ARIZONA JOURNAL
OF
ENVIRONMENTAL LAW & POLICY

VOLUME 10 SUMMER 2020 ISSUE 3

WHERE IS THE POLLUTION COMING FROM?

EXTENDING CLEAN WATER ACT LIABILITY UNDER THE HYDROLOGICAL CONNECTION THEORY

Isaac Z. Treadaway

Abstract

In 1972, Congress passed sweeping amendments to the Federal Water Pollution Control Act of 1948. Those amendments created what is known today as the Clean Water Act (CWA) which has fundamentally altered the way the United States protects federal waters. Importantly, the CWA mandates an absolute prohibition against the addition of any pollution to navigable waters from a point source.

However, recent litigation over what constitutes "from" a point source has caused confusion. For example, if a polluter backs a point source away from a river so that the pollution first hits the ground before reaching the river—does the pollution come "from" that point source or "from" the ground? What if a polluter discharges their pollution from a point source into groundwater that is hydrologically connected to navigable waters—does the pollution come "from" that point source in the context of the CWA? Afterall, the regulation of groundwater is typically left to the individual States.

This Paper addresses these tough questions by analyzing a recent circuit court split struggling to interpret the CWA. Ultimately, the answer lies in the CWA's simple and zero-tolerance ban against any addition of pollutants. Water is one of our most

precious natural resource and Congress acted intentionally when it drafted and passed the Clean Water Act in 1972. On its face, the CWA protects federal waters from any pollution—even when such pollution first travels through an intermediary.

I. Introduction

This Paper addresses a recent circuit split concerning the Clean Water Act (CWA) and the applicability of the "hydrological connection theory." The hydrological connection theory extends CWA liability to pollution that originates from a point source,travels through hydrologically connected groundwater, and

enters navigable waters. Specifically, disagreement has arisen over whether the pollution in such instances is coming "*from*" a point source as defined by 33 U.S.C. § 1362(12). In early 2018, both the Ninth and Fourth Circuits extended CWA liability under the theory.[1] Thereafter, the Sixth Circuit rejected its sister circuit's holdings and refused to apply the theory to CWA claims.[2] In February 2019, the United States Supreme Court granted cert to settle the issue.[3]

This Paper analyzes the decisions of the Ninth, Fourth, and Sixth Circuits, and concludes that the plain language, purpose, and surrounding case law supports the theory. However, despite ultimately reaching the correct conclusion, both the Ninth and Fourth Circuits created tests that mandate special requirements before extending liability under the theory. Both tests offered by the circuit courts are cumbersome, confusing, and stand in direct contradiction with the CWA.

Instead of supporting one of the circuit courts' tests, this Paper suggests its own test. The suggested test applies standard CWA requirements, transcends the hydrological connection theory, and can be efficiently and accurately applied at the district court level. Before concluding, this Paper additionally addresses why the significant amicus briefs filed in opposition to the theory are based on unrealistic and erroneous grounds. Accordingly, the Supreme Court should uphold the hydrological connection theory and adopt the test proposed by this Paper.

II. The Clean Water Act: Terms or Art, the Basic Structure, Permitting, and Enforcement.

A. Terms of Art

Understanding this Paper—and the basic structure of the CWA—encompasses two terms of art. First, the CWA regulates pollutants that come from "point sources."[4] The term "point source" refers to "any discernible, confined and discrete conveyance, including but not limited to any *pipe* . . . *well* . . . [or] *container*."[5] Essentially, a "point source" collects and conveys pollution from one location to another. Second, the CWA regulates pollution that enters "navigable waters."[6] The term "navigable waters" is an ambiguous term that the Supreme

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[1] Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737 (9th Cir. 2018), *vacated and remanded sub nom.* Cty. of Maui v. Haw. Wildlife Fund, 140 S. Ct. 1462 (2020); Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637 (4th Cir. 2018), *abrogated by* Cty. of Maui v. Haw. Wildlife Fund, 140 S. Ct. 1462 (2020).

[2] Ky.Waterways All. v. Ky. Util. Co., 905 F.3d 925 (6th Cir. 2018), *abrogated by* Cty. of Maui v. Haw. Wildlife Fund, 140 S. Ct. 1462 (2020).

[3] Cty. of Maui v. Haw. Wildlife Fund, 139 S. Ct. 1164 (2019) (mem.).

[4] 33 U.S.C. § 1362(12) (2018).

[5] § 1362(14).

[6] § 1362(12).

Court and the EPA have both struggled to define.[7] However, the term often encompasses interstate rivers, lakes, and oceans, and—as it pertains to the instant circuit split—all parties agree that pollution *eventually* reaches navigable waters.[8]

B. The Purpose, Permitting, and Enforcement of the CWA.

Congress explicitly stated that the purpose of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."[9] To fulfill its purpose, the CWA prohibits "*any* addition of *any* pollutant to navigable waters *from* any point source."[10] Because of its strict prohibition of pollution, the CWA is considered a "zero-tolerance statute."[11] However, the CWA also recognizes that pollution is sometimes necessary.[12] If a party's polluting activities violate the CWA, then the party may apply for a National Pollutant Discharge Elimination System ("NPDES") permit.[13] NPDES permits authorize a party to pollute navigable waters subject to specific requirements.[14]
Failing to obtain a necessary NPDES permit may result in CWA liability.[15] When a party violates the CWA, the EPA or a private citizen may pursue a CWA claim against an alleged polluter.[16] If the EPA or a citizen brings a successful CWA claim, the district court may issue a civil penalty "not to exceed $25,000 per day for each

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[7] Rapanos v. United States, 547 U.S. 715 (2006) (failing to reach a majority opinion); U.S. Envtl. Prot. Agency, *Definition of "Waters of the United States": Rule Status and Litigation Update*, https://www.epa.gov/wotus-rule/definition-waters-united-states-rule-status-and-litigation-update (last visited Apr. 8, 2019) (noting that the agency's proposed definition of "Waters of the United States" has failed to be implemented due to litigation at the district court level.).
[8] *See Ky. Waterways All.*, 905 F.3d at 635; *Upstate Forever*, 887 F.3d at 638; *Haw. Wildlife Fund*, 886 F.3d at 744. Furthermore, all circuit courts reached their conclusions under the premise that groundwater does not constitute "navigable waters" under the CWA. *Id.*
[9] 33 U.S.C. § 1251 (2018).
[10] § 1362 (emphasis added); *see also,* Hannah Duus, *Waters of the United States: How the governmental Branches Struggled to Settle the Jurisdiction of the Clean Water Act*, 30 Geo. Envtl. L. Rev. 379, 384 (2018).
[11] United States v. TGR Corp., 171 F.3d 762, 763–64 (2nd Cir. 1999); Kenneth M. Murchison, *Learning from More than Five-and-a-Half Decades of Federal Water Pollution Control Legislation: Twenty Lessons for the Future*, 32 B.C. Envtl. Aff. L. Rev. 527, 554–58 (2005).
[12] U.S. Envtl. Prot. Agency, *National Pollutant Discharge Elimination System (NPDES): NPDES Permit Basics*, https://www.epa.gov/npdes/npdes-permit-basics (last visited Apr. 8, 2019).
[13] *Id.*
[14] George S. Weber, Jennifer L. Harder & Bennett L. Bearden, Cases and Material on Water Law 545 (West Academic Publishing, 9th ed. 2014); see also, U.S. Envtl. Prot. Agency, Laws & Regulation: History of the Clean Water Act, https://www.epa.gov/laws-regulations/history-clean-water-act (last visited Mar. 20, 2019) (claiming that NPDES permit requirements are mainly calculated on economic and technological feasibility).
[15] Weber, Harder & Bearden, supra note 14,at 554–58.
[16] 33 U.S.C § 1365 (2018).

violation."[17] To help determine the specific amount of a civil penalty, Congress listed several factors the court must consider: (1) seriousness of the violation, (2) economic benefit from the violation, (3) history of violation, (4) good-faith effort to comply, (5) economic impact of the penalty on the violator, and (6) other matters as justice may require.[18] Considering these six factors, district courts issue both relatively large and small penalties—the difference often depends on the defendant's efforts and actions.[19]

III. The Ninth and Fourth Circuits Properly Concluded that the CWA Extends Liability Under the Hydrological Connection Theory.

