollution Control Act, Pub. L. No. 845, 62 Stat. 1155 (codified as amended at 33 U.S.C. §§ 1251 et seq.) ("WPCA").

⁴² *Id.* § 2(a) (emphasis added). The WPCA made clear that it did not supersede or limit previous environmental protection statutes, including the Rivers and Harbors Act. *Id.* § 11.

herein provided."43 "Interstate waters" were defined as "all rivers, lakes, and other waters that flow across, or form a part of, State boundaries."44

In 1956, Congress amended the WPCA, providing a Surgeon General-driven enforcement process to abate pollution "of interstate waters in or adjacent to any State or States." The 1965 Amendments echoed the same protections, and modified subsections 8(a) and (b) (provisions regarding pollution subject to abatement and a policy of enforcement) to reference *both* interstate waters and navigable waters. 46 Congress used the 1965 Amendments to expand the core protected waters by including coastal waters, while also stretching enforcement's reach to include "navigable waters," a term left undefined in the WPCA and the 1956 and 1965 Amendments. 47

The 1965 Amendments first realized the federal interest in developing comprehensive water quality criteria. While the newly amended statute did not expand the jurisdiction of "interstate waters," ⁴⁸ it did set a baseline for water quality standards development, including federal development of water quality standards for interstate waters if states failed to develop such standards. ⁴⁹ The 1965 Amendments preserved the WPCA's prohibition on discharging pollutants into interstate waters (framed as the "discharge of matter" ⁵⁰), regardless of whether the matter contributing to a reduced water quality was discharged directly or "reaches such waters after discharge into tributaries of such waters." ⁵¹ Once again, there was no requirement for a direct downstream discharge to trigger the pollutant prohibition.

Although the Rivers and Harbors Acts—along with the WPCA and its amendments—serve as pillars for the existing CWA, it is the 1972 Federal Water Pollution Control Act (the "1972 CWA")⁵² where the current "waters of the United States" definition takes its shape. The stated objective of the 1972 CWA was to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."⁵³

⁴³ *Id.* § 2(d)(1) (emphasis added).

⁴⁴ Id. § 10(e).

Water Pollution Control Act Amendments of 1956, Pub. L. No. 84-660, 70 Stat. 498, § 8 (1956) ("1956 Amendments") (again applying the prohibition "whether the matter causing or contributing to such pollution is discharged directly into such waters or reaches such waters after discharge into a tributary of such waters").

Water Quality Act of 1965, Pub. L. 89-234, 79 Stat. 903, § 5(c)(1) ("1965 Amendments"). The 1956 Act only included reference to "interstate waters."

⁴⁷ Although undefined by statute, the operative definition for navigable waters was "navigable in fact," or "susceptible of being used, in their ordinary condition, as highways for commerce..." per a nineteenth century U.S. Supreme Court analysis. The Daniel Ball, 77 U.S. 557 (1870).

⁴⁸ The 1965 Amendments included express language that limited the jurisdictional application of the act's mandate to develop water quality standards: "Nothing in this subsection shall . . . extend Federal jurisdiction over water not otherwise authorized by this Act." 1965 Amendments § 5(c)(6).

⁴⁹ Id. § 5(c)(2).

⁵⁰ Id. § 5(c)(5).

⁵¹ Id

Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816 (1972) (codified as amended at 33. U.S.C. § 1251 et seq.) ("1972 Amendments").

⁵³ *Id.* § 101(a) (current version at 33 U.S.C. § 1251(a) (2015)).

Comprehensive and far-reaching, the 1972 CWA included prohibitions against pollutant discharges without appropriate permitting,⁵⁴ provided funding assistance for wastewater treatment,⁵⁵ and included implementation planning for further development and application of water quality standards.⁵⁶

The 1972 CWA defines "navigable waters" as "waters of the United States, including the territorial seas." This simple definition—now with broad application to a variety of federal programs (including the National Pollutant Discharge Elimination Program (NPDES) and industrial wastewater standards) —received clarification from the EPA shortly after the 1972 CWA. As published in the Federal Register in May 1973 (the "1973 Rule"), "navigable waters" encompassed six categories: 1) all navigable waters of the United States; 2) tributaries of navigable waters of the United States; 3) interstate waters; 4) intrastate lakes, rivers, and streams that are used by interstate travelers for recreational or other purposes; 5) intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce; and 6) intrastate lakes, rivers, and streams that are used for industrial purposes by industries in interstate commerce. No longer constrained to traditional "interstate" or "navigable" limitations, the 1970s signaled a new regime in federal waters jurisdiction. The previous limitations of in-fact navigability and border proximity faded, as Congress and administrators expanded the EPA/Corps' overview to the full extent of the U.S. Constitution's Commerce Clause.

1. HIGH WATER MARK ANALYSIS

Although earlier statutes hinted at upstream protections, 1973 was the first "significant storm event" of rising federal jurisdiction, with the later 1986 Migratory Bird Rule (examined *infra*) representing the proverbial "Probable Maximum Flood" for the EPA's waters regulation. The EPA's 1973 Rule extended its jurisdiction for the first time to tributaries and intrastate waters so long as tourists visit, fish are caught and sold, or industry uses the water in interstate commerce.

In 1974, the Corps issued its own regulatory definition for purposes of the CWA section 404 dredge-and-fill program, with "Navigable waters of the United States" and "navigable waters" defined to mean "those waters of the United States which are subject to the ebb and flow of the tide, and/or are presently, or have been in the past, or may be in the future susceptible for use for purposes of interstate or foreign commerce." A federal court deemed the Corps' 1974 Rule too restrictive because it focused on "traditional tests of navigability" when Congress had "asserted federal jurisdiction over the nation's waters to the maximum extent permissible under the Commerce Clause of the Constitution." Pursuant to the court's order, the Corps issued an interim rule in 1975 (the "1975 Interim Rule") that more closely resembled the EPA's 1973 rule (capturing

⁵⁴ Id. § 402 (current version at 33 U.S.C. § 1342 (the modern- day NPDES program)).

⁵⁵ See id. §§ 201-208 (current version at 33 U.S.C. §§ 1281-1288 (2015)).

⁵⁶ *Id.* § 303 (current version at 33 U.S.C. § 1313).

⁵⁷ *Id.* § 502(7) (current version at 33 U.S.C. § 1362(7)).

⁵⁸ *Id.* § 402 (current version at 33 U.S.C. § 1342).

^{59 38} Fed. Reg. 13,527, 13,529 (May 22, 1973) ("navigable waters" defined pursuant to 1972 Amendments § 402).

^{60 39} Fed. Reg. 12,115, 12,119 (Apr. 3, 1974).

⁶¹ Natural Res. Def. Council v. Callaway, 392 F. Supp. 685, 686 (D.D.C. 1975).

certain intrastate waters), but also expressly including wetlands.⁶² Over the course of the next decade, Congress passed amendments to the 1972 CWA in 1977,⁶³ the Corps finalized its Interim Rule the same year (the "1977 Rule"),⁶⁴ and the EPA followed suit with its own revisions in 1979 that captured "other waters . . . the use, degradation or destruction of which would affect or could affect interstate or foreign commerce. . . .,"⁶⁵ expanding the EPA's purview.

Significantly, the Corps used the 1975 Interim Rule and 1977 Rule to include "freshwater wetlands" adjacent to other jurisdictional waters. ⁶⁶ It was the Corps' jurisdictional claims over certain wetlands that prompted litigation in *United States v. Riverside Bayview Homes*, *Inc.*, ⁶⁷ where the U.S. Supreme Court reasoned that the Corps' regulation fit within the applicable "navigable waters" definitions following the 1972 CWA, as it was concerned with overall ecosystem integrity and function. ⁶⁸ The Court continued, stating that "the evident breadth of congressional concern for protection of water quality and aquatic ecosystems suggests that it is reasonable for the Corps to interpret the term 'waters' to encompass wetlands adjacent to waters as more conventionally defined."

In 1986, the Corps further expanded its reach with an interpretive rule (the "Migratory Bird Rule") to "clarify the scope of the program by defining the terms in accordance with the way the program is presently being conducted."⁷⁰ The Corps' "Migratory Bird Rule" stated that the Corps authority under CWA section 404(a) extended to intrastate waters: "(a) Which are or would be used as habitat by birds protected by Migratory Bird Treaties; or (b) Which are or would be used as habitat by other migratory birds which cross state lines; or (c) Which are or would be used as habitat for endangered species; or (d) Used to irrigate crops sold in interstate commerce."⁷¹ It also defined "lake" to include "isolated" natural depressions.⁷² When the Migratory Bird Rule was examined and struck down fifteen years later in SWANCC, the Supreme Court noted that its earlier *Riverside Bayview Homes* ruling (supporting Corps jurisdiction) was premised on the "significant nexus" between wetlands and navigable waters.⁷³ However, in SWANCC, the Court

⁴⁰ Fed. Reg. 31,320, 31,324-25 (July 25, 1975) (defining "Freshwater wetlands" to include "marshes, shallows, swamps and, similar areas that are contiguous or adjacent to other navigable waters and that support freshwater vegetation.").

⁶³ Clean Water Act of 1977, Pub. L. No. 95-217, 91 Stat. 1566 (1977) ("1977 CWA").

⁶⁴ Navigation and Navigable Waters, 42 Fed. Reg. 37,122, 37,144 (July 19, 1977).

National Pollution Discharge Elimination System, 44 Fed. Reg. 32,854, 32,901 (June 7, 1979) (emphasis added).

Navigation and Navigable Waters, 42 Fed. Reg. at 37,144 ("The term 'adjacent' means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes and the like are 'adjacent wetlands.'").

⁶⁷ United States v. Riverside Bayview Homes, Inc., 474 U.S. 121, 131 (1985).

⁶⁸ *Id.* at 132-133.

⁶⁹ Id.

⁷⁰ The Migratory Bird Rule, 51 Fed. Reg. 41,206, 41,217 (Nov. 13, 1986).

⁷¹ *Id.* The Migratory Bird Rule was issued without appropriate notice and comment procedures, as initially held by *Tabb Lakes*, *Ltd. v. United States*, 715 F. Supp. 726, 729 (E.D. Va. 1988), *aff d*, 885 F.2d 866 (4th Cir. 1989).

⁷² The Migratory Bird Rule, 51 Fed. Reg. at 41,232.

⁷³ SWANCC, 531 U.S. 159, 167-68 (2001).

determined that the text could not support such a reading for ponds "not adjacent to open water." Beginning in the 1970s and building to the Migratory Bird Rule in 1986, the "waters of the United States" definition began to expand in a manner that is unparalleled in the context of rulemaking. The period from 1986 to 2001 represents the highest tide for federal waters jurisdiction, as federal reach extended beyond any hydrologically-connected or adjacent waters.

2. Lessons from Historical Analysis

Viewed within its historical context, the WOTUS Rule includes remnants of prior statutes and agency rules (dating to 1890), while falling short of the high tides of the 1970s and 1980s. The EPA/Corps' latest effort does not re-introduce the Migratory Bird Rule, deletes the expansive commerce clause-based language in place since the 1970s⁷⁵ and provides a more limited set of other waters to be subject to a case-by-case significant nexus analysis.⁷⁶

Two definitions in the current WOTUS Rule merit additional focus, as they reflect modern representations of jurisdictional claims rooted in rules and statutes implemented decades ago. The WOTUS Rule definitions of "tributaries" and "adjacent" waters have generated criticism as examples of threats to previously unregulated areas.⁷⁷ However, federal jurisdiction captured such features long before the WOTUS Rule was proposed.⁷⁸ Further, these definitions include limitations (including parameters for distance and physical characteristics) that, when coupled with the Rule's exceptions, may not extend jurisdiction beyond areas that the EPA and the Corps could have claimed prior to the WOTUS Rule.

The definition of "tributary" includes parameters that point to downstream flow impacts along with physical indications of "volume, frequency, and duration of flow" to establish a bed and banks.⁷⁹ However, as far back as 1899, Congress was concerned not just with tributaries, but with materials *on* (not in) the banks of tributaries, as it prohibited the depositing of material of any kind on the bank of any tributary of any navigable

⁷⁴ Id. at 168 (emphasis in original).

⁷⁵ That rule regulated waters that could be used for recreation, fish caught/sold for foreign commerce, or industrial activities. WOTUS Rule, 80 Fed. Reg. 37,056 (June 29, 2015) (discussing the WOTUS Rule in the context of Supreme Court precedent.).

⁷⁶ WOTUS Rule, 80 Fed. Reg. at 37,105 (June 29, 2015).

See Am. Farm Bureau Fed'n, "Fact or Fiction? Shedding the light on EPA's 'Facts' about the New 'waters of the U.S.' Rule 5 (2015), available at http://gkdocs.net/or/fact-or-fiction-shedding-the-light-on-epa-s-facts-about.html (last visited Sep. 27, 2015).

⁷⁸ See Rivers and Harbors Act of Mar. 3, 1899, 30 Stat. 1151, ch. 425 § 13 (1899) (codified at 33 U.S.C. §§ 401 et seq.).

WOTUS Rule, 80 Fed. Reg. at 37,105-06. ("The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water . . . to a water identified in paragraphs (a)(1) through (3) of this section that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark, and thus to quality as a tributary. A tributary can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, canals, and ditches not excluded under paragraph (b) of this section . . .") (emphasis in original).

water. ⁸⁰ Additionally, in the WPCA, Congress included tributary protection as it sought to reduce pollution to both interstate waters, and *tributaries thereof*, and to prevent pollutants from reaching interstate waters "after discharge into a tributary of such waters." ⁸¹ Later, recognizing the water quality impacts of upstream pollution, the 1965 Amendments subjected unlawful dischargers into tributaries of interstate waters to abatement. ⁸² The WOTUS Rule does not introduce "tributaries" to clean water law protections, but by defining the term, it signifies the purpose for their inclusion (their flow contribution to "traditional" jurisdictional waters), ⁸³ and requires certain physical characteristics necessary to qualify as a tributary (indicators of a bed and banks and an ordinary high water mark). ⁸⁴

The present "adjacent" waters definition does not share the same etymological ancestry as "tributary." The modern form more closely matches the Corps' 1975 and 1977 regulations than it traces to the WPCA or the Rivers and Harbors Acts. Although the term "adjacent" is found in the WPCA (declaring as a public nuisance "the pollution of interstate waters in or adjacent to any State or States . . ."), it is used to modify the location of interstate waters, as opposed to creating an additional category of protected waters. Nevertheless, the 1899 Rivers and Harbors Act captured a sentiment that downstream waters protections are less effective if upstream impacts are ignored.85

The "adjacent" definition more closely resembles language introduced nearly forty years ago. The Corps' definition in the 1977 Rule included adjacent wetlands in its CWA section 404 permitting authority, defining "wetlands" in a manner to reference inundation or saturation of surface/groundwater on a frequency to support vegetation, and "adjacent" to mean "bordering, contiguous, or neighboring." Similarly, the WOTUS Rule defines "adjacent" as "bordering, contiguous, or neighboring," and deems jurisdictional adjacent "waters" (not just "wetlands"). Similar to the 1977 definition, adjacency is not broken by separations such as "constructed dikes or barriers, natural river berms, beach dunes, and the like." The "neighboring" definition then provides distance parameters, including: (1) 100 feet from the ordinary high water mark of a categorically jurisdictional water; (2) water located within the 100-year floodplain of a categorically jurisdictional water that is not more than 1,500 feet from the ordinary high

This prohibition was explained in the statute as necessary because of the threat of such material washing into navigable waters. *See infra* note 88 and accompanying text.

⁸¹ See Water Pollution Control Act, Pub. L. No. 845, 62 Stat. 1155 (codified as amended at 33 U.S.C. §§ 1251 et seq.) and accompanying text at supra note 43.

⁸² See 1965 Amendments § 5(c)(1) and accompanying text at supra note 47.

WOTUS Rule, 80 Fed Reg. at 37,105 (referencing traditional waters as defined at 33 C.F.R. § 328(a)(1)-(3)).

⁸⁴ *Id.* (to be codified at 33 C.F.R. § 328(c)(3))(defining "tributary" and "tributaries").

Rivers and Harbors Act of Mar. 3, 1899, 30 Stat. 1151, ch. 425 § 13 (1899) (codified at 33 U.S.C. §§ 401 et seq.). ("[I]t shall not be lawful to deposit, or cause, suffer, or procure to be deposited material of any kind in any place on the water, or on the bank of any navigable water, on the bank of any tributary of any navigable water. . .").

⁸⁶ Navigation and Navigable Waters, 42 Fed. Reg. at 37,129.

⁸⁷ WOTUS Rule, 80 Fed. Reg. at 37,105.

⁸⁸ Id.

⁸⁹ Id.

water mark of such water;⁹⁰ and (3) all water located within 1,500 feet of the high tide line of the territorial seas or water susceptible for use in interstate commerce, as well as water within 1,500 feet of the ordinary high water mark of the Great Lakes.⁹¹ Such distance parameters, while not without controversy,⁹² are without precedent in the EPA's and Corps' previous rulemakings.

III. DRY JURISDICTION: NON-WATER-BASED JURISDICTION

Among the most common critiques of the WOTUS Rule is the Rule's purported extension of regulatory control over dry land.⁹³ Agricultural interests, in particular, have expressed concerns that the farming community will be subject to permitting liability for a variety of agricultural practices, including fertilizer application, weed removal, and other activities.⁹⁴ However, despite concerns about such "new" regulatory control, existing state law, CWA-based permit provisions, and previously undefined CWA regulatory terms may already set the high water mark for dry features beyond the level of the Rule's control.

Although Texas has a history of environmental regulatory battles with Washington D.C. agencies, Texas' own water pollution control laws define its jurisdiction in a manner that is, in fact, more inclusive than the WOTUS Rule. Despite the new "tributary" and "adjacent" waters definition in the WOTUS Rule, federal law is exceeded by Texas programs that apply the definitions of "water in the State" more broadly than the Rule's provisions. Texas' own "Dry Jurisdiction" overlay, which supports various permitting and watershed protection efforts across the state, may mean that the Rule's impacts on many NPDES/TPDES permit holders within Texas are potentially *de minimis*.

Further, the Rule stands in the footprint of other Dry Jurisdiction frameworks, including the EPA's pre-Rule interpretations of both the "waters of the United States" definition and CWA permit provisions that the EPA uses to penalize dischargers of pollutants that never reach jurisdictional waters. The verdict of the WOTUS Rule's jurisdictional expansion or consistency will be known at a later date; however, the examples below signify that many entities may not see material differences, at least in certain contexts.

⁹⁰ Id.

⁹¹ Id.

An internal Corps memo signified that the Corps believed the appropriate "neighboring" definition should include a 300-foot limitation for neighboring waters, as opposed to the 1,500-foot metric ultimately adopted. See U.S. Corps of Engineers, Memo from U.S. Army Major General John Peabody regarding Draft Final Rule on Definition of "Waters of the United States," (April 27, 2015) (on file with author).

See Don Parrish, EPA Grabs for Dry Land, American Farm Bureau Federation (August 6, 2014), available at: http://www.fb.org/newsroom/focus/164/ (last visited Sep. 27, 2015).

⁹⁴ Id.

⁹⁵ See Tex. Water Code § 26.027 (2015).

See *infra* note 115 (providing a state court's interpretation on the breadth of Texas regulation over waters the state deems jurisdictional).

⁹⁷ See Tex. Water Code ch. 26.

A. Broader State Regulation

Just as the federal CWA prohibits discharges into federally jurisdictional waters without a valid discharge permit, state versions of the CWA will often mirror the federal provisions, 98 but also may go farther to avoid impacts to water bodies that fall outside of federal control. The effect of such state regulation is that the outer perimeter of federal waters jurisdiction—even after the application of the WOTUS Rule—is still well within the boundaries of state waters jurisdiction.

One such example of a broader jurisdictional net is found in Texas, where state law covers both waters and areas "adjacent to" such waters. 99 Under Texas law, the controlling definition is "water in the state," defined as:

groundwater, groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico, inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.¹⁰⁰

The Texas definition, on its face, protects waters that the WOTUS Rule excludes, including groundwater and a few categories of waters (such as springs and canals) irrespective of any hydrological connection to more "traditional" water bodies. ¹⁰¹ It is also not limited to navigable waters. As one court examined this definition, it concluded that the "legislature has clearly sought to include *all* water found within the environment . . . it is difficult to envision any liquid water in the environment, apart from free-falling rain drops, that is not 'water in the state.'"¹⁰²

Arguably, the Texas legislature has proved more radical than the EPA and the Corps in its regulation of a resource before it reaches public watercourses, and even before it becomes controlled or owned by the state. The "water in the State" definition is not tied to state ownership, which Texas law defines as "[t]he water of the ordinary flow, underflow, and tides of every flowing river, natural stream, and lake, and of every bay or arm of the Gulf of Mexico, and the storm water, floodwater, and rainwater of every river, natural stream, canyon, ravine, depression, and watershed in the state is the property of the state," as well as water imported to the state that is transported through the bed and banks of a navigable stream ("State Water"). Accordingly, Texas protects a broader "water in the State" definition as opposed to connecting its clean water regulations to State Water. As evidenced below, the legislature's protection of "water in the State" also reaches groundwater resources, despite the fact that groundwater is not State Water. 104

⁹⁸ Such resemblance is not a coincidence, but necessary for states to retain delegation status over certain CWA permitting regimes from the EPA.

⁹⁹ See Tex. Water Code § 26.001 (2015).

¹⁰⁰ Id.

¹⁰¹ See id.

¹⁰² Watts v. State, 140 S.W.3d 860, 865-66 (Tex. App.—Houston [14th Dist.] 2004, pet denied).

¹⁰³ Tex. Water Code § 11.021 (2015).

¹⁰⁴ Edwards Aquifer Auth. v. Day, 369 S.W.3d 814, 832 (Tex. 2012).

As applied in Texas' water pollution control statutes, the "water in the state" is protected, as well as dry areas nearby. The Texas equivalent of the federal CWA prohibits defining "water in the state" and precludes discharges "into *or adjacent* to water in the state. . ."¹⁰⁵ Although the "adjacent to" term is undefined, limited case law has demonstrated that it has an expansive reading. ¹⁰⁶ Rather, a discharge adjacent to state jurisdictional waters that merely threatens pollution to water in the state is sufficient for TCEQ enforcement purposes. ¹⁰⁷ To date, there is no authority providing a bright-line application to the "adjacent to" definition. As a result, the state could seemingly argue that every inch of Texas dry land is "adjacent to" water in the state. ¹⁰⁸

In support of the broad reading of "adjacent to" definition is language in the Texas Register regarding the Texas Land Application Permit (TLAP) program jurisdiction, for disposal of pollutants via land application.¹⁰⁹ As indicated in the Texas Register, the predecessor agency to the Texas Commission on Environmental Quality (TCEQ) claimed a stake in protecting groundwater via the TLAP regulatory regime.¹¹⁰

In sum, when compared to the WOTUS Rule, the Texas Water Code's parallel provisions are clearly broader in application, as evidenced by both permitting requirements and enforcement examples. For purposes of Chapter 26 of the Texas Water Code, and those subject to it, the WOTUS Rule's inclusion of tributaries and adjacent waters as "waters of the United States" may not have a practical impact, since the Texas legislature has already codified "dry jurisdiction" protections.

¹⁰⁵ Tex. Water Code § 7.145(a)(1) (emphasis added); see also id. § 26.121(a) (prohibiting discharges of pollutants "... into or adjacent to any water in the state") without TCEQ authorization (emphasis added)).

See generally Proposal for Decision Regarding Rheem Manufacturing Company at *4 (Dec. 5, 2001), SOAH Docket No. 582-00-2100, 2011 WL 35803806 ("There is no definition of 'adjacent to the waters in the State' in the Water Code or in the administrative rules on disposal of industrial solid or municipal hazardous waste. However, definitions of component terms strongly suggest a broad interpretation of the term 'adjacent' is intended in that the term 'water' incorporates virtually every type of water body, including groundwater, and a discharge can be to 'any water.'").

¹⁰⁷ See Heiringhoff v. State of Texas, 130 S.W.3d 117, 133 (Tex. App.—El Paso 2003, pet. denied) ("we cannot conclude that the State's proof was too weak, by itself, to support the jury's findings that the discharge was adjacent to water and threatened to cause water pollution.").

¹⁰⁸ This issue is discussed in more detail in the other lead article by Timothy Wilkins included in this issue of the Texas Environmental Law Journal.

See 14 Tex. Reg. 4892 (1989) (codified at 30 Tex. Admin. Code \$ 309.20) ("The Texas Water Commission proposes new [language in 30 Tex. Admin. Code chapter 309] concerning land disposal of sewage effluent. Chapter 309 establishes the minimum treatment requirements for domestic wastewater prior to discharges into or adjacent to waters in the state.") (emphasis added); see also 15 Tex. Reg. 1160 (1990) (codified at 30 Tex. Admin. Code \$ 309.20) (adopting the regulations proposed in 1989) ("[L]and application of treated effluent will be evaluated in more detail as part of the permit application to allow TWC to better protect state ground water resources.").

See 14 Tex. Reg. 4892 (1989) (codified at 30 Tex. Admin. Code § 309.20); see also 15 Tex. Reg. 1160 (1990) (codified at 30 Tex. Admin. Code § 309.20).

B. Pre-Rule EPA Interpretations of § 402

Federal authority over sometimes-dry "waters" has been present from Congressional action dating to the earliest CWA predecessors, and CWA permit conditions that expose permit holders to liability even when discharges from non-point sources never reach jurisdictional waters. ¹¹¹ As acknowledged by the U.S. Supreme court in *Riverside Bayview Homes*, the "transition from water to solid ground is not necessarily or even typically an abrupt one. Rather, between open waters and dry land may lie shallows, marshes, mudflats, swamps, bogs—in short, a huge array of areas that are not wholly aquatic but nevertheless fall far short of being dry land. Where on this continuum to find the limit of 'waters' is far from obvious. ¹¹² The EPA has made its own line drawing challenge easier in some enforcement actions, as the EPA has relied upon nonspecific permit terms for enforcement when no discharge to jurisdictional waters has occurred.

CWA permit terms have provided justification for a liberal application of federal jurisdiction long before the advent of the WOTUS Rule. As examined above, the EPA and the Corps have claimed authority over "dry" areas in the past, but now—with the inclusion of a "tributaries" definition, among other Rule provisions—the agencies' interpretation is under scrutiny.

In the context of enforcement, the EPA has claimed that certain discharges violate the CWA, even when failing to reach any water or watercourse. A standard condition in NPDES permits requires the permittee to "properly operate and maintain all facilities and systems of treatment and control."¹¹³ The EPA has interpreted this provision to mean that certain overflows are violations of federal law, even when occurring on dry land. The NPDES Compliance Inspection Manual provides that "[s]ystems have been found to be out of compliance because of overflows (even those that do not reach waters of the United States) that are the result of improper operation and maintenance."¹¹⁴

Not limited to guidance materials, the EPA has briefed its position in CWA enforcement cases claiming that, despite the SWANCC and Rapanos rulings, the prohibition against such dry land discharges is warranted because CWA Section 402(a)(2) authorizes the Administrator to prescribe permit conditions, including "such other requirements as he deems appropriate."¹¹⁵ At issue were discharges of sewage from the City and County of Honolulu's wastewater collection system. ¹¹⁶ The EPA filed an amicus curiae brief in support of Plaintiffs' claims against the political subdivision. ¹¹⁷ The EPA justified its position that such dry land spills may indicate a risk of other spills that could reach

¹¹¹ See Rivers and Harbors Act of Mar. 3, 1899, 30 Stat. 1151, ch. 425 § 13 (1899) (codified at 33 U.S.C. §§ 401 et seq.).

¹¹² United States v. Riverside Bayview Homes, Inc., 474 U.S. 121, 132 (1985).

^{113 40} C.F.R. § 122.41(e) (2007).

¹¹⁴ See U.S. Envtl. Prot. Agency, NPDES Compliance Inspection Manual, 13-2 (July 2004), available at http://www2.epa.gov/sites/production/files/2013-09/documents/npdesin-spect_0.pdf (last visited Sep. 27, 2015).

Amicus Curiae Brief of the United States of America In Opposition to the City and County of Honolulu's Motion to Dismiss Plaintiffs' Second Claim at 18, Sierra Club Hawaii Chapter v. City and Cnty. of Honolulu, 486 F.Supp.2d 1185 (D. Haw. 2007) (No. 04-00463), (emphasis in original) [hereinafter EPA Amicus Brief].

¹¹⁶ Sierra Club Hawaii Chapter, 486 F.Supp.2d 1185.

¹¹⁷ See EPA Amicus Brief, supra note 115.

waters.¹¹⁸ The EPA's brief justified its position, notwithstanding SWANCC and Rapanos, by claiming the EPA's broader jurisdiction under the Commerce Clause was not resolved by either case, as the Court analyzed the merits on statutory grounds.¹¹⁹ Thus, under the federal interpretation, even in the absence of impacts to any waters, CWA jurisdiction (specifically, under authority granted to the EPA under the § 402 NPDES program) may attach to dry land discharges because permit language broadly requires proper operation and maintenance of a system, and such dry land spills are evidence of a failure to properly "operate and maintain" wastewater collection and treatment assets.

While not comforting to certain NPDES permit holders, this example demonstrates that federal regulators were not constrained by the prior definition of "waters of the United States." However, if the EPA and the Corps use the Rule to exert power that extends beyond the categories of jurisdictional waters under the Rule, permittees and others may use the Rule's own language to defend against more aggressive overreach, citing to the Rule's more organized framework and language concerning distance-based limitations.¹²¹

IV. CONCLUSION

Barring court intervention, the regulated community will know the true scope of the WOTUS Rule over time as the EPA and the Corps undertake its implementation. On its face, however, the Rule's text does not signify a major change in federal regulation. One hundred and twenty five years of Congressional and agency actions reflect the Rule's similarities to long-established practices, as well as its restraint from more expansive interpretations. Uncertainty about agency interpretation and application is the most appropriate concern about the Rule, although agency interpretation is not a recent phenomenon, and certainly not in the context of the CWA. Nonetheless, the EPA's and the Corps' use of the "significant nexus" test for qualifying waters and tape-measured application of "neighboring" waters may reveal whether the Rule is merely a platform for new and far-reaching regulation, or merely a codification of existing practices.

The regulated community is justified in its scrutiny of the Rule and its potential implications. Interests ranging from utilities to industry, developers, and agriculture have voiced concern over the WOTUS Rule's impacts upon existing and future operations, projects, and plans. Such groups provided input during the extended comment period, much of which was incorporated into the final Rule. Early signals about the impacts may come in the enforcement arena if regulators elect to enforce on the periphery of the

¹¹⁸ *Id.* at 19-20 ("Even if the failure to properly operate and maintain a facility does not result in a direct discharge to the waters of the United States, it may be evidence of defects in the operation and maintenance of the collection or treatment system that may result in a spill or create a risk of spills to such waters.").

¹¹⁹ Id. at 20-21.

¹²⁰ See American Canoe Ass'n, Inc. v. District of Columbia Water & Sewer Auth., 306 F.Supp.2d 30, 41-42 (D.D.C. 2004) (finding that the NPDES operation and maintenance clause is ambiguous).

¹²¹ It is not expected, however, that the WOTUS Rule will change the EPA's position in Sierra Club Hawaii Chapter concerning authority over dry land discharges.

Rule, potentially the 4.65% of new waters that are deemed "neighboring" (and thus "adjacent") waters. Outcomes from the Corps' Jurisdictional Determinations will likely tell an on-the-ground story of how far the hydrological connection extends.

Accordingly, concerns over the Rule's impacts are better framed by also considering existing EPA and Corps interpretations, state requirements, and previous regulations. Although some are surprised by regulators' control over upstream, adjacent, and dry features, feeder waters (and their banks) have been subject to federal regulation for decades. Further, Texas regulations over areas "adjacent to" water in the State arguably already encompass "neighboring" or "adjacent" waters that the WOTUS Rule covers. It is too soon to know whether agencies will use the Rule to regulate and enforce differently from past practices, but the text itself, when examined against precedent and practice, appears well within the floodplain of federal waters regulation.

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A REGULATOR'S REACH EXCEEDS ITS GRASP: THE QUIET EXPANSION OF THE TCEQ'S WATER CODE JURISDICTION

BY TIMOTHY A. WILKINS

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I. Introduction

Discussions of agency overreach and "regulatory creep" are commonplace in the national discussion about federal environmental regulation.¹ Conversely, the Texas Commission on Environmental Quality (TCEQ) typically faces more criticism for regulating too lightly rather than too expansively.² The TCEQ's recent introduction of a General Permit for evaporation ponds ("Evaporation GP") as a streamlined alternative to a Texas Land Application Permit (TLAP), however, revealed claimed permitting obligations that reach well beyond what many in the regulated community believed were the limits of the agency's jurisdiction.³ The adoption of the Evaporation GP highlighted claims made by the TCEQ of its authority under the Texas Water Code that appear to have evolved significantly and without opportunity for debate or public participation.⁴

This article discusses the scope of the TCEQ's statutory permitting jurisdiction under the Texas Water Code along with alternate authorizations available for on-site management of one's own nonhazardous wastes under the Texas Health and Safety Code. The article explains: (1) how the TCEQ's TLAP program is being implemented; (2) the recent arrival of the Evaporation GP as an alternative to a TLAP for one category of facilities; and (3) what the agency's actions with respect to those permit programs indicate about the agency's expansive view of its Water Code jurisdiction. The article then critiques the TCEQ's broad view of its own Water Code jurisdiction and the informal and inappropriate means by which it has created the TLAP program. The actual reach of this program is unclear, but it certainly exceeds the regulation of "land application" reflected in its title.

Amy Joi O'Donoghue, *Utah joins lawsuit over federal fracking rule*, Desert News (May 18, 2015) ("This is yet another unfortunate example of federal regulatory overreach."); Timothy Cama, *Groups jockeying to shape EPA water rule*, The Hill (May 20, 2015) ("They deride the rule as a massive federal overreach that would put the government in charge of puddles, dry creek beds, ditches, man-made ponds, occasionally wet land and other areas that do not need federal water quality standards."); Regina Cline, *Top Five Bloomberg BNA Energy and Climate Report Stories for the Week Ending May* 8 (May 12, 2015), http://www.bna.com/top-five-bloomberg-b17179926457/ ("The bill (S.B. 676) [opposing the Clean Power Plan] was heralded by state officials as a means of protecting businesses and consumers from what they called overreach by the federal agency").

² See, e.g., Forrest Wilder, Agency of Destruction, Texas Observer (May 26, 2010) http://www.texasobserver.org/agency-of-destruction/.

³ See Tex. Comm'n Envil. Quality, Instructions for Completing the Industrial Wastewater Application 17 (2014) [hereinafter TLAP Instructions].

⁴ Tex. Comm'n Envil. Quality General Permit No. WQG100000 Relating to the Disposal of Wastewater by Evaporation 4 (2014) available at http://www.tceq.state.tx.us/assets/public/permitting/waterquality/forms/10411_10055ins.pdf [hereinafter Evaporation GP]; see also TLAP Instructions, supra note 3.

II. THE TCEQ'S TEXAS WATER CODE STATUTORY PERMITTING AUTHORITY

The TCEQ's general jurisdiction over water quality—to regulate and authorize discharges of waste or pollution into "water in the State"5—is well-established, both as a matter of State statute⁶ and in connection with the TCEQ's implementation of the Texas Pollutant Discharge Elimination System (TPDES) program, a state discharge permitting and regulatory program that also derives delegated authority from the U.S. Environmental Protection Agency (EPA) under the federal Clean Water Act.⁷ The TCEQ's express authority under Texas Water Code section 26.027(a) includes the authority to "issue permits . . . for the discharge of waste or pollutants into or adjacent to water in the state." Sitting in counterpoint to this jurisdictional permitting authority is a prohibition on conduct: "Except as authorized by the commission, no person may . . . discharge sewage, municipal waste, recreational waste, agricultural waste, or industrial waste into or adjacent to any water in the state." In summary, "discharges" of "waste" or "pollutants" into or "adjacent" to "water in the state" are subject to the TCEQ's jurisdiction and may not occur without the TCEQ's express approval.

Unsurprisingly, the Texas Legislature has defined these operative terms broadly. "Discharge" includes not only "deposit" and "drain" and "emit" and "release" and "dispose," but also "allow[ing] to seep" or "allow[ing], permit[ting]," or "suffer[ing]" any of these occurrences. ¹⁰ Effectively, if a waste or pollutant ends up in or adjacent to water in the state, it seems certain that *someone* is responsible for causing a "discharge." ¹¹

"Waste" includes numerous subcategories (agricultural, recreational, industrial, etc.) but certainly includes any "garbage, refuse, . . . oil, . . . chemicals, or any other substance" as well as any "waterborne . . . substances that result from any process of industry, manufacturing, trade, or business." "Pollutant" includes "solid waste, . . . sewage, garbage, . . . chemical wastes, biological materials, . . . heat, . . . rock, sand," and much more. Under these definitions, virtually any foreign material that has been "discharged" into or adjacent to water in the state could be deemed either a "waste" or a "pollutant." 15

So what is "water in the state"? "Water" or "water in the state" is defined to include:

Notably, "water in the state" is defined to mean all manner of watercourses and bodies of surface water, but the term also (unlike federal definitions of regulated waters) expressly includes groundwater. Tex. Water Code Ann. § 26.001(5) (2015).

Tex. Water Code Ann. § 26.027(a) (2015) ("The commission may issue permits and amendments to permits for the discharge of waste or pollutants into or adjacent to water in the state.").

^{7 33} U.S.C. § 1370 (2015).

⁸ Tex. Water Code Ann. § 26.027(a) (2015).

⁹ Id. § 26.121(a).

¹⁰ Id. § 26.001(20).

¹¹ Id.

¹² *Id.* § 26.001(6), (12).

¹³ Id. § 26.001(11).

¹⁴ *Id.* § 26.001(13).

¹⁵ See id.

groundwater, . . . lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, . . . and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all watercourses and bodes of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.¹⁶

Obviously, this term is also broad.

By this broad definition the legislature has clearly sought to include *all* water found within the environment—whether impounded or free-flowing, above or beneath the surface of the ground, in or out of a watercourse, salt or fresh, or publicly or privately owned. In short, under the definition provided by the legislature, it is difficult to envision any liquid water in the environment, apart from free-falling rain drops, that is not 'water in the state.'¹⁷

Given these broad definitions, several questions arise about the scope of the TCEQ's jurisdiction as practically applied. And importantly, one key word in the Legislature's grant of authority to the TCEQ in Texas Water Code section 26.027 is not defined by statute (or regulation, or published guidance)—the term "adjacent." For the discussion of the TCEQ's Water Code jurisdiction over activities occurring on dry land, the meaning of "adjacent" is critical. This section of the article explores the statute's scope by probing grey areas in the relevant provisions and, by way of illustration, introducing some of the scenarios in which the TCEQ has and has not tried to require permits.

A. WATER IN THE ENVIRONMENT VERSUS OTHER WATER

As discussed, the statutory definitions supporting the TCEQ's jurisdiction over water are very broad. But it seems likely that the definitions intend to limit jurisdiction to water in the environment, as opposed to other water that exists anywhere within the state's boundaries.¹⁸ One does not imagine, for example, that adding heat (a statutorilydefined "pollutant") to a tea kettle of water is a TCEQ-regulated event. Nor even adding harsh treatment chemicals to a community swimming pool or watering kitchen waste for containerized composting. The statutory list of different waters in the state does not seem to include captured waters of these kinds but, rather, "liquid water in the environment," in the words of the Watts court. 19 This fundamental distinction seems easy in the examples above—no one would seek a discharge permit for feeding one's goldfish. But one also would not ordinarily expect to need a permit for "land application" when operating a process that merely generates or stores industrial wastewater or for adding that wastewater to other such water contained in, for example, an aboveground storage tank, such as an equalization tank. The TCEQ does not appear to claim Water Code jurisdiction over most such events—nor should it—but precisely where the statute (or the TCEO) has or has not drawn such legal lines is unclear.

¹⁶ Id. § 26.001(5).

¹⁷ Watts v. State, 140 S.W.3d 860, 866 (Tex. App.—Houston [14th Dist.] 2004, pet. ref'd).

¹⁸ See id.

¹⁹ Id.

