DOES THE NPDES PROGRAM APPLY TO THE MIGRATION OF POLLUTANTS THROUGH GROUNDWATER?

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The National Pollutant Discharge Elimination System (NPDES) Program applies when a pollutant is added to navigable waters from a point source. 33 U.S.C. § 1311, 1342(a) and 1362(12) and (14). The Clean Water Act’s (CWA) focus on point source discharges “is an organizational paradigm of the Act.” Oregon Natural Desert Association v. U.S. Forest Service, 550 F.3d 778, 780 (9th Cir. 2008).

Relatively recent district court cases, however, have concluded that an NPDES permit is or might be required when “pollutants travel from a point source to navigable waters through hydrologically connected groundwater serving as a conduit between the point source and the navigable waters.” Yadkin Riverkeeper, Inc. v. Duke Energy Carolinas, LLC, 2015 U.S. Dist.LEXIS 142593 at *31-32 (M.D. N.C. 2015). These courts have reached this conclusion even while acknowledging that the groundwater in question is neither a navigable water nor a point source. Nevertheless, because the groundwater allows pollutants to migrate from an original point source to navigable waters, these courts reason that an NPDES permit is or may be required in these situations.

This article assesses this new “conduit” theory and explores its implications. It first presents the statutory language, legislative history and relevant case law that forms the backdrop to the issue. Next, it discusses the reasoning employed in three recent “conduit theory” cases. Finally, it describes some of the consequences that may follow if the theory is more widely adopted by the courts.

WHAT DOES THE STATUTE SAY?

The CWA makes unlawful the discharge of any pollutant by any person unless done pursuant to a CWA permit. 33 U.S.C. § 1311(a). Under the NPDES program, the Environmental Protection Agency (EPA) or an authorized state, as applicable, may issue a permit for the discharge of any pollutant, or combination of pollutants, if certain conditions apply. 33 U.S.C. § 1342(a).

The CWA defines the terms “discharge of a pollutant” and “discharge of pollutants” to mean, as relevant here, “any addition of any pollutant to navigable waters from any point source....” 33 U.S.C. § 1362(12) (Emphasis added). The term “point source” is defined as “any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.” 33 U.S.C. § 1362(14) (Emphasis added).

These definitions provide that the NPDES program is triggered when a point source discharges pollutants to navigable waters. If one applies the words in the
statute as written, it is difficult not to conclude that the NPDES program only applies when the point source is the means by which pollutants are actually added to the navigable waters. That is, the statute makes clear that “how” pollutants get to navigable waters matters. While the meaning of the term navigable water is obscure and the source of as yet unending dispute, the CWA’s focus on discharges from point sources to navigable is precise.

WHAT DOES THE LEGISLATIVE HISTORY TELL US?
The legislative history demonstrates that Congress did in fact make a “clear and precise distinction” between point sources that are subject to the NPDES program and “nonpoint sources” that are subject to state and local nonpoint source regulation. S.Rep. No. 95-370, at 8 (1977). Congress expressed several reasons for this distinction. As explained by the Ninth Circuit, “Congress primarily focused its regulation under the Act on point sources, which tended to be more notorious and more easily targeted, in part because nonpoint sources were far more numerous and more technologically difficult to regulate.” Oregon Natural Desert Association v. U.S. Forest Service, 550 F.3d at 780. Given variations in climate and geography, developing a national program to address nonpoint sources was considered “virtually impossible.” Id. at 785. In addition, Congress understood that regulating nonpoint source pollution would likely involve land use controls, an area typically left to state and local governments. S. Rep. No. 95-370, at 9. Finally, Congress acknowledged that “many nonpoint sources of pollution are beyond present technology of control.” S. Rep. 92-414, at 39.

The legislative history thus confirms what the words in the statute say. Congress meant the NPDES program to apply to point source discharges and left nonpoint source regulation to state and local governments.

WHAT DOES CASE LAW TELL US?
Two separate strands of case law converge in the conduit theory. First, courts have often been asked to decide whether something is a point source to which the NPDES program applies, and these cases are instructive when assessing the conduit theory. Second, courts have wrestled with the question of whether groundwater (whether hydrologically connected or not) is a “water of the United States” such that discharges to groundwater require an NPDES permit. These cases often discuss “indirect impacts” or “significant nexus” questions. Courts applying the conduit theory appear to blend these two separate strands of case law.