A. The Ninth Circuit upheld the hydrological connection theory based on the stated purpose of the CWA and surrounding jurisprudence defining point source and non-point source discharges.

In *Hawai'i Wildlife Fund v. County of Maui*, several conservation groups argued that Maui County, Hawai'i (the County) violated the CWA.[20] A 2013 tracer dye study revealed a troubling amount of the County's unpermitted effluent reached the Pacific Ocean after being pumped into surrounding groundwater by the County's Lahaina Wastewater Reclamation Facility (LWRF).[21] Eighty-four days after researchers placed the tracer dye into the wells, the dye emerged a half-mile from LWRF at North Kaanapali Beach.[22] The percentage of effluent reaching the Pacific Ocean was frightening.[23] The study suggested that one in seven gallons of groundwater that entered the ocean near LWRF *was the County's effluent*.[24] Moreover, approximately 64% of the treated wastewater at LWRF eventually reached the Pacific Ocean.[25]

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[17] *Id.* In addition to civil liability, the EPA is allowed to pursue a criminal conviction against an alleged polluter. See, e.g., 33 U.S.C. § 1319(c)(1–2) (2018).
[18] *Id.*
[19] Tull v. United States, 481 U.S. 412, 425 (1987) (determining that district court judges are given a high degree of discretion when determining civil penalties under § 1319); see also Arkansas Wildlife Fed'n v. ICI Americas Inc., 842 F.Supp. 1140 (E.D. Ark. 1993), aff'd, 29 F.3d 376 (8th Cir. 1994) (upholding a "relatively small penalty" because the defendant made a good-faith effort to comply with EPA demands).
[20] Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 741-42 (9th Cir. 2018).
[21] *Id.*
[22] *Id.* at 743.
[23] *Id.*
[24] *Id*. The EPA, U.S. Army Engineer Research and Development Center, Hawaii Department of Health, and researchers from the University of Hawaii conducted the tracer dye study. Id.
[25] *Id.* at 742–43.

The fact that the surrounding groundwater was connected to the Pacific Ocean was no surprise.[26] Dating back to 1985, LWRF pumped up to four million gallons of sewage per day into surrounding groundwater—and the County knew for years that the effluent reached the Pacific Ocean in large quantities.[27] The County's own expert even concluded that "when the wells inject 2.8 million gallons of effluent per day, the flow of effluent into the ocean is about 3,456 gallons per meter of coastline—roughly the equivalent of installing a permanently-running garden hose at every meter along the 800 meters of coastline."[28]

The evidence of pollution was strong. In large part, the parties agreed over most issues.[29] At the trial level all parties conceded the following: (1) the injection wells qualified as a point source; (2) the Pacific Ocean qualified as navigable waters; and (3) the County's effluent reached the Pacific Ocean. Accordingly, the environmental groups moved for summary judgment, and the district court granted the motion.[30] The County appealed to the Ninth Circuit.[31]

The Ninth Circuit's decision focused on § 1365 of the CWA, which prohibits "any addition of any pollutant to navigable waters *from any point source*."[32] The cornerstone of the County's argument was that the CWA demanded a high level of directness between a point source and navigable waters. In other words, the County proposed a highly technical interpretation of "*from a point source*."[33] According to the County, the effluent did not reach the Pacific Ocean *from a point source*; instead, the effluent reached the Pacific Ocean *from groundwater*.[34] The Ninth Circuit rejected the County's argument and upheld the district court's decision under the hydrological connection theory.[35]

To interpret § 1365, the Ninth Circuit relied, in part, on the explicitly declared purpose of the CWA: "[R]estore and maintain . . . the Nation's waters."[36] In short, because the County injected pollution from a point source—and the

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[26] *Id.*
[27] *Id.* at 742. Decades earlier the County temporarily considered pumping the sewage directly into the ocean. *Id.*
[28] *Id.*
[29] *Id.*
[30] *Id.* at 743. The district court also concluded that groundwater qualified as a "point source." As explained below, the Ninth Circuit agreed with the district court's conclusion—but declined to decide groundwater qualified as a point source.
[31] *Id.*
[32] 33 U.S.C. § 1362 (2018) (emphasis added).
[33] *Haw. Wildlife Fund*, 886 F.3d at 744 .
[34] *Id.*
[35] Id. The Ninth Circuit did not explicitly refer to the "hydrological connection theory"; instead, the court referred to extending CWA liability to "hydrologically connected groundwater" and "indirect discharges." However, the court's logic and reasoning encompasses the idea of extending the CWA to pollution that travels from a point source—through groundwater—and into navigable waters. Id.
[36] *Id.*; 33 U.S.C. § 1251 (2018).

pollution affected the Nation's waters—the CWA authorized federal regulation over the County's activities.[37] Importantly, however, the Ninth Circuit's decision rested on more than the broadly stated purpose of the CWA.[38]

In further support of its conclusions, the Ninth Circuit analyzed previous distinctions between "non-point source pollution" and "point source pollution." Non-point source pollution "arises from many dispersed activities over large areas, and is not traceable to any single discrete source, and due to its diffuse nature, is very difficult to regulate through individual permits."[39] As an example, the Ninth Circuit recalled its previous decisions explaining why some polluting activities failed to qualify as point source pollution—even though the pollution ultimately reached navigable waters.[40] In *Ecological Rights Found.,* the court held that automobiles and utility poles did not fall within the scope of the CWA because they "did nothing themselves to discretely collect and convey pollutants to a navigable water."[41] As opposed to automobiles and utility poles, the County's injection wells both *collected* and *conveyed* pollution—therefore, the County's activities could not qualify as non-point source pollution.[42] Instead, two points of case law highlighted why the County's injection wells constituted point source pollution.[43]

First, denying liability would contradict other circuit court decisions.[44] Particularly, the Ninth Circuit looked at Second Circuit case law.[45] In *Concerned Area Residents for Environment v. Southview Farm*, the Second Circuit concluded that the discharge of liquid manure from tankers onto farm fields—and thereafter into navigable waters—qualified as point source pollution subject to CWA liability.[46] The fact that the liquid manure traveled through a field before reaching navigable waters did not void a CWA claim.[47] Similarly, in *Peconic Baykeeper Inc. v. Suffolk County*, the discharge of pesticides from trucks and helicopters first into the air and then into navigable waters was still subject to CWA liability.[48] Again, the fact that the pollution traveled through the air did not allow the defendants to