B. DISCHARGE VERSUS ZERO DISCHARGE

Continuing with the example of industrial wastewater storage, absent a related discharge, one would not expect a person simply placing wastewater into an aboveground storage tank to require a permit for discharging a waste or pollutant "into. . .[or] adjacent to waters in the state." And again, the TCEQ does not appear to claim a permit is required for such an occurrence—the Health and Safety Code²¹ and the TCEQ's waste regulations of "storage" of "industrial solid waste" almost certainly regulate such activities. Where a waste or pollutant material is placed in a container and not discharged into the environment, the TCEQ would be hard-pressed to claim that there is a regulated discharge under the Texas Water Code.²³

As will be discussed in more detail below, however, the TCEQ actually does claim jurisdiction over certain "zero discharge" facilities, both in its instructions for completing TLAP applications²⁴ ("TLAP Instructions") and by the express terms of the Evaporation GP.²⁵ Even for facilities that are constructed with state of the art liners and that are prohibited from actually discharging wastes into the environment, the TCEQ does assert jurisdiction over, for example, "[d]ischarge by disposal of wastewater by evaporation from surface impoundments adjacent to water in the state."²⁶

Based on the limited writings in which the TCEQ discusses the basis for these types of permits (and in numerous discussions with agency representatives), one can glean two theories under which such "zero discharge" facilities are regulated: (1) placing wastewater into an in-ground impoundment or pond is a "discharge" of a "waste" "adjacent to" water in the state (*i.e.*, groundwater, where surface water is not nearby); and (2) placing wastewater in an open-top unit allows evaporation and evaporated material can then subsequently precipitate or be deposited, thereby polluting water in the state.²⁷ I will refer to these two concepts as the TCEQ's Water Code "Jurisdictional Theories," the former being the "Adjacency to Groundwater" theory and the latter being the "Disposal by Evaporation" theory.

Notably, the TCEQ has not to date expressly demanded TLAPs for tank storage of wastewater, even where such tanks rest directly on the ground, seemingly as "adjacent to" groundwater as if they were in a surface impoundment and just as susceptible to leaks and other releases, nor for open-top containers or tanks that might allow evaporation as

²⁰ TLAP Instructions, supra note 3, at 4.

²¹ See Tex. Health & Safety Code Ann. ch.361.

²² See 30 Tex. Admin. Code. ch. 335.

²³ See, e.g., Tex. Water Code Ann. § 26.027(a) (2015).

See TLAP Instructions, *supra* note 3. The "TLAP Instructions" comprise the totality of published guidance from TCEQ on when it expects a zero discharge facility to obtain a wastewater permit.

²⁵ Evaporation GP, supra note 4, at 5.

Tex. Comm'n Envil. Quality, Docket No. 2014-0054-RUL. Consideration of the adoption of new General Permit Number WQG100000, authorizing wastewater generated by industrial or water treatment facilities to be disposed of by evaporation from surface impoundments adjacent to water in the state, Memo from L'Oreal Stepney, P.E., Deputy Director, to Commissioners Regarding Evaporation General Permit (March 7, 2014) [hereinafter Stepney Memo], available at https://www.tceq.texas.gov/assets/public/comm_exec/agendas/comm/backup/Agendas/2014/3-26-2014/0054RUL.pdf.

²⁷ See TLAP Instructions, supra note 3, at 17, 41, 74.

readily as an impoundment.²⁸ Why would one of these activities require a permit under the Water Code and the others not? The basis for such distinctions is not obvious on the face of the statute²⁹ and such questions have not been discussed or answered by the agency in its public writings.

C. WASTE VERSUS POLLUTANTS

The TCEQ's Water Code permitting jurisdiction under Texas Water Code section 26.027 applies equally to discharges of "wastes" (which, generally speaking, means materials intended to be disposed) and "pollutants" (which term may include both wastes and materials not intended for disposal).³⁰ Facially, the TLAP program and the Evaporation GP focus only on wastes and wastewaters—not "pollutants."31 The plain language of the statute, however, includes permitting authority for discharges of non-waste pollutants as well.³² This authority could be read to include pollutants, like pesticides and fertilizers, deliberately applied to the land surface, gasoline or oil deliberately placed in a registered (but not permitted) underground storage tank, or even chemicals deliberately applied to water in an in-ground swimming pool.33 Just as an in-ground evaporation pond is "adjacent to water in the state" based on its presumed proximity to groundwater, or potential to evaporate off material that could be deposited elsewhere,34 these other activities would similarly entail discharges of non-waste pollutants into land-based units adjacent to water in the state and/or result in disposal by evaporation as envisioned in the TCEQ's Jurisdictional Theories. Without more detailed elaboration on these issues, though, it is unclear whether and why the statute might require permits in one such scenario and not the other. The statute does not draw such a line³⁵ and there is no written regulation or guidance from the TCEQ that clearly explains such boundaries or the basis for selecting them.

D. MEANING OF "ADJACENT TO WATER IN THE STATE"

It is plain on the face of the relevant statutes that water in the state includes ground-water.³⁶ As I have suggested above, the TCEQ's interpretation of that language, embedded and implicit in the TLAP Instructions and the Evaporation GP, presumes that placing wastewater into an in-ground impoundment is always a discharge "adjacent to" a water in the state, presumably groundwater.³⁷ However, there is no clear support in the statutory language for that proposition, or a definition of the term "adjacent."³⁸

Further, there is limited case law on the scope and meaning of the statutory terms in question. Case law does establish what "water in the state" means—including, for exam-

²⁸ See id. at 17.

²⁹ See Tex. Water Code Ann. § 26.027 (2015).

³⁰ Id.

³¹ See TLAP Instructions, supra note 3, at 17.

³² Tex. Water Code Ann. § 26.027 (2009).

³³ See id.

³⁴ See Evaporation GP, supra note 4, at 4.

³⁵ See Tex. Water Code Ann. § 26.027 (2015).

³⁶ Id. § 26.001(5).

Evaporation GP, supra note 4, at 4. See TLAP Instructions, supra note 3, at 17.

³⁸ See generally Tex. Water Code Ann. § 26.001 (2015).

ple, drainage ditches with bed and banks that occasionally hold water.³⁹ But case law discussing the meaning of "adjacent" is essentially limited to one case—the 2001 decision in *Watts v. State.*⁴⁰ The court in *Watts* deferred to the fact-finder's conclusion that "the discharge of sewage within one hundred and fifty feet" of a jurisdictional drainage ditch "falls within the plain and ordinary meaning of the term 'adjacent,'" dictionary-defined to mean "not distant or far off" and "nearby but not touching."⁴¹ Though *Watts* was reversed on other grounds, it remains the only case where the Texas courts have discussed the meaning of "adjacent."

In another published case, *Heiringhoff v. State*, an appeals court did not specifically parse the meaning of the term "adjacent" but it wrestled with a sewage discharge to the ground and whether or not contaminants from that discharge would likely impact groundwater.⁴² The court in *Heiringhoff* concluded that the State's expert testimony on depth to groundwater and permeability of soils was not "too weak, by itself, to support the jury's findings that the discharge was adjacent to water."⁴³ The lengthy discussion in that case of groundwater depth, migration of sewage discharges from the surface, permeability of soils, and the ability of contaminants to travel through soils,⁴⁴ however, at least suggests that jurisdictional "adjacency" may not be simply a matter of absolute distance but rather whether something is near enough to water to present a threat.

In the 2001 Watts decision, the court explained that "'[a]djacent' is a simple word with a plain meaning that clearly conveys to the public the legislature's intent to criminalize the discharge of a waste or a pollutant into or near water in the state."⁴⁵ But how near is "near"? And more to the point of Heiringhoff, if groundwater is not present, only present at extreme depths, located beneath impermeable barriers or otherwise not threatened by a waste or pollutant found at the surface, or if a pollutant is immobile and physically won't leach into groundwater, has there been a discharge "adjacent to" groundwater?⁴⁶ The TCEQ's descriptions of when a TLAP or Evaporation GP are required suggest that the TCEQ would answer that question in the affirmative in every circumstance involving the placement of wastewater in an impoundment or on the ground; at least the agency volunteers no circumstances where such a permit would not be required.⁴⁷ That reading of the law, however, is not the only reasonable reading.

In addition to the limited case law described above, there is one administrative law decision from 2011 (an enforcement action) that also touches on these issues, unfortunately without deciding them conclusively. Specifically, in *Texas Commission on Environ-*

³⁹ See, e.g., Watts v. State, 140 S.W.3d 860, 860 (Tex. App.—Houston [14th Dist.] 2004, pet. ref'd); Am. Plant Food Corp. v. State, 587 S.W.2d 679 (Tex. Crim. App. 1979, no writ). Notably, the phrase "adjacent to water in the state" has only really been addressed by the State's courts in criminal enforcement actions under Tex. Water Code § 7.145, which uses the same phrase, rather than in some action involving the meaning of Section 26.027 itself.

⁴⁰ Watts v. State, 56 S.W.3d 694 (Tex. App.—Houston [14th Dist.] 2001, pet. granted), rev'd on other grounds, 99 S.W.3d 604 (Tex. Crim. App. 2003).

⁴¹ Watts, 56 S.W. 3d at 703 (citing Webster's Third New Int'l Dictionary 26 (1993)).

⁴² Heiringhoff v. State, 130 S.W.3d 117, 133 (Tex. App.—El Paso 2003, pet. ref'd).

⁴³ Id.

⁴⁴ Id. at 122-25.

⁴⁵ Watts, 56 S.W.3d at 704.

⁴⁶ Heiringhoff, 130 S.W.3d at 133.

⁴⁷ See TLAP Instructions, supra note 3, at 17.

mental Quality v. Big D Hazmat Inc., et al., the TCEQ Executive Director had taken enforcement action against Big D and some of its affiliates,⁴⁸ alleging that Big D was cleaning equipment and managing wastewater inside a closed loop water washout facility without an "evaporation permit" (presumably meaning a TLAP, and that Big D pumped a large volume of wastewater by hose over the wall of one of the facility's basins and down a hill toward a creek.⁴⁹ The TCEQ's latter count—for the actual discharge of wastewater to the ground and ultimately into a creek—seemed straightforward and was easily affirmed by the judge from the State Office of Administrative Hearings (SOAH) in her proposal for decision (PFD).⁵⁰ The former count, however, was poorly received by the SOAH judge:

It is true that Respondents placed frac tank rinsate in an oil-water separator and skimmed the oil off. However, this treatment activity alone does not amount to a violation of the cited portion of the statute. . . . Moreover, § 26.121 does not prohibit unauthorized wastewater treatment activities; rather, the plain language of the statute prohibits unauthorized discharges or activities causing pollution. Therefore, even if the discharge was waste from the equipment washing business, the mere treatment of the wastewater would not constitute a violation of this statute [T]he [Executive Director] has failed to show that any unpermitted wastewater treatment activities by Respondents constituted a separate violation of the same statutory provision. ⁵¹

The TCEQ Executive Director's exceptions to the PFD pressed the Commissioners to modify the proposed decision and to affirmatively find that washing frac tanks and treating the rinsate in an oil-water separator is enough of a wastewater treatment activity to require an evaporation permit for such activity.⁵² Judge Kilgore, however, stuck to her guns, responding that:

the PFD also concludes that the storage and treatment of oilfield rinsate, not shown to be related to the wastewater discharged, is not an additional violation of the same section of the statute. The Executive Director (ED) excepts to this conclusion, arguing, in part, that evaporation from the rinsate is a 'discharge' adjacent to a nearby creek, requiring a permit. . . . The statutory definition of 'discharge' makes no mention of evaporation, and the ED has neither pled nor

⁴⁸ Tex. Comm'n Envtl. Quality v. Big D Hazmat, Inc., An Order Assessing Administrative Penalties Against and Requiring Corrective Action by Big D Hazmat, Inc., Duncan Services, Inc., and Robert L. Duncan, Tex. Comm'n Envtl. Quality Docket No. 2009-1905-IWD-E, SOAH Docket No. 582-10-5396 (Oct. 20, 2011) [hereinafter Big D Order].

⁴⁹ Tex. Comm'n Envtl. Quality v. Big D Hazmat, Inc., *Proposal for Decision*, Tex. Comm'n Envtl. Quality Docket No. 2009-1905-IWD-E, SOAH Docket No. 582-10-5396, at 1 (July 26, 2011) [hereinafter Big D PFD].

⁵⁰ Id. at 18.

⁵¹ Id.

Tex. Comm'n Envtl. Quality v. Big D Hazmat, Inc., Executive Director's Exceptions to the Proposal for Decision, Tex. Comm'n Envtl. Quality Docket No. 2009-1905-IWD-E, SOAH Docket No. 582-10-5396, at 2-3 (Aug. 22, 2011) [hereinafter Big D ED's Exceptions].

cited to a rule indicating that evaporation is a discharge that triggers the need for a permit. Nor has the ED pointed to any agency policy to that effect.⁵³

In a footnote to that same passage, fellow administrative law judge Kilgore stated "[n]or is it clear how waste could evaporate 'into' water in the state, or how evaporation 'adjacent to' water in the state could pose a water quality issue." ⁵⁴

Big D comes closer than any other case to addressing the TCEQ's view that zero discharge wastewater handling facilities require a Water Code permit. Specific questions underlying the TCEQ's Adjacency to Groundwater theory—"what constitutes adjacency?" and "if it's inside a tank or a liner or other containment, has it been 'discharged' adjacent to water in the state?"—were not discussed or answered. But the PFD and the judges' response to the TCEQ Executive Director's exceptions at least suggest that a zero discharge facility would not obviously always be subject to Texas Water Code permitting and cast serious doubt on whether there is any statutory, regulatory, or factual basis for requiring a Texas Water Code permit based on the Disposal by Evaporation theory. 55

At the Commissioners' agenda meeting later that year, the Commission approved the PFD without significant modification, declining to accept the Executive Director's argument that the zero discharge wastewater treatment activity itself or any evaporation resulting from that activity would have required a permit independent of the actual discharge of waste to the ground and into the nearby creek. Without more, the *Big D* case appears to stand for the proposition that neither zero discharge wastewater treatment activities, nor evaporation therefrom, require a Texas Water Code permit—or at a minimum for the proposition that the Executive Director was unable to bear its burden of proof that an obligation existed in that specific case. The asserted existence of such a requirement specifically created a legal question about the meaning of the TCEQ's own rules that the Commission could have directly opined upon rather than deferring to SOAH. The Commission did not take the opportunity to answer that question, however, rendering the Commission's decision to adopt the PFD without modification as meaningful, albeit imperfect, precedent for the former proposition.

Notably, in discussing the issue of whether such a permit might have been required in the absence of an actual discharge, Chairman Shaw remarked at agenda that "we probably need to have a look at our rules and our guidance in matters of this type to see if there are some ways we can't tighten some things up, clarify some things, and work to

Tex. Comm'n Envtl. Quality v. Big D Hazmat, Inc., Letter of Administrative Law Judge Shannon Kilgore, State Office of Administrative 2009-1905-IWD-E Hearings, to Les Trobman, Tex. Comm'n Envtl. Quality General Counsel, Tex. Comm'n Envtl. Quality Docket No. 2009-1905-IWD-E, SOAH Docket No. 582-10-5396, at 1-2 (Sept. 12, 2011) [hereinafter Big D Kilgore Exceptions Letter].

⁵⁴ Id. at 2.

⁵⁵ See id.

Video: Tex. Comm'n Envtl. Quality, Commissioners Agenda Meeting (Oct. 18, 2014), http://www.texasadmin.com/agenda.php?confid=TCEQ_OM101811&dir=tnrcc [hereinafter Archive Video I].

⁵⁷ See Big D PFD, Tex. Comm'n Envtl. Quality, Docket No. 2009-1905-IWD-E, SOAH Docket No. 582-10-5396, at 20 (July 26, 2011).

⁵⁸ Big D Order, Tex. Comm'n Envtl. Quality Docket No. 2009-1905-IWD-E, SOAH Docket No. 582-10-5396, at 7 (Oct. 20, 2011); see also Archive Video I, supra note 56.

insure that it's a little more clear what type of permit would be required if indeed one is required because it doesn't really fit well . . . within the realm of permits of the type we have."⁵⁹ Indeed.

E. DISCHARGE/DISPOSAL VIA EVAPORATION

As a reminder, sections 26.027 and 26.121 of the Texas Water Code govern discharges of waste and pollutants into or adjacent to water in the state.⁶⁰ Neither provision contains any express or implied prohibition on the evaporation of wastes or pollutants.⁶¹ Under the statute, then, would evaporation ponds fall within the scope of the Texas Water Code's permitting obligations on the theory that material evaporates and might subsequently precipitate or deposit elsewhere? Would that apply only where such evaporation was intentional or also to other open-top units where it was not?

Judge Kilgore's response to the TCEQ Executive Director's exceptions in *Big D*, as discussed above, casts doubt on both the mechanics and the legal basis for the agency's Disposal by Evaporation theory.⁶² A jurisdictional theory that "what goes up must come down"—and when it comes down, it inevitably impacts water in the state—is the apparent argument for deeming evaporation to be a discharge or an otherwise-regulated event. There is arguably room to read the statute in that way given its breadth. Yet, there is no technical basis or explanation offered to support this view in any public writings of the TCEQ, there are no rules that address it, and there is nothing in the statute itself that even touches on that concept. If such an explanation exists, it has yet to reveal itself.

III. A BRIEF DISCUSSION OF THE TCEQ'S AUTHORITY OVER WASTE HANDLING

In addition to its Water Code authority, the TCEQ also has clear statutory authority over "waste," allowing it to regulate the management of wastes and giving it the authority to register or permit the placement of wastes onto or into land.⁶³ Indeed, such activi-

⁵⁹ Archive Video I, supra note 56.

⁶⁰ Tex. Water Code Ann. §§ 26.027, 26.121 (2015).

⁶¹ See id.

⁶² See Big D Kilgore Exceptions Letter, Tex. Comm'n Envtl. Quality Docket No. 2009-1905-IWD-E, SOAH Docket No. 582-10-5396, at 1-2 (Sept. 12, 2011).

The TCEQ has broad authority over waste. Tex. Health & Safety Code Ann. § 361.017 (2015) ("The commission is responsible for the management of industrial solid waste and hazardous municipal waste and shall coordinate industrial solid waste and hazardous municipal waste activities. . . . The commission shall accomplish the purposes of this chapter by controlling all aspects of the management of industrial solid waste and hazardous municipal waste by all practical and economically feasible methods consistent with its powers and duties under this chapter and under law."). The TCEQ is specifically directed to authorize the on-site management and disposal of non-hazardous industrial solid wastes via a registration process rather than via permits. Tex. Health & Safety Code Ann. § 361.090 (2015) ("The commission may not require a permit under this chapter for the collection, handling, storage, processing, and disposal of industrial solid waste that is disposed of within the boundaries of a tract of land that is: (1) owned or otherwise effectively controlled by the owners or operators of the particular industrial plant, manufacturing plant, mining opera-

ties are highly regulated pursuant to the Texas Health and Safety Code and a comprehensive set of waste regulations, guidance, permits, and registrations.⁶⁴

A. Texas Health and Safety Code Waste Authorizations and Rules

Under Texas Health and Safety Code section 361.061 and other related sections, the state requires permits for many types of industrial solid waste and hazardous waste storage, processing, and disposal activities.⁶⁵ Related provisions of the same statute, however, exempt from formal permitting the storage or disposal of one's own non-hazardous industrial solid wastes on one's own property, requiring instead that: (1) such units be registered with the TCEQ; and (2) such activities comply with numerous self-implementing regulatory requirements.⁶⁶ What does that exemption from permitting (and provision for "registration" instead) mean as a practical matter?

Under the TCEQ's regulations and guidance, the registration process for such units includes the submission of extensive and detailed technical and design information for review by the TCEQ's Waste Permits Division staff, the same individuals that review applications for waste disposal permits.⁶⁷ In discussing non-permitted, on-site nonhazardous industrial waste storage and disposal facilities, the TCEQ directs the operator to first submit information including the facility location, the type of unit, the location of the unit at the facility, unit design information, a description of type and amount of waste to be managed in the unit, a description of daily operations of the unit, a description of inspections of the unit (frequency and items to be inspected), and a description of how unit will be closed.⁶⁸ These are the same types of information required by the TCEQ in an application for a solid waste disposal permit.⁶⁹ The TCEQ further states that, in addition to the requirement to submit such information and receive approval for the registra-

tion, or agricultural operation from which the waste results or is produced; and (2) located within 50 miles from the plant or operation that is the source of the industrial solid waste."). See also 30 Tex. Admin. Code. §§ 335.2, 335.6 (2015) (providing for authorization of on-site non-hazardous industrial solid waste management and disposal via registration instead of permitting).

⁶⁴ See Tex. Health & Safety Code Ann. § 361.090 (2015).

⁶⁵ Id.

⁶⁶ Id. (codifying in the Texas statutes in 1989 comparable regulations that had been adopted in 1986 by the TCEQ's predecessor agency and that appear to have been part of the Texas Department of Water Resources' regulations even back into the 1970s). See also Tex. S.B. 1517, 71st Leg., R.S. (1989).

⁶⁷ See Industrial and Hazardous Waste, Tex. Comm'n Envtl. Quality, www.tceq.texas.gov/permitting/waste_permits/ihw_permits.html (last visited Nov. 8, 2015). Indeed, the TCEQ's web page describing Industrial and Hazardous waste permits including "Types of permits and requirements for permit holders" lists non-permit registrations. See also 30 Tex. Admin. Code ch. 335.

⁶⁸ Hazardous Waste Activities that Require Notifying the TCEQ, Tex. Comm'n Envt'l. Quality, https://www.tceq.texas.gov/permitting/waste_permits/ihw_permits/ihw_335_6.html (last visited Nov. 8, 2015).

⁶⁹ See Apply for or Modify a Municipal Solid Waste Authorization, Tex. Comm'n Envil. Quality, https://www.tceq.texas.gov/permitting/waste_permits/msw_permits/perm_reg_mod. html (last visited Nov. 8, 2015).

tion of such a unit, "the following requirements apply even if the activity is exempt from permitting: You must still comply with the rules for proper waste management (see subchapters C and H of 30 Texas Administrative Code Chapter 335; You remain subject to the restrictions detailed in 30 TAC 335.4, which are general prohibitions against polluting the water, creating a nuisance, or endangering public health and welfare."⁷⁰

In addition to these requirements, the TCEQ's Office of Waste has published technical guidance documents setting standards for such units, including the agency's Technical Guideline No. 2 for Industrial Solid Waste Landfills (TG-2),⁷¹ and Draft Technical Guideline No. 4 for Nonhazardous Industrial Solid Waste Surface Impoundments (TG-4).⁷² The latter document describes the appropriate geology, hydrology, climate, construction, liner, design, leak detection, groundwater monitoring, recordkeeping, closure, and post-closure standards for nonhazardous waste surface impoundments that are "generally used for the management of industrial wastewater, including storage, treatment through aeration, equalization, neutralization, and other methods."⁷³ But nowhere does TG-4 suggest that such nonhazardous industrial solid waste impoundments require a Water Code permit above and beyond the TCEQ's approval of a waste registration application.

Solid waste registration packages for on-site nonhazardous industrial waste units prepared pursuant to TG-4 often involve hundreds of pages of highly technical material, yet, drawing on personal experience, the applicant virtually always faces demands for significant additional information before the TCEQ accepts the registration and approves construction of the unit. The TCEQ's Waste Permits staff, in my experience, is not in the business of approving a waste unit registration absent an adequate demonstration of the unit's protectiveness.

It is true that on-site units managing their own non-hazardous wastes may be subject to less public process and to somewhat less regulation than permitted *commercial* waste disposal facilities managing third party wastes or facilities that treat, store, or dispose of *hazardous* wastes.⁷⁴ But even with the benefit of an exemption from formal permitting, on-site nonhazardous waste facilities are still heavily regulated and are eligible for construction only after a careful process resulting in the TCEQ's approval.

⁷⁰ Exemptions from Industrial and Hazardous Waste Permitting, Tex. Comm'n Envtl. Quality, https://www.tceq.texas.gov/permitting/waste_permits/ihw_permits/ihw_exemptions.html (last visited Nov. 8, 2015).

⁷¹ Tex. Comm'n Envil. Quality, Technical Guideline No. 2 for Industrial Solid Waste Landfills (2011), available at http://www.tceq.state.tx.us/assets/public/permitting/waste/ihw/tg2.pdf.

TEX. COMM'N ENVIL. QUALITY, TECHNICAL GUIDELINE NO. 4 FOR NONHAZARDOUS INDUSTRIAL SOLID WASTE SURFACE IMPOUNDMENTS (2009) [hereinafter TG-4], available at http://www.tceq.state.tx.us/assets/public/permitting/waste/ihw/tg4%20_12-08-14%20(Up dated%209.2.15).pdf.

⁷³ TG-4, supra note 72, at 1.

^{74 30} Tex. Admin. Code § 335.583 (2015).

B. THE TCEQ CLAIMS WASTEWATER SURFACE IMPOUNDMENTS REQUIRE WATER CODE AUTHORIZATION IN ADDITION TO WASTE AUTHORIZATION

In the TCEQ's view, because some on-site units are exempt from waste permitting, Water Code permitting is strictly necessary for wastewater management activities adjacent to water in the state, even where they have been properly registered and approved through the TCEQ's Office of Waste.⁷⁵ The TCEQ's Evaporation GP makes clear, for example, that the TCEQ expects a surface impoundment managing wastewater to not just obtain coverage under the Evaporation GP but *also* to obtain separate waste authorizations under the Texas Health and Safety Code.⁷⁶ Specifically, the "general permit does not provide authorization for the storage, processing, or disposal of solid waste. It is the responsibility of any person conducting such activities to comply with any applicable requirements of the Commission[,]" including regulatory chapters governing sewage sludge use, disposal, and transportation, municipal solid waste, and industrial solid waste and municipal hazardous waste management.⁷⁷

This claimed requirement is significant because the TCEQ's Office of Waste already regulates nonhazardous industrial solid waste units through its registration authority, its other waste regulations, and its extensive guidance on how such impoundments are to be designed, sited, constructed, operated, and maintained.⁷⁸ The TCEQ's TG-4 guidance document on such impoundments expressly discusses in-ground units designed to store, manage, and treat non-hazardous industrial wastewater and explains that such units are authorized pursuant to the TCEQ's solid waste registration requirements.⁷⁹ But again, as noted above, the document makes no reference to any need for a separate authorization under the Texas Water Code or pursuant to a TLAP.⁸⁰ And importantly, the standards presented in the TG-4 document for managing industrial wastewaters in an in-ground surface impoundment diverge from the standards presented in the 2014 Evaporation GP for precisely the same activity.⁸¹

From this regulatory history, it seems that the left hand and the right hand at the agency have not communicated effectively with each other. The TCEQ's Office of Waste has developed extensive guidance and approved industrial wastewater impoundments and other land-based non-hazardous waste management units without any apparent recognition that the Office of Water had separately asserted authority over the very same units under the Water Code, claiming that formal TLAP authorization was required above and beyond any agency approval via waste registration. This seems an unfortunate circumstance, especially given that Texas in 1993 deliberately merged the primary Texas environmental agencies, the Texas Water Commission and the Texas Air

⁷⁵ TLAP INSTRUCTIONS, supra note 3, at 4-5.

⁷⁶ See Evaporation GP, supra note 4, at 10.

⁷⁷ Stepney Memo, supra note 26, at 2.

⁷⁸ See generally TG-4, supra note 72; Stepney Memo, supra note 26, at 2.

⁷⁹ TG-4, supra note 72, at 5-8.

⁸⁰ See generally TG-4, supra note 72.

⁸¹ Compare TG-4, supra note 72, with Evaporation GP, supra note 4.

⁸² Compare 30 Tex. Admin. Code §§ 305.41-301.54 (2015) with TLAP Instructions, supra note 3, at 4.

Control Board, into a single agency,⁸³ the Texas Natural Resource Conservation Commission (now the TCEQ) in part to enable the state's environmental regulatory authorities to speak with a single, coherent voice and to help minimize inconsistency and duplication in regulation.⁸⁴ Even presuming that the TCEQ's assertion of Water Code permitting authority is valid and they *can* require both of these overlapping authorizations that address the same set of risks from the same set of activities, an important question remains as to whether it *should*.

IV. THE TCEQ'S RELATED PERMIT PROGRAMS UNDER ITS CLAIMED WATER CODE AUTHORITY

As explained above, the TCEQ has broad permitting and enforcement authority regarding the discharge of wastes and pollutants into or adjacent to water in the state. The TCEQ has used its water quality authority, however, to create Water Code permitting requirements governing the handling and management of wastes on dry land that are in addition to and largely duplicative of existing regulation and authorization of the same activities by the agency's Office of Waste. The extent to which the TCEQ actually possesses Water Code jurisdiction over those waste handling activities seems far less clear than under its waste authorities—no linguistic gymnastics are required for the agency to regulate waste impoundments under the Solid Waste Disposal Act. He assertion of Water Code jurisdiction is fundamental to what the TCEQ is attempting to require via the TLAP program and, more recently, with the alternative authorization it has provided in the Evaporation GP. As explained above, the authority for both of these permits relies on two somewhat questionable Jurisdictional Theories: the Adjacency to Groundwater theory and Disposal via Evaporation theory.

A. THE TEXAS LAND APPLICATION PERMIT (TLAP) PROGRAM

In the TCEQ's TLAP Instructions, the agency explains that a Texas Land Application Permit is "an authorization issued by the Commission for the discharge of waste adjacent to water in the state in compliance with the Texas Water Code." In discussing "who must apply for an industrial wastewater permit," the instructions go on to explain that any owner or operator of a "facility that generates wastewater and that wishes to: 1) discharge wastewater into water in the state (TPDES permit) or 2) dispose of wastewater adjacent to waters in the state by irrigation, evaporation, or subsurface disposal (TLAP)" must obtain such a water authorization. ⁸⁹

⁸³ See Flowchart of TCEQ and its Predecessor Agencies, Tex. Comm'n Envtl. Quality, www.tceq.state.tx.us/about/tceq-flowchart.html (last visited Nov. 8, 2015).

⁸⁴ Id.

⁸⁵ See generally TLAP Instructions, supra note 3; Evaporation GP, supra note 4.

See Tex. Health & Safety Code Ann. § 361.017 (2015) (granting the TCEQ responsibility "for the management of solid waste").

⁸⁷ See TLAP Instructions, supra note 3, at 17; Evaporation GP, supra note 4, at 4.

⁸⁸ TLAP Instructions, supra note 3, at 11.

⁸⁹ Id. at 17.

A version of that language has existed at least since 2006 in an earlier publication of those instructions⁹⁰ and references to TLAP date to as early as 2002 in connection with the TCEQ's rules on beneficial reuse of certain wastewaters.⁹¹ There has been no TLAP rulemaking, however, and there is no TCEQ regulation that itself sets forth requirements for TLAPs. Presumably, though, the TCEQ developed the TLAP as a state-only alternative to the TPDES permit, which authorizes actual, direct discharges to surface water. The TCEQ received authority to issue TPDES permits by delegation from the EPA in 1998.⁹²

The statutory definition of "water in the state" clarifies that such water includes both surface water and groundwater; however, as explained above, what both the TLAP Instructions and the underlying statute leave wholly unstated and unclear is the meaning of the term "adjacent to" waters in the state. Without further guidance, the one court that has attempted to define adjacency with respect to waters in the state resorted to ordinary dictionary definitions. As implemented through the TLAP program (and now in the Evaporation GP), proximity to surface water now appears to be all but irrelevant since in practice the TCEQ's Office of Water deems all land in the state to be inherently "adjacent to" groundwater—any land located above any possible groundwater resource is thus considered "adjacent to water in the state." The TCEQ further suggests that evaporation of wastewater can lead to the transportation and deposition of waste that could reach surface water or groundwater, making that evaporation and/or deposition a regulated discharge.

If the TCEQ's Jurisdictional Theories are valid, it is hard to imagine any location in Texas that the TCEQ would not consider to be "adjacent to water in the state." Yet that incredibly broad view finds no expression in any definition contained in any Texas statute, in any regulation, or in any published Texas case law and there is no explained basis or justification for that view in any identified TCEQ guidance document or memorandum. And even if the TCEQ has somewhere clarified the legal basis for the Jurisdictional Theories or fully defined the broad circumstances in which it requires a TLAP or other "no discharge" Water Code permit, that effort has not been the subject of any rulemaking nor involved public notice and comment on that question. As discussed below, only with the recent arrival of the Evaporation GP98 did many members of the regulated community begin to understand the breadth of the TCEQ's claimed jurisdiction and to raise questions about it. When recently faced with an opportunity to specifically address

⁹⁰ Tex. Comm'n Envil. Quality, Completing the Industrial Wastewater Permit Application, Form TCEQ-10411/10055-Instructions (2006).

^{91 27} Tex. Reg. 6220 (July 12, 2002).

⁹² See What is the "Texas Pollutant Discharge Elimination System (TPDES)"?, Tex. Comm'n Envtl. Quality, http://www.tceq.state.tx.us/permitting/wastewater/pretreatment/tpdes_def inition.html (last visited Nov. 8, 2015).

⁹³ TLAP INSTRUCTIONS, supra note 3, at 17.

⁹⁴ See Watts v. State, 56 S.W. 3d 694, 703 (Tex. App.—Houston [14th Dist.] 2001, pet. granted), rev'd on other grounds, 99 S.W.3d 604 (Tex. Crim. App. 2003).

⁹⁵ See Evaporation GP, supra note 4, at 4.

⁹⁶ See TLAP Instructions, supra note 3, at 17.

⁹⁷ See Tex. Gov't Code Ann. §§ 2001.023-2001.029 (2015).

⁹⁸ See Stepney Memo, supra note 26, at 7.

the scope of that jurisdiction, however, the Commissioners affirmatively chose not to address the issue.⁹⁹

This is not to say that "land application" of waste has not been addressed in the TCEQ's regulations. It has, but only in the very narrow context of land application of sewage sludge; in title 30, chapter 312 of the Texas Administrative Code, the TCEQ indicates that "a permit shall be required before any storage, processing, incineration, or disposal of sewage sludge,"100 setting out therein "standards and requirements for permit applications to land apply." Notably, however, "land application" is defined in those rules to mean the "spraying or spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the soil so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil."102 The only other references to "land application permits" or TLAPs in the entirety of the TCEQ's regulations are in 30 Texas Administrative Code section 210.51(c), where the agency notes that discharges subject to a TPDES permit or TLAP are authorized "end uses" of reclaimed water¹⁰³ and in 30 Texas Administrative Code section 311.82, a discussion of existing quarries within the John Graves Scenic Riverway that hold either TPDES permits or TLAPs. 104 Nowhere do the TCEQ's rules set forth any criteria for, or any list of activities, requiring a TLAP.

Ultimately, except for permits to land apply sewage sludge, ¹⁰⁵ there is no TCEQ regulation anywhere that describes the origin, scope, applicability, or minimum standards required for purposes of the TLAP program. In addition, despite several Texas Public Information Act requests to the TCEQ, the agency has been "unable to find any references under which the TLAP program was proposed and adopted," ¹⁰⁶ any way of determining "when the first TLAP guidance or application forms/instructions were published," ¹⁰⁷ or "any memoranda discussing the TCEQ's authority to require facilities to obtain TLAP permits." ¹⁰⁸

In light of this regulatory history, one can understand how a member of the regulated community would be surprised to find that a fully lined, zero discharge surface impoundment, registered with and approved by the TCEQ for handling wastewater, was *also* required in the TCEQ's view to have obtained a TLAP (or, since 2014, an Evaporation GP), especially where the operation of such an impoundment does not involve any manner of "land application" within the meaning of the TCEQ's only regulatory definition of that term.

⁹⁹ Archive Video I, supra note 57.

^{100 30} Tex. Admin. Code § 312.4(a) (2015).

¹⁰¹ Id. § 312.11(a).

¹⁰² Id. § 312.8(47).

¹⁰³ Id. § 210.51(c).

¹⁰⁴ Id. § 311.82.

¹⁰⁵ See id. § 312.4(a).

¹⁰⁶ E-mail from Robert Macias, Open Records Coordinator, Tex. Comm'n Envtl. Quality, Office of Water/Water Quality Div., to Timothy Wilkins, Partner at Bracewell & Giuliani LLP (Jun. 1, 2015) (on file with author).

¹⁰⁷ E-mail from Robert Macias, Open Records Coordinator, Tex. Comm'n Envtl. Quality, Office of Water/Water Quality Division, to Timothy Wilkins, Partner at Bracewell & Giuliani LLP (Jun. 5, 2015) (on file with author).

¹⁰⁸ Macias, supra note 106.

B. 2014 GENERAL PERMIT FOR EVAPORATION PONDS

In 2013, faced with questions about the necessity of a TLAP for lined, zero-discharge evaporation ponds, the TCEQ proposed to develop and issue a general permit for "disposal by evaporation" from surface impoundments "adjacent to water in the State"—the so-called Evaporation GP.¹⁰⁹ "General permits" under the Texas Water Code are authorizations, subject to conditions, for entire categories of wastewater discharges, 110 distinct from individual TPDES permits or TLAPs, which are issued on a case-by-base, facilityby-facility basis. Individual permits normally require individual public notice and comment periods and an opportunity for affected persons to seek a contested case hearing to challenge the permit's issuance. 111 General permits, on the other hand, go through public notice and comment and, once approved, applicants for coverage under the general permit only need agency approval without facing facility-specific public notice, comment, or challenge.¹¹² The most common types of general permits are stormwater discharge permits for construction and for different categories of industry. 113 Authorization under general permits is ordinarily obtained by providing the TCEQ a "notice of intent" to be covered under the terms of the applicable general permit and compliance with that general permit's various restrictions and obligations. 114

On the particular question of the Evaporation GP, the Executive Director issued a November 13, 2013 preliminary decision to issue a general permit covering evaporation of wastes from surface impoundments.¹¹⁵ The proposal to adopt the Evaporation GP was published in the Texas Register and a number of newspapers of general circulation in the State just ahead of the holidays on December 20, 2013, leaving the proposal open for public comment until January 24, 2014.¹¹⁶ The TCEQ received only one nonsubstantive comment in response, and the Commission easily and appropriately dismissed that com-

¹⁰⁹ Tex. Comm'n Envil. Quality, Fact Sheet and Executive Director's Preliminary Decision, General Permit WQG100000 1 (last visited Nov. 8, 2015) https://www.tceq.texas.gov/assets/public/permitting/wastewater/wqg100000_factsheet.pdf [hereinafter Fact Sheet].

¹¹⁰ Available Water Quality General Permits, Tex. Comm'n Envtl. Quality, https://www.tceq.texas.gov/agency/permitting/wastewater/general/index.html (last visited Nov. 8, 2015)

¹¹¹ See Industrial Wastewater Discharges: The Permit Process, Tex. Comm'n Envil. Quality, http://tceq.com/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html (last visited Nov. 8, 2015).

¹¹² See 30 Tex. Admin. Code. §§ 205.2, .3, .4 (2015).

¹¹³ See Tex. Comm'n Envil. Quality, Multi Sector General Permit No. TXR050000 (2011); Tex. Comm'n Envil. Quality, TPDES General Permit No. TXR040000 (2007).

^{114 30} Tex. Admin. Code. § 205.4 (2015).

¹¹⁵ FACT SHEET, supra note 109, at 1.