To help implement the policy goals of the CWA, courts have broadly interpreted the meaning of the term “point source.” See, e.g., Dague v. City of Burlington, 935 F.2d 1343, 1354 (2nd Cir. 1991); United States v. Earth Sciences., Inc., 599 F.2d 368, 373 (10th Cir. 1979). However, courts have uniformly recognized that the point and nonpoint source distinction is one of the threshold questions under the CWA. See, e.g., Oregon Natural Desert Association v. U.S. Forest Service, 550 F.3d at 780 (noting that the “CWA’s disparate treatment of discharges from point sources and nonpoint sources is an organizational paradigm of the Act.”). Courts have reasoned that point and nonpoint sources “are not distinguished by the kind of pollution they create or by the activity causing the pollution, but rather by whether the pollution reaches the water through a confined, discrete conveyance.” Trustees for Alaska v. EPA, 749 F.2d 549, 558 (9th Cir. 1984). Points sources systematically act as a means of conveying pollutants from a source to navigable waters. United States v. Plaza Health Lab, 3 F.3d 643, 646 (2d Cir. 1993). They are the “means by which pollutants are ultimately deposited into a navigable body of water.” Sierra Club v. Abston Construction Co., Inc., 620 F.2d 41, 45 (5th Cir. 1980). Courts have thus concluded that point sources come in many different shapes and sizes, but that they must be the vehicle by which the pollutants are added to the navigable water.

Courts assessing whether groundwater itself is a navigable water have reached very different and conflicting conclusions. Some have concluded that the CWA does not apply to groundwater, period. Village of Oconomowoc Lake v. Dayton Hudson Corporation, 24 F.3d 962, 966 (7th Cir. 1994). Others have concluded that the CWA may apply when the groundwater is hydrologically connected to surface water. See, e.g., Washington Wilderness Coalition v. Hecla Mining Co., 870 F.Supp. 983, 990 (E.D. Wash. 1994). In assessing this question, courts have generally turned to the Supreme Court’s trio of waters of the United States cases and the “significant nexus” test for guidance. See, e.g., Northern California River Watch v. City of Healdsburg, 496 F.3d 993, 998-1000 (9th Cir. 2007). This has necessarily introduced questions of “indirect” or what might be called “tributary” thinking into the debate over when and where the CWA applies when discharges
to groundwater are involved. It is this type of thinking that supports the conduit theory.

**CONDUIT THEORY CASES**

Three recent district court decisions best illustrate the conduit theory. Each of these cases is discussed separately in this portion of the paper.

**HAWAI‘I WILDLIFE FUND V. COUNTY OF MAUI**

In a series of summary judgment rulings, the District Court for the District of Hawaii held that the County of Maui violated the CWA by discharging pollutants in treated effluent from four Underground Injection Control (UIC) wells at its Lahaina Wastewater Reclamation Facility through groundwater to the Pacific Ocean without an NPDES permit. Hawai‘i Wildlife Fund v. County of Maui, 24 F. Supp. 3d 980 (D. Haw. 2014).

Although the County operated the wells in accordance with UIC permits issued under the Safe Drinking Water Act, the District Court concluded that the discharge also required an NPDES permit because pollutants in the treated effluent discharged from the wells migrated through groundwater to the Ocean.

A few key facts help put the District Court’s reasoning in context. First, while the parties disputed how long the journey took and the impact of pollutants on the Ocean, the parties did not dispute that pollutants from the County’s wells eventually appeared in the Ocean. Second, the evidence demonstrated that the manner in which the pollutants arrived at the Ocean was through diffuse means, either through ephemeral seeps or through diffuse flow with no identifiable point of entry to the Ocean. No specific point source was identified as conveying the pollutants to the Ocean after the pollutants left the wells and entered the groundwater.