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[37] *Haw. Wildlife Fund*, 886 F.3d at 744.
[38] *Id.* at 745–51; Ecological Rights Found. v. Pac. Gas & Elec. Co*.,* 713 F.3d 502, 508 (9th Cir. 2013).
[39] *Haw. Wildlife Fund*, 886 F.3d at 744–45 (quoting *Ecological Rights Found.,* 713 F.3d at 508).
[40] *Id.*
[41] *Id.* at 745.
[42] *Id.*
[43] *Id.* at 745–49.
[44] *Id.* at 745–47.
[45] *Id.* 747–48.
[46] *Id.* at 747. *See also* Concerned Area Residents for Env't v. Southview Farm, 34 F.3d 114, 119 (2nd Cir. 1994).
[47] *Concerned Area Residents*, 34 F.3d at 119.
[48] *Haw. Wildlife Fund*, 886 F.3d at 747-48; *see also* Peconic Baykeeper, Inc. v. Suffolk Cty., 600 F.3d 180, 188 (2nd Cir. 2010).

side-step the CWA.[49] Both *Peconic Baykeeper* and *Southview Farm* stood in contradiction to the County's argument. According to the County's logic, the liquid manure in *Southview Farm* came *from* the farm field; and similarly, in *Peconic Baykeeper*, the pesticides came *from* the air. As such, the Ninth Circuit was required to either reject the County's argument or reject Second Circuit case law. The Ninth Circuit followed its sister circuit.[50]

Second, the Ninth Circuit determined that the Supreme Court's *Rapanos* plurality opinion contradicted the County's argument.[51] Although the factual background of *Rapanos* provided little help, the Ninth Circuit found Justice Scalia's dicta especially insightful.[52] In *Rapanos*, Justice Scalia stated that the "CWA does not forbid the 'addition of any pollutant *directly* to navigable waters from any point source, but rather the addition of any pollutant to navigable waters."[53] Accordingly, the Ninth Circuit concluded, "Justice Scalia's plurality opinion demonstrates the county is reading into the statute at least one critical term that does not appear on its face—that pollutants must be discharged 'directly' to navigable water from a point source."[54]

Considering both the broadly stated purpose of the CWA and surrounding jurisprudence, the Ninth Circuit held that the CWA encompassed the hydrological connection theory.[55] However, the Ninth Circuit did not merely uphold the district court's decision.[56] Instead, the Ninth Circuit further narrowed its holding by introducing a new three-prong test. The court concluded that the County was "liable under the CWA because (1) the county discharged pollutant from a point source; (2) *the pollutants were fairly traceable* from the point source to a navigable water such that the discharge was *functionally equivalent* of a discharge into the navigable waters; and (3) the pollutant levels reaching navigable water was more than *de minimis*."[57]

Unfortunately, the Ninth Circuit's test insufficiently interprets the CWA and leaves district courts in confusion. The Ninth Circuit's "*de minimis*" requirement fundamentally alters the basic structure of the CWA to fit its hydrological connection theory. The CWA is a zero-tolerance statute that forbids

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[49] *Peconic Baykeeper*, 600 F.3d at 188.
[50] *Haw. Wildlife Fund*, 886 F.3d at 747-48.
[51] *Id.* at 748.
[52] *Id.* at 747.
[53] *Id.* at 748 (citing Rapanos v. United States, 547 U.S. 715, 743 (2006) (plurality)).
[54] *Id.* at 749.
[55] *Id.* The Ninth Circuit did not explicitly refer to the hydrological connection theory in its conclusions, but the Ninth Circuit's holding certainly encompasses the underlying logic of the theory.
[56] *Id.*
[57] *Id.* (emphasis added).

the addition of "any pollutant" without a permit.[58] The *de minimis* requirement—which is a *quantity* requirement—directly contradicts the plain language of the CWA and has no statutory or case law support.[59]

Similarly, the Ninth Circuit's requirement that pollution must be "fairly traceable" is bound to leave lower courts in confusion. Although the pollutants in *Maui County* were "fairly traceable,"it is axiomatic that not all cases will be as clear-cut. The term "fairly" is a poor word choice. "Fairly" is an ambiguous term and the Ninth Circuit gave no insight into its meaning. Open two different dictionaries, and one will find two different definitions of "fairly." "Fairly" can be defined as "*more than a little; to some degree*," or"*to a full degree or extent*."[60] The lower courts are left to determine if the County was liable because the pollution was traceable to "some degree" or liable because the pollution was traceable to a "full degree."

Further, the Ninth Circuit also added that the discharges must be "functionally equivalent" to discharges into navigable waters. But "functionally equivalent" still leaves lower courts in confusion. For example, in *Hawai'i Wildlife Fund*, the *character* of the connection was quite strong—all parties agreed that some pollution undeniably reached the Pacific Ocean. At the same time, both parties agreed that a large *percentage* of the point source pollution ultimately reached the Ocean. Both the *character* and *percentage* could be used to support "fairly traceable," but the Ninth Circuit again failed to give any guidance to lower courts. This is an important void because, even though the *character* and *percentage* of discharge in *Hawai'i Wildlife Fund* were both relatively strong, not all cases will be the same. Accordingly, lower courts are left wondering whether "functionally equivalent" is a *character* requirement, *percentage* requirement, *both*, or something else entirely. In sum, despite reaching the right conclusion, the Ninth Circuit's test leaves too many unanswered and unnecessary questions for lower courts.

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[58] 33 U.S.C. § 1362(12) (2018).

[59] The CWA is well known as a "zero-tolerance" statute. *See, e.g.,* Atl. States Legal Found., Inc. v. Tyson Foods, Inc*.,* 897 F.2d 1128, 1141-42 (11th Cir. 1990) (holding that regardless of a defendant's excuses the CWA mandates as "a matter of law" that penalties must be assessed); Stoddard v. W. Carlina Reg'l Sewer Auth., 784 F.2d 1200, 1208 (4th Cir. 1986) (holding that "[l]iability under the [CWA] is a form of strict liability").

[60] *Compare* Cambridge Dictionary Unabridged, *Fairly,* https://dictionary.cambridge.org/us/dictionary/english/fairly (last visited Mar. 23, 2019) ("more than a little; to some degree") *with* Webster New International Dictionary Unabridged, *Fairly*, https://www.merriam-webster.com/dictionary/fairly (last visited Mar. 23, 2019) ("to a full degree or extent").

B. The Fourth Circuit upheld the hydrological connection theory because the plain language of the CWA suggests point sources are the starting point of discharges.

In *Upstate Forever v. Kinder Morgan Energy Partners, L.P.,* a pipeline rupture in South Carolina prompted conservation groups to pursue a CWA claim against Kinder Morgan Energy Partners, L.P. (Kinder Morgan).[61] The rupture occurred six-feet underground and leaked several hundred-thousand gallons of gasoline into surrounding groundwater.[62] Consequently, within weeks, the gasoline traveled through the groundwater and reached nearby navigable waters in the Savannah Watershed.[63]

Following the rupture, the South Carolina Department of Health and Environmental Control (DHEC) instructed Kinder Morgan to follow a remediation and recovery plan.[64] However, according to the conservation groups, Kinder Morgan failed to follow DHEC's instructions. Among those failures: (1) Kinder Morgan failed to test for pollution in March 2016 as mandated by DHEC; (2) Kinder Morgan submitted their remediation plan and site assessment *six-months late*; (3) Kinder Morgan failed to comply with DHEC's water sampling requests; and (4) of the alleged 3690,000 gallons of gasoline spilled, only 209,000 gallons were recovered, leaving around 160,000 gallons of gasoline unrecovered.[65] Accordingly, the conservation groups took it upon themselves to hold Kinder Morgan liable under the CWA.[66] Because the gasoline traveled through groundwater before reaching navigable waters the conservation groups claim relied on the hydrological connection theory.