^{116 38} Tex. Reg. 9393 (Dec. 20, 2013). See also Stepney Memo, supra note 26, at 4; Tex. Comm'n Envtl. Quality, Docket No. 2014-0054-RUL, Commissioners' Response to Public Comment on General Permit WQG100000 at 2 (March 25, 2014) [hereinafter Response to Public Comment], available at https://www.tceq.texas.gov/assets/public/comm_exec/agendas/comm/backup/Agendas/2014/3-26-2014/0054RUL.pdf.

ment in the Commissioner's Response to Comments.¹¹⁷ With that process completed, the Evaporation GP proposal was placed on the TCEQ Commissioners' agenda for adoption, presumably without significant fanfare, on March 26, 2014.¹¹⁸

1. THE MARCH 26, 2014 AGENDA MEETING

The effort to quickly adopt the Evaporation GP, however, did not go so smoothly. After a brief presentation on the Evaporation GP by Laurie Fleet of the TCEQ's Office of Water, attorney Jeff Civins of Haynes and Boone, LLP spoke, raising to the Commissioners serious concerns with the Evaporation GP's "implication" that facilities "subject to this General Permit were required to have permits already, and that's not been the practice." Mr. Civins pointed out that "there are many facilities in the State that have impoundments that have been authorized under the Solid Waste Disposal Act for the management of solid waste and these facilities were under the impression that they were not required . . . to obtain a permit as well from the Water Quality Division." He noted that such facilities "have exposure to liability because arguably they have not been in compliance although they have received authorization from the Commission" and that although Texas Water Code section 26.121 prohibits discharges without authorization, these facilities "have authorization from the Commission . . . under another program." Lead of the Evaporation of the Commission of the Commission of the Program." Lead of the Evaporation of the Commission of the Commission

Civins also went on to attack a practical problem: for facilities already constructed under Solid Waste Disposal Act authority, the Evaporation GP (and presumably any new individual permit under the Water Code) could and likely would retroactively apply complex technical design and construction standards that a facility constructed years ago would not have known of and could not hope to meet. Later in his remarks, Civins expressly noted that staff's view that there had been a requirement to obtain authorization for impoundments under both statutes "all along" had "not been the practice," having ten years ago "sat down with the agency with a power plant wanting to build impoundments" to be told that "the only authorization you need is under the industrial solid waste program." He concluded by stating that, if "today we're announcing a new policy . . . there should be stakeholder involvement," and "there should be rulemaking

¹¹⁷ Response to Public Comment, *supra* note 116, at 2. Interestingly, the TCEQ's response confirms that the GP would not authorize "air emissions"; yet, on its face, it authorizes the disposal of pollutants via evaporation.

Marked Agenda, Tex. Comm'n Envtl. Quality (Mar. 26, 2014), available at http://www.tceq.state.tx.us/assets/public/comm_exec/agendas/comm/marked/2014/140326.Mrk.pdf.

¹¹⁹ See Video: Tex. Comm'n Envtl. Quality, Commissioners' Agenda Meeting (Mar. 26, 2014), http://www.texasadmin.com/agenda.php?confid=TCEQ_OM032614&dir=tnrcc. [hereinafter Archive Video II].

¹²⁰ Archive Video II, supra note 119.

¹²¹ Id.

¹²² Id. See also TG-4, supra note 72, at 5-8 (providing extensive siting, design, and construction criteria for surface impoundments used for the management of industrial wastewater). By way of example, the TG-4 guidance document authorizes the construction of surface impoundments with liners constructed of two feet of compacted clay; the Evaporation GP requires such liners to be a minimum of three feet thick. See Evaporation GP, supra note 4, at 13.

¹²³ Archive Video II, supra note 119.

before the agency decides" to apply Texas Water Code chapter 26 in a way that it has not been applied before, "at least . . . not . . . uniformly." 124

2. The TCEQ Staff's Explanation of its Water Code Permitting Authority

Both the Commissioners and the TCEQ staff seemed to be caught off guard by Civins's challenge, a somewhat surprising event given that the Evaporation GP had been developed to address concerns from some in the regulated community about the need for Water Code permits for units that were already subject to review and approval under the Solid Waste Disposal Act.¹²⁵ The TCEQ staff pushed back, however, with attorney Chris Ekoh of the Environmental Law Division claiming that "we have some facilities that are not regulated . . . because they" were authorized by "notification . . . to the waste permitting section" without the TCEQ's waste staff even reviewing or approving the notice of registration.¹²⁶ "That surface impoundment is essentially going unregulated" and needs to "come into compliance," Ekoh continued, which it can do by "simply submitting an NOI for coverage under this General Permit."¹²⁷ According to Ekoh, the TCEQ has "consistently issued TLAPs for surface impoundments in most of these facilities," citing eight power plants in the state that have "surface impoundments that we regulate through the Water Quality Division, whether through a TLAP or through a TPDES. It's not a new policy."¹²⁸

Robert Martinez, the head of the agency's Environmental Law division then weighed in, stating that "some type of authority is required [for evaporation ponds] under Chapter 26, either by individual permit, general permit, or other authorization of the Commission. So if their sole claim of authority is Chapter 361 of the Health and Safety Code, they would need to obtain authorization under Chapter 26" as well. 129 L'Oreal Stepney, the TCEQ Deputy Director who heads the Office of Water, also spoke, explaining that

¹²⁴ Id.

¹²⁵ Id.

Id. In my view, Mr. Ekoh's characterization of the TCEQ's waste registration requirements appears to be incredibly and unfairly dismissive of the careful attention paid to on-site waste storage and disposal facilities by his colleagues in the TCEQ's Office of Waste. Mr. Ekoh suggests that a waste registration simply involves the submission of limited paperwork by a member of the regulated community without any review or approval by the TCEQ staff. With respect to units designed to store and manage any significant volume of industrial solid waste, this view does not comport with actual experience. Indeed, review of the TCEQ's Office of Waste's guidance document on non-hazardous industrial solid waste surface impoundments, as referenced above, shows that the TCEQ's Office of Waste's applicable standards are at least as detailed as those of the TCEQ's Office of Water's and the level of review provided by the TCEQ's Office of Waste of each such registration application is quite comprehensive.

See Archive Video II, *supra* note 119. In practice, a pre-existing impoundment would be very likely unable to come into compliance with the 2014 Evaporation GP by simply submitting a "notice of intent" as facilities built to the Office of Waste's technical guidelines would not satisfy the design and construction standards of the Evaporation GP. See, e.g., Evaporation GP, *supra* note 4, at 13.

¹²⁸ Archive Video II, supra note 119.

¹²⁹ Id.

"we have long issued TLAP permits for this type of operation and the purpose of the General Permit was to make that authorization as quick and as painless as possible." In sum, the representatives of the Executive Director spoke on the Evaporation GP at some length and took the firm position that Water Code authorizations have long (if not always) been required for surface impoundments in addition to the fully elaborated Health and Safety Code registration requirements. The TCEQ, however, did not attempt to (and could not if they had wanted to) point to any TCEQ regulation that described the contours of that asserted obligation.

3. Deciding not to Decide

Ultimately, the Commissioners recognized Civins's points about the necessity of duplicative authorizations, the fact that numerous facilities in the state (and, indeed, members of the TCEQ staff) have long operated under the reasonable assumption that facilities otherwise authorized did not require a permit under the Water Code, and that applying the TCEQ's interpretation of the Water Code retroactively would create an inappropriate enforcement risk and an insurmountable barrier for existing facilities asked to comply with the Evaporation GP's new and different standards for the design, construction, and operation of such impoundments.¹³²

Despite Civins's stated concern that approval of the Evaporation GP would inappropriately endorse duplicative authorizations, the Commissioners, after nearly a half hour of fairly pointed dialogue, approved the Evaporation GP.¹³³ However, in so doing they affirmatively noted that disagreements over whether such jurisdiction existed were not being decided by the adoption of the Evaporation GP and, instead, that its adoption would merely provide an alternate mechanism for compliance where such jurisdiction *did* actually exist.¹³⁴ The question of whether such dual authorizations are required was not resolved.¹³⁵ The Commissioners also recognized that further dialogue with stakeholders in the regulated community would need to occur around this issue and that approval of the Evaporation GP should not trigger "unleashing the hounds and enforcing on all these facilities that may or may not need that authorization."¹³⁶

Notably, to help address the "retroactivity problem" raised during this discussion, in December 2014, the TCEQ held a meeting to engage in dialogue with interested stakeholders, ¹³⁷ and, in April 2015, proposed an amendment to the Evaporation GP grandfathering certain pre-existing evaporation ponds with respect to the Evaporation GP's design criteria and constructions standards (which are inconsistent with the TG-4 standards under which many of these pond were built). ¹³⁸ On September 15, 2015, the Com-

¹³⁰ Id.

¹³¹ Id.

¹³² Id.

¹³³ Id.

¹³⁴ Id.

¹³⁵ Id.

¹³⁶ Id.

¹³⁷ See Letter to Stakeholders from Chris Linendoll, Tex. Comm'n Envtl. Quality, Waste Permitting Section (Nov. 14, 2014) (on file with author).

¹³⁸ See 40 Tex. Reg. 2211 (Apr. 17, 2015).

mission adopted this amendment without changes.¹³⁹ The amendment, however, does not resolve the fundamental questions of: (1) whether zero discharge surface impoundments that already hold an authorization from the Office of Waste are also required to hold a Water Code authorization, or (2) whether a permit under the TLAP program is properly and legally required for such impoundments if they do not hold an Evaporation GP.¹⁴⁰ The proposed amendment also did nothing to clarify the scope of the TCEQ's more general claim of broad Water Code jurisdiction over materials "adjacent to" groundwater or activities that may entail "disposal by evaporation."¹⁴¹

C. Why the TCEQ'S Texas Water Code Permitting Jurisdiction Claims are Problematic

If the TCEQ's Texas Water Code jurisdiction is actually such that permits are required any time one places waste "adjacent to water in the state" or where it may be disposed of via evaporation, there are many thousands of activities, facilities, and operations that could readily be characterized as requiring their owners or operators to obtain permits or as violating the law by having been constructed or operated without such permits. While the Evaporation GP applies just to "evaporation ponds"—"a type of surface impoundment that stores and evaporates wastewater"¹⁴²—those terms can still be read quite broadly. The TLAP's applicability language, which covers anyone "that wishes to . . . dispose of wastewater adjacent to waters in the state by . . . evaporation,"¹⁴³ is not even limited to surface impoundments and seems to include any wastewater placed adjacent to water in the state or that evaporates. Clearly, one does not need to call a facility an "evaporation pond" or a "surface impoundment" to trigger a possible permitting obligation. The actual circumstances where a permit is required and where it is not, however, are unclear.

If an industrial facility washes its equipment, cleans its facilities, uses water as a coolant, or otherwise generates wastewaters and either manages that wastewater over land *or* where it can evaporate, there is an arguable obligation to obtain one of those authorizations. This requirement would seem to apply to all manner of sumps, dikes, basins, tanks, containers, piping, and treatment equipment that handle wastewater, not just "surface impoundments." That approach is consistent with the TCEQ's attempt to apply its Texas Water Code jurisdiction in the *Big D* case, which addressed a closed loop facility where oilfield equipment was being cleaned. 146

¹³⁹ See Available Water Quality Permits, Tex. Comm'n on Envtl. Quality, http://www.tceq.state.tx.us/permitting/wastewater/general (last visited Jan. 4, 2016).

^{140 40} Tex. Reg. 2211 (Apr. 17, 2015).

¹⁴¹ Id.

¹⁴² Evaporation GP, supra note 4, at 3.

¹⁴³ TLAP Instructions, supra note 3, at 17.

¹⁴⁴ See id

¹⁴⁵ See id. at 17; Evaporation GP, supra note 4, at 4. Notably, if those broad readings of the statutory requirement are correct, the TCEQ may be failing to fully satisfy its statutory directive by affirmatively offering permits for "wastewater" management while not providing a permit option for the adjacency or evaporation of non-waste "pollutants" which the statute regulates equally.

¹⁴⁶ See generally Big D Order, Tex. Comm'n Envtl. Quality Docket No. 2009-1905-IWD-E, SOAH Docket No. 582-10-5396 (Oct. 20, 2011).

Currently, the TCEQ reports that it has issued roughly one hundred permits covering the management of industrial wastewaters "adjacent to" (as opposed to "into") water in the state. That seems to mean that thousands of facilities around the state are likely covered under the TCEQ's Jurisdictional Theories, but nonetheless lack such permits. Has set of circumstances presents significant problems for such facilities. In addition to requiring new and existing facilities to obtain duplicative authorizations through two TCEQ offices/programs, He Jurisdictional Theories give rise to potential enforcement exposure for existing facilities and create a near-impossible retroactivity problem for permitting existing facilities after the fact, since such permits would apply contemporary construction and design standards where those facilities were likely already built to a different standard. Hopefully, the amendment to the Evaporation GP discussed above addresses the latter problem for one category of regulated facilities. For regulated facilities that do not qualify for coverage under the Evaporation GP, however, the retroactivity problem remains.

D. So Is This a New Requirement?

The TCEQ staff during the March 26, 2014 Commissioners' agenda meeting were adamant that the agency has long issued TLAPs for evaporation ponds, and that this requirement was not new.¹⁵² Certainly, there has been a historic, if infrequently-exercised, practice of the State to issue permits under the Texas Water Code for certain "no discharge" facilities.¹⁵³ Evaporation ponds at Luminant's Permian Basin power plant and El Paso Electric Company's Newman station, for example, received "no discharge" authorizations from predecessor agencies as early as 1963.¹⁵⁴ Those permits, however, were issued in the very earliest days of the Texas Water Commission's existence; they may have included irrigation (*i.e.*, actual land application of waste) and, in the interim—in 1986 specifically—the Commission adopted a plain regulatory exclusion from permitting for facilities that manage nonhazardous industrial solid wastes on-site.¹⁵⁵ That history significantly complicates any suggestion that a clear requirement to obtain a TLAP or its equivalent for surface impoundments has always existed.

¹⁴⁷ Macias, supra note 106.

Most of those facilities are likely to be utterly unaware that such a permit requirement exists. First, if that obligation were clear, many more facilities would have applied for and obtained those permits; second, news of that requirement is found primarily in the instructions to a permit for "land application" of waste that many appear not to know of; and third, historically, facilities seeking to manage their own wastes on-site without a discharge have generally been directed by the most obvious rules and guidance to the TCEQ's Office of Waste and its waste unit registration process instead without being notified of the need to obtain a separate Water Code authorization.

¹⁴⁹ See Evaporation GP, supra note 4, at 10.

¹⁵⁰ See, e.g., id. at 13.

^{151 40} Tex. Reg. 2211 (Apr. 17, 2015).

¹⁵² See Archive Video II, supra note 119.

¹⁵³ See, e.g., Tex. Comm'n Envil. Quality Permit No. WQ0000556000 Issued to Luminant Gen. Co. (Apr. 5, 1963).

¹⁵⁴ *Id.*; Tex. Comm'n Envil. Quality Permit No. WQ0000836000 Issued to El Paso Elec. Co. (May 29, 1963).

^{155 11} Tex. Reg. 2331 (May 16, 1986).

Also, as noted above, the TLAP program has existed since at least 2002 based on references to the program in other public documents, ¹⁵⁶ but was likely only developed around the time the TCEQ received delegation of the TPDES program in 1998¹⁵⁷ as a way of distinguishing state-only zero discharge permits from new Texas permits for actual discharges to surface water. The TCEQ, however, has been unable, in response to Public Information Act requests, to provide documentation of the precise origins of the TLAP program or any formal adoption of the program by rule, guidance or otherwise. ¹⁵⁸ As acknowledged during the March 26, 2014 Commissioners' meeting, the TCEQ does not even know how many surface impoundments, ponds, or other similar land-based waste management facilities have been authorized via a waste permit or registration that have not also received TLAP authorization, although they plainly recognized that there could be a sizeable number of such facilities. ¹⁵⁹

In other words, while the agency's belief in the broad applicability of the Water Code and of TLAP requirements in particular may not be *new*, it is certainly *news* to many, especially in light of the 1986 rulemaking that seemed to provide very broad exemptions from any permitting requirement for the on-site management and disposal of nonhazardous industrial wastewaters. ¹⁶⁰ Indeed, that rule contained a "no permit shall be required" prohibition against requiring such permits. ¹⁶¹ The TCEQ adopted that regulation in reliance upon both the agency's Water Code and Health and Safety Code au-

¹⁵⁶ See 27 Tex. Reg. 6124 (July 12, 2002).

¹⁵⁷ See What is the "Texas Pollutant Discharge Elimination System (TPDES)"?, Tex. Comm'n Envtl. Quality, http://www.tceq.state.tx.us/permitting/wastewater/pretreatment/tpdes_def inition.html (last visited Sept. 13, 2015).

The TCEQ has produced a list of the 631 permits it has issued under the Texas Water Code that are "state-only" permits, meaning that there is no discharge to surface water and, therefore, are not TPDES permits. See Macias, supra note 107. Of these, roughly 500 are public or private domestic wastewater management facilities like sewage treatment facilities and large septic systems. Only 102 of these permits are listed as active "industrial" facilities and, of those, 48 are agriculture/food/animal products facilities, 10 are power generation facilities, 8 are mines or mineral processing facilities, 7 are chemical manufacturing or refining facilities, 7 are government or municipal facilities, and the remaining 22 are for other types of facilities. Many of these 102 permits may be TLAPs. Separately, L'Oreal Stepney's March 7, 2014 memo to the Commissioners summarizing the proposed Evaporation GP suggests that there are 180 current TLAP authorizations, some of which are facilities that irrigate with wastewater and only a subset of which are industrial or evaporation facilities. Stepney Memo, *supra* note 26. Recognizing the sheer number of industrial facilities in the State that manage wastewaters—according to the January 2011 Sunset Commission Report on the TCEQ, the agency has regulatory oversight over 400,000 facilities, entities, or individuals, a significant portion of which would be expected to generate and handle wastewater—it seems certain that there are hundreds if not thousands of facilities that do not hold TLAPs where TCEQ seems to believe such permits are required and many, many more facilities requiring Water Code authorization if TCEQ's broadest bases for claiming jurisdiction are valid. See Sunset Advisory Comm'n, Texas Commission on Environmental Quality On-Site Wastewater Treatment Research Council 13 (2011).

¹⁵⁹ See Archive Video II, supra note 119.

¹⁶⁰ See 11 Tex. Reg. 2331 (May 16, 1986).

¹⁶¹ Id.

thorities,¹⁶² suggesting that the exemption is from both solid waste *and* water permitting obligations respecting such facilities. The agency's current view of its Water Code jurisdiction and the TLAP program, however, would seem to ignore the regulatory exemption from permitting that the agency adopted in 1986 through formal public notice and comment rulemaking,¹⁶³ later ratified by the Legislature in 1989.¹⁶⁴

Ultimately, whether the agency has actually attempted to expand its jurisdictional authority in recent years using the TLAP program, or whether long-held beliefs about its existing authorities have merely become public courtesy of the Evaporation GP, most members of regulated industry will perceive those recent assertions of authority by the TCEQ as a significant expansion of their regulatory obligations. The perception of regulatory creep here is all the more glaring, paired as it is with a lack of public process, transparency, clarity, and participation respecting the development of these obligations and numerous serious questions about the precise contours of those newly discovered obligations.

V. A CRITIQUE OF THE TCEQ'S ASSERTION OF JURISDICTION

The TCEQ's explanation of its Water Code jurisdiction, as expressed backhandedly in the TLAP Instructions and the Evaporation GP, is not coherent, principled, or well-explained. By basing its asserted jurisdiction on the Adjacency to Groundwater and Disposal via Evaporation theories, and implicitly thereby establishing a very broad understanding of what the Water Code prohibits (and, conversely, what circumstances require Water Code permitting), the TCEQ creates a very large universe of activities that would be deemed illegal absent a permit if those Jurisdictional Theories are applied consistently and coherently. On the other hand, in laying out express permitting mechanisms, the TCEQ has really only offered TLAP and Evaporation GP authorizations for facilities that deposit waste in land-based impoundments or ponds (but not for land-based tanks, containers, or equipment with comparable adjacency attributes) and permits for "evaporation," which seem to cover facilities that purposefully evaporate waste but not the much larger universe of facilities that experience evaporation unintentionally or that

¹⁶² See Tex. Water Code Ann. § 26.027 (2015); Tex. Health & Safety Code Ann. § 361.090 (2015); see also 11 Tex. Reg. 2331, 2335 (May 16, 1986).

¹⁶³ See 11 Tex. Reg. 2331 (May 16, 1986).

Tex. S.B. 1519, 71st Leg., R.S. (1989) (codified at Tex. Health & Safety Code Ann. § 361.090(c)). As mentioned, the 1986 permitting exemption was adopted by the TCEQ's predecessor agency under both Water Code and Health and Safety Code authorities. 11 Tex. Reg. 2331 (May 16, 1986). The 1989 statutory provision does say that "This section does not change or limit any authority the commission may have concerning . . . the requirement of permits and the control of water quality, or otherwise, under Chapter 26, Water Code." Tex. S.B. 1519, 71st Leg., R.S. (1989) (codified at Tex. Health & Safety Code Ann. § 361.090(c)). Since the 1986 regulations (and their pre-Commission antecedents) were adopted prior to that statutory codification, however, the meaning of that particular provision is less than clear.

¹⁶⁵ See TLAP Instructions, supra note 3, at 17, Evaporation GP, supra note 4, at 4.

¹⁶⁶ See, e.g., TLAP Instructions, supra note 3, at 4-16.

entail evaporation of non-waste pollutants.¹⁶⁷ In other words, the statutory interpretations and jurisdictional bases upon which the TCEQ claims authority to require those permits substantially overreach the limited permit options that it actually provides.

A. Scope of "Adjacency"

The term "adjacent to water in the state" as used in the context of the TCEQ's Water Code jurisdiction is not well-defined either through rulemaking or by the very limited case law that exists on the subject. As explained above, there is limited case law on what constitutes "adjacency. Looking to the purpose of the prohibition in question—preventing water pollution—adjacency may be determined on a site-specific basis. Where groundwater is shallow, wastes placed on the ground might well be adjacent to it; where groundwater is deep, however, they might not be. The court in *Heiringhoff* seems to understand that wastes that can easily migrate to groundwater would be "adjacent" but if groundwater is deep, soils are impermeable, and transport is unlikely, such wastes might not be deemed "adjacent." Similarly, in *Watts*, sewage discharged within 150 feet of a ditch containing surface water was deemed adjacent. However, that discussion was supplemented by evidence that "[d]uring rainfall, a shallow trench funneled this waste from appellant's property into a nearby county drainage ditch." In *Watts*, the "adjacency" at issue was not merely a matter of conjecture.

But what if there were site-specific natural or manmade barriers—impermeable clays or secondary containment or other diversions of such pollutants—sited there with the expectation of preventing the wastes from entering water? Are the wastes still "adjacent"? If not, regulated entities should be able to demonstrate that their evaporation pond or other waste-handling activity is not "adjacent to water in the state" and thereby avoid Water Code permitting.¹⁷⁴ If such wastes are still deemed adjacent despite such a barrier, then why would an aboveground storage tank or a concrete sump containing wastewater not constitute a discharge "adjacent to" water in the state while a lined evaporation pond containing exactly the same wastewater would be subject to Water Code permitting?

The TCEQ has not formally or transparently defined how it interprets the term "adjacent to water in the state," especially when considering groundwater, but the TLAP Instructions and the Evaporation GP imply that all land in Texas that is "adjacent to" groundwater creates boundless jurisdiction that is not clearly supported by statutes, regulations, careful consideration in guidance, or in case law. ¹⁷⁵ Meanwhile, many activities involving the handling of pollutants and wastes above lands containing potential subsurface groundwater appear to face a potential statutory permitting obligation under the

¹⁶⁷ See id.

¹⁶⁸ See Watts v. State, 56 S.W.3d 694, 704 (Tex. App.—Houston [14th Dist.] 2001, pet. granted), rev'd on other grounds, 99 S.W.3d 604 (Tex. Crim. App. 2003).

¹⁶⁹ See, e.g., id.

¹⁷⁰ Heiringhoff v. State, 130 S.W.3d 117, 133 (Tex. App.—El Paso 2003, pet. ref'd).

¹⁷¹ Watts v. State, 140 S.W.3d 860, 864 (Tex. App.—Houston [14th Dist.] 2004, pet. refd).

¹⁷² Watts, 99 S.W.3d at 607.

¹⁷³ Watts, 140 S.W.3d at 864-865.

¹⁷⁴ Tex. Water Code Ann. § 26.027 (2015).

¹⁷⁵ TLAP Instructions, supra note 3, at 17.

TCEQ's Adjacency theory,¹⁷⁶ yet do not fit within the obvious scope of the Evaporation GP or even a TLAP.

B. DISPOSAL BY EVAPORATION

The TCEQ's theory that "disposal" of waste "adjacent to waters in the state" occurs when liquid evaporates from a wastewater and, therefore, that the storage or management of such a wastewater is subject to Water Code permitting is quite novel, ¹⁷⁷ lacks any affirmative support in the applicable statutes or regulations, and was rejected by the judge in the *Big D* case, when the TCEQ advanced that theory to demand that a closed loop wastewater management facility obtain an evaporation permit. ¹⁷⁸ The Disposal by Evaporation theory also flies in the face of guidance from the EPA under the Resource Conservation and Recovery Act, which takes the position that evaporation of water from wastewaters for stabilization purposes is a "treatment" activity rather than disposal of waste. ¹⁷⁹ That theory also contradicts case law on air emissions that have later reached water; such case law holds that this type of deposition does not require a water discharge permit. ¹⁸⁰ The Disposal by Evaporation theory is creative, but ultimately not well-supported by the law.

Additionally, if the Disposal by Evaporation theory provides a basis for requiring Water Code permits for evaporation of water from wastewater storage, then it would appear equally to demand Water Code permits for any non-waste pollutant that evaporates and pollutes—not only water, but many chemicals and products such as oil, gasoline, paint, ink, you name it—since such materials will, under precisely the same theory, be deposited in or "adjacent to" water in the state. As noted above, however, in the context of the federal Clean Water Act, this argument that impacts to surface water from air emissions should require water discharge permits has been roundly rejected by the courts.¹⁸¹

In short, the Disposal by Evaporation theory seems to be factually dubious and involves a questionable legal basis for requiring a Water Code permit. But if that theory is in fact a principled basis for determining what activities are prohibited by the Texas Water Code, a program that offers permits *only* for deliberate evaporation of *only* wastewaters¹⁸² seems to simply skate past a much larger universe of activities that, under a consistent reading of the statute, are either illegal outright or require a type of permit that the TCEQ does not seem to offer.

¹⁷⁶ See, e.g., id.

¹⁷⁷ TLAP INSTRUCTIONS, supra note 3, at 17.

¹⁷⁸ Big D PFD, Tex. Comm'n Envtl. Quality Docket No. 2009-1905-IWD-E, SOAH Docket No. 582-10-5396, at 18-20 (July 26, 2011).

¹⁷⁹ Letter from Marcia E. Williams, Director, U.S. Envtl. Prot. Agency, Office of Solid Waste to Anthony Sasson, Ohio Envtl. Prot. Agency (May 1, 1987) (on file with author).

¹⁸⁰ See, e.g., Chem. Weapons Working Grp. v. United States, 111 F.3d 1485, 1490 (10th Cir. 1997) (rejecting the proposition that cars and chimneys, though sources of water pollution, can be regulated under the Clean Water Act, since these pollutants by nature are emitted into the air and thus must be regulated under the Clean Air Act).

¹⁸¹ See id.

¹⁸² Evaporation GP, supra note 4, at 4.

C. THE DOCTRINE OF ABSURD RESULTS

The TCEQ's limited explanation of its expectations for TLAP and the Evaporation GP does not include a direct suggestion that a permit is required for any and all placements of waste at any location above groundwater, even if that appears to be supported by the Jurisdictional Theories underlying those permits. Nor has the TCEQ actually asserted that a Water Code permit is required for everything that evaporates. The TCEQ's TLAP Instructions suggest that such a permit is only required when a facility generates wastewater and wishes to "dispose of wastewater adjacent to waters in the state by irrigation, evaporation, or subsurface disposal."183 Yet open-top wastewater treatment tanks (which inevitably involve evaporation), coal ash landfills, in-ground sumps, and many other types of facilities have long been authorized pursuant to Health and Safety Code registrations without any apparent understanding that the facility requires a TLAP. 184 In short, the TCEQ seems to selectively require a TLAP (or, in the alternative, an Evaporation GP) in only certain circumstances while basing its permitting demands on a much broader understanding of what the Water Code requires.¹⁸⁵ If the Jurisdictional Theories are correct, however, that should open the door to the same type of regulation and permitting in many contexts other than industrial wastewater stored in surface impoundments. Or at a minimum, it should give rise to an explanation of why the TCEQ does not require permits in those many other contexts.

Perhaps the TCEQ has relied—intentionally or unintentionally—on the same doctrine of "absurd results" that the EPA relied upon in deciding that "250 tons" could mean 75,000 or 100,000 tons in establishing thresholds for greenhouse gas permitting. The TCEQ could have concluded that a principled application of its Jurisdictional Theories includes the possibility of requiring permits for all manner of activities and facilities; however, if it actually required permits for most of those things, that result would be absurd. Perhaps the TCEQ is just applying common sense enforcement discretion not to affirmatively require permits to the full extent of what the statute allows them to do.

An alternative view, however, might suggest that, if applying your view of your statutory jurisdiction in a consistent and principled way creates an absurd or impractical result, your jurisdictional theory might warrant a serious rethinking rather than a mere "tailoring." This is especially true when that view is rooted in the assertions that: (1) "adjacent to water in the state" effectively means every inch of land within Texas; or (2) that evaporation necessarily entails deposition and, therefore, necessarily involves regulated disposal into or adjacent to water in the state (regardless of whether any actual facts support that theory). By applying the Jurisdictional Theories in this manner, the TCEQ reads a statute that contains express, plain language geographic inclusions and exclusions to involve no geographic limits whatsoever. The TCEQ thus appears to con-

¹⁸³ TLAP INSTRUCTIONS, supra note 3, at 17.

The TCEQ has also indicated that disposal facilities that hold Health and Safety Code permits rather than registrations do not require TLAPs. It is difficult to imagine the legal argument as to why a Health and Safety Code permit trumps the Water Code but a Health and Safety Code registration does not.

¹⁸⁵ See TLAP Instructions, supra note 3, at 17.

¹⁸⁶ See Util. Air Regulatory Grp. v. Envtl. Prot. Agency, 134 S.Ct. 2427, 2437 (2014).

^{187 40} Tex. Reg. 2211 (Apr. 17, 2015).

¹⁸⁸ See TLAP Instructions, supra note 3, at 17; Evaporation GP, supra note 4, at 4.

strue the inclusive terms of the statute too broadly and attempts to nullify limiting terms of the statute that it dislikes.

VI. A CRITIQUE OF THE TCEQ'S PROCESS ON ADJACENCY, EVAPORATION, AND TLAP REQUIREMENTS

As concerned as I am about the reach of the TCEQ's claimed Water Code jurisdiction and the agency's choice not to credit the permitting exemption for on-site management of one's own non-hazardous wastes, ¹⁸⁹ I am more troubled that this assertion of jurisdiction and the requirements for TLAPs have occurred almost exclusively via the agency's instructions for completing a "land application" permit application. ¹⁹⁰ These developments have advanced without a rulemaking that would allow the public to seek clarifications and make appropriate challenges, allow the TCEQ staff to fully clarify and explain their actions and reasoning, and allow the agency's Commissioners to hear everyone out and make affirmative decisions about the appropriate scope of the TCEQ's Water Code permitting jurisdiction. ¹⁹¹

Is the TLAP program and the assertion of jurisdiction underlying it an example of regulatory creep? As noted above, "no discharge" permits existed under the Water Code as early as 1963,¹⁹² long before the existence of the TCEQ,¹⁹³ the 1986 regulatory exemption from permitting for on-site disposal of one's own non-hazardous wastes,¹⁹⁴ or the delegation of TPDES authority from the EPA in 1998.¹⁹⁵ Yet, the TCEQ's records suggest that there have historically been very few "no discharge" or TLAPs issued to industrial facilities,¹⁹⁶ even as Texas has become the nation's most industrialized state.¹⁹⁷ Additionally, there are no actual regulations on the books today that prohibit evaporation without a permit or that otherwise require a person to obtain a "land application" or TLAP unless one is actually land applying sewage sludge or irrigating with wastewater.¹⁹⁸

Perhaps the TLAP is just a catch-all name covering authorizations for land application of sewage sludge and irrigation and disposal by evaporation from wastewater im-

¹⁸⁹ TLAP INSTRUCTIONS, supra note 3, at 61.

¹⁹⁰ See id. at 17.

¹⁹¹ See Tex. Gov't Code Ann. §§ 2001.021-2001.041 (2015).

¹⁹² See, e.g., Tex. Comm'n Envil. Quality Permit No. WQ0000836000 Issued to El Paso Elec. Co. (May 29, 1963).

¹⁹³ See Flowchart of TCEQ and its Predecessor Agencies, Tex. Comm'n Envtl. Quality, www.tceq.state.tx.us/about/tceq-flowchart.html (last visited Sept. 10, 2015).

¹⁹⁴ See 30 Tex. Admin. Code § 335.2(d) (2015).

¹⁹⁵ See What is the "Texas Pollutant Discharge Elimination System (TPDES)"?, Tex. Comm'n Envtl. Quality, http://www.tceq.state.tx.us/permitting/wastewater/pretreatment/tpdes_def inition.html (last visited Sept. 13, 2015).

¹⁹⁶ See Tex. Comm'n Envil. Quality Permit No. WQ0000836000 Issued to El Paso Elec. Co. (May 29, 1963); Tex. Comm'n Envil. Quality Permit No. WQ0000556000 Issued to Luminant Gen. Co. (Apr. 5, 1963).

¹⁹⁷ See Kathleen Harnett White, In EPA's Clean Power Plan, Texas is the Target, Houston Bus. J. (Dec. 2, 2014, 8:44 AM), http://www.bizjournals.com/houston/blog/2014/12/oped-in-epas-clean-power-plan-texas-is-the-target.html.

^{198 30} Tex. Admin. Code § 312.4(a) (2015).

poundments, only implementing obligations that have always been present. Or perhaps the TCEQ, in crafting the TLAP Instructions over the last 15 years or so, added new language creating permit requirements for disposal by evaporation and implying additional authority based on a broad view of "adjacency" to groundwater. ¹⁹⁹ After several Texas Public Information Act requests, the TCEQ has been unable to produce documents describing the origins of the TLAP program so it may be difficult to confirm. ²⁰⁰ If such documents can be located, they could be very helpful in understanding the legal underpinnings for the TCEQ's claimed authority to require TLAPs in different contexts. They could also help clarify when the agency has historically determined that one needs a Water Code permit and when one does not.

It seems clear to many leading Texas environmental practitioners, however, that the agency's views of its Water Code jurisdiction have grown as it continues to implement the TLAP program.²⁰¹ This is especially true when one compares the breadth of the agency's Jurisdictional Theories and the TLAP Instructions to the very limited instances in which such permits appear actually to have been obtained historically.²⁰² The TLAP Instructions themselves are a recent addition and their broad coverage for wastewater impoundments that dispose via evaporation appears to have been applied inconsistently over time, especially given the very limited number of industrial facilities that have reportedly held TLAP or "no discharge" permits in such a large industrial state.²⁰³ The agency's 1986 exemption from permitting for on-site waste management is also quite relevant.²⁰⁴ Requiring Water Code permitting of solid waste activities authorized by the TCEQ via waste registration arguably represents a quiet growth—or regrowth—of duplicative standards that had been trimmed back by regulation and later by statute.

Without detouring significantly into an ancillary topic, the Texas Administrative Procedure Act (APA) treats state agency laws or policies affecting private persons and describing a procedure or practice of the agency as a "rule" that must be promulgated through formal rulemaking procedures subject to public notice, comment, and challenge.²⁰⁵ There is a rich vein of case law addressing that APA requirement. In the recent *Teladoc* decision, for example, the Third Court of Appeals held that an agency's pronouncements and interpretations of general import that purport to control the conduct of the regulated community are "rules" under the APA and, as such, must be adopted pursuant to the APA's procedural requirements.²⁰⁶ One may be certain that a limited

¹⁹⁹ TLAP Instructions, supra note 3, at 17.

²⁰⁰ Macias, supra note 106.

²⁰¹ See, e.g., Archive Video II, supra note 119.

²⁰² See Tex. Comm'n Envtl. Quality Permit No. WQ0000836000 Issued to El Paso Elec. Co. (May 29, 1963); Tex. Comm'n Envtl. Quality Permit No. WQ0000556000 Issued to Luminant Gen. Co. (Apr. 5, 1963).

²⁰³ See Tex. Comm'n Envtl. Quality Permit No. WQ0000836000 Issued to El Paso Elec. Co. (May 29, 1963); Tex. Comm'n Envtl. Quality Permit No. WQ0000556000 Issued to Luminant Gen. Co. (Apr. 5, 1963).

²⁰⁴ See 30 Tex. Admin. Code § 335.2(d) (2015).

²⁰⁵ Tex. Gov't Code Ann. §§ 2001.003(6), 2001.004 (2015).

Teladoc, Inc. v. Tex. Med. Bd., 453 S.W.3d 606, 622 (Tex. App.—Austin 2014, pet. filed) (letter sent to network operator of physicians by medical board warning doctors against providing medical services by telecommunications found to be "rule" under APA and therefore invalid for failure to follow notice and comment procedures).

explanation of major permitting requirements in the TCEQ's instructions for completing the permit application is not an APA-authorized mechanism for promulgating a rule.²⁰⁷ By not following the APA-prescribed procedures, the TCEQ did not benefit from the regulated community's inevitable requests for clarification regarding the requirements in question and has deprived its Commissioners of an opportunity to make deliberate decisions on the numerous tricky jurisdictional and policy questions discussed above.

Whatever the APA requirement, as things stand, only loose definitions exist for the criteria that trigger the necessity of a TLAP, and those criteria exist only in the TCEQ's instructions for completing a permit application rather than in any actual regulation.²⁰⁸ The TCEQ's choice to define the regulated community's obligation to obtain a critical path authorization in the TLAP Instructions,²⁰⁹ rather than a more transparent process, has left many regulated entities without a full appreciation of the TCEQ's view of their responsibilities. Perhaps more importantly, by implementing the agency's views through vague and largely unhelpful guidance,²¹⁰ the agency's expectations have not been fully vetted by the regulated community, have not been clarified through the TCEQ responses to public questions and comments and, ultimately, have not been deliberately adopted by the Commissioners. While regulated parties sometimes endeavor to discourage new regulation, in circumstances where regulations are needed, regulated parties crave certainty and clarity.²¹¹ Such certainty and clarity does not exist with respect to the TCEQ's Water Code permitting jurisdiction over units lacking a conventional discharge to surface water.

The TLAP Instructions indicate that a generator of wastewater should apply for a TLAP if wastewater will be disposed of by evaporation adjacent to water in the state.²¹² Those instructions and the TCEQ's other public pronouncements provide little in the way of definition respecting that obligation.²¹³ Important questions surrounding the TLAP program and the Jurisdictional Theories that ostensibly support it, should be, but have not been, publicly debated, clarified by the TCEQ, or affirmatively decided upon by the Commissioners. These include:

- (1) Is all land in Texas *always* "adjacent to" water in the state since it is above groundwater of some kind at some depth? If not, when and why?
- (2) Does this permitting requirement only cover units receiving actual wastes or does it extend to units holding non-waste pollutants, co-products, or secondary materials? If so, when and why?
- (3) Does this permitting obligation extend to any unit that holds material that will be "disposed via evaporation"? Since evaporation can occur from virtually any product, process, or materials storage unit, does the TCEQ deem all evaporated material "waste" that is "disposed" of? Or is this requirement limited to wastewater? How do we determine

²⁰⁷ See Tex. Gov't Code Ann. §§ 2001.003(6), 2001.004.

²⁰⁸ TLAP Instructions, supra note 3, at 17.

²⁰⁹ Id.

²¹⁰ See, e.g., id.

²¹¹ See James Broughel, "Regulatory Certainty" as a Justification for Regulating, MERCATUS CENTER AT GEORGE MASON UNIVERSITY, (October 11, 2013), available at http://neighborhoodeffects.mercatus.org/2013/10/11/regulatory-certainty-as-a-justification-for-regulating/.

²¹² TLAP Instructions, supra note 3, at 17.

²¹³ See, e.g., id.

if disposal by evaporation occurs into or adjacent to water in the state? Does the TCEQ assume all evaporation enters Texas water? And is that a reasonable factual or legal assumption?

- (4) Since the TCEQ adopted rules under both the Water Code and the Health and Safety Code in 1986 saying that "no permit shall be required" for on-site disposal of nonhazardous industrial solid wastes, does that mean no Water Code permit shall be required? Or does that just dispense with Health and Safety Code permit requirements? Why? Does a Health and Safety Code permit (e.g., a commercial landfill or hazardous waste TSD permit) obviate the need for a TLAP for the permitted activity? If so, what is the legal basis for that conclusion? And on what principled basis would a TCEQ-approved Health and Safety Code registration then not also obviate the need for a TLAP?
- (5) Since the adoption of the 1986 exemption, have the Commissioners ever affirmatively decided that nonhazardous industrial solid waste units authorized by registration under Chapter 335²¹⁵ still require separate Water Code authorization? Does a policy of requiring dual authorizations duplicate burdens and regulatory effort that the state intended to reduce when it consolidated waste and water authorities at the Texas Water Commission, or when it consolidated the Texas Air Control Board and the Water Commission into the Texas Natural Resource Conservation Commission?²¹⁶ Does such a dual program constitute a good use of both agency and private resources?
- (6) Among common types of on-site nonhazardous waste units that have not traditionally obtained Water Code authorizations, what types of units and facilities require a Water Code permit? Are these units limited to evaporation ponds? If so, why? For what other categories of facility does the TCEQ require Water Code authorizations? And what are the precise contours of this permitting requirement?