Based on these facts, the District Court held that the migration of pollutants from the wells through groundwater to the Ocean required an NPDES permit. The District Court reasoned that “liability under the Clean Water Act is triggered when pollutants reach navigable water, regardless of how they get there.” Id. at 1000. Appearing to turn the point source case law on its head, the District Court found that nothing in the CWA “supports relying on the manner in which the pollutants travel to determine liability.” Id. While acknowledging that no controlling appellate law or statutory text supports the application of the NPDES program through the so-called conduit theory, the District Court relied on cases such as Rapanos, that in the District Court’s view, allow application of the NPDES program to “indirect” discharges that are “functionally equivalent” to a direct discharge. Id. at 994. According to the District Court, this approach was required to remain consistent with the CWA’s policy goals and to prevent pollution. The District Court stated that “it would make no sense to exempt a polluter from regulation simply because its pollution passes through a conduit.” Id. at 998.5

While not entirely clear, the District Court’s decision hinges on this indirect discharge or “conduit” theory. The District Court does not find that the groundwater is itself a water of the United States or a point source. It is the migration of pollutants from the original point source through the groundwater to the Ocean that triggers liability.

**YADKIN RIVERKEEPER, INC. V. DUKE ENERGY CAROLINAS, LLC**

Following the logic of the Maui case, the District Court for the Middle District of North Carolina denied a motion to dismiss a cause of action based on the conduit theory of liability in Yadkin Riverkeeper, Inc. v. Duke Energy Carolinas, LLC, 2015 U.S. Dist. LEXIS 142593 (M.D. N.C. 2015). In this case, plaintiffs filed a citizen enforcement action against Duke Energy alleging, in relevant part, that pollutants from coal ash lagoons were entering nearby surface waters through groundwater. Plaintiffs alleged that such a discharge required an NPDES permit.

The District Court noted at the outset that the parties appeared to agree that groundwater is not a point source or that the CWA does not regulate the discharge of pollutants into groundwater. Nevertheless, the District Court reviewed the various cases involving hydrologically connected groundwater and agreed “with the line of cases affirming CWA jurisdiction over the discharge of pollutants to navigable surface waters via hydrologically connected groundwater, which serves as a conduit between the point source and the navigable waters.” Id. at *29. The District Court thus concluded that “it has jurisdiction under the CWA to adjudicate claims where, as alleged in this case, pollutants travel from a point source to navigable waters through hydrologically connected groundwater serving as a conduit between the point source and the navigable waters.” Id. at * 31.
Citing to both the Yadkin and the Maui cases, the District Court for the Eastern District of Virginia also denied a motion to dismiss a cause of action based on the conduit theory of liability in Sierra Club v. Va. Elec. & Power Co., 2015 U.S. Dist. LEXIS 151200 (E.D. Va. November 6, 2015). In this case, the Sierra Club filed a CWA action against Virginia Electric and Power that alleged, in part, a CWA violation based on the unpermitted migration of pollutants from coal ash disposal facilities through groundwater to surface waters. As the District Court noted, “[i]nstead of arguing that the groundwater beneath the CEC plant is a ‘water of the United States’ or a ‘navigable water,’ Plaintiff contends that the Clean Water Act bars unpermitted discharges to groundwater that serves as ‘a conduit through which pollutants are reaching navigable-in-fact waters.’” Id. at *12.

Based on this allegation, the District Court found that “Plaintiff has pleaded with sufficient particularity to survive a motion to dismiss on the question of whether the Clean Water Act applies to discharges which reach navigable waters through groundwater.” Id. The District Court reviewed the groundwater cases and then followed the reasoning in Yadkin to deny the motion to dismiss.

**Assessment of the Conduit Theory**

The conduit theory is analytically difficult because it appears to ignore the specific language of the CWA and the logic of point source case law in favor of a result that is believed to further the policy goals of the CWA. The conduit theory takes the “significant nexus” analysis that is used to determine whether a water body is a water of the United States, and applies that indirect impact analysis to the point source question. As the District Court in the Maui case acknowledged, this approach does not appear to be based on any controlling statutory text or appellate decisions. While presumably well-intended, the theory introduces into the point source jurisprudence an elastic concept that could eliminate the “clear and precise” distinction Congress created between point and nonpoint source regulation.\(^6\)

An approach more consistent with the statutory language would be to assess whether the groundwater at issue in a particular case is either a “navigable water” because of a hydrological connection or a “point source” itself. These questions raise their own separate set of challenges,\(^7\) but at least they would directly confront the words in the statute. In the absence of findings resulting from either of these two assessments, requiring an NPDES permit solely because pollutants migrate from an original point source through groundwater to a navigable water appears to be unsupported by the actual words in the CWA. As explained below, this approach also raises several adverse consequences that argue against the theory.