Like the County in *Hawai'i Wildlife Fund,* Kinder Morgan did not dispute that the gasoline eventually reached nearby navigable waters.[67] Instead, Kinder Morgan argued that the CWA required pollution to flow immediately from a point source directly into navigable waters, and as such, the CWA did not authorize the conservation group's claim.[68] Kinder Morgan moved the South Carolina District Court to dismiss, and the district court granted the motion.[69] The conservation

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[61] 887 F.3d 637, 638 (4th Cir. 2018), *vacated and remanded sub nom.* Kinder Morgan Energy Partners, L.P. v. Upstate Forever, No. 18-268, 2020 WL 2105201 (U.S. May 4, 2020).
[62] *Id.*
[63] *Id.*
[64] *Id.* at 644.
[65] *Id.*
[66] *Id.* at 644.
[67] *Id.* at 652.
[68] *Id.*
[69] *Id.* at 638.

groups appealed.[70] The Fourth Circuit reversed and remanded after finding the hydrological connection theory applied to CWA claims.[71]

The Fourth Circuit reached its conclusion under similar—but different—reasoning as the Ninth Circuit in *Hawai'i Wildlife Fund*.[72] Similar to the Ninth Circuit, the Fourth Circuit considered surrounding circuit court precedent, analyzed Justice Scalia's dicta in *Rapanos*, and considered the broadly stated purpose of the CWA.[73] However, different from the Ninth Circuit, the Fourth Circuit engaged in an insightful linguistic analysis of the word "*from*."[74] The Fourth Circuit explained, "[t]he word 'from' indicates 'a starting point . . . a point or place where an actual physical movement . . . *has its beginning*.'"[75] Accordingly, the word "from" suggests point sources are "starting points" or "causes of a discharge."[76] Therefore, even though the pollution traveled through groundwater, § 1365 of the CWA authorized the conservation group's claim. Kinder Morgan's pipeline (a classic point source) was the "starting point" and "cause of the discharge."[77]

Unfortunately, despite reaching the right conclusion, the Fourth Circuit fumbled its holding by creating a cumbersome multi-element test that again contradicts the CWA.[78] The Fourth Circuit explicitly stated that not all discharges that travel through groundwater would extend CWA liability; instead, the court determined that deciding whether a "direct hydrological connection" exists requires a fact-intensive inquiry.[79] To help guide district courts with future factual inquiries, the Fourth Circuit highlighted six elements that showed why Kinder Morgan's pollution passed the court's test.[80] First, the *distance* from the pipeline to the navigable waters was "extremely short."[81] Second, there was *no alleged independent or contributing source* of pollutants to the navigable waters.[82] Third,

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[70] *Id.*
[71] *Id.* at 638. The Fourth Circuit also had to decide if the pipeline rupture—which had been repaired—still constituted an "ongoing violation" as required under 33 U.S.C § 1365. *Id.* The court found in favor of the plaintiff-conservation groups. *Id.*
[72] *Id.* at 649-52.
[73] *Id.* at 650.
[74] *Id.*
[75] *Id.* (emphasis in original) (quoting Webster's Third New International Dictionary 913 (Phillip Babcock Gove et al. eds., 2002). *See also* The American Heritage Dictionary of the English Language 729 (3d ed. 1992).
[76] *Upstate Forever*, 887 F.3d at 650.
[77] *Id.*
[78] *Id.* at 651–52.
[79] *Id.*
[80] *Id.* at 651–53.
[81] *Id.* at 652 (citing Sierra Club v. El Paso Gold Mines, 421 F.3d 1133, 1150 (10th Cir. 2005) (holding that pollution that traveled up to 2.5 miles may still fall under the purview of the CWA)).
[82] *Id.*

the pollutants were not *"diluted"* or *"diverted from their natural course."*[83] Fourth, the pollutants were *traced back* to the pipeline in *measurable quantities*.[84] Fifth, the ruptured pipeline's *pollutants were already detected*.[85] Sixth, allowing Kinder Morgan to avoid NPDES permitting would "*greatly undermine the purpose of the act*" which is "to restore . . . the chemical, physical, and biological integrity of the Nation's waters" under a "zero tolerance" standard.[86]

The Fourth Circuit's multi-element test will lead to inconsistent outcomes at the district court level. Like the Ninth Circuit, the Fourth Circuit failed to give guidance for future application of its test. For example, under the Fourth Circuit's test, district courts are required to consider "distance," yet, the Fourth Circuit provides no guidelines other than Kinder Morgan's pollution traveled an "extremely short" distance. District Courts are left to wonder what constitutes "extremely short" or if "extremely short" will always be required. Further, the court's own test contradicts itself and the CWA—the court suggests that "diluted" pollutants may void a CWA claim under the theory, but the court also claims that the CWA is a "zero tolerance" statute. "Dilution" and "zero tolerance" are two elements in direct contradiction with each other. While the court is correct in concluding that the CWA is a "zero tolerance" statute, the dilution requirement lacks any support in case law.[87] Similar to the Ninth Circuit, the Fourth Circuit reached the proper conclusion but missed the mark when creating its multi-element test.

IV. The Sixth Circuit Improperly Rejected the Hydrological Connection Theory Based on a Misinterpretation of the Statute's Language and a Misunderstanding of How the CWA Interacts with Other Environmental Regulation.

In *Kentucky Waterways Alliance v. Kentucky Utilities Company*, conservation groups sought CWA liability against Kentucky Utilities Company (KU) after discovering KU's coal plant leaked chemicals into nearby Herrington Lake.[88] Like most coal-burning power plants, KU's E.W. Brown Generating Station (E.W. Brown) produced large amounts of "bottom ash."[89] KU removed the bottom ash to create room for new coal and relocated the bottom ash to two different

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[83] *Id.* (emphasis added).
[84] *Id.* (citing *Haw. Wildlife Fund v. Cty. of Maui*, 886 F.3d 737, 749 (9th Cir. 2018)).
[85] *Id.*
[86] *Id.* at 652 (emphasis added) (citing 33 U.S.C. § 1251(a) (2018); 33 U.S.C. § 1311(a) (2018)).
[87] *Supra* note 59.
[88] Ky. Waterways All. v. Ky. Util. Co., 905 F.3d 925, 927–28 (6th Cir. 2018).
[89] Bottom ash is burnt coal that remains at the base of the smokestacks. U.S. Envtl. Prot. Agency, *Coal Ash Basics: What is Coal Ash?*, https://www.epa.gov/coalash/coal-ash-basics (last visited Mar. 4, 2019).