The TCEQ should make affirmative and intentional decisions on these important policy issues after vigorous discussion: (1) between the public and the agency; (2) within the agency; and (3) amongst the Commissioners, in the full sunlight of transparency. These discussions allow problematic outcomes to be noted and corrected so that affected persons can have a clear understanding of what that law does and does not require. Currently, the agency's view on its jurisdiction is quite broad;²¹⁷ yet, its written explanations of when parties must obtain permits pursuant to that jurisdiction only affirmatively discuss limited circumstances using poorly-defined terms.²¹⁸ These explanations are unclear both in terms of what the agency expects of the regulated community and about their grounding in legal authority.²¹⁹ It seems that both the regulator and the regulated community could benefit substantially from an open dialogue around the scope of the agency's statutory jurisdiction, the situations in which permits are required, and how best to deal with any differences between those two universes. The Commissioners should draw those lines deliberately after careful vetting.

^{214 30} Tex. Admin. Code § 335.2 (2013).

²¹⁵ Id.

²¹⁶ History of the TCEQ and Its Predecessor Agencies, Tex. Comm'n Envt'l. Quality, http://www.tceq.state.tx.us/about/tceqhistory.html (last visited Nov. 8, 2015).

²¹⁷ See TLAP Instructions, supra note 3, at 17.

²¹⁸ Id.

²¹⁹ See id.

VII. CONCLUSIONS AND RECOMMENDATIONS

As an institution, the TCEQ is generally thoughtful about the scope of its regulations and open to listening to reasonable comments from the public.²²⁰ And indeed, this overall question of agency authority surfaced most recently in the context of the Evaporation GP,²²¹ which was an effort by the TCEQ to streamline and simplify compliance requirements for one category of facilities the agency regulates. Yet the agency's view of its jurisdiction over "zero discharge" activities under the Texas Water Code, as indicated by and implemented through its TLAP program, is broad but unclear on where and why the agency draws lines between regulated and unregulated activity.²²²

The agency's recent regulatory activities on the Evaporation GP highlighted these jurisdictional claims, prompting surprise among some in the regulated community, revealing inconsistencies between the agency's current view of its legal permitting authority and its historic practices, and generating some controversy that led to additional stakeholder dialogue and meaningful adjustments to some of the regulatory actions in question. The agency interpretations that were publicly revealed during discussion of the Evaporation GP, however, appear to have questionable legal underpinnings, developed and adopted by the agency without the benefit of much public process, and arguably contradict express agency rules and subsequent legislative enactments intended to alleviate duplicative requirements. The TCEQ should carefully revisit its understanding of the scope of its Water Code jurisdiction and provide the public with a legal and policy explanation of that scope, reconsider its permitting scheme to reflect those discussions, and pursue a clear articulation of the contours of the regulated community's obligations through a formal rulemaking process.

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²²⁰ Participating in Rulemaking, Tex. Comm'n Envy'l. Quality, https://www.tceq.texas.gov/rules/participate.html (last visited Nov. 8, 2015).

²²¹ Evaporation GP, supra note 4, at 4.

²²² See TLAP Instructions, supra note 3, at 17.

²²³ Archive Video II, supra note 119.

²²⁴ Id.

THE LOCALIZED CONNECTION BETWEEN THE AMISTAD RESERVOIR AND GROUNDWATER IN DEL RIO, TEXAS, AND HOW THIS RELATIONSHIP CAN BE APPLIED ELSEWHERE IN TEXAS

BY AMANDA HALE

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I. WATER LAW IN TEXAS

Texas follows the "Rule of Capture" as it pertains to groundwater, which the Texas Supreme Court established in 1904. In Texas, groundwater is the property of individual

Sipriano v. Great Spring Waters of Am., Inc., 1 S.W.3d 75 (Tex. 1999). See also Amy Hardberger, World's Worst Game of Telephone: Attempting to Understand the Conversation Between Texas's Legislature and Courts on Groundwater, 43 Tex. Envtl. L.J. 257, 258–59 (2013); Bill Hume, Big River, Big Issues, 39 NAt. Res. J. 17, 21 (1999); Houston & T. C. Ry. Co. v. East, 81 S.W. 279, 280–82 (Tex. 1904); Deborah Clarke Trejo, Identifying and Valuing Groundwater Withdrawal Rights in the Context of Takings Claims –A Texas Case Study, 23 Tul. Envtl. L.J. 409, 413 (2009) (explaining that even though the Texas Supreme Court has refused to abandon the rule of capture, it has noted that "there are 'compelling reasons for groundwater use to be regulated'").

landowners whose land sits directly above the aquifer containing the groundwater.² "[L]and ownership includes an interest in groundwater in place that cannot be taken for public use without adequate compensation . . ."³ This rule allows landowners the right to pump as much water as they can, with no regard to its effects on neighboring landowners.⁴ The only potential hindrance to pumping groundwater is whether any groundwater is available to be pumped.⁵ Because the Rule of Capture still applies to all groundwater withdrawals in Texas, landowners have very little incentive to conserve water, especially if surrounding landowners are pumping as much water as they please, thereby depleting the amount of groundwater in the area.⁶ Allowing the Rule of Capture to reign supreme in such an arid state not only partially explains Texas's water shortage problems, but it also continually exacerbates it.

But in Texas, contra the lack of regulation to groundwater, surface water is highly regulated. Surface water in Texas belongs to the state. The state only grants the right to use surface water via a legal authorization or permit. The Rio Grande is subject to this permitting system, but it presents a unique situation since it acts as the U.S.–Mexico border. The Rio Grande was established in 1836 as an "act of the Congress of the Republic of Texas [to become] the boundary between Texas and Mexico."

This Note explores the hydrologic connection between groundwater and surface water found in reservoirs. The main focus of this Note is the Amistad Reservoir, which is the largest reservoir within the reach of the Rio Grande. With a drought in the West that never seems to subside, dependence on groundwater in Texas is at an all-time high and will only continue to increase. This Note argues that the presence of a reservoir can be helpful to increase the level of groundwater within aquifers near the reservoir

Neena Satija, *Rio Grande Water Users Fear Groundwater Pumping Project*, Tex. Tribune (Jan. 29, 2014), http://www.texastribune.org/2014/01/29/groundwater-pumping-project-could-hurt-rio-grande.

³ Edwards Aguifer Auth. v. Day, 369 S.W.3d 814, 817 (Tex. 2012).

⁴ Tex. Water Code Ann. § 36.002 (West 2015).

⁵ See Trejo, supra note 1, at 413.

⁶ Id. at 412.

David W. Yoskowitz, Spot Market for Water along the Texas Rio Grande: Opportunities for Water Management, 39 NAT. Res. J. 345, 346 (1999).

⁸ See Satija, supra note 2; David J. Klein, Innovative Strategies in Water Marketing on the Rio Grande, 37 Tex. Envtl. L.J. 137, 138 (2007).

⁹ Tex. Water Code Ann. § 11.121.

Tex. Water Code Ann. § 11.121. See also Klein, supra note 8; Constance L. Danner et al., Documentation and Testing of the WEAP Model for the Rio Grande/Bravo Basin 18 (2006), available at http://www.weap21.org/downloads/rpt06-08_rio_grande.pdf (noting that the Falcon and the Amistad are operated by both the International Boundary and Water Commission (IBWC) and the Comisión Internacional de Límites y Aguas).

¹¹ See Klein, supra note 8.

Robert J. McCarthy, Executive Authority, Adaptive Treaty Interpretation, and the International Boundary and Water Commission, U.S.-Mexico, 14 U. DENV. WATER L. REV. 197, 279 (2011).

See Hardberger, supra note 1, at 258 (explaining how "[g]roundwater is a critical component of Texas water resources").

through natural recharge. The Amistad Reservoir is the perfect case study to show the benefit that this hydrologic phenomenon could bring to arid Texas.¹⁴

Since the completion of the Amistad Reservoir, groundwater levels in aquifers near Del Rio, Texas have risen by 100-120 feet, and this level has continued to hold fairly steady.¹⁵ This apparent relationship between groundwater recharge and reservoirs is obvious in wells near Del Rio, but given that this phenomenon naturally occurs as part of the water cycle, it may be present in other areas as well.¹⁶

Part II provides an overview of both groundwater and the Amistad Reservoir, as well as a discussion of the hydrological relationship between the two. Part III addresses Texas's growing population, especially near the border, to shine a light on how vital it is for the area to address its water shortage and figure out ways to create a more sustainable water supply. Part IV provides recommendations for how Texas can increase its groundwater reserves. Because of groundwater recharge from the reservoir, it is possible that the construction of a reservoir near at-risk aquifer areas could increase the amount of groundwater.¹⁷ Drought-stricken areas could use this practice to maximize the amount of groundwater available for pumping at a later date.¹⁸ Included in this section are possible objections to this idea, as well as responses to these objections. The Note also posits that Texas should at least increase funding to maintain existing reservoirs if building new ones seems too expensive or impractical from a permitting standpoint. This Note recommends that, to preserve more groundwater, the state's water laws should better reflect the hydrologic connection between groundwater and surface water. Lastly, Part V provides a brief overview of what the future may hold for Texas water law.

II. HYDROLOGY ALONG THE RIO GRANDE

A. GROUNDWATER

The 1944 Water Treaty allocated the usage of the Rio Grande between the nations who share it: forty-two percent for Mexico and fifty-eight percent for the U.S.¹⁹ Unfortunately, the treaty ignores both ecological and groundwater concerns.²⁰ The International Boundary and Water Commission (IBWC) is the federal agency that administers water treaties between the U.S. and Mexico, but the Commission has never regulated or

¹⁴ See Klein, supra note 8; McCarthy, supra note 12.

WILLIAM R. HUTCHISON & JAMES C. BURTON, HYDROGEOLOGICAL STUDY FOR VAL VERDE COUNTY & CITY OF DEL RIO, TEXAS B-17 (2014), available at http://www.edwardsaquifer.net/pdf/Val_Verde_May_2014.pdf. See also Klein, supra note 8, at 138–39 (stating that Del Rio, Texas is a border town, twelve miles downstream from the Amistad Reservoir).

¹⁶ HUTCHISON & BURTON, supra note 15, at B-51.

¹⁷ Id.

River Basins & Reservoirs, Tex. Water Dev. Bd., http://www.twdb.texas.gov/surfacewater/rivers/index.asp (last visited Oct. 25, 2015).

Treaty Respecting Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande art. 5, U.S.-Mex., Feb. 3, 1944, 59 Stat. 1219.

²⁰ Id.

even addressed groundwater as falling within its jurisdiction.²¹ Critics feel that the IBWC can no longer handle the transboundary water management it has been tasked to manage, especially given the water shortage problem in the area, which only continues to become more severe.²² At this time, the U.S. and Mexico essentially have no plans for groundwater management along the border.²³

Globally, groundwater is extracted at a higher rate than any other natural resource.²⁴ And groundwater is a substantial source of water for those living near the border.²⁵ It is vital for a sustainable economy in the arid Rio Grande Basin because it is the major source "for municipal, industrial, and domestic, and agricultural users."²⁶ The term "aquifer" refers to both the rock formation that holds the groundwater, as well as the water inside the formation.²⁷ There are twenty-one minor groundwater aquifers in Texas and nine major ones.²⁸ One common management goal for an aquifer is to keep the amount of groundwater that is discharged, or taken out, on par with the amount of water that is recharged, or put back in.²⁹

B. THE AMISTAD RESERVOIR

The Rio Grande watershed covers roughly 335,000 square miles.³⁰ The two largest international reservoirs located on the Rio Grande are the Falcon and Amistad Reservoirs.³¹ These two reservoirs "are operated by international agreement to fulfill water allocations on the lower [Rio Grande]."³² Most of the water supplied to users in the Lower Rio Grande Valley comes from these reservoirs.³³ The Amistad Reservoir sits just

²¹ See generally Int'l Boundary & Water Comm'n, U.S. Section, http://www.ibwc.state .gov/home.html (last visited Oct. 25, 2015).

See McCarthy, *supra* note 12, at 253. (explaining that many "criticisms of IBWC suggest that it is nonresponsive and . . . counterproductive in solving problems . . . for which it was expressly commissioned to address in the 1944 Water Treaty").

See Mary E. Kelly, The Drought in Texas: Its Impact and Consequences, 39 NAT. Res. J. 129, 129 (1999).

Gabriel Eckstein, A Hydrogeological Perspective of the Status of Ground Water Resources Under the UN Watercourse Convention, 30 COLUM. J. ENVTL. L. 525, 526 (2005).

²⁵ See McCarthy, supra note 12, at 246.

Zhuping Sheng, Impacts of groundwater pumping and climate variability on groundwater availability in the Rio Grande Basin, Ecosphere 1, (2013), available at http://www.esajournals.org/doi/full/10.1890/ES12-00270.1.

Shammy Puri et al., Shared Groundwater Resources: Global Significance for Social and Environmental Sustainability, in Overexploitation and Contamination of Shared Groundwater Resources 3, 6 (Christophe J.G. Darnault ed., 2008).

Tex. Water Dev. Bd., Texas Aquifers, available at http://www.twdb.texas.gov/ground-water/aquifer/.

²⁹ See Sheng, supra note 26, at 4 (explaining that this creates groundwater equilibrium).

³⁰ Int'l Boundary & Water Comm'n, About the Rio Grande, available at http://www.ibwc.gov/crp/riogrande.htm

³¹ See Sheng, supra note 26, at 248.

Hume, *supra* note 1, at 18; *see also* Klein, *supra* note 8, at 139 (noting that the two reservoirs separate the Rio Grande into three sections: the Upper Rio Grande, the Middle Rio Grande, and the Lower Rio Grande).

³³ See McCarthy, supra note 12, at 248.

under the Upper Rio Grande, and the Middle Rio Grande begins at the Amistad Reservoir and flows to the Falcon Reservoir.³⁴ Beginning at the Falcon, the Lower Rio Grande starts and flows south into the Gulf of Mexico.³⁵

The construction of the Amistad Reservoir dam, which created the Amistad Reservoir, was finished on November 21, 1969.³⁶ Mexico and the U.S. built the dam as a joint effort to store water and to help with flood control, which benefits both countries.³⁷ The lower portion of the Rio Grande flows from the Amistad Reservoir, which is on the border of Texas and Mexico.³⁸ The Amistad and Falcon Reservoirs store water that is later divided between the U.S. and Mexico.³⁹ "'Virtually, all of the water within the Amistad Reservoir is owned by downstream State of Texas water rights holders and the Mexican Government.'"⁴⁰ Mexico has a claim to 41.4 percent of the water in Falcon Reservoir and 43.8 percent of the Amistad Reservoir's water, leaving the remainder of each to the U.S.⁴¹ A third of the water in the Amistad Reservoir originates in Val Verde County, Texas, most of which comes from groundwater.⁴² In addition to sharing surface water, the U.S. and Mexico share multiple aquifers that connect to the Colorado River and the Rio Grande, as well as the Santa Cruz, Tijuana, and New Rivers.⁴³

Texas's share of water rights in the lower Rio Grande are administered by the Rio Grande Watermaster, who acts under the direction and oversight of the Texas Commission on Environmental Quality. The Watermaster must monitor, administer, and en-

³⁴ See Klein, supra note 8, at 139.

³⁵ Id.

³⁶ Gregory P. Stanton et al., Geophysical Analysis of the Salmon Peak Formation Near Amistad Reservoir Dam, Val Verde County, Texas, and Coahuila, Mexico, March 2006, to Aid in Piezometer Placement, 1, 5 (2007), available at http://pubs.usgs.gov/sir/2007/5143/pdf/sir2007-5143.pdf.

Id. at 5 (explaining that the Amistad Reservoir dam is "77.4 meters above the riverbed" and is ten kilometers long); see also Dianniah M. Chahin, Comment, Is the Once Mighty River Not So Mighty?: How the Distribution of Water Rights and Water Planning Along the Texas Portion of the Rio Grande River Affects Future Texans, 6 Tex. Tech. Admin. L.J. 115, 121–22 (2005) ("The Amistad Reservoir . . . provides the United States with 1.77 million acre-feet and Mexico with 1.38 million acre-feet of water conservation storage."); Lake Levels, NAT'L PARK Serv. (Jan. 1, 2015), http://www.nps.gov/amis/planyourvisit/lake-levels.htm (noting that it is normal for the level of water in the reservoir to fluctuate because of drought, rainfall, or demand from the Lower Rio Grande).

³⁸ See Satija, supra note 2.

Douglas G. Caroom & William D. Dugat III, Water Law, 43 Sw. L.J. 413, 414 n.8 (1989-1990); see also Stanton et al., supra note 36, at 5 ("The reservoir . . . has a volume of 3,886,578,000 cubic meters at conservation elevation of 340.46 meters above NAVD 88.").

Bill Piatt & Rachel Ambler, Border Wars & the New Texas Navy: International Treaties, Waterways, and State Sovereignty After Arizona v. United States, 15 Scholar: St. Mary's L. Rev. & Soc. Just. 535, 558 (2013) (citing Carol E. Purchase, et al., Amistad National Recreation Area, Texas, Water Resources Scoping Report, Techincal Report NPS/NRWRD/NRTR-2001/295, U.S. Dep't Interior, Nat'l Park Serv. 1 (Sept. 2001), available at http://www.nature.nps.gov/water/planning/management_plans/amis_wrsr_screen.pdf.).

⁴¹ See McCarthy, supra note 12, at 248.

⁴² See Satija, supra note 2.

⁴³ See id.

force existing Texas water rights.⁴⁴ The Watermaster allocates the water from both the Falcon and Amistad Reservoirs to water rights holders in the Rio Grande, based on the volumes that were assigned to the water rights holders.⁴⁵ The water availability in the Rio Grande area is subject to the high temperatures, current flows in the river, and the water levels in the two major reservoirs.⁴⁶ The IBWC, which also controls the Amistad Reservoir, releases a weekly report that provides updated information about the two reservoirs, including measurements of these factors, among others.⁴⁷ Despite the existence of the Watermaster, who supposedly ensures the proper enforcement of Texas water rights, this system can only viably continue for as long as water actually flows along the border.

C. THE AMISTAD RESERVOIR AND ITS CONNECTION TO GROUNDWATER

There is a strong connection between water levels in the Amistad Reservoir and the groundwater in the "middle border region."⁴⁸ Since 1992, more and more sinkholes have been forming on the northwest side of the dam.⁴⁹ Sinkholes were discovered north of the western embankment, and the sinkholes, as well as the increased amount of water, helped researchers deduce that there "is a preferential flow path where surface water from the Amistad Reservoir is forced into the ground-water system (because of increased head from the reservoir)."⁵⁰ The research also showed a clear connection between water pumped near a lake and groundwater: such pumping could either drain water from the lake or deplete some of the groundwater from the aquifer that feeds the lake.⁵¹ Beginning in 2005, the IBWC and the U.S. Geological Survey combined forces for a research project that included the installation of piezometers on both the eastern and western sides of the Amistad Reservoir dam to measure the dam's water levels for five years.⁵²

⁴⁴ Tex. Water Code Ann. § 11.301 (West 2015).

^{45 30} Tex. Admin. Code. § 303.23 (2015); see also Yoskowitz, supra note 7, at 351 ("Over 80 percent of the water rights along the Lower Rio Grande are held in the agricultural sector, with municipal, domestic and industrial users").

⁴⁶ See Yoskowitz, supra note 7, at 349.

⁴⁷ Id. See also Piatt & Ambler, supra note 40, at 550, 557–58; INT'L BOUNDARY & WATER COMM'N, available at http://www.ibwc.state.gov/wad/flowdata.htm (noting that the IBWC even releases a daily report of levels in the reservoir).

⁴⁸ See Kelly, supra note 23, at 130–31.

⁴⁹ See Stanton et al., supra note 36, at 1.

⁵⁰ Id.

⁵¹ See Satija, supra note 2.

See Stanton et al., supra note 36, at 1; U.S. Dep't Interior, Procedure For Using Piezometers to Monitor Water Pressure in a Rock Mass, available at http://www.usbr.gov/tsc/geotech/rock/USBR_Rock_Standards/6515.pdf (explaining that a piezometer is "[a]ny of several geotechnical instruments that are used for measuring the pore pressure in a soil or rock stratum"); John Dunnicliff, Geotechnical Instrumentation For Monitoring Field Performance 117 (1993) (explaining that "the term piezometer is used to indicate a device that is sealed within the ground so that it responds only to groundwater pressure around itself and not to groundwater pressure at other elevations"); Donald O. Rosenberry et al., Use of Monitoring Wells, Portable Piezometers, and Seepage Meters to Quantify Flow Between Surface Water and Ground Water, Field Techniques for Estimating Water Fluxes Between Surface Water and Ground

In a 2014 study, Bill Hutchison and Jim Burton researched the effects of the Amistad Reservoir on nearby groundwater levels.⁵³ They ran a simulation that was "designed to estimate maximum groundwater elevation rise from 1969 to 2013 on a cell-by-cell basis due to [the presence of the] Amistad" Reservoir and found that the reservoir "has resulted in groundwater elevation increases."⁵⁴ Hutchison and Burton attribute the increase in groundwater to the Amistad Reservoir's presence, which has helped to recharge the aquifer and thereby resulted in more groundwater in the area.⁵⁵

The Amistad Reservoir has also helped replenish the nearby natural springs, including Goodenough Springs.⁵⁶ "As the reservoir began to fill in 1968, an increase in discharge of local springs was observed."⁵⁷ Since the Amistad Reservoir's completion, Goodenough Springs have been beneath forty-six meters of water, which reduces its rate of flow.⁵⁸ Surprisingly, though, Goodenough Springs seems to contain more water today than in times past, due in part to the Amistad Reservoir's recharge of the aquifer that feeds the springs.⁵⁹ Drainage, rainfall, and other surface water, such as reservoirs, all have the ability to recharge aquifers.⁶⁰ The surface water-groundwater system is "hydraulically responsive" because of its proximity to the river channels, which aid in aquifer recharge.⁶¹

Approximately one-third of the Amistad Reservoir's recharge comes from the Pecos and Devils Rivers, whose watershed basins are located in the Edwards-Trinity Aquifer, and from Goodenough Springs, which is at the foot of the Amistad Reservoir.⁶² The Edwards-Trinity Aquifer's permeability "is dominated by conduits and other karst solutional flow features," which helps explain how the surface water and groundwater in the area operate "to convey water from the headwaters of the Devils River watershed basin to where it discharges to Amistad Reservoir." Because of their permeability, karst aqui-

WATER 49, available at http://pubs.usgs.gov/tm/04d02/pdf/TM4-D2-chap2.pdf ("Because this device provides a quick characterization of the direction and magnitude of the vertical hydraulic gradient, it is useful as a reconnaissance tool in lakes, wetlands, and streams.").

⁵³ HUTCHISON & BURTON, supra note 15.

⁵⁴ Id.

⁵⁵ See id.

See Stanton et al., supra note 36, at 7. Texas once had four large natural springs: San Felipe, San Marcos, Goodenough, and Comal. Gunnar M. Brune, Springs of Texas 11 (2002).

⁵⁷ See Stanton et al., supra note 36, at 7.

⁵⁸ Brune, supra note 56, at 11.

⁵⁹ See id. at 11.

⁶⁰ Edwards Aquifer Auth. v. Bragg, 421 S.W.3d 118, 145 (Tex. App.–San Antonio 2013, pet. denied).

⁶¹ Id. at 145-46. See also City of Del Rio, Texas, Regular City Council Meeting 22 (Feb. 11, 2014) [hereinafter Regular City Council Meeting of 2014], available at http://www.cityofdelrio.com/ArchiveCenter/ViewFile/Item/914.

⁶² Id. at 1; see also Dave Owen, Taking Groundwater, 91 WASH. U. L. REV. 253, 260 (2013) (explaining how in addition to irrigating thousands of acres, the Edwards Aquifer is the primary source of water for over two million people).

See Regular City Council Meeting of 2014, *supra* note 61, at 4; *What Is Karst?*, Envtl. Sci. Inst., http://www.esi.utexas.edu/outreach/k-12-teacher-and-informal-educator-resources/caves-a-window-into-the-edwards-aquifer/what-is-karst/ (last visited Oct. 4, 2015) (explain-

fers have a high recharge rate, which means they are significantly connected to surface waters.⁶⁴ Conversely, pumping from the nearby Edwards-Trinity Aquifer can lead to a negative impact on both the surface water and springs on both sides of the Rio Grande, including the water levels in the Amistad Reservoir.⁶⁵ Texas should exploit this obvious connection to increase its groundwater reserves.⁶⁶

III. Population Growth Near the Border

The U.S.-Mexico border is an area that, in recent decades has exploded in terms of population, but this increase in population has come at a time of drought, water shortages, and groundwater depletion.⁶⁷ By 2060, the population along the U.S.-Mexico border is "projected to triple."⁶⁸ Put simply, the water demand along the Rio Grande is projected to exceed the amount of water that the Texas Water Development Board

ing that karst is "formed from the dissolution of soluble rocks including limestone, dolomite and gypsum").

Heather Welles, *Toward a Management Doctrine for Texas Groundwater*, 40 Ecology L.Q. 483, 504, 508 (2013) (explaining that, contra the aquifer make-up of the Edwards-Trinity Aquifer, "the fossilized groundwater in the West Texas Ogallala Aquifer generally recharges very little, meaning that current drawdown is limiting future use, but has less interaction with surface water").

DEVILS RIVER CONSERVANCY, Proceed at Our Own Risk: The Facts About Exporting Water from the Devils River Basin (Jan. 2014), http://static1.squarespace.com/static/535a88 f6e4b0fbad919ef959/t/5363a8b5e4b071539808b3b5/1399040181269/DRC_FACTSHEET_1-10-14.pdf.

See What is Karst?, supra note 63 (explaining that the water that flows through karst aquifers continuously erodes the rock, thereby enlarging the passages, which allows for more water to flow through. Pollutants also pass through karst aquifers, though, but some of it is filtered out of the water before it is pumped, leaving contaminants in the aquifer); Puri et al., supra note 27, at 7 (explaining that generally groundwater moves through aquifers slowly, but water in karstic aquifers can travel nearly as quickly as water on the surface); Principal Karst Aquifers of the United States, U.S. Geological Survey: Science for a changing WORLD (Jan. 30, 2012, 4:46 PM), http://water.usgs.gov/ogw/karst/aquifers (showing that unlike the Edwards-Trinity Aquifer, which is made of karst, the Ogallala Aquifer—the major aquifer in West Texas—lacks karst, which is a major contributor to its significantly slower recharge rate); Burke W. Griggs, Does Groundwater Management Work?, 15 KAN. J.L. & PUB. POL'Y 391, 399-400 (2006) (explaining how in West Texas, the Ogallala is depleted at a rate of more than one million acre-feet per day, partly due to the High Plains becoming a huge-meat producing region. The author also notes that "[g]roundwater irrigation is the latest in a series of technological advances which have transformed agriculture and society in the High Plains," but once the Ogallala is completely depleted, it will never recharge. The connection between reservoirs and groundwater recharge may be more effective on the eastern side of Texas); Robert Glennon, Tales of French Fries and Bottled Water: The Environmental Consequences of Groundwater Pumping, 37 ENVTL. L. 3, 5 (2007) (stating that the groundwater table in the Ogallala Aquifer is so low that the economic health of the entire region will suffer if it continues to plummet).

⁶⁷ See McCarthy, supra note 12, at 245.

⁶⁸ See id. at 248.

(TWDB) projects that the river can supply.⁶⁹ Because of the expected boom in growth along the border, the shared groundwater may be exhausted by 2025.⁷⁰ Prior methods of water allocation and use are becoming less and less adequate due to water shortages near the border.⁷¹ "[A]ny volume of water associated with the surface is constantly changing because the amount of groundwater beneath the surface may increase or decrease."⁷² Aquifer levels across the Western states are also declining due to, in part, recently developed advanced drilling technology, which has allowed pumpers to extract more water at a faster rate than pumpers have in years past.⁷³ The over-pumping of aquifers all over Texas has given rise to declining numbers in the water table, as well as a degradation of water quality due to an influx of brackish water in areas that previously contained fresh water.⁷⁴

Texas has a longstanding tradition of "strong landowner property rights," yet this tradition is not compatible with the state's ever-increasing need to preserve water, especially given the rate at which the population is growing. The TWDB has estimated that, between 2010 and 2060, Texas's water needs will increase twenty-two percent, while the amount of water available is projected to decrease by ten percent. Upwards of 1.5 million South Central Texas and San Antonio residents rely on groundwater for

⁶⁹ See Rio Grande Regional Water Planning Group, Region M 2016 Rio Grande Regional Water Plan: Volume I, available at http://www.riograndewaterplan.org/waterplan.php (follow "Chapter 2: Water Demand Projections" hyperlink); Texas Water Dev. Bd., Water Demand Projections, available at http://www.twdb.texas.gov/waterplanning/data/projections/2017/demandproj.asp.

⁷⁰ See Hume, supra note 1, at 23.

See Hume, supra note 1, at 19; Joshua Partlow, Amid Drought, Texas Is Fuming Because Mexico Isn't Sending the Water It Owes, The Wash. Post (Sept. 8, 2014), http://www.wash ingtonpost.com/world/texas-is-fuming-because-mexico-isnt-sending-the-water-it-owes/2014/09/07/fb82914c-463d-409e-853c-be44e386cc45_story.html (Although this is not the focus of this article, it is important to note that, under the 1944 Water Treaty, Mexico stipulated to transferring water from the Amistad Dam to the U.S., but Mexico has failed to do so for the last few years); Julián Aguilar, Federal Legislation Targets Mexico over Water Treaty, The Tex. Tribune (June 10, 2013), http://www.texastribune.org/2013/06/10/legislation-filed-urge-mexico-comply-treaty/ (noting that critics blame the IWBC for not doing a better job of enforcing the treaty, so now both the Mexican and U.S. governments will have to come together to decide where to go from here).

⁷² Edwards Aquifer Auth. v. Bragg, 421 S.W.3d 118, 145 (Tex. App.–San Antonio 2013, pet. denied).

⁷³ Barbara Cosens, Evolution of the Policies Surrounding Ground and Surface Water Management in the West, 47 IDAHO L. REV. 1, 1 (2010).

⁷⁴ See McCarthy, supra note 12, at 246.

Nathan Weinert, Solutions for Interstate Groundwater Allocation and the Implications of Day, 44 Tex. Envtl. L.J. 105, 125 (2014).

TEX. WATER DEV. BD., WATER FOR TEXAS 2012 STATE WATER PLAN, available at https://www.twdb.texas.gov/publications/state_water_plan/2012/2012_SWP.pdf; see also, Tex. WATER DEV. BD., REGION B REGIONAL WATER PLAN, September 2010, 3-23, available at http://www.twdb.texas.gov/waterplanning/rwp/plans/2011/B/Region_B_2011_RWP.pdf (defining groundwater availability as "the annual effective recharge plus the amount of water that can be recovered annually from storage over a specified period without causing excessive drawdown or irreversible harm, such as subsidence or water quality deterioration").

their drinking water needs.⁷⁷ Because of San Antonio's projected water need, city officials have been working to add alternative water supplies to the city's portfolio, and at a low cost.⁷⁸ "To meet increasing demands in the near term, water authorities in San Antonio are developing recharge enhancement projects, recycling of wastewater for non-drinking purposes, aquifer storage and recovery programs, and sustainable withdrawals from nearby aquifers."⁷⁹

Groundwater can drive environmental, social, and economic growth, but if it is depended upon to the extent that the aquifer suffers, these three factors can herald disaster. The consequences of over-pumping groundwater affect everyone. Because access to aquifers has been largely unregulated for much of Texas's history, some assert that aquifers will eventually run dry, particularly if more recent and widespread efforts to regulate the use of the resource are not effective. The over-pumping of an aquifer can even cause rivers and springs to disappear, as seen in the case of the Edwards Aquifer, and many of those springs "sustain rivers that flow to the Gulf of Mexico." Because groundwater moves relatively slowly, there can be a significant time lag between the onset of pumping and the first evidence of ecological impact. The being depleted—that is, pumped at a rate greater than natural recharge "86

IV. RECOMMENDATIONS

A. Texas Should Build Additional Reservoirs

Texas has a water shortage issue,⁸⁷ and the current plans it has in place are simply inadequate to protect the future of the state's water supply. The legislature must act to make any changes to the state water plan, because it seems the Texas courts are not

⁷⁷ SAN ANTONIO WATER SYSTEM, SOURCE WATER & WELLHEAD PROTECTION PROGRAM, available at http://www.saws.org/environment/ResourceProtComp/groundwater_protection/source_water_program/index.cfm.

⁷⁸ Id

⁷⁹ Fred O. Boadu et al, An Empirical Investigation of Institutional Change in Groundwater Management in Texas: The Edwards Aquifer Case, 17 NAT. RES. J 117, 135–36 (2007).

See Puri et al., *supra* note 27, at 20–21 (emphasizing that, while groundwater provides opportunities and advantages for environmental sustainability and economic development, overexploitation of groundwater threatens the social, economic, and environmental systems that depend upon such groundwater).

See Glennon, *supra* note 66, at 6 (asserting that environmental consequences of groundwater pumping are an international problem).

⁸² Id. at 5.

⁸³ See discussion, infra note 96, and accompanying text.

⁸⁴ See Owen, supra note 62, at 256, 265, 306.

⁸⁵ Id. at 265.

⁸⁶ Puri et al., supra note 27, at 7; Owen, supra note 62, at 255-56.

⁸⁷ See, e.g., M. Craig Haase, The Interrelationship of Ground and Surface Water: An Enigma to Western Water Law, 10 Sw. U. L. Rev. 2069, 2070 (1978).

ready to overturn the Rule of Capture on groundwater.⁸⁸ "The Texas Supreme Court has consistently reaffirmed its support of the doctrine and rejected alternatives, despite acknowledging that the Rule of Capture produces 'harsh and outmoded' results and a wide-spread recognition that the legal division between groundwater and surface water is often no longer justifiable on a scientific basis."⁸⁹

In Edwards Aquifer Authority v. Day, the court reaffirmed that the regulation of groundwater is something for the legislature to handle, thereby endorsing Texas's current groundwater management system and giving deference to the legislators of the state.⁹⁰ "The tension between advancing water science and the outdated legal regimes underlying water allocation produces thorny issues for courts, which must apply rules based on outdated assumptions, and water managers, who are tasked with understanding water's physical behavior, allocating supplies fairly, and preserving the resource for future generations."⁹¹

There are two very different ways to judge whether groundwater management is working effectively. One camp looks at it in terms of conservation and sustainability, and the other camp thinks supplies are adequate as long as there is water to use for irrigation. When addressing how successful groundwater management is, should success be measured based on environmental sustainability or by the amount of water that is produced? The High Plains Aquifers in Texas are the perfect example of what happens when little to no management is applied, and therefore aquifers are depleted so quickly that recharge can no longer help increase the water in the aquifer.

Currently, Texas manages its groundwater through the establishment and use of groundwater conservation districts (GCDs).⁹⁶ In 1997, the Texas Legislature passed Senate Bill 1, which gave GCDs more authority to regulate groundwater in a district.⁹⁷ The focus of Senate Bill 1 was more squarely on the future marketability of water, and not necessarily the chipping away of the Rule of Capture.⁹⁸ "Although [Senate Bill] 1 purported to protect and preserve natural resources, it did not resolve the conflicting goals of conservation and the continuous adherence to the rule of capture."

See Chahin, supra note 37, at 138 (suggesting that there needs to be a legislative decision for any action to be taken regarding the state water plan); Edwards Aquifer Auth. v. Day, 369 S.W.3d 814, 817 (Tex. 2012); Edwards Aquifer Auth. v. Bragg, 421 S.W.3d 118, 118 (Tex. App.—San Antonio 2013, pet. denied).

⁸⁹ See Day, 369 S.W.3d at 832; see also Welles, supra note 64, at 488.

⁹⁰ Day, 369 S.W.3d at 834.

⁹¹ See Welles, supra note 64, at 483.

⁹² See Griggs, supra note 66, at 401.

⁹³ Id. (explaining the two sides of the debate over groundwater management).

⁹⁴ Id. at 392.

⁹⁵ See Puri et al., *supra* note 27, at 17 (using the High Plains Aquifers as an example of how poor management practices can lead to the aquifer storage being depleted before recharge can be introduced).

⁹⁶ McCarthy, supra note 12, at 246.

⁹⁷ Eric Opiela, The Rule of Capture in Texas: An Outdated Principle Beyond Its Time, 6 U. Denv. Water L. Rev. 87, 107 (2002).

⁹⁸ Stephanie E. Hayes Lusk, Texas Groundwater: Reconciling the Rule of Capture with Environmental and Community Demands, 30 St. MARY's L.J. 305, 328 (1998).

⁹⁹ Id

With the GCDs, the legislature has been able to slightly modify the Rule of Capture by implementing a regulatory scheme based on local management. GCDs have the ability to regulate withdrawals of groundwater within a certain geographical area, often coincident with a county boundary. GCDs have the authority to "base permits on groundwater withdrawal caps determined through the regulatory process," but because of Day, the "totality of the circumstances" must be considered, which undermines the authority of the GCD. These GCDs apply permitting systems to a given area by taking into account historic use, as well as whether new regulation will harm existing permit holders. GCDs can even require that permit holders limit their well production. Local districts must work together across specified management areas to manage aquifers based on projected desired future conditions (DFCs) of the groundwater table. Districts have the authority to establish their own DFCs, which recognizes the state preference for local control, but may frustrate individual landowners in a given district. GCDs actually sound quite good in theory, but GCDs still suffer from meager funding and a lack of effective enforcement.

As an alternate conservation method, I propose that Texas should build new reservoirs. Planners need to identify sites for new reservoirs to more effectively manage the water supply in Texas.¹⁰⁸ It is clear that there is a connection between surface water found in reservoirs and groundwater; the state should develop additional infrastructure based on this understanding of the hydrologic system.¹⁰⁹ The presence of groundwater in an aquifer potentially plays the most important part in the hydrologic cycle.¹¹⁰ Texas needs to develop a plan to help recharge its aquifers, because that is one of the few ways to ensure a sustained amount of groundwater.¹¹¹ One way to enhance aquifer recharge is by increasing the number of reservoirs near aquifers.¹¹²

When the soil in an area is completely replenished, gravity carries additional surface water downward, thereby "recharging" the aquifer.¹¹³ "Such recharge occurs when an aquifer outcrops at the land surface and is rained upon.¹¹⁴ Some of this impinging water percolates downward and reaches the main body of ground water, raising the water table

¹⁰⁰ Tex. Water Code Ann. § 36.0015 (West 2015).

¹⁰¹ Id. § 36.012.

Welles, *supra* note 64, at 514–15 (interpreting GCD authority post *Day*). See also Edwards Aquifer Auth. v. Day, 369 S.W.3d 814, 832 (Tex. 2012).

¹⁰³ Tex. Water Code Ann. § 36.113; see Welles, supra note 64, at 491.

¹⁰⁴ Tex. Water Code Ann. § 36.116.

¹⁰⁵ See Welles, supra note 64, at 491; see also Tex. Water Code § 36.108.

¹⁰⁶ Tex. Water Code Ann. § 36.116.

¹⁰⁷ Tex. Water Code Ann. §§ 36.102, 36.161. See Welles, supra note 64, at 493.

¹⁰⁸ River Basins & Reservoirs, supra note 18.

¹⁰⁹ See Sheng, supra note 26.

¹¹⁰ See Haase, supra note 87, at 2072.

¹¹¹ See, e.g., Ronald Kaiser & Frank F. Skillern, Deep Trouble: Options for Managing the Hidden Threat of Aquifer Depletion in Texas, 32 Tex. Tech. L. Rev. 249, 294–98 (2001).