**Implications of the Conduit Theory**

Several implications are likely to follow from a wide adoption of the conduit theory. These include the blurring of the point/nonpoint source line, practical implementation issues, administrative burdens, and barriers to creative approaches to water management.

First, as noted above, the conduit theory blurs the point/nonpoint distinction found in the CWA. From an analytical perspective, this could fundamentally change traditional approaches to CWA cases.

Second, the conduit theory presents practical issues about how the NPDES program can be implemented when the exact point of discharge is unknown or possibly unknowable. For example, in the Maui case, only 10% of the groundwater arrived at the Ocean through identifiable sources, and even those were ephemeral seeps. How will effluent limitations be developed for such a situation, and where and how will compliance be determined? Writing a permit to address these conditions appears difficult at best and possibly infeasible.

Third, the conduit theory will create administrative burdens for authorized states and duplicative regulations. States have existing nonpoint source programs that can address groundwater pollution and management.\(^8\) Requiring an NPDES permit based on the conduit theory will require duplicative permits that could overwhelm state programs.

Fourth, the conduit theory, while seeking to address pollution, might inhibit creative water management approaches. Increasingly, water and wastewater utilities are seeking to reuse every drop of water, including for groundwater recharge and sea water intrusion barriers. The conduit theory would add a regulatory burden to these programs and increase program risk. Similarly, low impact development or large-scale green infrastructure projects could be called into question...
through the conduit theory, since those approaches depend on infiltration to groundwater. In the end, the conduit theory could undermine or delay such worthy programs.

CONCLUSION

The conduit theory seeks to extend the NPDES program to a real or perceived nonpoint source problem that is already subject to federal, state and local regulatory controls. It lacks express statutory support and may have several adverse unintended consequences. Its widespread adoption will present significant challenges.

Notes

1 Anyone who attended law school at the University of Wisconsin since the 1970s will recognize this question as the mantra of Professor Walter Dickey.

2 The Act does not define the term "nonpoint source." However, the term is generally understood to refer to pollution that does not result from the discharge of pollutants from a point source. Oregon Natural Resource Council v. U.S. Forest Service 834 F.2d 842, 849 n.9 (9th Cir. 1987).

3 Several law review articles consolidate and summarize the multiple cases that have addressed this question. For example, the University of Minnesota published a note on the topic in 2015 that includes a useful chart that reflects the reported cases on the subject. (See, Note, Is Groundwater that Is Hydrologically Connected to Navigable Waters Covered Under the CWA?: Three Theories of Coverage & Alternative Remedies for Groundwater Pollution, 16 Minn. J.L. Sci. & Tech. 957 (2015).)

4 This cite is to the first and most detailed ruling of the District Court. Related rulings are found in Hawaii Wildlife Fund v. County of Maui, Civil No. 12-00198 SOM/BMK, 2015 WL 328227 (D. Haw. Jan. 23, 2015) and 2015 WL 3903918 (D. Haw. June 25, 2015). All three decisions are currently on appeal by the County of Maui to the Ninth Circuit.

5 As used here, "conduit" does not mean "point source." Rather, it means "medium" or "intermediary" through which pollutants pass. In other words, the District Court is saying that the CWA must apply because pollutants are getting to the ocean, regardless of how they got there.

6 This is similar to what happened in regulatory takings jurisprudence. Borrowing from due process analysis, courts developed an approach to regulatory takings that assessed whether a law substantially advanced a legitimate state interest. This approach was followed for many years and cited with apparent approval by the Supreme Court. However, eventually the Supreme Court held that this due process analysis had no place in regulatory takings law. Lingle v. Chevron U.S.A., 544 U.S. 528, 544 (2005). The conduit theory if widely adopted would create a similar situation in which accepted thinking in one discipline (waters of the U.S.) is applied erroneously to a separate question (point/nonpoint source regulation).

7 The statutory text, the legislative history and the Circuit Court decisions all suggest that groundwater is not covered by the NPDES program.