manmade bodies of water: "Main Ash Pond" and "Auxiliary Ash Pond."[90] Ideally, the bottom ash is supposed to settle and remain at the bottom of the pond floors.[91] It is important that bottom ash be appropriately stored because coal ash contains several dangerous pollutants, such as arsenic, lead, calcium, boron, and *selenium*.[92] However, KU's Main Ash Pond was located at a higher elevation than Herrington Lake and maintained a hydrological connection through surrounding groundwater.[93] Consequently, Main Ash Pond's water seeped into the surrounding groundwater and traveled down-hill and into the lake.[94] Overall selenium levels in Herrington Lake increased.[95] Selenium, in more than small amounts, poses a severe risk to aquatic wildlife survival.[96]

Both KU and the Kentucky Department of Environmental Protection (KDEP) knew Main Ash Pond leaked into surrounding groundwater.[97] Nonetheless, in February 2015, KDEP issued KU the necessary permit to turn the Main Ash Pond into a landfill.[98] After the permits were issued, several conservation groups gave notice that they intended to file a claim against KU under the CWA.[99] After reviewing the conservation groups' information, KDEP walked back its authorization and decided that KU violated water pollution limits.[100] In response, KU and Kentucky's Energy and Environment Cabinet entered into an "Agreed Order," and KU submitted a "Corrective Action Plan" to monitor groundwater in the future.[101] The conservation groups remained unsatisfied and filed a CWA claim in the Eastern District of Kentucky.[102]

The conservation groups relied upon the hydrological connection theory to support their CWA claim.[103] The district court rejected the conservation groups'

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[90] *Ky. Waterways*, 905 F.3d at 927-28.
[91] *See id.* at 931.
[92] *Id.*
[93] *Id.*
[94] *Id.*
[95] *Id* at 931.
[96] *Id.*
[97] *Id.* at 931–32.
[98] *Id.* at 932.
[99] *Id.* The Conservation groups also brought a claim under the RCRA which was ultimately upheld by the Sixth Circuit. *Id.* at 927–28.
[100] *Id.* at 931.
[101] *Id.*
[102] *Id.* In addition to the CWA claim, the conservation groups also filed an RCRA claim. *Id.*at 927–28.
[103] *Id.* at 932. The conservation groups first argued that groundwater itself is a "point source." The Sixth Circuit quickly disposed of this argument. *Id.* Additionally, the conservation groups claimed that a coal ash pond constituted a 'point source'—this has been rejected by both the Sixth Circuit and Fourth Circuit. *See, e.g.,* Sierra Club v. Virginia Electric & Power Company, 903 F.3d 403 (4th Cir. 2018).

claim.[104] The Sixth Circuit upheld the district court's decision and explicitly rejected *Hawai'i Wildlife Fund* and *Upstate Forever* along with the hydrological connection theory.[105]

The Sixth Circuit identified some significant flaws in the Ninth and Fourth Circuit analyses.[106] First, the Sixth Circuit explicitly rejected the Ninth and Fourth Circuit's reliance on *Rapanos*.[107] The court correctly noted that *Rapanos* was not binding because "it [was] a four-justice plurality opinion answering an entirely different legal question."[108] According to the Sixth Circuit, when Justice Scalia pointed out the absence of the term "directly" in § 1362(12)(A), he was only highlighting that discharges from one point source *to another point source* fall within the scope of the CWA. As such, the *Rapanos* opinion "says nothing of point-source to-nonpoint-source dumping like that at issue here."[109]

Additionally, the Sixth Circuit disagreed with the Ninth and Fourth Circuits' reliance on the broadly stated purpose of the CWA to "restore and maintain . . . the Nation's waters."[110] Just as important as protecting the Nation's waters, the CWA intended to recognize the rights of States to manage their own resources.[111] 33 U.S.C. § 1251(b) states, "It is the policy of the Congress to recognize, preserve, and protect *the primary responsibilities and rights of States* to [ ] eliminate pollution, to plan the development and use . . . land and water resources."[112] However, despite the purported federalist undertones in the CWA, the Sixth Circuit refrained from relying on § 1251(b) because relying on stated policy goals is a "last resort of extravagant interpretation."[113]

Despite pointing out some serious flaws in the Ninth and Fourth Circuits' reasoning, the Sixth Circuit based its own conclusion on only two arguments: (1) the statute's plain language suggests a directness requirement, and (2) the hydrological connection theory would render other environmental statutes inoperable.[114] As this Paper and the dissenting opinion highlight, the Sixth Circuit's arguments are unpersuasive and misguided.

First, the Sixth Circuit concluded that the plain language of the CWA suggests a directness requirement.[115] Like the Fourth Circuit, the Sixth Circuit

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[104] *Ky. Waterways All.*, 905 F.3d at 927-28.
[105] *Id.* at 932–38.
[106] *Id.*
[107] *Id.* at 935.
[108] *Id.*
[109] *Id.* at 935.
[110] *Id.* at 938.
[111] *Id.* at 937.
[112] 33 § 1251(b) (2018) (emphasis added); *see also Ky. Waterways,* 905 F.3d at 936–37.
[113] *Ky. Waterways*, 905 F.3d at 937 (quoting Rapanos v. United States, 547 U.S. 715, 752 (2006)).
[114] *See id.* at 932–38.
[115] *Id.* at 934.

engaged in a linguistic analysis.[116] However, unlike the Fourth Circuit, instead of analyzing the term "from"the court first focused on the term "into," which appears in the definition of "effluent limitations" in § 1362(11).[117] According to § 1362(11), "effluent limitation" is defined as "any restriction established by a State or the Administrator on . . . discharged [pollutants] *from a point source into navigable waters*."[118] Turning to dictionary definitions, the Sixth Circuit concluded that "into" indicates "directness" and "thus, for a point source to discharge *into* navigable waters, it must dump *directly* into those navigable waters—the phrase 'into' *leaves no room for intermediary mediums to carry the pollutants*."[119]

After concluding "into" limited CWA liability to direct discharges, the Sixth Circuit made a confusing jump to the relevant section of the CWA—§ 1362(12)(A)—which defines "discharge of a pollutant" as "any addition of any pollutant *to navigable waters from any point source*."[120] Noticeably, § 1362(12)(A) is completely void of the term "into."[121] However, when restating § 1362(12)(A) the Sixth Circuit italicized both "*to*" and "*from*" in an attempt to emphasize that the statute required direct discharges. Accordingly, the court rejected the hydrological connection theory because in such cases pollutants are "not coming *from* a point source; they are coming from groundwater."[122] The Sixth Circuit's linguistic analysis is difficult to follow but is nonetheless the primary basis of the court's holding.

However, even assuming the court's linguistic analysis is logically coherent, the court's analysis fails from the very start. As the dissent points out, the majority erroneously pulls the term "into" from § 1362(11), which is irrelevant to the conservation groups' claim.[123] Importantly, the conservation groups' claim arose under § 1365—the citizen-suit provision of the CWA.[124] If the Sixth Circuit had started its analysis in the citizen suit provision of the CWA--the provision in which the claim was brought under--then the Sixth Circuit would never have come across the term "into." This is because § 1365 uses the phrase "*effluent standard or limitation*" and, contrarily, §1362(11) uses the phrase "effluent limitation."[125] While this might seem like a small difference, "effluent standard or limitation" is a term of art with a specific definition:

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[116] *Id.*
[117] *Id.*; 33 U.S.C. § 1362(11) (2018).
[118] § 1362(11) (emphasis added).
[119] *Ky. Waterways*, 905 F.3d at 934 (emphasis added) (citing Webster Third New International Dictionary, Unabridged. 2018. Web.21 Aug. 2018).
[120] *Id.* (quoting 33 U.S.C. § 1362(12)(A)) (emphasis added by court).
[121] *See* 33 U.S.C. § 1362(12)(A) (2018).
[122] *Ky. Waterways*, 905 F.3d at 934 (emphasis added).
[123] *Id.* at 943 (Clay, J., concurring in part and dissenting in part).
[124] *See id.* at 928.
[125] *Id.* at 940 (emphasis added).