¹¹² Mass. Inst. of Tech., Depletion and Artificial Recharge, http://12.000.scripts.mit.edu/mission2017/depletion-and-artificial-recharge/ (last visited Oct. 25, 2015).

¹¹³ See Haase, supra note 87, at 2076–77.

¹¹⁴ Id. at 2077.

and piezometric surface."¹¹⁵ So where storage space is available in an aquifer, surface water can enter the aquifer, become groundwater, and later discharge to a spring to become surface water once again.¹¹⁶ Diverting water into storage reservoirs minimizes the amount of water flowing in streams, which can be helpful and harmful; however, overall, groundwater recharge projects add water to streams.¹¹⁷

The TWDB gives consideration to any impact a new water supply strategy may have on local water needs.¹¹⁸ For a water management strategy to receive funding from TWDB as well as a permit from the Texas Commission on Environmental Quality (TCEQ), the strategy must be "consistent with the approved regional water plan, [and] the regional water plans developed by the [Regional Water Planning Groups], and their consultants exert considerable influence on water planning and future water-related infrastructure."¹¹⁹ As part of the plan to build another reservoir, water planners may also need to consider the impacts of the proposed reservoir on environmental flows.¹²⁰

B. POTENTIAL OBJECTIONS TO BUILDING ADDITIONAL RESERVOIRS

One likely objection to the proposal that Texas should build new reservoirs is that there will be too much water lost to evaporation. An advantage to increasing the amount of water in an aquifer is that groundwater is less likely to fluctuate due to climate change than surface water is, and so in the sense, groundwater does not evaporate like surface water does, which happens at an even higher rate when temperatures are higher. So although some reservoir water will be lost to evaporation, if the aquifers in the area are recharged to the extent that groundwater levels rise, then there may still be more water conserved overall for later use. The benefits of saving additional water in the aquifer could compensate for the water lost to evaporation in the reservoir; reservoir planners would have to assess this possibility before building the reservoir. If more water would be lost to evaporation than would be saved through aquifer recharge, then the proposed area for the building of a reservoir would probably be an inadequate site.

¹¹⁵ Id.

¹¹⁶ *Id.*; Owen, *supra* note 62, at 255 (stating that groundwater aquifers recharge surface waterways, thereby playing "a critical role in sustaining rivers, lakes, wetlands, and streams").

¹¹⁷ Michael F. Browning, Private Means to Enhance Public Streams, 33 Colo. Law. 69, 72 (2004).

¹¹⁸ Tex. Water Code Ann. Ch. 15 (West 2015) (detailing the water planning authority of the TWDB); see Chahin, supra note 37, at 131.

¹¹⁹ See Chahin, supra note 37, at 129; Tex. Water Code Ann. §§ 15.406, 16.053 (West 2015).

¹²⁰ See generally Tex. Water Dev. Bd., Environmental Flows, available at http://www.twdb.texas.gov/surfacewater/flows/; see generally, Kevin G. Wheeler et al., Alternatives for Restoring the Colorado River Delta, 47 Nat. Res. J. 917, 934 (2007).

¹²¹ Tex. Conservation Alliance, Solving our Water Future, http://www.tcatexas.org/?port-folio=solving-our-water-future (last visited Oct. 25, 2015); Norman Johns, Evaporation – a Loss for Humans and Wildlife in Texas, Tex. Living Waters Project (Sept. 24, 2014), http://texaslivingwaters.org/evaporation-loss-humans-wildlife-texas/.

¹²² See Sheng, supra note 26.

How can the growing demand for water be met? Green Facts, http://www.greenfacts.org/en/water-resources/ (last visited Oct. 25, 2015).

¹²⁴ Johns, supra note 121.

Another potential drawback of building additional reservoirs is that they are very expensive to build and present significant permitting challenges at the state and federal level.¹²⁵ The federal government funded the building of the Amistad Reservoir because it was an extension of a treaty, but Texas may lack the money to fund a new reservoir.¹²⁶ In 2013, the Texas Legislature passed a bill that allows for a state water infrastructure fund, which was initially given \$2 billion from Texas' Rainy Day Fund.¹²⁷ This money would probably be the best source of funding for a new reservoir. The investment in a reservoir would require substantial funding on the front end, but because of the potential for an increase in groundwater, the state would save money in the long run.¹²⁸

C. Texas Ought to Better Maintain Existing Reservoirs

Texas already has 196 major reservoirs and 191,000 miles of streams. ¹²⁹ If the legislature decides that it does not want to invest money into a new reservoir, then it should at least invest money in the upkeep of the reservoirs currently in use. Sedimentation is incredibly harmful to reservoirs. ¹³⁰ Human interaction with the watershed may increase the potential for erosion. ¹³¹ The TWDB has estimated that the major reservoirs in Texas lose 90,000 acre-feet every year because of sedimentation casued by erosion in the watershed. ¹³² One way to help maintain the health and holding capacity of a reservoir is to control watershed erosion. ¹³³ "The reduction in storage volume from sedimentation has direct impacts on water supply and secondary impact on supply infrastructure and water quality" ¹³⁴ For instance, one way to decrease erosion in the reservoir is to build a drainage channel in areas in which suffer from erosion buildup. ¹³⁵ Some factors considered when assessing the frequency with which a reservoir should be dredged (or completely cleaned out) are the age of the reservoir, the amount of nearby shoreline development, soil erodibility, and land-use. ¹³⁶ Sediment deposits found in reservoirs come from soil erosion from other places in the watershed, which flow to the reservoirs

See, e.g., Los Vaqueros Reservoir: Frequently Asked Questions, Cal. Dep't Water Res., http://www.water.ca.gov/storage/docs/LV%20Project%20Docs/LV_FAQs.pdf (last visited Oct. 25, 2015).

¹²⁶ See Caroom & Dugat, supra note 39.

²⁷ See Weinert, supra note 75, at 126.

¹²⁸ See Chahin, supra note 37, at 133.

See River Basins & Reservoirs, *supra* note 18 (explaining that a major reservoir is "defined as an impoundment that currently has at least 5,000 acre-feet of storage capacity at its normal operating level").

¹³⁰ Tex. Water Dev. Bd., Watershed Protection for Texas Reservoirs: Addressing Sedimentation and Water Quality Risks, 6 (Jan. 31, 2012) *available at* https://www.twdb.texas.gov/publications/reports/contracted_reports/doc/1004821120_reservoirs.pdf [hereinafter Watershed Protection for Texas Reservoirs].

Travis D. Bayes, Study of Watershed Erosion and Reservoir Sediment Analysis, 127 (June 2006) (unpublished M.S. thesis, Ohio University) (on file with Ohio University Library), available at https://etd.ohiolink.edu/rws_etd/document/get/ohiou1171566389/inline.

¹³² See Watershed Protection for Texas Reservoirs, supra note 130, at 6.

¹³³ See River Basins & Reservoirs, supra note 18.

¹³⁴ See Watershed Protection for Texas Reservoirs, supra note 130, at 6.

¹³⁵ See Bayes, supra note 131, at 128.

¹³⁶ See Watershed Protection for Texas Reservoirs, supra note 130, at 6.

voir. ¹³⁷ After eroded sediments have settled at the bottom of the reservoir, these deposits have the ability to reduce the capacity of the reservoir, which may lead to an increased chance of flooding. ¹³⁸ "Areas with higher erosion potentials can be targeted geographically for maintenance purposes . . ."¹³⁹

Storage reservoirs are vital to the health and life of all streams and keep the hydrologic cycle moving efficiently.¹⁴⁰ The state should therefore maintain its reservoirs to ensure more consistent regulation of river flows and reservoir storage capacities.¹⁴¹ Further, in some cases, it may be much less expensive to increase the amount of storage in existing reservoirs than it is to construct new ones.¹⁴²

D. Texas Water Laws Should Accurately Reflect the Hydrological Cycle

Hydrology dictates the way water moves and acts, so Texas laws should, at bottom, more accurately account for hydrology. Groundwater withdrawals affect the volume of surface water. 143 "Depletion of a small part of the total volume of groundwater in storage (sometimes only a few percent) can have substantial and undesirable effects on the availability of surface water, which becomes the limiting factor to development of the groundwater resource."144 Surface water and groundwater are more hydrologically connected than the laws currently recognize. 145 These two bodies of water are directly related to each other, yet the legal world has not recognized their hydrologic connection in a meaningful way that both makes sense and strives for conservation. 146 "The interaction between surface water and groundwater in the hydrological system makes regulation of one meaningless without considering the other—and that is the Achilles heel of the old United States-Mexico water treaties, which deal only with surface flows."147 Neighboring state New Mexico regulates surface water, as well as groundwater as a connected system, and Texas should follow suit.¹⁴⁸ It simply makes no sense for the state to regulate water when it is in one part of the hydrologic cycle, namely surface water, yet regulate groundwater through a patchwork of local districts in a manner that, in many instances, ignores the fact that the two are connected through the hydrologic cycle. As long as Texas law continues to allow landowners to pump as much groundwater as they please

¹³⁷ See Bayes, supra note 131, at 11.

¹³⁸ Id. at 1.

¹³⁹ Id. at 127.

¹⁴⁰ Browning, supra note 117, at 172. See also Susan S. Kuo, Disaster Tradeoffs: The Doubtful Case for Public Necessity, 54 B.C. L. Rev. 127, 151 (2013).

¹⁴¹ See Wheeler et al., supra note 120, at 930.

¹⁴² See, e.g., Los Vaqueros Reservoir: Frequently Asked Questions, supra note 125.

¹⁴³ See Sheng, supra note 26, at 5.

¹⁴⁴ Id.

¹⁴⁵ See Eckstein, supra note 24, at 562.

See Haase, supra note 87 at 2072; General Facts and Concepts About Ground Water, U.S. Geol. Survey, http://pubs.usgs.gov/circ/circ1186/html/gen_facts.html (describing how groundwater is an important source of surface water. Approximately forty percent of the water in medium-sized streams was at some point groundwater, yet water law in Texas clearly draws a line between the way surface water and groundwater are treated).

¹⁴⁷ See Hume, supra note 1, at 23.

¹⁴⁸ Id. at 21.

outside of groundwater conservation districts, 149 water conservation in the state will continue to suffer.

V. What the Future Holds for Texas Water Law

Like the antiquated laws of many other states, Texas groundwater laws were written when it seemed perfectly acceptable and safe to pump with reckless disregard of later consequences; the science available at the time was too unsophisticated to show the disastrous consequences of this decision. 150 "Some of [the Rule of] [C]apture's most ardent supporters, including some of those who have built their livelihoods in reliance on the rule, such as farmers, ranchers, and industry, faced, with the unquenchable thirst of neighboring municipalities, are now its most vocal opponents."151 To date, the Texas Legislature has largely refrained from taking action concerning the Rule of Capture. "Fearing political consequences from constituents and lobby groups, legislators have been slow to address this conflict directly."152 The major obstacle for the legislature is to come up with a plan that will satisfy both environmental activists and property owners. Water law experts feel that neither the legislature nor the courts will overrule the Rule of Capture as it applies to groundwater anytime soon; case law will merely have to water down its force over time. 153 State planners should consider building more reservoirs, in addition to the reservoirs which the State already plans to build, in an attempt to recharge the over-drafted aquifers in the state, which do not appear to be receiving relief anytime soon.154

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¹⁴⁹ See Sipriano v. Great Spring Waters of Am., Inc., 1 S.W.3d 75, 80 (Tex. 1999).

See Owen, *supra* note 62, at 257; Puri et al., *supra* note 27, at 3 (explaining that "while aquifer systems, due to their partial isolation from surface impacts, on the whole contain excellent quality water, there has been poor resource management because 'economic externalities' have been ignored").

¹⁵¹ See Opiela, supra note 97, at 106.

¹⁵² See Lusk, supra note 98, at 330; Eckstein, supra note 24, at 527 (explaining that, "despite growing dependence on ground water, legal and regulatory attention to ground water has long been secondary to surface water resources, especially among legislatures and policymakers").

¹⁵³ Interview with David Frederick, Attorney, Frederick, Perales, Allmon & Rockwell (Feb. 12, 2015).

¹⁵⁴ See Puri et al., supra note 27, at 7 (referring to groundwater as "a local resource par excellence").

A STATUTORY TANGLE: How the Clean Power Plan Violates Clean Air Act Section 301(d) and the Tribal Authority Rule

BY MICHAEL J. NOVOTNY

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		Limitations Placed on Tribes under the Tribal Authority Rule Limitations Placed on Tribes under Section 301(d) of the Clean Air
		Act
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IV.	Con	nclusion

I. Introduction

Air knows no geographical or political boundaries, but certain boundaries do affect the implementation of air pollution regulatory schemes under the Clean Air Act (CAA).¹ The Environmental Protection Agency (EPA) recently finalized existing source performance standards for fuel-fired electrical generating units (EGUs), using section 111(d) of the CAA as its Congressional grant of authority.² Known as the Clean Power Plan (CPP), the rule asks EGUs in all U.S. states, territories, and Indian reservations to reduce 2005 carbon dioxide (CO₂) emission levels by 30 percent before 2030.³ To help states and tribes meet this ambitious goal, the EPA provides an option for these governments to enter into multi-jurisdictional partnerships.⁴ The partnerships would allow partnering governments to pool their resources and CO₂ emission requirements.⁵

In providing this multi-jurisdictional partnership option, the EPA has made several errors regarding the authoritative reach of tribal governments. This Note examines these shortcomings by outlining the central features of the CPP, and analyzing tribal authority under the Tribal Authority Rule (TAR) and section 301(d) of the CAA.⁶ Specifically, this Note argues that the TAR and section 301(d) preclude all three Indian tribes with affected EGUs from entering into multi-jurisdictional partnerships.⁷ The TAR requires tribes to apply for treatment as state (TAS) status when implementing their own CAA plans or joint plans with other jurisdictions; however, pursuant to section 301(d), tribes cannot gain TAS status to manage air resources outside reservation boundaries.

II. THE EPA'S REGULATION OF CO₂ EMISSIONS FROM EXISTING ELECTRICAL GENERATING UNITS UNDER SECTION 111(d)

Although EPA's attention to the problem of existing electrical power plant CO_2 emissions is welcome by many, the EPA's CPP deals with the problem in ways that not only perpetuate many existing flaws, but also raise new concerns. The EPA has attempted to squeeze existing source CO_2 regulation into section 111(d), a short, vague,

- See Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,510, 64,661 (Oct. 23, 2015) (to be codified at 40 C.F.R. pts. 60, 70, 71, and 98). The Supreme Court recently cautioned against the EPA overzealously attacking climate change by stating that "we are not willing to stand on the dock and wave goodbye as EPA embarks on this multiyear voyage of discovery." Util. Air Regulatory Grp. v. U.S. Envtl. Prot. Agency, 134 S. Ct. 2427, 2446 (2014).
- 3 See Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,830, 34,832 (June 18, 2014) (to be codified at 40 C.F.R. pt. 60) (noting that the existing source rule will achieve carbon dioxide emission reductions of approximately 32 percent from emission levels in 2005).
- 4 See Carbon Pollution Emission Guidelines for Existing Stationary Sources: EGUs in Indian Country and U.S. Territories; Multi-Jurisdictional Partnerships, 79 Fed. Reg. 65,482 (Nov. 4, 2014) (to be codified at 40 C.F.R. pt. 60).
- 5 Id.
- 6 See 42 U.S.C. § 7601(d) (2015); 40 C.F.R. pt. 49 (2015).
- The Indian reservation with a natural gas power plant is the Fort Mojave. The Uintah and Ouray Ute reservation has one coal-fired power plant, and Navajo Nation has two. Carbon Pollution Guidelines for Existing Stationary Sources: EGUs in Indian Country and U.S. Territories; Multi-Jurisdictional Partnerships, 79 Fed. Reg. at 65,488-65,489.

^{1 42.} U.S.C §§ 7401 et seq. (2015).

and scarcely used provision.⁸ Moreover, the EPA has grafted a multi-jurisdictional partnership option onto an already overextended rule, which only loosely considers the special limitations that govern tribes when managing air resources.

A. A PRIMER ON THE CLEAN AIR ACT

A brief review of basic CAA concepts is necessary for understanding how the CPP is constrained by special jurisdictional limitations in Indian Country. The CAA is the primary statute responsible for air pollution regulation in the U.S. In It codifies the commitment "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." The CAA functions to increase the federal government's role in the battle against air pollution. In Italian Pollution.

1. DIFFERENT AIR POLLUTION REGULATORY PROGRAMS UNDER THE CLEAN AIR ACT

The CAA employs a number of different approaches to control air pollutants, which include programs defined in sections 110, 111, and 112 of the CAA. Briefly stated, section 110 sets requirements for state implementation plans (SIPs) so that states can comply with the EPA's National Ambient Air Quality Standards (NAAQS); section 111 sets requirements for the implementation of New and Existing Source Performance Standards (NSPS and ESPS, respectively); and section 112 sets standards for the National Emission Standards for Hazardous Air Pollutants (NESHAP) program. Section 112's NESHAP program only applies to 189 criteria pollutants, but CO₂ is not included on this list. NESHAPs are based on the "maximum achievable control technology" (MACT) for major stationary sources. The MACT requirement applies to both new and existing sources. On the supplies to 15 of the MACT requirement applies to both new and existing sources.

⁸ See 42 U.S.C. § 7411(d) (2015) (standards of performance for existing sources; remaining useful life of source); 79 Fed. Reg. at 34,832 (explaining that the EPA relied on § 111(d) of the CAA for its authority to establish CO₂ emission guidelines for existing fossil fuel-fired EGUs).

^{9 &}quot;Indian Country" differs from the definition of a "reservation." Indian Country "means (a) all land within the limits of any Indian reservation under the jurisdiction of the U.S. Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation, (b) all dependent Indian communities within the borders of the U.S. whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state, and (c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same." 18 U.S.C. § 1151 (2015).

¹⁰ See 42 U.S.C. § 7401 (2015).

¹¹ *Id.* § 7401(b)(1).

¹² See Train v. Natural Res. Defense Council, Inc., 421 U.S. 60, 64 (1975).

¹³ See 42 U.S.C. § 7410-7412 (2015).

¹⁴ See id. § 7412(b).

¹⁵ *Id.* § 7412(g)(2).

¹⁶ Id.

Under section 110, the EPA requires states and tribes to develop applicable implementation plans to comply with the NAAQS program.¹⁷ Congress defined "applicable implementation plans" to include: state, federal, and tribal implementation plans (SIPs, FIPs, and TIPs, respectively). The plans must keep pollution emissions below EPAmandated levels to ensure acceptable air quality in every region of the United States.¹⁹ Although section 110 contains separate SIP provisions for areas that violate NAAQS the non-attainment program—and areas that are cleaner than NAAQS—the prevention of significant deterioration program (PSD)—the basic concept is that states can choose any mix of restrictions as long as federally-mandated emission levels are met for the area.²⁰ Therein, the SIP may consider costs and implementation flexibility.²¹ Section 110(a)(2) lists the elements that must be included in a SIP, including enforceable emission limitations and other control measures, the establishment and operation of appropriate monitoring devices, and a showing that the state has appropriate personnel to implement and enforce the plan.²² Section 110(o) also provides specific requirements for tribes when implementing their own plans, mandating that tribes gain TAS status before implementing a TIP.²³ Importantly, section 110(o) cross-references section 301(d), stating that the plan "shall become effective to all areas . . . located within the exterior boundaries of the reservation, notwithstanding the issuance of any patent and including rights-of-ways running through the reservation."24

Like section 110, section 111 of the CAA requires the EPA to develop a "procedure similar to that provided [by section 110] under which each state [and tribe] shall submit a plan which (A) establishes standards of performance" for any existing or new stationary source. Since NAAQS are presumably adequately regulated through section 110's SIP requirements, section 111 only applies to the non-designated pollutants. CO₂ is not regulated under NAAQS, which is why the EPA is trying to control CO₂ emissions under section 111. Section 111(d) only requires states and tribes to develop implementation plans for the source categories regulated by section 111(b) NSPS. Therefore, section 111(d) only requires that existing sources meet the NSPS for pollutants that are not subject to NAAQS.

¹⁷ See id. § 7410.

¹⁸ Id. § 7602(q).

¹⁹ See ASARCO Inc. v. U.S. Envtl. Prot. Agency, 578 F.2d 319, 321 (D.C. Cir. 1978).

^{20 42} U.S.C. § 7410(a)(2).

²¹ See Union Electric Co. v. U.S. Envtl. Prot. Agency, 427 U.S. 246 (1976).

^{22 42} U.S.C. § 7410(a)(2).

²³ Id. at § 7410(a)(2).

²⁴ Id. (emphasis added). As section III.B.1 of this Note discusses, the absence of a "notwith-standing" proviso in § 301(d) was used to argue that Congress did not expressly delegate tribal power. Arizona Public Service Co. v. U.S. Envtl. Prot. Agency, 211 F.3d 1280 (D.C. Cir. 2000) (Ginsburg, J. dissenting).

^{25 42} U.S.C. § 7411(d)(1).

²⁶ Id.

U.S. Envtl. Prot. Agency, National Ambient Air Quality Standards (NAAQS), http://www3.epa.gov/ttn/naaqs/ (last visited Nov. 26, 2015).

^{28 42} U.S.C. § 7411(d)(1).

2. Application of the Clean Air Act to Control GHGs under Section 111(d)

Before setting pollution emissions requirements under section 111, EPA must establish that the regulated material is an air pollutant.²⁹ Congress has defined "air pollutant" as "any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material, and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air."³⁰

In 2007, the EPA claimed that greenhouse gases—including CO₂—were not air pollutants, which originally meant that the CAA did not grant the EPA authority to address climate change.³¹ However, Massachusetts v. EPA invalidated the EPA's position by holding that the CAA definition of pollutant "embraces all airborne compounds of whatever stripe, and underscores that intent through the repeated use of the word 'any.'"³² Greenhouse gases "are without a doubt 'physical [and] chemical . . . substance[s] which [are] emitted into . . . the ambient air."³³ Thus, today, the EPA is unquestionably allowed to regulate CO₂ pollution.

As noted, the EPA recently implemented CO_2 emission controls for new and existing power plants under section 111.34 Section 111 authorizes the regulation of CO_2 at new and existing EGU sources because CO_2 is known to "cause[], or contribute[] significantly to air pollution which may reasonably be anticipated to endanger public health or welfare." The main issue today is not whether the EPA may regulate CO_2 , but rather the extent to which the EPA is permitted to regulate CO_2 under section 111(d).36

B. THE CLEAN POWER PLAN

Approximately two years ago, President Obama announced the Climate Action Plan (CAP), which aims to curtail climate change by cutting greenhouse gas emissions—specifically CO₂—in the U.S.³⁷ Because the largest CO₂ emitters in America are fossil

²⁹ Id. § 7411(b)(1).

³⁰ Id. § 7602(g).

³¹ See Massachusetts v. U.S. Envtl. Prot. Agency, 549 U.S. 497, 500 (2007).

³² Id. at 529.

³³ Id.

What EPA is Doing, U.S. ENVTL. PROT. AGENCY, http://www2.epa.gov/cleanpowerplan/what-epa-doing (last visited Oct. 24, 2015).

⁴² U.S.C. § 7411(b)(1)(A); see also Air Pollution Prevention and Control: List of Hazardous Air Pollutants, 36 Fed. Reg. 5,931 (Mar. 31, 1971) (listing "fossil-fuel fired steam generators of more than 250 million B.t.u. per hour heat input").

Because the EPA does not obtain the "power to 'tailor' legislation to bureaucratic policy goals by rewriting unambiguous statutory terms," an analysis of § 111(d) within the CAA's regulatory context is crucial to understanding the validity of the CPP's multi-jurisdictional partnership option. See Scott Pruitt, The Oklahoma Attorney General's Plan: The Clean Air Act § 111(d) Framework That Preserves States' Rights, 44 ENVTL. L. REP. NEWS & ANALYSIS 11045, 11047-49 (2014) (criticizing EPA's overreach, and arbitrary and capricious methodology in denying state implementation plans for existing source performance standards).

³⁷ Exec. Office of the President, The President's Climate Action Plan 4 (June 2013), available at https://www.whitehouse.gov/sites/default/files/image/president27sclimateaction plan.pdf.

fuel-fired power plants, the CAP provides a platform for reducing "power plant pollution to improve public health and the environment while supplying [renewable energy] needed for economic growth."³⁸

The President's goal was for America to reduce greenhouse gas emissions from all source categories by 17 percent below 2005 levels by 2020.³⁹ The CPP aims to reduce CO₂ by approximately 30 percent below 2005 levels before 2030.⁴⁰ To achieve this ambitious goal, the EPA crafted CO₂ emission guidelines for existing stationary sources⁴¹ and set rate-based goals for each state and tribal jurisdiction, citing the interconnected nature of the nation's power network as its reason for doing so.⁴² The CPP primarily functions to transition the U.S. into cleaner energy production. Under its chosen mechanism, section 111(d), the EPA became obligated to establish a process for setting ESPS and source-specific implementation plan guidelines for existing fuel-fired EGUs not regulated by NSPS.⁴³

EPA's guidelines must establish standards of performance that reflect the degree of emission achievable through the "best system of emission reduction" (BSER).⁴⁴ Although not statutorily defined, BSER must at least consider "the cost of achieving such [CO₂] emission reduction, and any non-air quality health and environmental impact and energy requirements."⁴⁵ Accounting for these requirements, the CPP defines BSER as a mixture of three building blocks: heat-rate reductions; operation improvements at EGUs; and the dispatch of renewable and nuclear energy sources.⁴⁶ The building blocks are deemed "adequately demonstrated" via current widespread use by utilities and states."⁴⁷

The building blocks are essential components of a "system of emission reduction" for existing EGUs.⁴⁸ All of the building blocks either improve the intensity of CO_2 emissions or reduce the need to generate CO_2 emissions for energy production. Building

³⁸ Id. at 6.

³⁹ Id.

⁴⁰ THE WHITE HOUSE, FACT SHEET: PRESIDENT OBAMA TO ANNOUNCE HISTORIC CARBON POLLUTION STANDARDS FOR POWER PLANTS (Aug. 3, 2015), available at https://www.white house.gov/the-press-office/2015/08/03/fact-sheet-president-obama-announce-historic-car bon-pollution-standards.

⁴¹ See What EPA is Doing, supra note 34.

Fact Sheet: Overview of the Clean Power Plan, U.S. Envtl. Prot. Agency, Overview of the Clean Power Plan, http://www2.epa.gov/cleanpowerplan/fact-sheet-overview-clean-power-plan (last visited Nov. 26, 2015).

^{43 42} U.S.C. § 7411(d).

Id. § 7411(a)(1) (defining standard of performance as "a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the [EPA] determines has been adequately demonstrated").

^{45 42} U.S.C. § 7411(d)(1).

See Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,830, 34,835 (June 18, 2014) (to be codified at 40 C.F.R. pt. 60).

⁴⁷ Id. at 34,834.

⁴⁸ Id. at 34,836.

block 3 decreases the need for electricity at the source. States and tribes are free to use any mix of the building blocks to best fit their jurisdiction's needs.⁴⁹

Each jurisdiction is required to create an implementation plan from the three building blocks and submit their proposed implementation plan by June 30, 2016.⁵⁰ The jurisdiction's proposal must identify the geographic reach of the plan—either multijurisdictional or intra-jurisdictional—and include a detailed explanation of how the jurisdiction will meet the relevant emission target.⁵¹ States and tribes are encouraged to adopt a multi-jurisdictional approach to achieve their existing-source CO₂ emission goals.⁵² Benefits of multi-jurisdictional plans include delayed submission dates, additional cost savings, and flexibility to adopt a broad range of compliance options.⁵³ Flexibility is important since the power sector is made up of a diverse range of companies that own and operate fossil fuel-fired EGUs, all of which are likely to have different ranges of opportunities to reduce greenhouse gas emissions while facing different challenges in meeting these reductions.⁵⁴

The CPP allows for jurisdictions to convert their rate-based CO_2 emissions goals to mass-based equivalents.⁵⁵ For a rate-based CO_2 emission performance level, the level represents pounds of CO_2 per mega-watt hour of net energy output achieved by each EGU.⁵⁶ However, for a mass-based CO_2 emissions rate, the emissions rate represents the total tons of CO_2 emitted by the EGUs.⁵⁷ 40 C.F.R section 60.5770 of the proposal

⁴⁹ Id.

⁵⁰ Unless at the EPA's discretion it grants a one-year extension. See id. at 34,838.

⁵¹ Id.

⁵² Id. at 34,854.

The deadline to submit the implementation plan under the multi-jurisdictional approach would be June 30, 2018. Carbon Pollution Emission Guidelines for Existing Stationary Sources: EGUs in Indian Country and U.S. Territories; Multi-Jurisdictional Partnerships, 79 Fed. Reg. 65,482, 65,494-95 (Nov. 4, 2014) (to be codified at 40 C.F.R. pt. 60).

Projecting EGU CO₂ Emission Performance In State Plans, U.S. Envtl. Prot. Agency, (available at http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-projecting-egu-co2-emission-performance (detailed guidance on translation); Clean Power Plan Proposed Rule: Translation of the State-Specific Rate-Based CO₂ Goals to Mass-Based Equivalents, U.S. Envtl. Prot. Agency, (Nov. 6, 2014) available at http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-translation-state-specific-rate-based-co2 (actual example of translation under two sets of simple assumptions). But see Jeremy M. Tarr, David Hoppock, Apples and Oranges: Assessing the Stringency of EPA's Clean Power Plan, 44 Envtl. L. Rep. News & Analysis 11079, 11080-82 (2014). (giving a detailed analysis of EPA's methodology for calculating the goals set for each state by using each of the four building blocks). However, EPA's formulation for operation of the four building blocks is expressed as: "(Coal gen. x Coal emission rate) + (OG gen. x OG emission rate) + (NGCC gen. x NGCC) emission rate) + ("Other" emissions)/ (Coal gen. + OG gen. + NGCC gen. + ("Other" gen. + RE gen. + EE ge)."

⁵⁵ See generally Clean Power Plan Proposed Rule: Translation of the State-Specific Rate-Based CO₂ Goals to Mass-Based Equivalents, supra note 54.

⁵⁶ U.S. Envtl. Prot. Agency, Clean Power Plan – Technical Summary for States 1, http://www3.epa.gov/airquality/cpptoolbox/technical-summary-for-states.pdf (last visited Dec. 1, 2015).

⁵⁷ Id.

articulates the conversion process and requirements that must be satisfied.⁵⁸ Three main requirements exist: the assumptions used in the conversion of the rate-based goal must be stated in the implementation plan according to 40 C.F.R. section 60.5740(a)(11); materials supporting the conversion of the rate-based goal, including results, data, and descriptions, must be included in the implementation plan; and "the conversion must represent the tons of CO_2 emissions that are projected to be emitted by affected EGUs if the affected EGUs were to perform at an average lb CO_2/MWh rate equal to the rate-based goal." Mass-rate conversions would be required for jurisdictions that choose the partnership option. 60

The CPP incentivizes jurisdictions to enter into multi-jurisdictional partnership plans by authorizing the use of market-based trading programs.⁶¹ Market-based mechanisms encourage facilities to base reduction decisions on the price of carbon.⁶² Each mass-based goal represents "the cap;" the cap is the maximum amount of CO₂ that each region can emit. The regulated sources would receive pollution allowances—either through auction, for free, or a combination of both—that represent the right to emit a ton of CO₂ emissions.⁶³ EGUs would self-monitor the amount of pollution they each emit and report their emissions to the EPA.⁶⁴ Some sources will emit less than the cap while other sources will emit more than the cap. To compensate for different pollution-right needs, the trading system would allow lower-emitting sources to trade their surplus pollution rights to higher emitting sources within the multi-jurisdictional partnership.⁶⁵ "The 'trade' aspect of a cap-and-trade program creates an incentive for businesses to seek out cost-effective reductions while also encouraging rapid action to reduce emissions quickly."⁶⁶

1. An Analogue Showing how Multi-jurisdictional Plans Work for States

EPA's multi-jurisdictional, market-based partnership plan is analogous to the Western Climate Initiative (WCI), a voluntary multi-jurisdictional partnership between

Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,830, 34,953 (June 18, 2014) (to be codified at 40 C.F.R. pt. 60).

⁵⁹ Îd.

⁶⁰ Id.

To accommodate market-based trading programs, the EPA provided guidance on translating its jurisdiction-specific rate-based goals to mass-based equivalents. See generally Projecting EGU CO₂ Emission Performance in State Plans, supra note 54; Clean Power Plan Proposed Rule: Translation of the State-Specific Rate-Based CO₂ Goals to Mass-Based Equivalents, supra note 54.

⁶² See Alice Kaswan, Climate Change, the Clean Air Act, and Industrial Pollution, 30 UCLA J. Envtl. L. & Pol'y 51, 97 (2012).

⁶³ See, e.g., id. at 97-99.

⁶⁴ Id.

Fact Sheet: Clean Power Plan and the Role of States, U.S. Envil. Prot. Agency, http://www 2.epa.gov/cleanpowerplan/fact-sheet-clean-power-plan-and-role-states (last visited Nov. 26, 2015).

Ass'n of Irritated Residents v. California Air Res. Bd., 143 Cal. Rptr. 3d 65, 74 n.6 (Cal. Ct. App. 2012).

seven states in the western U.S. and four Canadian provinces.⁶⁷ Since 2007, these jurisdictions have been working to develop a regional cap-and-trade program to reduce six types of greenhouse gases, including CO₂, emitted from the electricity-producing power sector.⁶⁸ Partnering states and provinces set specific pollution limits and if the jurisdiction exceeds its limits, it must purchase credits on the market.⁶⁹ There is an overall emission goal for the whole multi-jurisdictional partnership and individual goals for each partner.⁷⁰ Like section 111(d)'s BSER requirements, the emissions limits are set from the best estimate of emissions reductions by considering population and economic growth.⁷¹

Individual emissions are monitored by the WCI's Reporting Committee.⁷² The monitoring costs are low, since the WCI synchronizes reporting requirements with the EPA's mandatory reporting rules.⁷³ If a partner has exceeded the total number of carbon allowances at the end of the compliance period, that partner must "surrender three allowances for every excess metric ton of CO₂ emissions."⁷⁴ There is no further monetary penalty. Although the WCI creates a regional organization, the organization's authority is limited and cannot exceed the authority of each individual partner.⁷⁵

States may want to use the WCI as a framework for structuring their multi-jurisdictional partnerships under the CPP. California has already expressed interest in this. ⁷⁶ Like the WCI, the CPP's multi-jurisdictional partnerships would rely on the effective use of regional power grids. ⁷⁷ Without robust regional transmission grids, the re-dispatch of power plants would be hampered, as would the use of wind and solar energy sources located in rural area. ⁷⁸ Similar to the WCI, a trading system would help internalize the full environmental costs of generation, leading to more economically efficient dispatch over a broad geographic area.

W. CLIMATE INITIATIVE, DESIGN RECOMMENDATIONS FOR THE WCI REGIONAL CAP-AND-TRADE PROGRAM 15, http://www.westernclimateinitiative.org/document-archives/wci-design-recommendations (last visited Dec. 1, 2015); but see Pew Center on Global Climate Change, Climate Change 101: Cap and Trade 7 (2009), http://www.c2es.org/docUploads/climate101-captrade.pdf (citing the European Union's Emission Trading System as the "world's most ambitious and far-reaching example of greenhouse gas emissions trading").

⁶⁸ W. CLIMATE INITIATIVE, supra note 67, at 15.

⁶⁹ *Id.* at 5, 12.

⁷⁰ Id. at 4-6.

⁷¹ *Id.* at 5.

⁷² Id. at 41.

See generally Paula Fields, Clinton Burklin, and Brad Musick, Determining Adequate Greenhouse Gas Emissions Estimation Methods for Mandatory Reporting Under the Western Climate Initiative Cap-and-Trade Program, Eastern Research Grp., Inc. and New Mex. Envt. Dept. (2009), available at http://www3.epa.gov/tunchie1/conference/ei18/session7/fields.pdf.

⁷⁴ W. CLIMATE INITIATIVE, supra note 67, at 46.

⁷⁵ Id.

See Craig Gannett, Implementing Section 111(d) of the Clean Air Act: The Pathway to Regional Cap-and-Trade Programs?, 8 Rocky Mtn. Mineral Law Found. 1, 8-12 (2015).

See, e.g., Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,830, 34,894 (June 18, 2014) (to be codified at 40 C.F.R. pt. 60).

⁷⁸ Id.

2. PROBLEMS WITH AN AREA-WIDE APPROACH UNDER SECTION 111

As discussed above, the scope of section 111(d) is limited.⁷⁹ Section 111(d)(1)(A) requires the EPA to set implementation guidelines for any existing source not regulated in section 112 but which would be regulated if it were a new source.⁸⁰ By definition, a source means "any building, structure, facility or installation, which emits, or may emit any air pollutant."⁸¹ Stationary sources that produce CO₂ emissions include factories, power plants, and refineries.⁸² Since existing EGUs fall within the power-plant source category, the EPA established concentration limits for each jurisdictional area.⁸³ To meet EPA-determined concentration limits, each jurisdictional area must establish implementation plans for existing fossil fuel-fired EGUs.⁸⁴

⁷⁹ Before the 1990 CAA amendments, § 111(d) functioned to regulate the gap between emissions of non-hazardous, non-criteria air pollutants from existing sources, which would be subject to the performance standards under § 111(b) if newly constructed. The House version deleted § 111(d)'s cross reference to the list of HAP's regulated under § 112(b)(1)(A), whereas the Senate version replaced the deleted provision with text changing the HAP list at \$ 112(b)(1)(A) to the post-1990 HAP list at 112(b). Clear policy reasons exist for the Senate changes—the Senate merely made "a simple conforming change in § 111(d) to reflect an organizational change in § 112"—which continued the policy underlying § 111(d)'s 1970 promulgation. See Robert R. Nordaus, Avi Zevin, Historical Perspectives on \$111(d) of the Clean Air Act, 44 ENVTL. L. REP. NEWS & ANALYSIS 11095, 11098 (2014). The intent behind the House changes remains less clear. The House's changes gave the EPA power to prescribe state implementation plans, where states would be obligated to "establish standards of performance for any existing source for any air pollutant for which air quality criteria have not been issued or which is not included on a list published under section 108(a) or is emitted from a source category which is regulated under § 112." See H.R. Rep. No. 101-490, at 443-44 (1990). Despite two reasonable readings of § 111(d), the most widely accepted reading is that § 111(d) only permits regulation of non-criteria pollutants emitted from source categories not regulated under § 112. See Robert R. Nordaus, Avi Zevin, Historical Perspectives on §111(d) of the Clean Air Act, 44 Envtl. L. Rep. News & ANALYSIS 10095, 11098 (2014). The CPP's regulation of EGU CO₂ emissions under § 111(d) would violate the CAA, since the source category is already regulated under § 112 Mercury and Air Toxics Standards (MATS) Rule. Mercury and Air Toxics Standards (MATS), 40 C.F.R. §§ 60, 63 (2012); See also Am. Elec. Power Co. v. Connecticut, (noting that "there is an exception: EPA may not employ § 111(d) if existing stationary sources of the pollutant in question are regulated under the [NAAQS] program, § 108-110, or the [HAP] program, § 112").

^{80 42} U.S.C. § 7411(d)(1)(A) (2015).

⁸¹ Id. § 7411(a)(3).

⁸² See Joshua K. Westmoreland, Global Warming and Originalism: The Role of the EPA in the Obama Administration, 37 B.C. Envtl. Aff. L. Rev. 225, 229 (2010).

⁸³ See 42 U.S.C. 7411(a)(1) (2015); Sierra Club v. Costle, 657 F.2d 298, 319 (D.C. Cir. 1981).

Although new fossil fuel-fired EGUs are regulated under § 111(b), CO₂ emissions from existing fossil fuel-fired EGUs have not yet been regulated under § 111(d). Section 111(d) functions as a gap-filler to "establish standards of performance [through BSER] for any existing source for any existing air pollutant for [. . .] which is not on a list published under [NAAQS] which is regulated under [§ 112], but would apply if such existing source were a new source." But there is an exception to § 111(d): "EPA may not employ § 111(d) if

This rule is a major departure from the EPA's previous approach to regulation under section 111. Emissions guidelines have always been based on control technologies for individually designated facilities and not entire jurisdictional areas.⁸⁵ The facility-specific approach has been used to set guidelines for all five source categories regulated under section 111(d), but the EPA's CPP deviates from this approach.⁸⁶ For example, when the EPA adopted a framework for establishing existing source guidelines in 1975, it used the new source guidelines for designated pollutants at designated facilities.⁸⁷ At that time, the EPA noted that "quite often health and welfare problems caused by [designated pollutants of the type intended to be covered by section 111(d)] are highly localized," thus an extensive, area-wide procedure is not justified.⁸⁸

Using an area-wide approach—both state-wide and regional—under section 111 creates problems, because a cap-and-trade system would essentially treat entire jurisdictional areas as single sources. By establishing area-wide goals, the EPA focuses on the "system" aspect of BSER, but ignores the source-specific nature of section 111.89 The CPP relies on the dictionary definition of system to justify its area-wide approach: "a set of things working together as parts of a mechanism or interconnecting network." ⁹⁰ By

existing stationary sources of the pollutant in question are regulated under the [NAAQS] program, § 108-110, or the [HAP] program, § 112." Applying this exception is complicated by competing revisions to the same provision.

As discussed below, the only time the EPA has allowed tribes to enter into area-wide partnerships for the regulation of air resources was under the Regional Haze Rule's visibility requirements. The source category is already regulated under § 112 Mercury and Air Toxics Standards ("MATS") Rule. Mercury and Air Toxics Standards (MATS), 40 C.F.R. pts. 60, 63 (2012); See also Am. Elec. Power Co., Inc. v. Connecticut, 131 S. Ct. 2527, 2537 n. 7 (2011) (noting that "there is an exception: EPA may not employ § 111(d) if existing stationary sources of the pollutant in question are regulated under the [NAAQS] program, § 108-110, or the [HAP] program, § 112").

All five source categories are subject to pollution control technology at the individual source sites. See 41 Fed. Reg. 19,585 (May 12, 1976) (guidelines for phosphate fertilizer plants); 41 Fed. Reg. 48,706 (Nov. 4, 1976) (guidelines for sulfuric acid production units); 43 Fed. Reg. 7,597 (Feb. 23, 1978) (guidelines for kraft pulp mills); 45 Fed. Reg. 26,294 (Apr. 17, 1980) (guidelines for primary aluminum plants); and 61 Fed. Reg. 9,905, 9,907 (Mar. 12, 1996) (guidelines for municipal solid waste landfills). Because it has been argued that the "beyond the fenceline approach is unsupported by legal precedent and Congress, EPA's effort to establish existing source performance standards raises more questions than answers. One legal commenter noted that this is "the health care law of the environmental and energy universe, but without the U.S. Congress passing a new law authorizing it." Roger R. Martella Jr., The Legal Scrutiny Surrounding §111(d): Will It Survive or Stumble?, 44 ENVTL. L. Rep. News & Analysis 11058, 11059 (2014).

^{87 40} Fed. Reg. 53,340, 53,342 (Nov. 17, 1975).

⁸⁸ Id

See Eric Groten, Here Be Dragons: Legal Threats to EPA's Proposed Existing Source Performance Standards for Electric Generating Units, 45 ENVTL. L. REP. NEWS & ANALYSIS 10116 (2015); Tarr & Hoppock, supra note 54, at 11079; Nordaus & Zevin, supra note 79, at 11095; Martella Jr., supra note 86, at 11058.

Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,830, 34,886 (June 18, 2014) (to be codified at 40 C.F.R. pt. 60) (quoting Oxford Dictionary of English (3d ed. online version 2013), http://www.ox

focusing on the interconnected nature of the power sector, the EPA is effectively changing the basic unit to which section 111 applies.⁹¹ Because section 111(d) requires emissions guidelines for "any existing *source*"—not system of sources—the interconnected nature of the power sector is irrelevant.

The EPA's previous attempt to treat multiple individual sources as a single system subject to section 111 regulation failed. For example, in ASARCO v. U.S. Environmental Protection Agency, the D.C. Circuit reviewed a dispute that turned on the EPA's determination of "the units to which NSPS [of section 111] appl[ies]. The EPA used the "bubble concept" to treat multiple EGUs as a single source, which would "allow a plant operator who alters an existing facility [. . .] to avoid application of the NSPS by decreasing emissions from other facilities within the plant. The EPA argued that section 111's broad statutory definition of stationary source affords it discretion to define stationary source as either an individual facility or group of facilities.

The Sierra Club challenged the EPA's bubble rule through a plain-language objection to the EPA's reading of section 111 and argued that the EPA "change[d] the basic unit to which [section 111] appl[ies]."96 The Court agreed, reasoning the EPA does not have authority to rewrite section 111 by changing its basic unit from a single building to a combination of such units.⁹⁷ If the EPA is concerned about the cost or need for flexibility in regulating a category of sources, then the solution is to change the *standard*, not the entity to which the standard applies. ⁹⁸

Due to the symbiotic relationship between NSPS and ESPS, the CPP's area-wide emissions standards are merely an extension of the bubble concept litigated in ASARCO. As in ASARCO, the CPP attempts to broaden the basic unit of section 111 to a combination of units. Astonishingly, however, the CPP proposal did not address ASARCO or even cite ASARCO or section 111(a)(3) once.⁹⁹

C. INCLUSION OF INDIAN TRIBES IN THE CLEAN POWER PLAN

As previously mentioned, the CPP also regulates emissions from the four existing power plants in Indian Country.¹⁰⁰ Indian Country power plants include: (1) the Bonanza Power Plant on the Ute reservation in northwest Utah; (2) Four Corners Power Plant on the Navajo reservation in northwest New Mexico; (3) Navajo Generating Sta-

fordreference.com.mutex.gmu.edu/view/10.1093/acref/9780199571123.001.0001/acref-9780199571123).

⁹¹ See Allison D. Wood, Andrew D. Knudsen, EPA's Novel Interpretation of "Best System of Emission Reduction" for Existing Electric Generating Units Violates the Clean Air Act, 44 ENVTL. L. Rep. News & Analysis 11064, 11065 (2014).

⁹² See ASARCO, 578 F.2d at 323.

⁹³ Id. at 322.

⁹⁴ Id.

⁹⁵ Id. at 323.

⁹⁶ Id. at 327.

⁹⁷ Id. at 329.

⁹⁸ Id.

⁹⁹ See Eric Groten, supra note 89, at 10122.

See Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,830, 34,854 (June 18, 2014) (to be codified at 40 C.F.R. pt. 60).

tion on the Navajo reservation in northcentral Arizona; and (4) South Point Energy Center on the Fort Mojave reservation in northwest Arizona.¹⁰¹

The CPP sets area-specific goals and compliance schedules for the four power plants. Navajo Nation's two power plants are among the biggest CO₂ emitters in the U.S., with Navajo Generating Station emitting 15.9 million metric tons of CO₂ and Four Corner Power Plant emitting 13.8 million metric tons of CO₂. Nation must reduce emissions from these two power plants to 1,989 pounds of CO₂ per net megawatt of energy produced by 2030. Nation to 1,989 pounds of CO₂ per net megawatt of energy produced by 2030. Nation to 1,989 pounds of CO₂ per net megawatt of energy produced by 2030. Nation must reduce emissions to 1,988 pounds.

The benefits stated in the CPP are national in scope. These benefits include "monetized climate benefits of approximately \$17 billion (2011\$)," lower global greenhouse gas concentrations "and co-benefits from reducing direct exposure to [sulfur-dioxides and mono-dioxides] and other hazardous air pollutants" such as mercury and hydrogen chloride. Nowhere in the rule does the EPA claim specific air-resource benefits within the reservations' boundaries.

EPA's area-specific goals only reflect building block 3 reductions, since the EPA wants to transition Indian Country electric-power production away from the use of coal and natural gas.¹⁰⁷ The EPA provides tribes with the same level of flexibility as states in choosing any mix of the building blocks to meet their goals.¹⁰⁸ The rule emphasizes the option for tribes to enter into multi-jurisdictional partnerships.¹⁰⁹ Multi-jurisdictional partnerships, as discussed earlier, would allow for cross-state-border trades of pollution rights and enable multiple jurisdictions to submit a single joint plan on behalf of all participating jurisdictions. Tribes could implement ESPS on a regional basis with other tribes or states.

Some tribes have expressed strong interest in a multi-jurisdictional carbon credit and trading system, while others oppose such plans.¹¹⁰ Despite unanswered questions about

¹⁰¹ South Point Energy Center has one EGU; Bonanza Power Plant has two EGUs; and Four Corners Power Plant and Navajo Generating Station each have three EGUs.

^{102 79} Fed. Reg. at 34,854.

Jordan Schneider and Travis Madsen, America's Dirty Power Plants: Their Oversized Contribution to Global Warming and What We Can Do About It, ENVT. ARIZ. RESEARCH & POLICY CTR. 10 (2014).

¹⁰⁴ Carbon Pollution Emission Guidelines for Existing Stationary Sources: EGUs in Indian Country and U.S. Territories; Multi-Jurisdictional Partnerships, 79 Fed. Reg. 65,482 (Nov. 4, 2014) (to be codified at 40 C.F.R. pt. 60).

¹⁰⁵ Id.

¹⁰⁶ Id. at 34,841.

¹⁰⁷ See id. at 34,837.

Tribes can choose any mix of the building blocks so long as the tribe implements their own plan or engages in a multi-jurisdictional plan and applies § 301(d) tribal authority.

^{109 79} Fed. Reg. at 34,854.

See Ben Shelly, Navajo Nation Department of Justice, Navajo Nation Comments on the Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units in Indian Country and U.S. Territories; Multi-Jurisdictional Partnerships – Proposed Rule at *6[EPA-HQ-OAR-2013-0602] (Dec. 19, 2014) (unpublished public comment on file with the EPA) (stating that "[w]e strongly request USEPA grant the Navajo Nation carbon credits and that the Navajo Nation have ownership and control of those

the scope of the CPP's multi-jurisdictional partnership program, it remains clear that a CO_2 emissions trading program is essential for effective implementation of the CPP in Indian Country. Trading would provide a cost-effective method for meeting the EPA's ambitious reduction goals, while providing tribes with the flexibility required to transition into renewable energy production.

However, tribes face unique challenges in meeting section 111(d) emission obligations, since tribes lack financial resources and cannot benefit from the intra-jurisdictional pollution trading. While intra-jurisdictional pollution trading will likely be used by states, ¹¹¹ it is not a realistic option for tribes. Most states have several power plants, but the Ute and Fort Mojave reservations only have one power plant each, and the Navajo Nation has two. ¹¹² For these reservations, the cost of transitioning into a renewable energy production system would greatly exceed state costs. ¹¹³ States can allocate the burden between multiple EGUs within its boundaries since the EPA set ESPS for entire jurisdictional areas through its regional approach. ¹¹⁴ However, each power plant in Indian Country must fully internalize the burden. Thus, regional implementation of the CPP is necessary for reservations to offset the burdens imposed by the EPA.

The rule, however, does not address significant jurisdictional issues that tribal governments face under the CAA. As discussed below, the CAA places substantial limits on a tribe's ability to regulate air resources and a multi-jurisdictional implementation plan would violate these limitations.

III. MULTI-JURISDICTIONAL IMPLEMENTATION PLANS EXCEED THE LIMITATIONS OF TRIBAL AUTHORITY

The EPA is faced with a difficult task in developing a regulatory scheme for reducing CO_2 emissions at existing stationary sources that both respects the jurisdictional limits of tribal governments and balances the EPA's Indian Policy with the goal of transitioning

credits [which] will allow the Navajo Nation to participate in a current or future multi-jurisdictional trading program(s)"; Harrison Tsosie, Stephen B. Etsitty, Kelly J. Barr, Ann Becker, Joint Comments from the Navajo Nation, Salt River Project, and Arizona Public Service Company Regarding the U.S. Environmental Protection Agency's Carbon Pollution Emission Guidelines for Existing Stationary Sources: EGU's in Indian Country and U.S. Territories; Multi-Jurisdictional Partnerships; Supplemental Rule (Dec. 1, 2014) (unpublished public comment on file with the EPA). But see Gordon Howell, Ute Tribal Business Committee, Comments of the Ute Indian Tribe for the Proposed Rule for Carbon Emission Guidelines for Existing Stationary Sources: Electric Generating Units in Indian Country and U.S. Territories (Dec. 17, 2014) (unpublished public comment on file with the EPA) (stating that a multi-jurisdictional approach would be no use to the Ute Tribe).

¹¹¹ See 79 Fed. Reg. at 34,883.

See Ben Shelly, Navajo Nation Department of Justice, Navajo Nation Comments on the Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units in Indian Country and U.S. Territories; Multi-Jurisdictional Partnerships – Proposed Rule at *2, 10-21 [EPA-HQ-OAR-2013-0602] (Dec. 19, 2014) (unpublished public comment on file with the EPA).

¹¹³ See id. at *4.

¹¹⁴ See id. at *7.

to cleaner energy production. For tribes to participate in a partnership program, the tribes must comply with the TAR and section 301(d) by gaining TAS status. However, the scope of tribal authority under the CAA is limited to the management of air resources within the reservation boundaries. To manage air resources outside the reservation boundaries, tribes would have to demonstrate their inherent jurisdiction over non-reservation lands through express Congressional delegation. The CPP's multi-jurisdictional partnership option does not satisfy those requirements.

A. LIMITATIONS PLACED ON TRIBES UNDER THE TRIBAL AUTHORITY RULE

Understanding tribal sovereignty is important when examining the impact of the CPP on Indian Country EGUs and tribal rights therein, since tribal sovereignty "provides a backdrop against which the applicable . . . federal statutes must be read." As sovereign nations, tribes "are the only political entities—besides the U.S. government and states—to be formally recognized as possessing some degree of inherent sovereignty within the U.S." Early Supreme Court cases affirmed tribal legal status by referring to tribes as domestic dependent nations. As domestic dependent nations, the U.S. explicitly recognizes the national character of tribes and their right to self-governance.

For over thirty years, the EPA has recognized Indian tribes as independently responsible governments for managing their air resources. Part of the EPA's Indian Policy allows the agency to treat tribes in the same manner as it treats states. However, tribes and states are only treated in the same manner when the tribe is reasonably expected to be capable, in the EPA Regional Administrator's judgment, of carrying out the functions to be exercised for a specific CAA program.

The EPA promulgated the TAR in 1998 to guide the implementation of CAA programs on tribal lands. The TAR allows the EPA to treat eligible Indian tribes in the same manner as states "with respect to all provisions of the [CAA] and implementing regulations, except for those provisions [listed] in [40 C.F.R.] § 49.4 and the [EPA] regulations that implement those provisions."¹²² Of the 17 exceptions listed in section 49.4, subsection (b)¹²³ raises inconsistencies between the EPA's supplemental CPP and the TAR. Based on a textual reading of the TAR exception, the Navajo Nation would be allowed to gain TAS status for section 111(d) implementation plan submission deadlines but the other two tribes would be prohibited from gaining TAS status. This is significant

¹¹⁵ McClanahan v. State Tax Comm'n of Ariz., 411 U.S. 164, 172 (1973).

¹¹⁶ Alex Tallchief Skibine, Tribal Sovereign Interests Beyond the Reservation Borders, 12 Lewis & Clark L. Rev. 1003, 1020 (2008).

¹¹⁷ See, e.g., Cherokee Nation v. Georgia, 30 U.S. 1, 17 (1831).

¹¹⁸ Worcester v. Georgia, 31 U.S. 515, 556 (1832).

¹¹⁹ See Nance v. U.S. Envtl. Prot. Agency, 645 F.2d 701 (9th Cir. 1981) (The EPA's first big win defending its Indian program).

General Tribal Clean Air Act Authority, 40 C.F.R. § 49.3 (2015). But see Clean Air Act provisions for which it is not appropriate to treat tribes in the same manner as States, 40 C.F.R. § 49.4 (2015).

¹²¹ See 40 C.F.R. § 233.60(d) (2015).

^{122 40} C.F.R. § 49.3 (2015); see also Dine Care v. U.S. Envtl. Prot. Agency, No. C 12-03987 JSW, 2013 WL 6327530, at *2 (N.D. Cal. Dec. 3, 2013).

^{123 40} C.F.R. § 49.4(b) (2015).

because partners must submit joint plans, and neither Fort Mojave nor Ute and Navajo could join the same partnership.

Specifically, section 49.9(b) precludes tribes from being treated as states for the "deadlines associated with the review and revision of implementation plans related to major fuel burning sources in § 124" of the CAA. ¹²⁴ Section 124(a)(1) applies to implementation plans for stationary sources "dependent upon the use [of the] fuel burning of petroleum products or *natural gas*." ¹²⁵ Because Bonanza Power Plant and South Point Energy Center generate power from natural gas, they are expressly prohibited from gaining TAS status under section 49.9(b). ¹²⁶ The EPA's rule does not address the limitations listed in section 49.9(b), ¹²⁷ but the Fort Mojave and Ute tribes would be susceptible to a plain-language attack if they entered into a multi-jurisdictional partnership.

It appears, however, that nothing in section 124 limits the ability of the Navajo Nation to be treated as a state for plan submission deadlines. The EGUs located within the Navajo Nation exclusively burn coal, which does not classify as "a petroleum product" under section 124(a)(1)¹²⁸ A "petroleum product" is not statutorily defined, but, by distinguishing it from natural gas, Congress likely meant it to include fuel oils and not all fuels derived from hydrocarbons. Moreover, the Navajo Nation is not subject to section 124(a)(3), which specifically addresses coal-fired power plants. Section 124(a)(3) applies to power plants that burn "coal or coal derivatives which is not locally or regionally available." The Four Corners Power Plant exclusively uses coal from the Navajo Mine, and Navajo Generating Station exclusively uses coal from the Kayenta Mine. Both mines are located near each power plant.

Inconsistency arises within the CPP because 40 C.F.R. section 49.4(b) excludes Fort Mojave and Ute from TAS for implementation plan deadlines, but does not exclude Navajo. The preamble to the TAR states that ambiguous and contradictory provisions must be liberally construed in favor of tribes. However, this does not clarify the issue because a contradiction could occur between two tribes—for example Fort Mojave and Navajo—that enter into a partnership together. The CPP's mandate requiring multijurisdictional plans to be jointly filed would be inconsistent with the TAR, since Fort Mojave is barred from TAS for section 124 compliance deadlines but Navajo is not.

¹²⁴ Id.

^{125 42} U.S.C. § 7601(a)(1) (2015) (emphasis added).

¹²⁶ See 40 C.F.R. § 49.4(b) (2015).

See generally Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electrical Generating Units, 79 Fed. Reg. 34,830 (to be codified at 40 C.F.R. pt. 60).

^{128 42} U.S.C. § 7601(a)(1).

¹²⁹ Id. § 7601(a)(3).

¹³⁰ Id.

¹³¹ About the Navajo Generating Station-Kayenta Mine Complex Project, NGS-KMC PROJECT, http://ngskmc-eis.net/about-the-project/ (last visited Nov. 27, 2015).

^{132 40} C.F.R. § 49.4(b) (2015).

^{133 63} Fed. Reg. 7,254, 7,255 n. 1 (Feb. 12, 1998).

B. LIMITATIONS PLACED ON TRIBES UNDER SECTION 301(d) OF THE CLEAN AIR ACT

Section 301(d) of the CAA places additional statutory limitations on the ability of the tribes to enter into the multi-jurisdictional partnerships described in the CPP.

1. Tribes Can Only Maintain and Protect Air Resources Within the Exterior Boundaries of the Reservation

Tribes must comply with section 301(d)¹³⁴ when implementing plans to manage their air resources. Specifically, section 301(d)(2)(B) allows tribes to gain TAS status only when the functions exercised by the tribe "pertain to the management and protection of air resources within the *exterior boundaries* of the reservation *or other areas* within the tribe's jurisdiction."¹³⁵ Section 301(d)(4) only confers tribal authority and it does not confer any additional authority to the EPA.¹³⁶ The EPA cannot promulgate a FIP for a tribe that includes a multi-jurisdictional partnership without the tribe first applying for TAS status.¹³⁷ When acting on behalf of a tribe, the EPA can only act within the "shoes of the tribes."¹³⁸

For example, in *Michigan v. U.S. Environmental Protection Agency*, the state challenged the EPA's interpretation of section 301(d) that allowed it to make state and tribal jurisdictional determinations of "other areas" on a case-by-case basis rather than through notice and comment rulemaking. *Michigan* held that the EPA only has authority to step into the "shoes of a tribe" when the tribe does not promulgate a tribal implementation program. *Moreover the EPA* regulates "in the shoes of a tribe," it is governed by the limitations inherent in tribal domestic-dependent nation status. *Moreover tribal jurisdiction before* it may exercise CAA jurisdiction over non-reservation Indian Country, so too must the EPA.

Any tribal air quality regulations under the CPP's multi-jurisdictional partnership program would violate 301(d) since tribal management would not only pertain to intratribal air resources, but would also be directly tied to the management of air resources in partnering jurisdictions. Regardless of whether a tribe or the EPA drafts the section 111(d) implementation plan for the existing EGUs in Indian Country, the issue arises whether section 301(d) grants tribal authority beyond the tribe's geographic boundaries. 944

^{134 42} U.S.C. § 7601(d) (2015).

¹³⁵ *Id.* § 7601(d)(2)(B) (emphasis added).

¹³⁶ Id. § 7601(d)(4).

¹³⁷ Michigan v. U.S. Envtl. Prot. Agency, 268 F.3d 1075, 1079 (D.C. Cir. 2001).

¹³⁸ Id.

¹³⁹ Id.

¹⁴⁰ Id. at 1083.

¹⁴¹ Id. at 1085.

¹⁴² Id.

¹⁴³ Id.

¹⁴⁴ See see also Dine Care v. U.S. Envtl. Prot. Agency, No. C 12-03987 JSW, 2013 WL 6327530, at *2 (N.D. Cal. Dec. 3, 2013); New Jersey v. U.S. Envtl. Prot. Agency, 517 F.3d 574, 584 (D.C. Cir. 2008); Oklahoma Dept. of Envtl. Quality v. U.S. Envtl. Prot. Agency, 740 F.3d 185, 193-94 (D.C. Cir. 2014).

But for tribes to enter into partnerships, Congress must have expressly delegated tribal authority. Tribal regulatory powers extending outside the reservation boundaries are limited to only a few instances; however, tribal ownership status is typically a controlling factor.

The ownership status of the land [. . .] in determining whether regulation of the activities of nonmembers is 'necessary to protect tribal self-government or to control internal relations' [. . .] may sometimes be a dispositive factor. Hitherto, the absence of tribal ownership has been virtually conclusive of the absence of tribal jurisdiction; with one minor exception we have never upheld under Montana, the extension of tribal civil authority over nonmembers on non-Indian land.¹⁴⁵

In Montana v. U.S., the Supreme Court held that a tribe's regulatory powers are limited to "express Congressional delegation." Montana v. United States reasoned that the "exercise of tribal power beyond what is necessary to protect tribal self-government or control internal relations [would be] inconsistent with [their] dependent status." The only exception allowing tribes to regulate non-Indian land outside the reservation absent express congressional delegation occurs with water rights. But even that narrow exception "is not lightly to be inferred, and should not be regarded as intended unless the intention was definitely declared or otherwise made plain." Therefore, the ability of tribes to enter into agreements with other jurisdictions, which would effectively amount to co-management of regional resources, requires express Congressional delegation.

The extent of the Congressional delegation of tribal power to implement air quality regulations under section 301(d) was addressed in *Arizona Public Service Co. v. U.S. Environmental Protection Agency*.¹⁵⁰ In that case, the EPA contended that the language of section 301(d) delegated tribal authority over non-Indian fee lands within a reservation's boundaries.¹⁵¹ The EPA reasoned that "Congress expressly delegated authority over all lands within a reservation by linking 'within the exterior boundaries of the reservation' disjunctively to 'other areas within the tribe's jurisdiction.'"¹⁵²

The D.C. Circuit Court upheld both the EPA's position on delegated authority over non-Indian owned fee lands and its interpretation of what constitutes a reservation for purposes of the CAA.¹⁵³ The Court reasoned that, without delegated authority over non-Indian-owned fee lands, tribes would only be able to impose "checkerboard" regulation that would have been "inconsistent with the purpose and provisions" of the CAA.¹⁵⁴ Accordingly, "[t]he statute's clear distinction between areas 'within the exterior boundaries of the reservation' and 'other areas within the [tribe's] jurisdiction' carrie[d]

¹⁴⁵ Nevada v. Hicks, 533 U.S. 353, 360 (2001) (emphasis added).

¹⁴⁶ Montana v. United States, 450 U.S. 544, 564 (1981).

¹⁴⁷ Id.

¹⁴⁸ See id.

¹⁴⁹ Id. at 580.

¹⁵⁰ Arizona Pub. Serv. Co. v. U.S. Envtl. Prot. Agency, 211 F.3d 1280, 1285 (D.C. Cir. 2000); 42 U.S.C. § 7601(d)(2)(B) (2015).

¹⁵¹ Arizona Pub. Serv. Co., 211 F.3d at 1302.

¹⁵² Id.

¹⁵³ Id. at 1283-84.

¹⁵⁴ Id. at 1288.

with it the implication that Congress considered the areas within the exterior boundaries of a [tribe's] reservation to be per se within the [tribe's] jurisdiction."¹⁵⁵ The Court adopted the EPA's interpretation of section 301(d)(2)(B) by taking a territorial view of tribal jurisdiction¹⁵⁶ that "best advances rational, sound, air quality management" by only allowing tribes to "regulate air quality in areas within the exterior boundaries of a reservation."¹⁵⁷

Judge Ginsburg disagreed with the majority's determination that section 301(d) expressly delegated tribal authority to enforce the CAA over non-Indian fee lands within a reservation, 158 though she accepted Arizona Public Service's arguments and relied on Montana to argue that express Congressional delegation was required without a showing of inherent tribal authority. 159 Ginsburg argued that section 301(d) "merely lays down a precondition to the Administrator's treating a tribe as a state." 160 Although Ginsburg found express Congressional delegation in section 110(o), he said that section 301(d) did not expressly delegate tribal power in Arizona Public Service Co. since Congress included the "notwithstanding' proviso in § 110(o) but not in § 301(d)(2)(B)." 161 "If § 301(d)(2)(B) is so clear as to constitute an express congressional delegation, it is difficult to believe that the Congress would 'reinforce' this point in a narrower provision enacted at the same time as § 110(o) which expressly cross-references § 301(d)." 162

Additionally, Ginsburg cited the legislative history by noting that Congress deleted a literal delegation provision in the CAA's introductory bill, which meant that Congress did not intend for section 301(d)(2)(B) create an express delegation. The deleted provision reads that "the Administrator may *delegate* to [. . .] tribes primary responsibility for assuring air quality and enforcement of air pollution control." Furthermore, Ginsburg noted that the majority "misapprehend[ed] the significance of the phrase 'within exterior boundaries of the reservation or other areas within the tribe's jurisdiction." Finally, Ginsburg disapproved of the EPA's territorial view of tribal jurisdiction by noting that it is inconsistent with the purpose of the CAA.

2. A Tribe Must Demonstrate its Inherent Jurisdiction Over Non-Reservation Lands to Regulate "Other Areas" under Section 301(d)

As for "other areas" not within a reservation's exterior boundaries, the EPA must determine whether a tribe would be able to regulate the non-reservation areas under

¹⁵⁵ Id. at 1292.

Oklahoma Tax Comm'n v. Citizen Band Potawatomi Indian Tribe of Oklahoma, 498 U.S. 505, 510 (1991) (broadly defining reservation as any federally recognized reservation established by Treaty, Agreement, executive order, or act of Congress).

¹⁵⁷ Arizona Pub. Serv. Co., 211 F.3d at 1285.

¹⁵⁸ *Id.* at 1300. (Ginsburg, J., dissenting).

¹⁵⁹ *Id.* at 1300-05 (Ginsburg, J., dissenting).

¹⁶⁰ *Id.* at 1302 (Ginsburg, J., dissenting).

¹⁶¹ Id.

¹⁶² Id. at 1303 (Ginsburg, J., dissenting).

¹⁶³ Id.

¹⁶⁴ Id. at 1304 (Ginsburg, J., dissenting) (emphasis added).

¹⁶⁵ Id.

¹⁶⁶ Id.

general principles of Indian law.¹⁶⁷ Oklahoma Department of Environmental Quality v. U.S. Environmental Protection Agency addressed the issue of what Congress meant by "other areas."¹⁶⁸ In 2011, the EPA issued a FIP for Indian Country under its Indian Country NSR rule and section 301(d)(4).¹⁶⁹ The Indian Country NSR rule applied to all Indian Country in the U.S. except areas already subject to an EPA-approved TIP or a SIP. The EPA justified the Indian Country NSR rule by explaining that:

We believe that states generally lack the authority to regulate air quality in Indian Country [. . .] We interpret past approvals and delegations of NSR programs [in SIPs] as not extending to Indian Country unless the state has made an explicit demonstration of jurisdiction over Indian Country and we have explicitly approved or delegated the state's program for such area.¹⁷⁰

The EPA assumed responsibility to promulgate FIPs under the Indian Country NSR rule due to the "failure of many tribes to implement [non-attainment new source review] programs of their own."¹⁷¹ It reasoned that promulgation of a nation-wide FIP was allowed because a regulatory gap existed between state and tribal authority in non-reservation Indian Country. Herein, non-reservation Indian Country primary includes allotments and easements. The EPA declared that it could "treat areas for which EPA believes the Indian Country status in question as Indian Country."¹⁷³

Oklahoma argued that a mere belief is insufficient grounds for treating an area as Indian Country and that the EPA could not promulgate a nation-wide FIP for Indian Country. Oklahoma opposed the EPA's interpretation of section 301(d)(4) by arguing that a state retains jurisdiction over all land within its geographic boarders unless "a tribe has demonstrated its inherent jurisdiction." ¹⁷⁴

The Court opinion, written by Judge Ginsburg, agreed with Oklahoma and held that "because non-reservation Indian Country is always covered by a SIP unless it has been displaced by a tribal implementation plan, there is no regulatory gap to be filled by a FIP."¹⁷⁵ The only "other areas within the tribe's jurisdiction" include areas where a tribe has previously demonstrated jurisdiction, which are limited to dependent Indian communities and Indian allotments.¹⁷⁶ If a state has jurisdiction, then a tribe does not.¹⁷⁷

As a result, Oklahoma significantly limited Arizona Public Service by holding that tribal jurisdiction under section 301(d) only extends to outer-reservation boundaries and the EPA can only promulgate FIPs on a tribe-by-tribe basis. Ginsburg's Oklahoma opin-

¹⁶⁷ See Oklahoma Dept. of Envtl. Quality v. U.S. Envtl. Prot. Agency, 740 F.3d 185, 185 (D.C. Cir. 2014).

¹⁶⁸ Id.

¹⁶⁹ Id. at 188.

¹⁷⁰ Id. at 188-189.

¹⁷¹ Id. at 188

¹⁷² Id.

¹⁷³ Id. at 193 (emphasis added); see also Federal Operating Permits Program, 64 Fed. Reg. 8,247, 8,262 (1999) (codified at 40 C.F.R. pt. 71).

¹⁷⁴ Oklahoma Dept. of Envtl. Quality, 740 F.3d at 189.

¹⁷⁵ Id.

¹⁷⁶ See 18 U.S.C. § 1151(b)-(c); Oklahoma Dept. of Envtl. Quality, 740 F.3d at 188; Arizona Pub. Serv. Co. v. U.S. Envtl. Prot. Agency, 211 F.3d 1280, 1285 (D.C. Cir. 2000).

¹⁷⁷ See Oklahoma Dept. of Envtl. Quality, 740 F.3d at 188.

ion heavily draws from his Arizona Public Service dissent in which he argued that Congress intended section 301(d) to be narrowly construed.

Delegated tribal authority only occurs in limited circumstances outside the reservation boundaries. Tribes do not have jurisdiction in disputed state lands. This means that tribes can only manage air resources where they have clearly and unambiguously proven jurisdiction. The primary regulatory authority lies with the state and a tribe must demonstrate its authority over non-reservation lands to the state prior to submitting a TIP for the EPA's approval. Because *Oklahoma* was decided within the last year, it appears that the D.C. Circuit may be trending toward an even more narrow interpretation of section 301(d). However, the Court left unanswered the precise answer of how tribal authority must be demonstrated.

3. Tribes are Not Expressly Authorized by Congress to Enter Into Multi-Jurisdictional Partnerships

Section 301(d) also specifically prohibits tribes from engaging "in functions that do not pertain to the protection of [their] air resources." Because both state and tribal air resources would be managed together at the regional level, tribal participation in multijurisdictional partnerships violates this mandate.

The EPA clearly acknowledged that multi-jurisdictional partnerships would be used to manage more than tribal air resources.¹⁷⁹ The CPP's benefits "include crediting investments that *jurisdictions without affected sources* may be able to make in renewable energy or demand-side energy efficiency resources for reducing CO₂ emissions from affected sources *in other jurisdictions*."¹⁸⁰ Furthermore, the EPA only tangentially mentions localized air quality benefits in Indian Country.¹⁸¹ The EPA's only mention of localized air quality benefits came when the EPA admitted that they would be minimal and periodic:

The rule would result in regional and national pollutant reductions; however, there likely would also be some locations with more times during the year of relatively higher concentrations of pollutants with potential for effects on localized communities than would be experienced in the absence of the . . . rule. 182

 CO_2 pollution is also transient. For example, carbon pollution close to ground level from EGUs "can be transported long distances [. . .] impacting air quality downwind of the area of formation," which may not be experienced near the source. Additionally, the EPA notes that the purpose of demand-side energy efficiency program is to "help

^{178 42} U.S.C. § 7601(d)(2)(B) (2015).

¹⁷⁹ See Carbon Pollution Emission Guidelines for Existing Stationary Sources: EGUs in Indian Country and U.S. Territories; Multi-Jurisdictional Partnerships, 79 Fed. Reg. 65,482, 65,484 (Nov. 4, 2014) (to be codified at 40 C.F.R. pt. 60).

¹⁸⁰ Id. (emphasis added).

¹⁸¹ See generally id.

¹⁸² *Id.* at 65,504.

¹⁸³ Tomac v. Norton, 433 F.3d 852, 863 (D.C. Cir. 2006).

states achieve energy savings goals, save energy and money for consumers and improve electricity reliability."¹⁸⁴

As a result, tribes lack authority under section 301(d) because the CPP does not solely pertain to the protection of localized tribal air resources. Rather, it functions to regionally plan for meeting global climate concerns, allocating resources, and "expand[ing] economic opportunity in overburdened communities."¹⁸⁵

C. LITTLE PRECEDENT FOR TRIBES ENTERING MULTI-JURISDICTIONAL PARTNERSHIPS

The EPA has allowed tribes to partner with other jurisdictions to meet CAA regulatory guidelines once before. This sole instance occurred under the Regional Haze Rule's (RHR) best available retrofit technology (BART) program. Mandated by CAA section 169A, the BART program requires states and tribes to improve "visibility and adopt, maintain, and enforce air quality standards" through implementation plans for BART-eligible sources. BART-eligible sources are EGUs constructed between 1962 and 1977 with potential to emit over 250 tons per year of pollutants. The RHR is intended to prevent further visibility impairment in Class I areas, namely 156 National Parks.

The EPA provided tribes with the opportunity to enter into a regional cap-and-trade program to implementation BART requirements so long as the tribe applied for TAS

Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,830, 34,849 (June 18, 2014) (to be codified at 40 C.F.R. pt. 60).

Presidential Proclamation – 20th Anniversary of Executive Order 12898 on Environmental Justice, The White House (Feb. 10, 2014), available at http://www.whitehouse.gov/the-press-office/2014/02/10/presidential-proclamation-20th-anniversary-executive-order-12898-environ.

¹⁸⁶ Ctr. for Energy & Econ. Dev. v. U.S. Envtl. Prot. Agency, 398 F.3d 653, 654 (D.C. Cir. 2005) (challenge of EPA's approval of a multi-state partnership for meeting the BART requirements under the Regional Haze Rule).

⁴² U.S.C. § 7491(a)(4) (2015). When implementing BART for a particular existing EGU states and tribes must consider five factors: (1) the costs of compliance; (2) the energy and nonair quality environmental impacts of compliance; (3) the existing pollution control technologies already in place; (4) the remaining useful life of the source; and (5) the improvement in visibility anticipated from the use of given technologies. 40 C.F.R. § 51.308(e)(1)(i). See also Util. Air Regulatory Grp. v. U.S. Envtl. Prot. Agency, 471 F.3d 1333, 1335 (D.C. Cir. 2006).

¹⁸⁸ Both existing electrical power plants located on Navajo Nation were subject to BART requirements, since Four Corners Power Plan (FCPP) was built in 1963 and Navajo Generating Unit (NGU) was built in 1974. For BART compliance, FCPP closed three EGUs in 2014 and NGU expects one to close in 2019.

¹⁸⁹ Protected Class I areas include national parks and wilderness areas. Of particular importance was the protection of visibility in Grand Canyon National Park.

status.¹⁹⁰ The trading program—authorized by the RHR's Annex Rule—operated as an alternative to source-specific BART implementation plans.¹⁹¹

The Annex Rule allowed states and tribes "to implement an emissions trading program or other alternative measure" if the alternative would achieve "better than BART" results. 192 Under the alternative measure, states and tribes must submit an "annex" to their compliance report 193 and form a regional body to oversee emission reductions. 194 "If the EPA approved the program, then any state among those covered by the Commission could adopt the program in lieu of the state-by-state requirements." The EPA's approval turned largely on whether the regional body sought to achieve "greater reasonable progress" toward natural visibility levels. 196

The Western Regional Air Partnership (WRAP) chose this option and developed a cap-and-trade program to help reduce sulfur dioxide emissions in the western region of the U.S.¹⁹⁷ The EPA allowed 211 tribal governments to participate in the WRAP,¹⁹⁸ but none of the eligible tribes applied for TAS status.¹⁹⁹ Instead, all of the tribes relied on the EPA to develop intra-jurisdictional FIPs.²⁰⁰ The FIPs did not include a partnership option.

The WRAP has been highly scrutinized for its approach to tribes.²⁰¹ One legal commentator explained that none of the eligible tribes participated in the WRAP because tribes "do not have the major sources necessary to participate in a traditional cap-and-

¹⁹⁰ WildEarth Guardians v. U.S. Envtl. Prot. Agency, 770 F.3d 919, 938 (10th Cir. 2014).

¹⁹¹ The "Annex rule" set emission reduction milestones for WRAP states and outlined a trading program. Center for Energy & Economic Development v. U.S. Environmental Protection Agency vacated the original version of the Annex rule because the EPA estimated reasonable improvements based on a methodology that the court previously held violated the CAA. Ctr. for Energy, 398 F.3d at 654 (discussing Am. Corn Growers Ass'n v. U.S. Envtl. Prot. Agency, 291 F.3d 1 (D.C. Cir. 2002), which held that the EPA's requirement that improvement estimates based on all BART-applicable sources in a region violated the CAA). Therefore, the EPA changed the wording of the "Annex rule" to allow regional trading programs to submit their plans "absent any requirement to assess visibility on a cumulative basis." Id. at 660. The set-aside allowance remains in the SIPs being developed by five states under section 309 of the RHR (i.e., Arizona, New Mexico, Oregon, Utah, and Wyoming). See Regional Haze Regulations, 64 Fed. Reg. 35,714, 35,769 (July 1, 1999) (codified at 40 C.F.R. pt. 51).

^{192 40} C.F.R. §§ 51.308-09 (2015).

¹⁹³ Id.

¹⁹⁴ Id.

¹⁹⁵ Id. § 51.309(f).

¹⁹⁶ Ctr. for Energy, 398 F.3d at 655.

¹⁹⁷ See Western Regional Air Partnership Approves SO2 Emissions-Reduction Package, PR Newswire (Sept. 26, 2000), http://www.prnewswire.com/news-releases/western-regional-air-part nership-approves-so2-emissions-reduction-package-73420337.html.

¹⁹⁸ WildEarth Guardians v. U.S. Envtl. Prot. Agency, 770 F.3d 919, 938 (10th Cir. 2014).

¹⁹⁹ Id.

²⁰⁰ Id.