> For purposes of this section, the term "*effluent standard or limitation under this chapter*" means (1) effective July 1, 1973, an unlawful act under subsection (a) of section 1311 of this title; (2) an effluent limitation or other limitation under section 1311 or 1312 of this title; (3) standard of performance under section 1316 of this title; (4) prohibition, effluent standard or pre-treatment standards under section 1317 of this title; (5) a standard of performance or requirement under section 1322(p) of this title; (6) a certification under section 1341 of this title; (7) a permit or condition of a permit issued under section 1342 of this title that is in effect under this chapter (including a requirement applicable by reason of section 1323 of this title); or (8) a regulation under section 1345(d) of this title.[126]

Quite clearly, "effluent standard or limitation" under § 1365 is significantly different from the definition of "effluent limitation" under § 1362(11) and the term "into" never appears in § 1365.[127]

By starting in §1365, as shown by 1365(f)(1) above, the next pertinent provision is "subsection (a) of section 1311" which declares, "*the discharge of any pollutant by any person shall be unlawful."*[128] This, in turn, finally leads to the relevant provision—§ 1362(12)—which defines the term "discharge of a pollutant" as "any addition of any pollutant *to* navigable waters *from* any point source."[129] Therefore, by starting the legal analysis in § 1365, the term "into" never appears in any relevant CWA provisions and, as such, the Sixth Circuit's linguistic analysis of the term "into" is altogether misplaced.

Even assuming the term "into" is somehow relevant to the Sixth Circuit's determination, the court's confusing jump from the term "*into*" to "*from*" is unpersuasive *even if it is logical*. The most insight the Sixth Circuit gives is emphasizing "from" by placing it in italics.[130] In comparison, the Fourth Circuit provided a detailed analysis showing why "from" indicates a point of origin. The Fourth Circuit's opinion was available at the time of the *Kentucky Waterways* decision—but the Sixth Circuit altogether ignores the Fourth Circuit's inconvenient analysis.

Common use of the term "*from*" is in direct contradiction with the Sixth Circuit's conclusion. True, the Sixth Circuits statement is grammatically correct—the pollution is "coming *from* groundwater." But, that does not abolish the fact that

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[126] 33 U.S.C. § 1365(f) (2018) (emphasis added).
[127] *Compare* 33 U.S.C. § 1365(f) *with* 33 U.S.C. § 1362(11) (2018).
[128] 33 U.S.C. § 1311(a) (2018) (emphasis added).
[129] 33 U.S.C. § 1362(12) (emphasis added).
[130] *Ky. Waterways*, 905 F.3d at 932.

the pollution is also coming *from* a point source. This is shown with a simple hypothetical:

> Sally gets in a car in Oklahoma City, Oklahoma and heads to Omaha, Nebraska. When Sally stops at a Nebraska gas station, the store clerk notices Sally's Oklahoma license plate and asks, "Are you coming *from* Oklahoma?" According to the Sixth Circuit, Sally should respond, "Nope. I'm coming *from* Kansas." However, it is not only incorrect for Sally to deny she is coming *from* Oklahoma—it is disingenuous for her to claim she is coming solely *from* Kansas.

Contrary to the hypothetical above, by the time of Oral Arguments in *Hawaii Wildlife Fund* at the United States Supreme Court, the appellants developed their own hypothetical that is more favorable to rejecting CWA liability. In part, the appellants' hypothetical went as follows:

> Before leaving for a party, a person pours some whiskey into their flask. Thereafter, upon arriving at the party, the person pours their whiskey flask into a bowl of punch. In such a situation, appellants argued that most people would say the whiskey came from the flask—not the original whiskey bottle.

This Paper concedes that the appellants' hypothetical in *Hawaii Wildlife Fund* is far more fun than the hypothetical offered by this Paper; however, despite their creativity, there are two major issues with the appellants' analogy. First, as a general overview, Congress's explicit intent when drafting the CWA was to simply keep the whiskey out of the punch bowl. Second, in the appellants' argument, the flask itself acts as a point source and the whiskey represents pollution. As such, the United States Supreme Court already held that the CWA would prohibit the discharge as explained by Justice Scalia in *Rapanos*, which prohibited point-source to point-source discharges.

By "losing the forest in the trees" the Sixth Circuit's interpretation, and the appellants hypothetical in *Hawaii Wildlife Fund*, pushes for an outcome that potentially destroys the CWA altogether. As the dissenting opinion in *Kentucky Waterways* ponders, "Can a polluter escape liability under the [CWA] by moving its drainage pipes a few feet from the riverbank?"[131] The answer should be "no," but the Sixth Circuit's conclusion opens the door to activity that directly contradicts the spirit and goals of the CWA.

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[131] *Id.* at 940 (Clay, J., concurring in part and dissenting in part).

The second and final point the Sixth Circuit used to justify its conclusion is that the hydrological connection theory must be rejected because it would render other environmental regulation "virtually useless."[132] Specifically, the Sixth Circuit turned to the Coal Combustion Residual Rule (CCR Rule), which the EPA promulgated under the RCRA.[133] In short, the CCR Rule authorized KU's storage of bottom ash in the Main Ash Pond.[134] According to the Sixth Circuit, most coal ash ponds are near bodies of water and probably maintain a hydrological connection.[135] Therefore, the hydrological connection theory would render the CCR Rule "null and void" because in many cases, even if power utility companies complied with the CCR Rule, they would still be subjected to CWA liability.[136] Because the EPA authorized the CCR Rule under the RCRA—and because the RCRA and the CWA are supposed to work in coordination with each other—this was further proof that the CWA was never intended to extend liability under a hydrological connection theory.[137]

However, as the dissenting opinion again identifies, the Sixth Circuit's concern is misinformed.[138] The EPA already addressed the Sixth Circuit's CCR Rule example.[139] Quite simply, the CCR Rule applies to the *storage* of waste, and the CWA applies to the *discharge* of waste.[140] It is axiomatic that complying with one rule is not supposed to guarantee compliance with *all other rules*.[141] Just because the CCR Rule *authorizes* bottom ash storage does not mean the CCR Rule *guarantees* that every coal-burning power plant has a right to store bottom ash in whatever manner allowed under the CCR Rule. The two regulations are intended to coexist and are perfectly capable of coexisting under the hydrological connection theory.