See Jada Scott Greenhowe, Reservations Please! Could Energy Development on Native American Land Be America's Most Valuable Resource?, 7 Pitt. J. Envil Pub. Health L. 279, 280-81 (2013); Robert Gruenig, Tribes, Air Quality, and the National Tribal Environmental Council, 21-WTR Nat. Resources & Env't 43.

trade program."²⁰² The exact reason why tribes did not participate in the WRAP is uncertain, but the legal validity of the WRAP is the most important issue. The legality of tribal participation in multi-jurisdictional partnerships has never been challenged since no tribe did so under the RHR. Some environmental groups claim that a "precedent has now been set for including tribal set-asides in other cap-and-trade programs,"²⁰³ but the legality has yet to be decided.

Based on a plain reading of the TAR, 40 C.F.R. section 49.4—which lists instances in which it is not appropriate to treat tribes in the same manner as states—it is clear that tribes were legally precluded from joining the WRAP. Section 49.4(e) expressly prohibits tribes from gaining TAS status for "visibility implementation plans under section 169A."²⁰⁴ Section 169A(a)(4) articulates the BART implementation-plan requirements for the EGUs falling within the specified 15 year period.²⁰⁵ Navajo Nation—the only reservation with BART-eligible sources—would have been precluded from entering into the WRAP.²⁰⁶ However, the EPA never addressed section 49.4(e)'s limitation in the Annex Rule²⁰⁷ and the EPA's only "successful" tribal partnership plan violated the TAR.

Additionally, the trading system used in RHR's BART program differs from the CPP's multi-jurisdictional partnership option in two key respects. First, the RHR pertained solely to preventing visual impairment in a region because particulate matter from one jurisdiction could visually impair a National Park in another jurisdiction. Regional visibility protection is mandated by section 169A, which sets area-wide air pollution standards.²⁰⁸ Unlike section 169A, section 111(d) only authorizes the EPA to set emission criteria for individual stationary sources.²⁰⁹

Second, the BART program only regulated a narrow range of existing stationary sources. Section 169A states "a requirement that each major stationary source which is in existence on August 7, 1977, but which has not been in operation for more than fifteen years" before that date will be subject to the BART program.²¹⁰ Only the two Navajo Nation power plants would be subject to the BART program, which would make the inter-tribal allocation of pollution rights impossible.²¹¹ In contrast, section 111(d) ESPS applies to every power plant in Indian Country, which would make inter-tribal tradeoffs easier.²¹²

²⁰² Id.; see also WildEarth Guardians, 770 F.3d at 919.

²⁰³ Gruenig, supra note 201, at 43, 46-47.

^{204 40} C.F.R. § 49.4(e).

^{205 42} U.S.C. § 7491(4) (2015).

²⁰⁶ See 64 Fed. Reg. at 35,714, 35,769 (July 1, 1999).

²⁰⁷ Id.

^{208 42} U.S.C. § 7491.

²⁰⁹ Id. § 7411(a)(3).

²¹⁰ Id. § 7491 (2006).

²¹¹ Navajo Nation's power plants are located in different states. Four Corners Power Plant is located in New Mexico and Navajo Generating Station is located in Arizona.

^{212 42} U.S.C. § 7491 (2015).

IV. CONCLUSION

Regulating carbon emissions from existing stationary sources remains a critical, yet controversial, component of U.S. energy production and the EPA's new attention to the problem is commended. The multi-jurisdictional partnership option is a critical component to effective implementation of the EPA's CO₂ emissions requirements at existing EGUs in Indian Country. However, the partnership option violates the CAA and is inconsistent with the EPA's Indian Policy. Multi-jurisdictional partnerships would require states and tribes to operate on the same footing when submitting a single, joint plan. But section 301(d) only delegates authority to tribes to be treated in the same manner as states when managing air resources within the exterior boundaries of the reservation. A multi-jurisdictional partnership would, however, effectively result in the management of air resources outside the reservation boundaries and places where the tribes have not previously asserted jurisdiction. Thus, in drafting the multi-jurisdictional partnership option for Indian tribes, the EPA has exceeded its authority.

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AIR QUALITY

EPA's CLEAN POWER PLAN

On October 23, 2015, the United States Environmental Protection Agency (EPA) finalized the Clean Power Plan (CPP), which the EPA predicts will cut carbon dioxide (CO₂) emissions from the utility power sector by approximately 415 million short tons by the year 2030. Fossil fuel-fired electric generating units (EGUs) are the largest stationary source of emissions of CO₂, which the EPA has determined contributes to climate change. There were no national limits on carbon emissions from power plants prior to the promulgation of the CPP. The EPA estimates that, by 2030, the plan will cut carbon pollution from the power sector by nearly a third and will result in additional reductions from conventional pollutants. Specifically, it is expected that, by 2030, emissions of sulfur dioxide from power plants will be 90 percent lower and emissions of nitrogen oxides will be 72 percent lower as compared to 2005 levels.

The EPA promulgated the program pursuant to its authority under section 111(d) of the Federal Clean Air Act (CAA), which empowers the agency to regulate non-criteria air pollutants from existing sources, complementing its authority to regulate such pollutants through emission standards for new or modified sources under section 111(b), commonly referred to as "New Source Performance Standards" (NSPS).⁶ However, unlike section 111(b), the section 111(d) framework provides for state plans to establish the specific emission limitations to be enforced much like the State Implementation Plan (SIP) process provided for in section 110 of the Act for criteria pollutants.⁷ EPA's CPP reflects extraordinary public input, including more than 4.3 million public comments on the proposal.⁸ EPA Administrator Gina McCarthy said, "The valuable feedback we received means the final CPP is more ambitious yet more achievable, so states can customize plans to achieve their goals in ways that make sense for their communities, businesses and utilities."

The final rule establishes guidelines for states to follow in developing and implementing their plans to reduce CO₂ emissions. ¹⁰ EPA is proposing a model rule that states

Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,661 at 64,925 (Oct. 23, 2015) (to be codified at 40 C.F.R. at pt. 60) [hereinafter "CPP Rule"].

² Id. at 64,925.

³ U.S. Envtl. Prot. Agency, Obama Administration Takes Historic Action on Climate Change/Clean Power Plan to protect public health, spur clean energy investments and strengthen U.S. leadership (Aug. 3, 2015), http://yosemite.epa.gov/opa/admpress.nsf/7ebdf4d0b217978b852573590040443a/c5df9981993c6df785257e96004d4f14!OpenDocument.

⁴ CPP Rule, 80 Fed. Reg. at 64,679.

⁵ U.S. Envtl. Prot. Agency, supra note 3.

⁶ CPP Rule, 80 Fed. Reg. at 64,710; see also 42 U.S.C.A. § 7411 (2015).

⁷ See 42 U.S.C.A. § 7410, 7411 (2015).

⁸ CPP Rule, 80 Fed. Reg. at 64,704.

⁹ U.S. Envtl. Prot. Agency, supra note 3.

¹⁰ CPP Rule, 80 Fed. Reg. at 64,662.

can adopt, as well as a federal plan that the EPA will put in place if a state fails to submit an adequate plan. The proposed model rule and federal plan focus on emissions trading mechanisms to make sure utilities have the ability to reach their carbon pollution reduction goals. The final rule seeks to safeguard energy reliability by setting achievable state-by-state goals that build on a growing clean energy economy and giving states and utilities the time and flexibility they need to meet their goals.

EPA recognized that the CAA identifies states as the preferred implementers of CAA programs, and the agency makes clear that states cannot and will not be penalized for failing to participate in this program.¹⁴ However, if a state does not submit an approvable plan under section 111(d) of the CAA, the EPA will develop, implement, and enforce a federal plan to reduce carbon dioxide (CO₂) emissions from the fossil fuel-fired power plants in that state.¹⁵ This is consistent with the "cooperative federalism" structure of the CAA and other environmental laws.¹⁶ Specifically, the EPA is proposing two different approaches to implement the CPP: a rate-based trading approach and a mass-based trading approach.¹⁷ In the event that a state does not submit an approvable plan by the deadlines, or the EPA disapproves the plan because it does not meet emission reduction requirements, the EPA will promulgate either a rate-based or a mass-based trading approach for that particular state.¹⁸ States have until September 6, 2016, to submit their state plans or request an extension, and the EPA does not intend to finalize and implement a plan for any state prior to determining a failure to submit or disapproving a state plan.¹⁹

RATE-BASED APPROACH

In a rate-based program, affected electric generating units must meet an emission standard expressed as a rate of pounds of CO_2 per megawatt hour.²⁰ If sources emit above their assigned rate, they must acquire a sufficient number of emission rate credits to bring their rate of emissions into compliance.²¹ Emission rate credits may be created by affected electric generating units or other entities that supply zero or low emitting electricity resources to the grid through an approval and recognition process administered by the EPA.²² Emission rate credits may be bought and sold, or banked for use in later years.²³

¹¹ Id. at 64,833, 64,828.

¹² Id. at 64,833.

¹³ Id. at 64,676.

¹⁴ Id. at 64,882.

See Federal Plan Requirements for Greenhouse Gas Emissions From Electric Utility Generating Units Constructed on or Before January 8, 2014; Model Trading Rules; Amendments for Framework Regulations, 80 Fed. Reg. 64,966 (proposed Oct. 23, 2015) (to be codified 40 C.F.R. parts 60, 62, and 78) [hereinafter "Federal Plan"].

¹⁶ CPP Rule, 80 Fed. Reg. at 64,710.

¹⁷ Id. at 64,664.

¹⁸ Id. at 64,828.

¹⁹ Id. at 64,669.

²⁰ Federal Plan, 80 Fed. Reg. at 64,970.

²¹ Id

²² Id. at 64,970-71.

²³ Id. at 64,971.

Mass-Based Approach

In a mass-based program, the EPA creates a state emissions budget equal to the total tons of CO_2 allowed to be emitted by affected electric generating units in that particular state.²⁴ EPA will initially distribute the allowances within each state budget to the affected electric generating units based on their historical generation.²⁵ The allowances may then be transferred, bought, and sold on the open market, or banked for future use.²⁶ The compliance obligation on each of the affected electric generating units is to surrender the number of allowances sufficient to cover the electric generating unit's respective emissions at the end of a given compliance period.²⁷

TEXAS POSITION

On September 11, 2015, Dr. Bryan W. Shaw, Chairman of the Texas Commission on Environmental Quality, provided testimony to the U.S. House of Representatives Committee on Science, Space, and Technology expressing concerns regarding the CPP.²⁸ First, Chairman Shaw testified that EPA used an improper methodology in developing its "Best System of Emission Reduction" (BSER) requirements by incorporating such factors as dispatching generation to different types of units and increased renewable energy rather than limiting its analysis to feasible controls applicable to existing facilities directly.²⁹ Second, Chairman Shaw testified that the program will have an insignificant effect on global CO₂ concentrations and no quantifiable climate benefit.³⁰ Chairman Shaw also testified argued that the CPP relies on inflated economic benefits, and particularly questioned the claimed benefits of reductions in emission of sulfur dioxide (SO₂), nitrous oxides (NOx) and particulate matter (PM 2.5) in areas classified as attainment for the relevant National Ambient Air Quality Standards (NAAQS), since attainment is necessarily protective of public health.³¹ Dr. Shaw concluded his testimony by saying the EPA has not given states, especially Texas, enough time to formulate and submit a state plan.³²

Immediately following the publication of the CPP, Texas joined over twenty other states and many industry representatives in a suit challenging the rule in the U.S. Court of Appeals for the District of Columbia Circuit.³³ On January 21, 2016, the D.C. Court of Appeals denied a motion to stay the CPP.³⁴ The states appealed the order denying the

²⁴ Id.

²⁵ Id.

²⁶ Id.

²⁷ Id.

The Committee on Science, Space, and Technology – Testimony of Dr. Bryan W. Shaw, Chairman of the TCEQ (2015), http://docs.house.gov/meetings/SY/SY18/20150911/1039 19/HHRG-114-SY18-Wstate-ShawB-20150911.pdf.

²⁹ Id.

³⁰ Id.

³¹ Id.

³² Id.

³³ State of W. Va. et al. v. U.S. Envtl. Prot. Agency, Petition for Review (D.C. Cir. Nov. 3, 2015) (No. 15-1399).

West Virginia et al. v. U.S. Envtl. Prot. Agency, Per Curiam Order Denying Motion for Stay (D.C. Cir. Jan. 21, 2016) (No. 15-1363).

motion to stay to the Supreme Court,³⁵ and on February 9, 2016, the Court granted the stay in a 5-4 decision.³⁶ The rule is stayed pending disposition of the appeal by the D.C. Circuit and any writ of certiorari to the U.S. Supreme Court, if sought.³⁷

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NATURAL RESOURCES

THE TEXAS RAILROAD COMMISSION ORDERS SHOW CAUSE HEARINGS, IN RESPONSE TO SMU SEISMOLOGY STUDY

From November 11, 2013, to April 12, 2014, thirty-six earthquakes were felt in the community surrounding Azle, Texas.¹ Prior to this event, no earthquakes had been reported or felt in the past 150 years.² In response to the series of earthquakes, the seismology team at Southern Methodist University (SMU) began studying the two injection wells located in the vicinity of the reported earthquakes. One of the wells is the West Lake SWD No. 1, Newark, located in the East Field of Parker County, Texas, and operated by XTO Energy Inc. ("XTO"). The other well is the Briar Lease Well No. 1, located in the Caughlin Field of Wise County, and operated by EnerVest Operating LLC ("EnerVest").³

On April 21, 2015, the study results ("Study") were published in the journal *Nature Communications*. The Study concluded that the high volume of wastewater injected into these two wells, combined with saltwater (brine) extraction, was the most likely cause of

³⁵ Andrew M. Harris, Coalition of States Asks US Supreme Court to Stay Clean Power Plan, RENEWABLE ENERGY WORLD.COM (Jan. 27, 2016), http://www.renewableenergy world.com/articles/2016/01/states-asks-supreme-court-to-put-brakes-on-clean-power-plan.html.

Wesst Virginia v. U.S. Envtl. Prot. Agency, No. 15A773, 2016 U.S. LEXIS 981 (U.S. Feb. 9, 2016) (granting stay).

³⁷ Id.

¹ Kurt Orzeck, Texas Officials May Nix Oil Well Permits Over Quake Fears, Law360 (April 24, 2015), http://www.law360.com/articles/647866/texas-officials-may-nix-oil-well-permits-over-quake-fears.

² Angela Neville, Earthquake Concern May Lead to Shutdown of O&G Disposal Wells, Tex. Lawyer, available at http://www.texaslawyer.com/id=1202725076738/Earthquake-Concerns-May-Lead-to-Shutdown-of-OampG-Disposal-Wells#ixzz3ntXfCEkH.

³ Id.

⁴ Matthew J. Hornback, et al., Causal Factors for Seismicity near Azle, Texas, NATURE COMM. (Nature Pub. Grp., April 21, 2015).

the earthquakes.⁵ Injection wells reach thousands of feet underground, and store large volumes of wastewater—a byproduct of oil and gas drilling.⁶ For example, the XTO injection well is used to inject wastewater and frack water from 230 Barnett Shale wells in the Eagle Mountain Lake area. At its peak, 18,000 barrels of water per day were being injected into the well. But, after the earthquakes started, XTO diverted more than 2,000 barrels a day of wastewater to other sites.⁷ And, while it has been known since the 1960s that wastewater injection can set off seismic activity, it is often not attributed to specific wells.⁸

Three days after the release of the Study, the Texas Railroad Commission (RRC or "Commission") – the state agency that regulates oil and gas development–directed the Commission's Hearings Division to initiate proceedings requiring the operators of the two injection wells to show cause why the injection permits for the wells should not be cancelled and shut-in, due to the allegations in the Study. The RRC's notice to the operators made specific reference to the Commission's Rule 9(6)(A)(i, v, and vi), which allows a permit for salt water or other oil and gas waste disposal to be modified, suspended, or terminated by the Commission for just cause after notice and an opportunity for a hearing. Commissioner David Porter justified the Commission's decision to convene a hearing, stating, "Due to the fact that the wells were permitted prior to the Commission's rule amendments addressing disposal well activity and seismic activity, and in light of the new research contained in SMU's report, it's appropriate and necessary for the Commission to consider the operation of these wells in a fully informed manner and determine the appropriate course of action."

The show cause hearings were held on June 10 and 11, 2015, for XTO Energy and June 15 and 16, 2015, for EnerVest. Paul Dubois, a technical examiner, and Marshall Enquist, an administrative law judge, acted as the hearing examiners. ¹² Hearings exam-

⁵ Id.

Jennifer Delony, Texas Regulators set hearings on alleged connection between disposal wells and seismic activity, Oilman Magazine (May 8, 2015), available at http://oilmanmagazine.com/texas-regulators-set-hearings-on-alleged-connection-between-disposal-wells-and-seismic-activity/.

Nicholas Sakelaris, XTO Energy contends that Azle earthquakes were 'naturally occurring', Dallas Bus. J., (June 10, 2015), available at http://www.bizjournals.com/dallas/news/2015/06/10/xto-energy-contends-at-hearing-that-azle.html.

⁸ James Osborne, Railroad Commission clears XTO on earthquakes, DALLAS MORNING NEWS (Aug. 31, 2015).

Ragna Henrichs, Ashley Prieto, James Smith, Environmental Alert: "Potential Seismic Activity from Injection Wells Prompts Railroad Commission of Texas to Order Hearings", JD Supra Bus. Advisor, (April 29, 2015), available at http://www.jdsupra.com/legalnews/environmental-alert-potential-seismic-28181/.

¹⁶ Tex. Admin Code §§ 3.9(6)(A)(i), (v), & (vi); see also Tex. Railroad Comm'n. Hearing Div., Proposal for a Decision – Oil & Gas Docket No. 09-0296410 (Sept. 10, 2015) (hereafter "PFD").

¹¹ Tex. Railroad Comm'n, Press Release: Railroad Commission Orders "Show Cause" Proceeding for Azle Disposal Wells (April 24, 2015), *available* at http://www.rrc.state.tx.us/about-us/commissioners/craddick/news/042415a/.

¹² PFD, supra note 10.

iners act as administrative law judges in RRC hearings; they then propose a decision to the three commissioners, who can either accept or reject their proposed decision.¹³

Both show cause hearings were matters of first impression. The Respondents, XTO and EnerVest, had the burden of proving that their injection wells were not *likely* to be or determined to be *contributing* to the recent seismic activity.¹⁴ The examiners concluded the term "likely" represents a preponderance of the evidence standard.¹⁵ Also, the examiners interpreted the term "contributing" to indicate that the subject action (injection) provides at least a part of the force necessary to cause or achieve an outcome (seismic activity).¹⁶ Thus, the injection stimulus and the consequent seismic activity must occur in a mechanically connected system, and the actual operational parameters of the mechanical system must be such to allow for stress to be transferred to the location of rupture, and thus "contribute" to an event.¹⁷

During the XTO hearings, XTO's representative presented three witnesses and introduced more than 30 exhibits. XTO argued that the earthquakes were caused by "natural tectonic forces" deep in the Fort Worth Basin area that have expressed themselves "throughout history." XTO described the April study by a team of seismicity researchers at SMU as having a "basic inherent flaw" of ignoring a fault deep underground, where XTO says the earthquakes originated. Because of this flaw, XTO argued that the Study was misleading. EnerVest offered a near identical defense during its hearing a few days later. No witnesses appeared to oppose either XTO's or EnerVest's position. Described that the Study later.

In September, the RRC's hearing examiners concluded that evidence demonstrating a 'likely contribution' from the injection sites was lacking, adding that, although the Study showed a weak correlation between injection and seismic activity, it wasn't enough to imply a causal relationship without more evidence.²¹ The hearing examiners also found flaws in the Study's model, saying the pressure modeling effort "was not sufficient to establish a mechanical (hydraulic) linkage between the site of injection and the locus of initial rupture on the Azle fault at a depth of 20,000 feet."²²

^{13 16} Tex. Admin. Code § 1.143.

¹⁴ *Id.* § 3.9(6)(A)(vi).

¹⁵ PFD, supra note 10, at 4.

¹⁶ Id.

¹⁷ Id.

Jess Davis, Exxon Unit Blasts Report Linking Its Wells To Texas Quakes, LAw360 (June 10, 2015), http://www.law360.com/articles/666037/exxon-unit-blasts-report-linking-its-wells-to-texas-quakes.

¹⁹ Id.

John McFarland, XTO's Earthquake Show Cause Hearing, OIL AND GAS LAWYER BLOG (June 11, 2015), http://www.oilandgaslawyerblog.com/2015/06/xtos-earthquake-show-cause-hearing.html.

²¹ PFD, *supra* note 10, at 21.

Dani Meyers, Texas Regulator Clears EnerVest Well in Quake Investigation, LAw360 (Sept. 10, 2015), http://www.law360.com/articles/701584/texas-regulator-clears-enervest-well-in-quake-investigation.

Reaction to the examiners' report was contentious, with Azle Mayor Alan Brundrett saying, "I've been disappointed from Day One, so it's no shock to me."²³ Mayor Brundrett has previously criticized the RRC for not seeking out the source of the earthquakes. SMU responded by stating, "The SMU seismology team stands by their findings in the Azle report."²⁴ XTO has indicated it would would continue to participate in the regulatory process as appropriate.²⁵

On November 3, 2015, the Commission issued final orders for both the EnerVest and the XTO hearings.²⁶ In both, the Commission unanimously approved the examiners' recommendation.²⁷ The Commission found that the preponderance of the evidence did not support a finding that the injection of fluids is "likely to be or determined to be contributing to seismic activity."²⁸ The Commission also ordered that the permits for both wells "remain active and unamended."²⁹ None of the parties have filed a motion for rehearing.

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SOLID WASTE

ENVIRONMENTAL GROUPS PROVIDE NOTICE OF INTENT TO SUE THE EPA FOR NOT UPDATING DRILLING WASTE REGULATIONS AND STATE SOLID WASTE MANAGEMENT PLANS

INTRODUCTION

On August 26, 2015, a coalition of seven environmental groups¹ (the coalition) filed a notice of intent to sue the Environmental Protection Agency (EPA) for failure to update drilling waste regulations as required by the Resource Conservation and Recovery

Max B. Baker, Earthquakes can't be linked to XTO drilling activity, railroad commission finds, STAR-TELEGRAM (Sept. 1, 2015), available at http://www.star-telegram.com/news/business/barnett-shale/article33224445.html.

²⁴ Id.

²⁵ Id.

Tex. Railroad Comm'n., Oil & Gas Docket No. 09-0296410, Final Order (Nov. 3, 2015); Tex. Railroad Comm'n., Oil & Gas Docket No. 09-0296411, Final Order (Nov. 3, 2015).

²⁷ Tex. Railroad Comm'n., Oil & Gas Docket No. 09-0296410, Final Order; Tex. Railroad Comm'n., Oil & Gas Docket No. 09-0296411, Final Order.

Tex. Railroad Comm'n., Oil & Gas Docket No. 09-0296410, Final Order at 1; Tex. Railroad Comm'n., Oil & Gas Docket No. 09-0296411, Final Order at 1.

Tex. Railroad Comm'n., Oil & Gas Docket No. 09-0296410, Final Order at 1; Tex. Railroad Comm'n., Oil & Gas Docket No. 09-0296411, Final Order at 1.

These groups include the Environmental Integrity Project, Natural Resources Defense Council, Earthworks, Responsible Drilling Alliance, San Juan Citizens Alliance, West Vir-

Act (RCRA or "Act").² The coalition alleges that the EPA failed to meet its duty under the RCRA to review and, if necessary, revise at least once every three years the regulations for wastes associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy and its guidelines for state solid waste management plans.³ In its sixty-day notice letter required under the statute,⁴ the coalition relies on the citizen suit provision of RCRA, which provides that citizens may sue the EPA Administrator "where there is alleged a failure of the Administrator to perform any act or duty under this Act which is not discretionary with the Administrator." As of February 21, 2016, the EPA still had not responded to the notice letter; the parties have not yet filed suit.⁶

BACKGROUND

In 1976, Congress passed the RCRA, which governs the disposal of solid and hazardous waste, to address nationwide problems caused by the growing amount of municipal and industrial waste.⁷ The Act established a solid waste program under Subtitle D and a hazardous waste program under Subtitle C.⁸

OIL AND GAS WASTE EXEMPTION

In 1980, Congress amended the RCRA through the Solid Waste Disposal Act Amendments.⁹ One amendment, called the "Bentsen Amendment," exempted oil and gas wastes from regulation pursuant to hazardous wastes provisions of Subtitle C of RCRA.¹⁰ This exemption was conditional until the EPA: (1) conducted a report considering the effects of oil and gas wastes on human health and the environment, as well as the adequacy of existing measures to prevent and mitigate such effects and alternatives to these measures; and (2) made, and transmitted to Congress, a Regulatory Determina-

ginia Surface Owners Rights Organization, and Center for Health, Environment, and Justice.

Notice of Intent to Sue for Violation of Nondiscretionary Duties under the Resource Conservation and Recovery Act with respect to Wastes Associated with the Exploration, Development, or Production of Oil and Gas (Aug. 26, 2015), http://environmentalintegrity.org/wp-content/uploads/2015-08-26-OG-Wastes-RCRA-Notice-Letter-FINAL.pdf [hereinafter Notice of Intent to Sue]; see also 42 U.S.C. § 6901 et seq. (West 2015).

³ Notice of Intent to Sue, supra note 2, at 1.

⁴ See 42 U.S.C. § 6972(c) (requiring notice sixty days prior to commencing suit).

⁵ Id. § 6972(a)(2).

Matt Stroud, Environmental Groups Condemn EPA's Inertia, PITT. BUS. TIMES (Oct. 30, 2015), available at http://www.bizjournals.com/pittsburgh/print-edition/2015/10/30/environ mental-groups-condemn-epa-s-inertia.html.

⁷ EPA History: Resource Conservation and Recovery Act, U.S. ENVTL. PROT. AGENCY, http://www2.epa.gov/aboutepa/epa-history-resource-conservation-and-recovery-act (last visited Oct. 2, 2015).

⁸ Id

⁹ See Solid Waste Disposal Act Amendments of 1980, Pub. L. No. 96–482, 94 Stat. 2334 (1980).

¹⁰ See Notice of Intent to Sue, supra note 2, at 1 (referring to § 7, 94 Stat. at 2336).

tion to either promulgate regulations under hazardous waste provisions of Subtitle C for oil and gas wastes or determine that regulations were unwarranted.¹¹

On July 6, 1988, the EPA released its Regulatory Determination for Oil and Gas and Geothermal Exploration, Development and Production Wastes, in which it found that regulation of wastes from the exploration, development, and production of crude oil, natural gas, and geothermal energy under Subtitle C of the RCRA was not warranted.¹² The EPA instead determined that it would:

implement a three-pronged strategy to address the diverse environmental and programmatic issues posed by these wastes by: (1) [i]mproving Federal programs under existing authorities in Subtitle D of RCRA, the Clean Water Act, and the Safe Drinking Water Act; (2) working with [s]tates to encourage changes in their regulations and enforcement to improve some programs; and (3) working with Congress to develop any additional statutory authorities that may be required.¹³

The EPA therefore decided to use Subtitle D to regulate oil and gas wastes and laid out a plan for how it would tailor Subtitle D regulations.¹⁴

RCRA requires that "[e]ach regulation promulgated under [the] Act shall be reviewed and, where necessary, revised not less frequently than every three years." The coalition is especially concerned with the Subtitle D criteria regulations—which are found at 40 C.F.R. Part 257—for wastes associated with the exploration and production of oil and gas. 16

STATE SOLID WASTE MANAGEMENT PLANS

RCRA also requires the EPA Administrator to "promulgate regulations containing guidelines to assist in the development and implementation of State solid waste management plans." RCRA sets forth a number of considerations to be reflected in state guidelines. The EPA promulgated the original version of these guidelines in 1979. RCRA mandates that these guidelines be reviewed "from time to time, but not less frequently than every three years, and revised as may be appropriate." The coalition claims that

¹¹ See Notice of Intent to Sue, supra note 2, at 2; 42 U.S.C. §§ 6921(b)(2)(ii)(B), 6982(m).

Regulatory Determination for Oil and Gas and Geothermal Exploration, Development and Production Wastes, 53 Fed. Reg. 25,447, 25,458–59 (July 6, 1988).

¹³ Id. at 25,447.

¹⁴ *Id.* at 25,457-58.

^{15 42} U.S.C. § 6912(b).

¹⁶ Notice of Intent to Sue, supra note 2, at 1.

^{17 42} U.S.C. § 6942(b).

See id. § 6942(c) (requiring guidelines for state plans to take into account eleven considerations, including, inter alia, "methods for closing or upgrading open dumps for purposes of eliminating potential health hazards," "geographic, geologic, climatic, and hydrologic characteristics," and "the constituents and generation rates of waste").

Guidelines for Development and Implementation of State Solid Waste Management Plans, 44 Fed. Reg. 45,066, 45,066 (July 31, 1979).

^{20 42} U.S.C. § 6942(b).

the EPA has failed to timely review its guidelines for state solid waste management plans.²¹

THE COALITION'S CLAIMS

Despite the EPA's plan to regulate wastes from oil and gas exploration and production under Subtitle D, the coalition notes that the "EPA appears to have taken no action" since publishing the Regulatory Determination in 1988—over 27 years ago.²² The EPA's website regarding Crude Oil and Natural Gas Waste seems to support the coalition's claim that the EPA has failed to review or revise the regulations as mandated by RCRA; the three publications released by the EPA since 1988 all simply provide clarification of the exploration and production exemption.²³ For example, in its Clarification of the Regulatory Determination for Wastes from the Exploration, Development and Production of Crude Oil, Natural Gas and Geothermal Energy, the EPA stressed that the notice "does not revise, amend, repeal, change, or otherwise alter any EPA regulation, nor constitute a change to EPA's 1988 Regulatory Determination regarding oil and gas exploration and production wastes."²⁴ The EPA further explained that the notice was "merely interpreting the scope of the existing RCRA statutory exclusion for oil and gas wastes."²⁵

In regard to the state plan guidelines, the coalition claims that the "EPA did not apply the factors set out by Congress to develop and provide detailed, useful guidelines for the states, but rather opted to comply with the duty by merely restating the factors and delegating the responsibility to develop actual guidelines to the states." Noting that Congress expected the EPA to incorporate the factors into development of the guidelines, the coalition asserts that the EPA failed "to implement a significant statutory duty." Additionally, because RCRA mandates that these guidelines are reviewed "not less frequently than every three years, and revised as may be appropriate," the coalition claims the EPA has violated its duty to review and revise such regulations because it has not done so since 1989.²⁹

The coalition dedicated over ten pages of its notice of intent to describing the current wastes generated by the exploration and production of oil and gas and the disposal practices of the industry.³⁰ The coalition concluded that "it is vital that EPA finally meets its duty to review and revise the Subtitle D regulations and state plan guidelines for oil and gas wastes" to prevent "a state-by-state patchwork . . . [under] which operators

²¹ Notice of Intent to Sue, supra note 2, at 1; see 40 C.F.R. pt. 256.

Notice of Intent to Sue, supra note 2, at 3.

Crude Oil and Natural Gas Waste, U.S. Envtl. Prot. Agency, http://www3.epa.gov/epawaste/nonhaz/industrial/special/oil/ (last visited Oct. 2, 2015) (showing that publications were released in 1993, 2002, and 2008).

Clarification of the Regulatory Determination for Wastes from the Exploration, Development and Production of Crude Oil, Natural Gas and Geothermal Energy, 58 Fed. Reg. 15,284, 15,287 (Mar. 22, 1993).

²⁵ Id

Notice of Intent to Sue, supra note 2, at 5.

²⁷ Id. at 5.

^{28 42} U.S.C. § 6942(b).

²⁹ Notice of Intent to Sue, supra note 2, at 18.

³⁰ See id. at 5–17.

may take advantage of the regulatory vacuum and protections for communities and the environment will vary depending on their location."³¹

The coalition relies on section 7002(a)(2) of the Act, which provides that citizens may bring suit against the EPA "where there is alleged a failure of the Administrator to perform any act or duty under this Act which is *not discretionary* with the Administrator." The U.S. District Court for the District of Columbia has previously explained that section "2002(b) creates a nondiscretionary duty requiring the EPA to undertake a review and, if necessary, revision of each regulation promulgated under the RCRA at least every three years." The court relied on the plain language of section 2002(b), noting that "use of the word 'shall' in a statute generally creates a mandatory duty." Similar language is found in section 4002(b), and the coalition emphasized that "the requirements under section 2002(b) and section 4002(b) . . . are mandatory and nondiscretionary." The coalition intends to file suit against the EPA if the EPA does not comply with the statutory mandates of section 2002(b) and section 4002(b) of RCRA and, under the citizen suit provision of RCRA, may do so at any time after sixty days of the EPA's receipt of the coalition's notice of intent.³6

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WATER QUALITY

TPDES PERMIT APPLICATION OF DHJB DEVELOPMENT, LLC

INTRODUCTION

This past spring, the State Office of Administrative Hearings (SOAH) issued a proposal for decision (PFD) in *In re: Application of DHJB Development, LLC for a Major Amendment to TPDES Permit No. WQ0014975001*, a case involving TCEQ's amendment of a water quality permit. While the PFD issued by the Administrative Law Judge

³¹ Notice of Intent to Sue, supra note 2, at 17.

^{32 42} U.S.C. § 6972(a)(2) (emphasis added).

³³ Appalachian Voices v. McCarthy, 989 F. Supp. 2d 30, 54 (D.D.C. 2013).

³⁴ *Id.* (citing Bennett v. Spear, 520 U.S. 154, 175 (1997)).

³⁵ Notice of Intent to Sue, supra note 2, at 18.

³⁶ See id. at 2.

See generally Tex. Comm'n on Envtl. Quality, SOAH Docket No. 582-14-3427; TCEQ Docket No. 2013-2228-MWD, Application by DHJB Development, LLC for an Amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014975001, Board

(ALJ) recommended denial of an amended water quality permit,² the TCEQ found that the ALJ erred in denying the permit as a matter of law. This Development provides a brief overview of what the ALJ found, the parties' arguments for and against the PFD, and the TCEQ's reasoning for overturning the ALJ's decision. Though a number of parties moved for a rehearing, the TCEQ denied this motion.³ The case has not been appealed to the district court at this time.

BACKGROUND

Terrell Graham and his wife's family have owned property in the Texas Hill Country near Bulverde, Texas for 110 years.⁴ The land remains an anchor for family gatherings and functions as a working farm and cattle ranch. In recent years, Bulverde has expanded and, today, many residential and commercial properties are currently under construction near the Grahams' property.

On August 20, 2012, DHJB Development (Applicant) applied to the TCEQ for a major amendment to its wastewater discharge permit for a planned wastewater treatment plant to serve DHJB's 750-acre residential development on the Johnson Ranch property in Comal County, Texas.⁵ The major amendment would authorize the discharge of treated effluent at a rate of 350,000 gallons per day into surface waters.⁶ Shortly after DHJB filed its application, the Grahams, who own property downstream of the proposed wastewater treatment plant, received notice of the application from the TCEQ. The discharge route proposed to cross the Grahams' property.⁷

The Grahams and several downstream landowners (collectively, "Protestants") opposed DHJB's permit request. The Greater Edwards Aquifer Alliance, a nonprofit corporation that does not own any land at issue, intervened due to concern that wastewater effluent would enter the Edwards Aquifer watershed with inadequate treatment.⁸

On April 9, 2014, the Commission referred four issues to the State Office of Administrative Hearings (SOAH).⁹ After an evidentiary hearing, the ALJ issued a PFD recommending denial of the amended permit because the proposed discharge would not be into waters in the state, and the treated effluent would not be sufficiently protective of

Final Order. See also Tex. Comm'n on Envtl. Quality, SOAH Docket No. 582-14-3427; TCEQ Docket No. 2013-2228-MWD, Application by DHJB Development, LLC for an Amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014975001, Amended Proposal for Decision at 3 (June 2, 2015) [hereinafter Amended PFD].

² Amended PFD, supra note 2, at 3.

Tex. Comm'n on Envtl. Quality, SOAH Docket No. 582-14-3427; TCEQ Docket No. 2013-2228-MWD, Application by DHJB Development, LLC for an Amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014975001, TCEQ's Response to Motion for Rehearing at 3 (Nov. 20, 2015).

⁴ Id.

⁵ Id. at 2.

⁶ Id.

⁷ Id.

⁸ *Id.* at 3.

⁹ Id. at 4.

children or livestock in the area. ¹⁰ The Applicant and the Executive Director of the TCEQ disagreed with the PFD and filed exceptions arguing that: (1) the ALJ improperly characterized the discharge route; (2) the ALJ's decision articulates a new standard for discharged effluent; and (3) that the ALJ failed to give proper deference to the TCEQ's governing rules, statutes, and policies.

STANDARD OF REVIEW

The Commission may modify an ALJ's finding of fact or conclusion of law if the Commission determines that: (1) the ALJ improperly applied or interpreted the law, policies, or prior administrative decisions; (2) the ALJ based its ruling on a prior administrative decision that is incorrect; or (3) a finding of fact contains a technical error requiring correction.¹¹ Any amendment to the PFD must be based solely on the record before the ALJ, and must include an explanation of the legal bases for such amendment.¹²

WATER LAW BACKGROUND

Texas Water Code section 26.027(a) enables the TCEQ to authorize permits for the discharge of waste or pollutants into "waters in the state." Waters in the state include ". . .groundwater. . .streams, creeks. . .natural or artificial. . .the beds and banks of *all watercourses* and bodies of surface water. . . wholly or partially inside . . . the state." ¹⁴

The seminal case establishing the criteria for a watercourse is *Hoefs v. Short.*¹⁵ In *Hoefs*, the Texas Supreme Court defined a watercourse as possessing: (1) defined bed and banks; (2) a current of water; and (3) a permanent source of supply.¹⁶ Another significant case for determining the nature of a watercourse is *Domel v. the City of Georgetown.*¹⁷ In that case, the issue was whether a governmental entity returning treated wastewater into a watercourse needed additional permission from downstream landowners. The Austin Court of Appeals held that a state's right to use a watercourse for the transport of state-owned water is superior to the rights of private landowners.¹⁸

Tex. Comm'n on Envtl. Quality, SOAH Docket No. 582-14-3427; TCEQ Docket No. 2013-2228-MWD, Application by DHJB Development, LLC for an amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014975001, Executive Director's Exceptions to the Proposal for Decision, at 3 (March 30, 2015) [hereinafter ED Ex. to PFD].

¹¹ Tex. Gov't Code § 2001.058(e) (Vernon Ann. 2009).

¹² Id. at § 2003.047(m).

¹³ Tex. Water Code § 26.027(a).

¹⁴ *Id.* § 26.001(5) (emphasis added).

¹⁵ Hoefs v. Short, 273 S.W. 785, 786 (Tex. 1925).

¹⁶ Id. at 787

¹⁷ Domel v. the City of Georgetown, 6 S.W.3d at 355 (Tex. App.-Austin 1999, pet. denied).

¹⁸ See id. at 355 (This right is fundamentally construed to encompass treated effluent released into a watercourse.).

THE TCEQ'S DECISION

THE DISCHARGE ROUTE AS A STATE WATERCOURSE

The relevant issue before the TCEQ was whether the proposed discharge would be into a state watercourse. DHJB argued that a state's right to use a watercourse for the transport of state-owned water supersedes the rights of private landowners. DHJB also argued that the ALJ misinterpreted the statutory definition for waters in the state. The Grahams responded, contending that the discharge route could not be a state watercourse because it was dry for most of the year and only contained water during flooding. DHJB countered, arguing that an intermittent stream is recognized as a state watercourse, as a matter of law.

The TCEQ Commissioners agreed with DHJB, finding that the discharge route was a watercourse and that the state's right to use the watercourse was superior to the landowners. In reaching this conclusion, the Commissioners relied on testimony from its aquatic scientist, who concluded the effluent would flow into an unnamed tributary of the San Antonio River basin.²³ Additionally, the TCEQ's extensive analysis of the photographic evidence indicated that a discernable depression permeated the discharge route. The Commissioners emphasized that, even if the discharge route were intermittent, the current of water "need not be continuous."²⁴ Therefore, the TCEQ found that a state watercourse with reasonably defined bed and banks traversed the Graham's property.