V. The CWA Supports the Hydrological Connection Theory and the Proper Test Should Apply Standard CWA Requirements.

In agreement with the Ninth and Fourth Circuits, this Paper concludes that the CWA extends liability under the hydrological connection theory. As the Ninth and Fourth Circuits identified, the plain language, purpose, and surrounding case law suggests that the CWA is intended to regulate pollution that originates *from* a

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[132] *Id.* at 938.
[133] *Id.*
[134] *See id.*
[135] *Id.*
[136] *Id.*
[137] *Id.*
[138] *Id.* at 944 (Clay, J., concurring in part and dissenting in part)..
[139] *Id.*
[140] *Id.*
[141] *Id.*

point source, travels through groundwater, and reaches navigable waters. However, this Paper disagrees with both tests provided by the Ninth and Fourth Circuits. Both circuit courts improperly added special requirements before extending CWA liability. Instead of supporting one of the circuit court tests, this Paper offers its own test: the hydrological connection theory extends CWA liability to *the measured amount of pollution that is more likely than not traced back to a defendant's point source*. As opposed to the Ninth and Fourth Circuits, the suggested test (1) transcends the hydrological connection theory and (2) can be accurately and consistently applied at the district court level.

First, and most importantly, the suggested test transcends the hydrological connection theory because it applies to any CWA claim. For example, in a simple direct discharge scenario (i.e., a pipe dumping pollution into a stream), a plaintiff is always required to prove "by the preponderance of the evidence" that the alleged pollution originates from a defendant's point source.[142] Put differently, the CWA only holds defendants liable for the pollution in navigable waters that is *more likely than not* traced back to a defendant's point source.[143] Therefore, the suggested test requires district courts to follow regular CWA standards.

The most significant deficiency of the Ninth and Fourth Circuit holdings is that their tests turned the hydrological connection theory into a special exception. The Ninth Circuit's confusing "fairly traceable" requirement establishes a standard contrary to other CWA litigation.[144] Regardless of whether "fairly traceable" refers to "*more than a little*" or "*to a full degree*" the Ninth Circuit's test is inapplicable in a simple CWA violation.[145] Further confounding its own errors, the Ninth Circuit also added that the CWA only extended liability under the theory if discharges are more than *de minimis*. In other words, the Ninth Circuit added *quantity* requirement—but, it is well established that the CWA is a "zero tolerance" statute.[146] The quantity requirement is unique only to the Ninth Circuit's test.

Similarly, the Sixth Circuit's multi-element factual inquiry fails to transcend the hydrological connection theory.[147] The Sixth Circuit's addition of elements is only supported by the court's own *ipse dixit* conclusion. Without

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[142] *See, e.g.,* EPA v. City of Green Forest*,* 921 F.2d 1394, 1406 (8th Cir. 1990); Ohio Valley Envtl. Coal. v. Elk Run Coal Co., 24 F.Supp. 3d 532, 536 (S.D. W. Va. 2014); Stoeco Dev., Ltd. v. Dep't of Army Corps of Eng'rs of U.S. *,* 792 F.Supp. 339, 344 (D. N.J. 1992); Work v. Tyson Foods, Inc.*,* 720 F.Supp. 132, 137 (W.D. Ark. 1989).

[143] *See, e.g.,* Sierra Club v. BNSF Ry. Co., 2016 WL 6217108 (W.D. Wash. 2016) (finding that the even though the defendant's violated the CWA in some instances the plaintiffs were still required to prove by the preponderance of the evidence that every alleged violation occurred).

[144] *Supra* Part II(a).

[145] *See supra* Part III(a); *see also BNSF Railway,* 2016 WL 6217108 (holding that the burden of proof for connecting pollution to the point source was by the preponderance of the evidence).

[146] *Supra* note 59.

[147] *Supra* Part II(b).

explanation, the Sixth Circuit mandates that pollution only travel an "*extreme short distance*" and is not "*diluted*."[148] In standard CWA violations, the distance the pollution travels—and whether a defendant's pollution is diluted—is irrelevant to a district court's decision.[149] Accordingly, both the Ninth and Sixth Circuit tests should be rejected for unnecessarily turning the hydrological connection theory into a unique CWA exception.

Second, the suggested test is superior because it can be accurately and consistently applied at the district court level. District courts already apply the preponderance standard to other CWA claims, and the suggested test applies the same standard to the hydrological connection theory.[150] Contrarily, the Ninth and Fourth Circuits both proffer tests that will require cumbersome and complex analysis by district courts. As explained above, the Ninth Circuit fails to provide sufficient guidance on its requirement that "*the pollutants are fairly traceable . . .* such that the discharge is *the functional equivalent* of a discharge into the navigable water."[151] Additionally, the Fourth Circuit's multi-element factual inquiry will confuse district court decisions.[152]

Hawai'i Wildlife Fund, Upstate Forever, and *Kentucky Waterways* all provide an ideal set of facts to highlight the functionality of the suggested test. First, in *Hawai'i Wildlife Fund*, the district court granted summary judgment to the plaintiff-conservation groups.[153] The same conclusion would be reached under the suggested test. The tracer dye study conclusively connected pollution to the County's point source.[154] Even the County's own expert admitted that on an average day the County's effluent discharges resulted in about 3,456 gallons of pollution per-meter of coastline.[155] Therefore, under the suggested test, the plaintiff-conservation groups showed that a *measured amount* of pollution *more likely than not* originated from the County's point source. Similarly, in *Upstate Forever*, defendant Kinder Morgan did not dispute that the company's gasoline

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[148] Upstate Forever, 887 F.3d at 652.
[149] *See* 40 C.F.R. § 403.6(d) (2018); *see also* United States v. Iron Mountain Mines, Inc., 987 F.Supp. 1263, note 14 (E.D. Cal.) (stating that under the CWA dilution is prohibited as a substitute for treatment).
[150] *See, e.g.* EPA v. City of Green Forest, 921 F.2d 1394, 1406 (8th Cir. 1990); Ohio Valley Envtl. Coal. v. Elk Run Coal Co., 24 F.Supp. 3d 532, 536 (S.D. W. Va. 2014); Stoeco Dev., Ltd. v. Dep't of Army Corps of Eng'rs of U.S., 792 F.Supp. 339, 344 (D. N.J. 1992); Work v. Tyson Foods, Inc., 720 F.Supp. 132, 137 (W.D. Ark. 1989).
[151] Haw. Wildlife Fund v. Cty. of Maui, 886 F.3d 737, 749 (9th Cir. 2018).
[152] *S*ee *Supra* Part II(a).
[153] *Haw.Wildlife Fund,* 886 F.3d at 744.
[154] *Id.* at 742-43.
[155] *Id.* at 742.

reached navigable waters in the Savannah Watershed.[156] Therefore, the conservation group alleged a claim that could plausibly pass the suggested test.[157]

Although it is not explicitly stated in the Ninth or Fourth Circuit's opinion, both circuit courts may have added requirements to the CWA over concerns of frivolous and speculative citizen-suits. But, this should not have been a concern because the CWA already protects against weak claims. For example, consider the facts present in *Kentucky Waterways*. Under the suggested test, KU could only be held liable for the *measured amount of pollution* in Herrington Lake that *more likely than not* originated from the Main Coal Ash Pond. KU could not be held liable for pollution in Herrington lake that the conservation groups failed to trace to point source *by the preponderance of the evidence*. As such, the plaintiff-conservation groups are faced with a high burden of proof. Selenium naturally occurs in low quantities in Herrington Lake and any excess amount of selenium would still have to *more likely than not* originate from KU's ash ponds.[158]

The amount of selenium established by the conservation group would be highly significant because the quantity of pollution plays a direct role in the potential penalty assessed by a district court. Accordingly, the *measured amount* of pollution would influence the conservation groups'—and KU's—willingness to litigate any CWA violation. Section 309(d) delineates several factors for the court to consider when calculating civil penalties, including the "seriousness of the violation":

> [A party in violation of the CWA] shall be subject to a civil penalty not to exceed $25,000 per day for each violation. In determining the amount of a civil penalty the court shall consider [1] *the seriousness of the violation or violations*, [2] the economic benefit (if any) resulting from the violation, [3] any history of such violations, [4] any good-faith efforts to comply with the applicable requirements, [5] the economic impact of the penalty on the violator, [6] and such other matters as justice may require. For purposes of this subsection, a single operational upset which leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation.[159]

Considering these factors, unless the conservation groups could allege a significant violation (i.e., more than a *de minimis* amount of pollution), Kinder

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[156] Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 641 (4th Cir. 2018).
[157] A measured amount still remained to be determined because the district court granted a motion to dismiss at an early stage in the proceeding. *Id.* at 645.
[158] Ky. Waterways All. v. Ky. Util. Co., 905 F.3d 925,931 (6th Cir. 2018).
[159] 33 U.S.C. § 309(d) (2018).