Existing Water Quality Standards are Sufficiently Protective of Cattle and Children

The Grahams also raised concerns about whether the water quality of the effluent was sufficiently protective to protect their cattle and the children that play in the creek. The Grahams alleged that their cattle would be adversely impacted from ingesting treated effluent.²⁵ At the evidentiary hearing, Mr. Graham argued that the health and safety of his cattle would be severely undermined if they were to ingest sub-standard water. As a consequence, Graham maintained that the adverse impacts would endanger the business viability of maintaining a cattle ranch.²⁶ The Grahams contended that children playing near the effluent could suffer harm from coming into direct contact with treated wastewater.²⁷

¹⁹ See Amended PFD, supra note 1, at 20.

²⁰ Domel, 6 S.W.3d at 358.

See Tex. Comm'n on Envtl. Quality, SOAH Docket No. 582-14-3427, TCEQ Docket No. 2013-2228-MWD, Application by DHJB Development, LLC for an amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014975001, Applicant's Exception to Proposal for Decision, at 8–10 (March 30, 2015) (emphasis added).

²² See Tex. Water Code § 26.001(5).

²³ See Amended PFD, supra note 1, at 22-23.

²⁴ Hoefs v. Short, 273 S.W. 785, 790 (Tex. 1925).

²⁵ Amended PFD, supra note 1, at 44.

Id. at 45. (The Grahams' further contended that the high nitrogen content, presence of bacteria, and algae growth resulted from the discharged effluent).

²⁷ Id. at 15–16.

The ALJ agreed and found that the effluent proposed for discharge would not be adequately protective, and that it should be treated to drinking water standards to protect children and livestock on the land.²⁸ The TCEQ's Executive Director disagreed, noting that the Texas Surface Water Quality Standards require treated effluent to be protective of recreational activities.²⁹ The permit required chlorination of the effluent and sets a bacterial limit to minimize adverse environmental impacts through contact.³⁰ Although these standards contemplate the risk of ingestion, they were not intended to be protective for direct consumption.³¹

Further, the Executive Director argued that jurisdiction of the TCEQ is limited by the Texas Water Code to issues relating to the creation and enforcement of water quality standards.³² Based on its findings, the TCEQ determined that the applicable standards under the amended permit would actually be more stringent than the original permit. Thus, the Executive Director contended that the existing standards for recreational uses would be sufficiently protective.³³

Last, the Greater Edwards Aquifer Alliance argued that the treated effluent would not sufficiently comingle with water in the watercourse, and would thus enter the Edwards Aquifer watershed undiluted and without filtration.³⁴ The TCEQ clarified that the Johnson Ranch must comply with all existing regulations protecting the Edwards Aquifer³⁵ and determined that the water quality standards imposed on the discharge were sufficiently protective of the Edwards Aquifer.

CONCLUSION

In summary, the TCEQ concluded that the proposed discharge route was a state watercourse and that the applicant was not required to treat the effluent to drinking water standards. Consistent with this viewpoint, the TCEQ granted the amendment application on September 17, 2015.

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²⁸ Id. at 48-49.

^{29 30} Tex. Admin. Code §§ 210.32, 307.7(b)(1); Executive Director's Exceptions to PFD, supra note 10, at 17.

^{30 30} Tex. Admin. Code § 210.1

³¹ Executive Director's Exceptions to PFD, supra note 10, at 17.

³² Id. at 6.

^{33 30} Tex. Admin. Code § 307.7(b)(4).

³⁴ Amended PFD, supra note 1, at 31–34.

^{35 30} Tex. Admin. Code § 307.4 (h).

Tex. Comm'n on Envtl. Quality, SOAH Docket No. 582-14-3427; TCEQ Docket No. 2013-2228-MWD, Application by DHJB Development, LLC for an Amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014975001, Order at 9, 13 (Sept. 17, 2015).

WATER SUPPLY

Texas Water Planning: Interregional Conflicts

On May 29, 2015, the Texas Water Development Board's (TWDB or the Board) Executive Administrator (EA), under authority of Texas Water Code § 6.101,¹ proposed new rules that would change how conflicts between proposed regional water plans (RWPs) are handled.² Subsequently, on July 3, 2015, the Secretary of State published the rule proposal in the Texas Register.³ Following publication, the TWDB accepted comments regarding the proposal until August 22, 2015.⁴ The TWDB reviewed comments it received and considered whether to make changes to the proposed rules in response to the comments,⁵ and adopted the rule package at its November 10th board meeting.⁶

The rules change the identification of and the procedure for resolution of interregional conflicts, but they would not have changed the result of the interregional conflict between Region C's Regional Water Planning Area (Region C) and Region D's Regional Water Planning Area (Region D) over the Marvin Nichols Reservoir (the Reservoir or Marvin Nichols) during the last planning cycle, nor are they likely to change the

¹ Tex. Water Code Ann. § 6.101(b) (West 2015) ("The executive administrator may recommend to the board for its consideration rules that he considerations necessary to carry out the board's powers and duties.").

Memorandum from Kevin Patteson, Exec. Admin., Tex. Water Dev. Bd., to Board Members (May 29, 2015), [hereinafter *Patteson*], *available at* http://www.twdb.texas.gov/board/2015/06/Board/Brd14.pdf.

⁴⁰ Tex. Reg. 4308, 4308–15 (2015) (codified at 31 Tex. Admin. Code §§ 357.10, 357.50, 357.51, 357.62, 358.3) (proposed July 3, 2015) (Tex. Water Dev. Bd.), available at http://www.sos.state.tx.us/texreg/pdf/backview/0703/0703is.pdf; see also Tex. Gov't Code Ann. § 2001.023(a)(b) (West 2015) (stating that a "state agency shall give . . . notice of its intention to adopt a rule before it adopts the rule. (b) A state agency shall file notice of the proposed rule with the secretary of state for publication in the Texas Register . . . "); Id. § 2001.025 ("Notice of a proposed rule becomes effective as notice when published in the Texas Register . . . "); Id. § 2002.011(1) ("[T]he secretary of state shall . . . publish a publication to be known as the Texas Register. The register shall contain: notices of proposed rules issued and filed in the office of the secretary of state . . . ").

Public Hearing Minutes, Texas Water Development Board (July 23, 2015), [hereinafter *Public Hearing*], http://www.twdb.texas.gov/board/agenda/2015Minutes/Brd_07-23_pm.pdf (The TWDB accepted comments via a public hearing and submissions to the Office of General Counsel, Texas Water Development Board, P.O. Box 13231, Austin, Texas 78711-3231, by email to rulescomments@twdb.texas.gov, or by fax at (512) 475-2053. The public hearing was held July 23, 2015, and submissions were accepted until August 4, 2015).

Before adopting the rule, the TWDB is required to consider all submitted comments by interested parties. See Tex. Gov't Code Ann. § 2001.029 (2015).

⁶ Tex. Water Dev. Bd., Board Meeting: November 10, 2015 (Nov. 20, 2015), http://texasad-min.com/tx/twdb/board_meeting/20151110/.

result of interregional conflicts between Regions C and D over the Reservoir during future planning cycles.⁷

STATE WATER PLANNING

Water infrastructure projects identified in RWPs are not eligible to receive financial assistance from the TWDB unless included in the State Water Plan (SWP).8 RWPs submitted by Regions involved in an "interregional conflict" are not included in the SWP.9 If an interregional conflict exists, the TWDB must facilitate coordination between the involved regions' Regional Water Planning Groups (RWPGs) to resolve the conflict.¹⁰ If conflict remains, despite facilitation, the Board is then required to resolve the conflict.¹¹ Each RWPG is required to participate in any Board-sponsored efforts to resolve interregional conflicts.¹² Once the conflict is resolved, the TWDB will consider the RWP for approval to be included in the SWP.¹³ If approved, the RWP will be included in the SWP and, consequently, the projects identified in the RWP will be eligible to receive financing.¹⁴ This, however, does not necessarily mean projects identified in RWPs that are included in the SWP will actually be constructed.¹⁵

For many projects, a water rights permit must be obtained from the Texas Commission on Environmental Quality (TCEQ or the Commission). Water rights applications are subject to numerous obstacles, including the TCEQ's process for resolving disagreements, which includes the possibility of a contested case hearing – an administrative proceeding similar to a civil trial. Despite the TCEQ's process for resolving disagreements during the permitting process that takes place before projects can be built, during the last planning cycle, Region D argued that TWDB should be required to address the disagreement as part of the state water planning process. In litigation regarding the

See Tex. Water Dev. Bd., Board Meeting Minutes at 2 (Sept. 9, 2015), http://www.twdb. texas.gov/board/agenda/2015Minutes/Brd_09-09.pdf [hereinafter Sept. Board Meeting] (noting that Texas Water Development Board voted unanimously that an "interregional conflict" existed between Region C and D's 2016 initial prepared plans).

Tex. Water Code Ann. § 16.053(j)(2)(A); see also Tex.Water Dev. Bd., Water for Texas 2012, at 220–23, available at https://www.twdb.texas.gov/publications/state_water_plan/2012/2012_SWP.pdf (consult for information regarding the types of financial assistance the TWDB can provide for water infrastructure projects). For information regarding the Texas State Water Planning process, consult State Bar of Texas, Essentials of Texas Water Resources 20-1 (Mary K. Sahs ed., 3rd ed. 2014).

⁹ Tex. Water Code Ann. § 16.053(j)(2)(A); Tex. Water Dev. Bd. v. Ward Timber, Ltd., 411 S.W.3d 554, 557 (Tex. App.—Eastland 2013, no pet.).

¹⁰ Tex. Water Code Ann. § 16.053(h)(6); 31 Tex. Admin. Code § 357.62.

¹¹ Tex. Water Code Ann. § 16.053(h)(6); 31 Tex. Admin. Code § 357.62.

^{12 31} Tex. Admin. Code § 357.50(h).

¹³ Tex. Water Code Ann. § 16.053(h)(5).

¹⁴ Id. §§ 16.053(a), (i).

¹⁵ See id. § 16.051(b).

¹⁶ Tex. Water Code Ann. § 11.121 (West 2015).

^{17 30} Tex. Admin. Code § 297.41.

¹⁸ Id. §§ 295.172, 297.73.

¹⁹ Tex. Water Dev. Bd. v. Ward Timber, Ltd., 411 S.W.3d 554, 560 (Tex. App.—Eastland 2013, no pet.).

proper resolution of Region C and D's disagreement over the Marvin Nichols Reservoir, the court of appeals agreed with Region D's position, requiring a more substantive review of a planned project by the TWDB during its state water planning process.²⁰

INTERREGIONAL CONFLICTS: CURRENTLY

The Texas Water Code does not define the term "interregional conflict." The TWDB, however, under the authority of Texas Water Code section 6.101,²² previously interpreted interregional conflicts in the context of Texas Water Code section 16.053 as existing only when "more than one regional water plan relies upon the same water source, so that there is not sufficient water available to fully implement both plans and would create an over allocation of that source." However, the court of appeals in *Ward Timber*, *Ltd. v. Texas Water Development Board* concluded this was not the only interpretation of "interregional conflicts" in the context of section 16.053.²⁴

During the last planning cycle, the Board approved both Region C and D's RWPs and expressly found that no interregional conflict existed because there was no overallocation of supply.²⁵ In response, on January 13, 2011, individual landowners and members of Region D's planning group filed suit in Travis County seeking review of the Board's decision to approve Region C's RWP.²⁶ On December 5, 2011, the district court declared that an interregional conflict existed between Regions C and D's water plans, reversed the Board's approval of Region C's 2011 RWP, and remanded the case back to the Board to resolve the conflict under section 16.053(h)(6) procedures.²⁷ The TWDB refused to recognize the "interregional conflict" and appealed.²⁸

On May 23, 2013, the court of appeals affirmed the district court's ruling that an "interregional conflict" existed between Region C and D's water plans.²⁹ On appeal, the

²⁰ Id. at 575.

²¹ See Tex. Water Code Ann. § 16.001.

²² Id. § 6.101(a) ("The board shall adopt rules necessary to carry out the powers and duties of the board provided by this code and other laws of the state."); see also id. § 6.012(a) ("[t]he board has general jurisdiction over: (1) the development and implementation of a statewide water plan").

^{23 31} Tex. Admin. Code § 375.10(15).

²⁴ Ward Timber, 411 S.W.3d at 554.

Tex. Water Dev. Bd., Order concerning the interregional conflict between the 2011 North Central Texas Regional Planning Area Regional Water Plan and the 2011 North East Texas Regional Planning Area Regional Water Plan in accordance with Texas Water Code § 16.053, at 2 (Jan. 8, 2015), available at http://www.twdb.texas.gov/home/tabs/doc/hot/twdb_order.pdf (Region D and C's RWPs were approved October 4, 2010, and December 6, 2010, respectively).

²⁶ Complaint, Ward Timber, Ltd. v. Tex. Water Dev. Bd., 2011 WL 9301071 (126th Dist. Ct. Travis County) (D-GN-11-000121) (Jan. 13, 2011), available at http://www.lrl.state.tx.us/currentissues/clips/resultsLink.cfm?clipID=241944&headline=conflicting%20water%20plans%20head%20to%20Austin.

Final Judgment, Ward Timber, Ltd. v. Tex. Water Dev. Bd., 2011 WL 9301071 (126th Dist. Ct. Travis County) (No. D-GN-11-000121) (May 23, 2013), available at http://www.lrl.state.tx.us/currentissues/clips/resultsLink.cfm?clipID=241944&headline=conflicting%20 water%20plans%20head%20to%20Austin.

²⁸ Ward Timber, 411 S.W.3d at 554.

²⁹ Id.

TWDB's interpretation because it is reasonable and does not conflict with the language of the statute.³¹ According to the Board's interpretation, interregional conflicts exist when two "strategies" conflict.³² The Board defined a strategy as a recommendation that ensures an adequate water supply for identified "uses" that create demands during a drought of record.³³ Thus, the TWDB reasoned that Region D's general statements of opposition to the Marvin Nichols Reservoir is not considered a use that creates demands during a drought of record and, consequently, is not a strategy.³⁴ Therefore, an interregional conflict did not exist.³⁵ The court disagreed³⁶ and, instead, interpreted interregional conflicts in the context of 16.053 as existing when a "substantial conflict" exists between RWPs.³⁷ The court stated that the primary objective in interpreting a statute is to give effect to the legislature's intent.³⁸ and, since the TWDB's interpretation is clearly inconsistent with the legislature's intent, it was not due any deference.³⁹ The court instead interpreted interregional conflict from the plain language of the statute and the

TWDB argued that the District Court erred in assigning an overly-broad interpretation of the term interregional conflict in the context of Section 16.053. Initial Brief of Appellant, Tex. Water Dev. Bd., at 19–25, Tex. Water Dev. Bd. v. Ward Timber Ltd., 411 S.W.3d 554 (Tex. App.—Eastland 2013, no pet.) available at http://www.search.txcourts.gov/SearchMedia.aspx?MediaVersionID=aoc458fb-053a-450a-8bdf-19ec18904ba5&coa=coa11 &DT=Other&MediaID=168fc5ba-0737-43cb-b026-8eb990f516b4.

³¹ Id.

³² *Id.* at 21, 23 ("A conflict between specifically identified strategies could constitute an "interregional conflict" requiring resolution under the Water Code and TWDB rules. . . . Protection of natural resources is a consideration in evaluating a strategy under the TWDB rules, but it is not a use for which an independent strategy is developed.[] Conflicts occur between competing strategies.").

³³ *Id.* at 21–22 ("Regional water plans contain projections of specifically identified and quantified 'demands' for water use. To the extent that these demands are not met by current water supplies, they are addressed in regional plans by specifically identified and quantified 'strategies' recommended in the plans").

³⁴ See id. at 23–24 ("The Region C plan laid out a strategy . . . [t]he Region D water plan articulated a general goal of maintaining instreaam and freshwater flows from the Sulphur River").

³⁵ See id.

³⁶ Ward Timber, 411 S.W.3d at 573.

³⁷ Id.

³⁸ Id. at 574. ("Our primary objective in statutory construction is to give effect to the legislature's intent. State v. Shumake, 199 S.W.3d 279, 284 (Tex. 2006). We seek the legislature's intent first and foremost in the statutory text. Lexington Ins. Co. v. Strayhorn, 209 S.W.3d 83, 85 (Tex. 2006). We rely on the plain meaning of the text unless a different meaning is supplied by legislative definition or is apparent from the context or unless such a construction leads to absurd results. City of Rockwall v. Hughes, 246 S.W.3d 621, 625–26 (Tex. 2008).") (original format).

Ward Timber, 411 S.W.3d at 574 ("An agency's interpretation of a statute that it is charged with administering is entitled to serious consideration unless the agency's construction is clearly inconsistent with legislative intent. . . . We find that the Board's interpretation is clearly inconsistent with legislative intent.").

accompanying regulations.⁴⁰ It found that the term "conflict" is unambiguous⁴¹ and the legislature made it clear that RWPGs should resolve conflicts that involve not only *strategies* but also disputes concerning potential *impacts* of proposed water strategies.⁴² Thus, the court found that there was an interregional conflict between Region C and D's RWPs and ordered the TWDB to initiate resolution under section 16.053(h)(6).⁴³ TWDB ultimately resolved the conflict by ordering Region D to exclude all references to the conflict in its 2011 RWP, thus allowing the Reservoir to be included in the Region C RWP and the SWP.⁴⁴

The appeals' court's expansion of the term "interregional conflict" opened the door for new challenges to water infrastructure projects that could serve as grounds for interregional conflicts.⁴⁵ Fearing the implications of this expansion,⁴⁶ the TWDB recently adopted changes to its rules.⁴⁷

THE NEW RULES

The new rules change how interregional conflicts are handled.⁴⁸ The rules amended include 31 Texas Admin. Code sections 357.10 (relating to Definitions and Acronyms),⁴⁹ 357.50 (relating to Adoption, Submittal, and Approval of Regional Water Plans),⁵⁰ 357.51 (relating to Amendments to Regional Water Plans),⁵¹ and 357.62 (relating to Interregional Conflicts).⁵² In addition, the TWDB changed 31 Tex. Admin. Code section 358.3 (relating to Guidance Principles).⁵³ The rule amendments change

⁴⁰ See id. at 571, 573 ("From the plain text of Section 16.051, the legislature expressed its intent that the water planning process should encompass an assessment of a proposed water strategy and its impact. . . . The plain language of the statutes and accompanying regulations indicates that an emphasis should be placed on balancing water uses and supply and thir effect on agricultural and natural resources and other economic resources. . . . ").

⁴¹ *Id.* at 575 ("The district court owed no deference to the Board's interpretation of an unambiguous term. . . . ").

⁴² See id. at 575 ("The planning process should encompass possible water strategies and the impact those water strategies").

⁴³ Id. at 576.

⁴⁴ Order, supra note 25, at 9.

Jeremy Brown, "Interregional Conflicts" in Texas Water Planning, KAY BAILEY HUTCHISON CENTER FOR ENERGY, L. & Bus. (June 4, 2013), https://kbhenergycenter.utexas.edu/2013/06/04/interregional-conflicts-in-texas-water-planning/.

⁴⁶ See Patteson, supra note 2 (In Ward Timber "the Texas Water Development Board had expressed concern that if its existing definition of interregional conflict was rejected by the Court, the agency would be mired down with many small conflicts. The Court suggested that the problem could be solved by amending the definition of interregional conflict in the rule to also include the fact situation of that case. The recommended proposed rule would accomplish that amendment to the rules.").

⁴⁷ Patteson, *supra* note 2. See also 31 Tex. Admin. Code §§ 357.10, 357.50-357.51, 357.62, 358.3.

⁴⁸ See Patteson, supra note 2.

^{49 31} Tex. Admin. Code § 357.10.

⁵⁰ Id. § 357.50.

⁵¹ Id. § 357.51.

⁵² Id. § 357.62.

^{53 40} Tex. Reg. 4308, 4313–15 (2015); 31 Tex. Admin. Code § 358.3.

the definition of "interregional conflict," and modify the procedure for resolving interregional conflicts in the regional water planning process.⁵⁴ The stated purpose of the amendments is to improve the identification of and procedure for resolution of interregional conflicts in light of the agency's experience dealing with interregional conflict in the last round of RWPs.⁵⁵ The amendment to 31 Tex. Admin. Code section 357.10 adds to the existing definition of interregional conflict.⁵⁶ This should address the TWDB's concern of a being inundated with potential conflicts under the common meaning of "conflict."⁵⁷ In Ward Timber, the court stated that, although the term "conflict" is unambiguous, the Board could solve their concern by "amending the rule defining an interregional conflict to include its present definition and the present situation where a region has studied the impacts and finds there is a substantial conflict."58 The amendment to section 357.10 seeks to implement the Ward Timber court's recommendations by including the situation that occurred in Ward Timber, in which a recommended water management strategy is located in another region and that region has studied impacts of the water management strategy on its economic, agricultural and natural resources, and finds a potential substantial conflict.⁵⁹

The amendments to 31 Tex. Admin. Code section 357.50 shift resolution of interregional conflicts to the time between when regional water planning groups submit their Initially Prepared Plans (IPPs) and when they submit their final regional water plans.⁶⁰ The amendment to subsection 357.50(b) requires that, prior to the adoption of the RWP, the RWPG that has a recommended water management strategy located in another region submit a copy of their IPP to that region's RWPG at the same time it submits the IPP to the EA.⁶¹ Specifically, it provides the RWPG with notice, which allows them to have time to study the recommended strategy and identify any potential interregional conflict they wish to raise to the EA.⁶²

The amendment to subsection 357.50(d) requires that RWPGs that object to water management strategies located in their region submit their objections to the EA and the other affected RWPG within 30 days of the submission of the IPP to the EA.⁶³ The submitted objections must: (1) identify the specific recommended water management strategy from another RWPG's IPP; (2) provide specific information on the impacts of the strategy on economic, agricultural, or natural resources; and (3) provide a statement of why the RWPG considers there to be an interregional conflict.⁶⁴ The purpose of this amendment is to improve the procedure for resolution of interregional conflicts.⁶⁵ Spe-

^{54 31} Tex. Admin. Code § 357.10(15); 40 Tex. Reg. at 4308.

⁵⁵ Patteson, supra note 2.

^{56 40} Tex. Reg. at 4308. See also 31 Tex. Admin. Code § 357.10(15).

During *Ward Timber*, the TWDB expressed fear of being mired down by many small conflicts if its interpretation of the term "interregional conflict" was rejected. *Patteson*, *supra* note 2.

⁵⁸ Ward Timber, 411 S.W.3d at 573.

^{59 40} Tex. Reg. at 4311.

⁶⁰ Id. at 4309.

⁶¹ Id. at 4311.

⁶² See id.

^{63 31} Tex. Admin. Code § 357.50(d); 40 Tex. Reg. at 4311.

⁶⁴ Id.

^{65 40} Tex. Reg. at 4311.

cifically, it ensures that RWPGs with potential interregional conflicts engage each other and the Board earlier in the process of development of the final adopted regional water plans.⁶⁶

The amendment to subsection 357.50(f)(5) requires that if the Board has identified an interregional conflict and failed to resolve it early enough to allow the involved RWPG to modify and adopt its final RWP by the statutory deadline, all RWPGs involved in the conflict must proceed with adoption of their RWPs but must exclude the disputed recommended water management strategy and all relevant language and include language explaining the unresolved interregional conflict and acknowledging that the RWPG may require revision or amendments to its RWP in accordance with a negotiated or Board resolution of an interregional conflict.⁶⁷ This affords the TWDB the ability to exclude recommended water management strategies from being included in the SWP rather than excluding entire RWPs, which will enhance the integrity of the resolution process.⁶⁸

MARVIN NICHOLS RESERVOIR UNDER THE NEW RULES

Under the new rules, the procedure for resolution of the interregional conflict between Regions C and D would have been different but the result would have been the same. Unlike under the previous cycle, prior to Region C adopting its RWP, it would have been required to submit its IPP to Region D in addition to the EA and the public because the Reservoir is proposed to be located entirely within the boundaries of Region D. In response, Region D would have identified the Reservoir as a potential interregional conflict and submitted its objections to the Board and Region C within 30 days. Once the Board received those objections, it would have then determined whether the Reservoir would potentially cause substantial adverse affects on Region D. Under the analysis required by Ward Timber and incorporated into the new rules, the Board would likely have found that it does because of the agricultural land loss of 165,000 to 200,000 acres of land (which would be inundated by the Reservoir), 69 losses of 417 to 1,334 jobs (which Region D claims would result from 150,000 acres of timberland being removed from production),⁷⁰ an annual reduction of \$73.07 to \$234.01 million to the economy,⁷¹ and the Board would likely have initiated resolution of the interregional conflict under 16.053(h)(6). Similarly to the previous cycle, the mediation likely would not have worked and the Board would have had to resolve the conflict itself, which it would have resolved the same (i.e., finding that the adverse impacts are outweighed by the public

⁶⁶ Id.

⁶⁷ Id.

Without this amendment, the TWDB would more likely than not approve RWPs despite an interregional conflict due to their fear that the SWP may not be complete by the statutory date if an interregional conflict existed. Thus, this amendment ensures the TWDB that the SWP can be produced by the statutory date despite an interregional conflict.

⁶⁹ Tex. Water Dev. Bd. v. Ward Timber Ltd., 411 S.W.3d 554, 559 (Tex. App.—Eastland 2013, no pet.) (150,000 acres of land inundated would be timberland).

Region D – North East Texas Regional Water Planning Group, Regional Water Plan 2011, at 7–8 available at http://www.twdb.texas.gov/waterplanning/rwp/plans/2011/D/Region_D_2011_RWPV1.pdf.

⁷¹ Id.

benefit). The primary difference is that under the new rules, the conflict would have been resolved early enough to allow each region's RWPG to modify and adopt its final RWP by the statutory deadline so the Reservoir would have been included.

On September 9, 2015, while changes to the rules were still pending, the TWDB voted unanimously that an "interregional conflict" existed between Region C and D's IPPs.⁷² The EA initiated mediation and Region C's and D's RWPGs reached an agreement to resolve the conflict.⁷³ Region C's RWPG ratified the settlement agreement on November 9th⁷⁴ and Region D's RWPG ratified the settlement agreement on October 21st.⁷⁵ The conflict over Marvin Nichols between Regions C and D will likely be renewed with each five-year water planning cycle, however, even under the new rules. Although the new rules do not provide a process to permanently resolve the conflict, they will facilitate an earlier and smoother process for handling it when it arises again.

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STATE CASENOTES

BISHOP V. CHAPPELL HILL SERV. Co., 2015 TEX. APP. LEXIS 799, (Tex. App.—Houston [1st Dist.] July 30, 2015, NO PET. H.)

INTRODUCTION

Appellants, a group of property owners in or around Chappell Hill, Texas ("property owners") sued Chappell Hill Service Co., LLC and High Meadows Land and Cattle, LLC (collectively, "CHSC") for nuisance and other causes of action stemming from CHSC's proposed development of land in Chappell Hill. The trial court granted a plea

⁷² Sept. Board Meeting, supra note 7.

⁷³ See Glenn Evans, Water planners OK compromise, agreement for Region D and Clarksville (Oct. 21, 2015), Longview News-Journal, http://www.news-journal.com/news/2015/oct/21/water-planners-ok-compromise-agreement-for-region-/.

Letter from Todd Chenoweth, Senior Advisor, Texas Water Development Board to the Executive Administrator, to Kevin Patteson, Executive Administrator, and Les Trobman, General Counsel, Texas Water Development Board (Nov. 10, 2015), available at https://www.twdb.texas.gov/board/2015/12/Board/Brd11.pdf.

⁷⁵ Evans, supra note 73.

Bishop v. Chappell Hill Serv. Co., 2015 Tex. App. LEXIS 799, at *2 (Tex. App.—Houston [1st Dist.] July 30, 2015, no pet. h.).

to the jurisdiction, dismissing the property owners' claims.² The property owners appealed.³ The court of appeals affirmed, holding that Texas law does not require evidentiary hearings on pleas to the jurisdiction.⁴ The court also held that a trial court may grant a plea to the jurisdiction without allowing an opportunity to amend if the pleadings affirmatively negate the existence of jurisdiction.⁵

BACKGROUND

On February 6, 2012, CHSC filed for a Texas Pollutant Discharge Elimination System (TPDES) permit with the Texas Commission on Environmental Quality (TCEQ) to construct a wastewater treatment facility in Chappell Hill.⁶ On December 3, 2013, before the TCEQ had acted on the TPDES permit, the property owners filed suit in trial court, seeking a declaratory judgment against CHSC's construction of the wastewater treatment plant and issuance of a TPDES permit.⁷ The property owners argued that wastewater discharge would affect their property values and constitute a nuisance.⁸ The property owners also argued that "the noise, congestion, pollution and increased crime" caused by CHSC's other proposed residential and commercial development would be potential nuisances.⁹

On December 6, 2013, TCEQ granted CHSC's TPDES permit.¹⁰ On December 17, 2013, CHSC filed a motion to transfer venue, original answer to elements of the complaint, and plea to the jurisdiction.¹¹ In its motion to transfer venue, CHSC argued that the property owners' complaints fell within the exclusive jurisdiction of TCEQ, which necessitates bringing action for judicial review in Travis County.¹² Filing special exceptions to the petition, CHSC argued that the nuisance claims were not ripe.¹³ In its plea to the jurisdiction, CHSC argued that TCEQ has exclusive jurisdiction over claims resulting from the potential discharge of wastewater, and that since the property owners had not exhausted their administrative remedies, the trial court did not have jurisdiction.¹⁴

The trial court set a hearing on the plea to the jurisdiction; none of the property owners appeared.¹⁵ The trial court decided to rule on the plea to the jurisdiction by submission and requested that the parties submit briefs.¹⁶ CHSC filed a brief arguing that TCEQ and the courts of Travis County have exclusive jurisdiction over claims regarding

² Id. at *2.

³ Id.

⁴ Id. at *4.

⁵ *Id.* at *4-5.

⁶ Id. at *2.

⁷ Id.

⁸ Id.

⁹ Id. at *3.

¹⁰ Id.

¹¹ Id.

¹² Id.

¹³ Id.

¹⁴ Id.

¹⁵ Id.

¹⁶ Id.

the TPDES permit.¹⁷ CHSC argued the remaining claims were not ripe – that "no construction had been commenced that was even tangentially related to the TPDES permit and no other construction or development of the proposed building had begun."¹⁸

The trial court granted the plea to the jurisdiction.¹⁹ The next day, the property owners belatedly filed a brief seeking a hearing to present evidence.²⁰ The property owners included one piece of evidence with this brief – a response from TCEQ's executive director recommending denial of a motion to overturn the order granting the TPDES permit.²¹

The trial court convened another hearing and concluded again that it lacked jurisdiction.²² The property owners appealed.²³

THE APPEALS

The only issue on appeal was whether the trial court erred in granting the plea to the jurisdiction without an evidentiary hearing and without giving the property owners a chance to amend their pleadings.²⁴ Reviewing the ruling on the plea to the jurisdiction *de novo*, the court noted that, "if the pleadings affirmatively negate the existence of jurisdiction, the plea may be granted without allowing the plaintiff an opportunity to amend his pleadings."²⁵

The court held that Texas law does not require evidentiary hearings on pleas to the jurisdiction; instead, Texas law only directs courts to consider evidence submitted by parties as may be necessary.²⁶ The court observed that, not only had the trial court scheduled a hearing on the plea to the jurisdiction that none of the property owners attended, but nothing had prevented the property owners from submitting evidence to the trial court.²⁷ Further, the property owners failed to identify any evidence that they had been unable to submit to the trial court, or that the trial court had refused to consider.²⁸ The court held that the property owners were therefore not entitled to an evidentiary hearing, and that the trial court did not err in basing its ruling on a consideration of the plea, the property owners' original and supplemental petitions, the parties' arguments, and controlling legal authorities.²⁹

The court then held that a trial court may grant a plea to the jurisdiction without allowing an opportunity to amend if the pleadings affirmatively negate the existence of jurisdiction.³⁰ The court found that the trial court lacked jurisdiction with regard to the one action that CHSC had already undertaken – obtaining a TPDES permit – as this

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17 Id.
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¹⁸ Id.

¹⁹ Id.

²⁰ Id. at *3-4.

²¹ Id. at *4.

²² Id.

²³ Id.

²⁴ Id.

²⁵ Id.

²⁶ Id.

²⁷ Id.

²⁸ Id.

²⁹ Id.

³⁰ Id. at *4-5.

action fell within the exclusive jurisdiction of TCEQ and the property owners had failed to exhaust their administrative remedies.³¹

The court also held that the trial court lacked jurisdiction regarding the nuisance claims as they were not ripe.³² There was no indication "of where any particular construction would take place, what that construction would entail, or whose individual property rights or enjoyment might be affected."³³ The court also found that the property owners "did not identify any facts indicating that a concrete injury had occurred or was likely to occur."³⁴ Rather, the claims arose from an aspect of development beyond the granting of a TPDES permit and which concerned "future development and construction that was still contingent or hypothetical and had not yet come to pass."³⁵ Finding that the property owners had not made any argument or presented any evidence that suggested they could amend their claims to include a current controversy, the court held that the trial court did not err in dismissing their claims without allowing them an opportunity to amend their pleadings.³⁶

Titan Operating, LLC v. Marsden, 2015 Tex. App. LEXIS 9076 (Tex. App.—Fort Worth Aug. 27, 2015, pet. denied)

INTRODUCTION

In *Titan Operating*, *LLC v. Marsden*, the Fort Worth court of appeals held that property owners who entered into an oil and gas lease with a company but later brought a private nuisance claim for acts that were contemplated by the lease were quasi-estopped from suit since they had acquiesced to and benefitted from the lease.³⁷ In doing so, the court reversed the trial court's judgment and ruled that the property owners take nothing.³⁸

BACKGROUND

Marcus and Laura Marsden owned and lived on a 6.2 acre property near Aledo, Texas.³⁹ In 2004, the Marsdens signed a lease that granted rights to explore and drill for oil and gas on the Marsdens' property.⁴⁰ The lease provided that no well could be drilled within 200 feet of a residence or barn on the Marsdens' property without their consent.⁴¹ An addendum to the lease provided that the company could conduct drilling operations on land adjoining the Marsdens' property.⁴² At the time the lease was signed, the Marsden's knew that the company was in discussions with nearby landowners, including the

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31 Id. at *5.
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³² Id.

³³ Id.

³⁴ Id.

³⁵ Id.

³⁶ Id. at *6.

Titan Operating, LLC v. Marsden, 2015 Tex. App. LEXIS 9076, at *2 (Tex. App.—Fort Worth Aug. 27, 2015, pet. denied).

³⁸ Id.

³⁹ Id.

⁴⁰ Id.

⁴¹ Id. at *3.

⁴² Id.

owner of property adjoining the northern boundary of the Marsdens' property.⁴³ The Marsdens' lease also granted the drilling company an ingress and egress right on the southeastern corner of the Marsdens' property.⁴⁴

In 2009, Titan entered into a surface use agreement with the adjoining property owner.⁴⁵ Titan met with individuals who lived near the proposed site; the Marsdens did not attend the meeting.⁴⁶ In the spring of 2009, Titan completed the first well on the adjoining property; the well was located a little over 300 feet from the Marsdens' house.⁴⁷ Later in 2009, Marcus Marsden granted an easement across the Marsdens' property for an underground pipeline that allowed Titan to get gas from the adjoining property to the market.⁴⁸ Marcus Marsden received \$8,470.62 for the easement.⁴⁹ Eventually, Titan drilled five more wells on the adjoining property, for a total of six wells.⁵⁰

After Titan drilled the first well but before it drilled the other five wells, the Marsdens brought a nuisance claim against Titan, claiming that the noise, nighttime brightness, traffic, dust, and fumes substantially interfered with the use and enjoyment of their property.⁵¹ They sought damages "related to the interference of their enjoyment of the property and diminished property value."⁵²

Titan asserted a general denial and pled the affirmative defense of quasi-estoppel.⁵³ At trial, witnesses from Titan testified as to a general paucity of contact from the Marsdens throughout the entire course of operations. Titan witnesses also testified that nothing extraordinary occurred while drilling or fracking at the site, and that nothing happened at the well site that was different from other sites throughout the North Texas region.⁵⁴

Marcus Marsden initially testified that he never assumed the well would be drilled so close to his residence; he later appeared to concede that he knew at the time of signing the lease that there was a possibility the wells could be drilled in such close proximity to his property.⁵⁵ Laura Marsden testified that Titan's operations had made life "unbearable."⁵⁶ Though she testified that she had not read the lease before signing it, she later admitted that she knew when she signed the lease that drilling could occur on the adjoining property.⁵⁷ Marcus Marsden also testified that Titan's operations reduced the value of his property.⁵⁸ At trial, Marcus Marsden conceded that he had received monthly

⁴³ Id. at *2.

⁴⁴ Id. at *3.

⁴⁵ Id.

⁴⁶ Id. at *4.

⁴⁷ Id.

⁴⁸ Id.

⁴⁹ Id.

⁵⁰ Id.

⁵¹ Id. at *5.

⁵² Id.

⁵³ Id.

⁵⁴ Id. at *6-7.

⁵⁵ Id. at *4.

⁵⁶ Id.

⁵⁷ Id. at *5.

⁵⁸ Id.

royalty checks after the drilling of the first well, that he was still receiving royalties at the time of trial, and that he expected to receive them in the future.⁵⁹

At trial the jury found that Titan had intentionally created a temporary private nuisance and that the Marsdens were not estopped based on having accepted benefits.60 The trial court entered a final judgment in accordance with the jury verdict, awarding Marcus and Laura Marsden each \$18,000.61

Titan appealed, arguing that the trial court erred in not granting judgment not withstanding the verdict on the basis of quasi-estoppel.⁶²

RULING ON APPEAL

The doctrine of "quasi-estoppel precludes a party from asserting . . . a right inconsistent with a position previously taken," and "applies when it would be unconscionable to allow a person to maintain a position inconsistent with one to which he acquiesced or from which he accepted a benefit."63 "Quasi-estoppel forbids a party from accepting the benefits of a transaction and then subsequently taking an inconsistent position to avoid corresponding obligations or effects."64 In applying quasi-estoppel in this case, the court noted that "the party being estopped must have had knowledge of all material facts at the time of the conduct on which estoppel is based."65

The court found that the "undisputed evidence" established that the lease allowed Titan to conduct drilling operations on the land adjoining the Marsdens' property. 66 The court noted that, in exchange for those allowances, the Marsdens had received a per-acre bonus and royalties that the Marsdens had never offered to return to Titan.⁶⁷ The Court observed that Marcus Marsden did not attempt to negotiate an agreement that would prohibit wells on the property adjoining his own, and that when he learned Titan was considering a well in the area in question, he did not approach Titan about relocating the well.⁶⁸ The Court noted that Marcus Marsden acknowledged he was not alleging that Titan was negligent, or that Titan had broken any laws or violated any permits.⁶⁹ The Court also observed that the Marsdens did not argue that the location of Titan's well violated the lease's setback provision.⁷⁰

The Court found that the Marsdens' suit "serves as a de facto attempt to repudiate the part of their bargain in which they permitted Titan's ability to conduct routine drilling on adjoining land while they continue to enjoy the financial benefit of that bargain and seek yet another recovery that the bargain did not contemplate. We conclude, as a matter of law, that such a result is unconscionable and is barred by quasi-

⁵⁹ Id.

Id. at *7. 60

Id. 61

⁶² Id.

⁶³ Id.

⁶⁴ Id.

Id. at *8. 65

Id. at *9. 66

⁶⁷ Id.

Id. 68

⁶⁹ Id.

⁷⁰ Id.

estoppel."⁷¹ The court noted that, although the Marsdens did not fully contemplate the exact location of where the well would be located, they "accepted and retained (and will continue to receive) benefits flowing exclusively from the lease that objectively authorized drilling there and from production at the very site that they complain about."⁷² Moreover, the court noted that, after the Marsdens knew the location of the pad-site and the environmental effects, they nevertheless accepted \$8,470.62 for granting the pipeline easement across their property.⁷³ As such, the court found that the Marsdens had the requisite knowledge "at the time they accepted financial benefits related to the production of gas there."⁷⁴

In sum, in reversing the lower court and ordering the Marsdens take nothing, the Court concluded that "quasi-estoppel precludes the Marsdens' nuisance suit because they have unconscionably accepted benefits of transactions. . .while taking positions that inconsistently attempt to avoid the obligations and effects. . .of those same transactions."

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⁷¹ Id.

⁷² Id. at *10.

⁷³ Id.

⁷⁴ Id.

⁷⁵ Id.

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