Morgan could only be subject to a *de minimis* penalty. The remaining factors dictate that KU's liability would—in large part—be calculated per KU's own efforts and actions. In addition to the quantity of pollution, the district court would decide (1) whether KU made a "good faith effort" to comply with state requirements; (2) whether KU made a decision to act in accordance to their own "economic benefit"; and (3) whether KU is a repeat violator. Therefore, under the CWA, the suggested test produces equitable outcomes without adding unnecessary and cumbersome requirements to the hydrological connection theory.

VI. The Amicus Brief Arguments Should not Prevent the Supreme Court from Upholding the Hydrological Connection Theory.

A. The hydrological connection theory poses no threat to state agencies or common landowners.

Several amicus briefs claim that the Supreme Court must reject the hydrological connection theory because it will cause unbearable and wasteful pressure on both state governments and individual citizens.[160] For instance, most states manage NPDES permitting.[161] In one amicus brief, a coalition of states allege that extending liability under the theory would lead to a drastic increase in NPDES permits due to residential septic systems.[162] Specifically, the States' amicus points to West Virginia where 220,000 homes are estimated to rely on septic systems. According to the States, the theory would lead to a 35,000 percent increase in West Virginia NPDES permits.[163]

However, in reality, the hydrological connection theory would have little impact on septic tank permitting. The State's brief cites the overall number of septic tanks in West Virginia and then suggests that *all* of those septic tanks will require a NPDES permit—a 35,000 percent increase in NPDES permitting. But, for the State's claimed 35,000 percent increase to be anywhere near accurate, the States' argument would need to pass three significant hurdles. First, the overwhelming majority of septic tanks must deposit pollution into groundwater. Second, the groundwater must deposit the pollution into navigable waters. Third, and most

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[160] Brief for State of West Virginia et al. as Amici Curiae Supporting Petitioner, Cty. of Maui v. Haw. Wildlife Fund, 139 S. Ct. 1164 (2019) (No. 18-260); Brief for Pacific Legal Foundation as Amicus Curiae Supporting Petitioner , Cty. of Maui v. Haw. Wildlife Fund, et al.,139 S. Ct. 1164 (2019) (No. 18-260); Brief for American Petroleum Institute et al. as Amici Curiae Supporting Petitioners, Kinder Morgan Energy Partners, L.P. v. Upstate Forever, No. 18-268 (U.S. Oct. 4, 2018).

[161] 46 out of 50 states manage the NPDES permitting system. Brief for State of West Virginia et al. as Amici Curiae *supra* note 160.

[162] *Id.*

[163] *Id.* (claiming that 607 NPDES permits were issued in 2017).

detrimental, the septic tank pollution would have to pass a hydrological connection test—either the Fourth Circuit, Ninth Circuit, or the suggested test.

Connecting a home septic system to groundwater *and* navigable waters is a difficult task because states already regulate septic tank placement to minimize environmental and sanitary impacts.[164] For example, the state of Oklahoma has a robust septic tank permitting system.[165] Receiving a permit in Oklahoma is a multi-step process that would almost certainly prevent septic tank placements in areas that would cause significant pollution in navigable waters.[166] Before the Oklahoma Department of Environmental Quality issues a septic tank permit, a hired professional must conduct soil tests, percolation tests, verify there is enough space, and fulfill various other requirements.[167]

Even in the unlikely scenario that an alleged specific septic tank cleared the first two hurdles, the few septic tanks left would almost exclusively fail any hydrological connection tests offered. The Ninth Circuit's *de minimis* requirement would render average septic tank pollution free from CWA liability. Similarly, under the Fourth Circuit's test, distances, allegations of contributing sources, and dilution requirements would also render most septic tank activity free from CWA liability. Finally, under the proposed test, connecting an individual septic tank to navigable waters by the preponderance of the evidence would be costly, rendering a citizen suit unrealistic because the penalty would almost certainly be minimal.[168] Therefore, the States' claimed 35,000 percent increase is far from realistic.

B. The hydrological connection theory poses no threat to the midstream oil and gas industry.

Similar to the States' amicus, the American Petroleum Institute (API) filed an amicus brief which echoed some of the State's concerns but from a business perspective.[169] According to API, the hydrological connection theory would cause over 212,500 miles of oil and gas pipelines in the United States to be subjected to hundreds of thousands of new NPDES permits.[170] API's amicus claims that the hydrological connection theory would extend liability to "any source of

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[164] *See, e.g.,* OKLA. ADMIN CODE, § 252:641–1, 3, 5, 7 (2016); Arkansas State Board of Health, Rules and Regulations Pertaining to Onsite Wastewater Systems, Promulgated Under Authority of Ark. Code Ann. § 14–236–101 et seq. (2014).
[165] OKLA ADMIN. CODE, § 252:641–1, 3, 5, 7.
[166] *Id.* Of course, this is dependent on individuals following state regulations.
[167] *Id.*
[168] 33 U.S.C. § 309(d) (2018).
[169] Brief for American Petroleum Institute et al. as Amici Curiae Supporting Petitioners, *supra* note 160.
[170] *Id.* at 1.

contamination that could potentially reach navigable water."[171] Further, API alleges these new permits would be difficult or impossible to obtain because pollution could not be "properly predicted, identified, monitored, or regulated."[172] As such, accidental polluters like Kinder Morgan would be forced to decide whether to risk potential civil penalties of "up to $53,484 per day" or apply for an NPDES permit which cost on average $271,596 to obtain.[173]

However, API's argument is undercut by its own amicus brief. While API claims that the hydrological connection theory will cause mass confusion, API proffers several facts that show the hydrological connection theory will have little impact on pipeline regulation. As API asserts, "99.999 percent of the crude oil and petroleum product barrels delivered by transmission pipeline reach their destination safely," and further, in the rare "significant" pipeline incidents that occur, most are "*contained on an operator-controlled property* or *small in volume*."[174] So, on the one hand, API argues that pipeline ruptures are extraordinarily rare. On the other hand, API claims that hydrological connection theory will result in a mass increase in NPDES permitting because of pipeline ruptures.[175] The chances of a pipeline owner purchasing a $271,596 permit because of a 0.001 percent chance of a CWA violation is far-fetched. API's own facts destroy its underlying concerns.

VII. Conclusion

As the Ninth and Fourth Circuits identified, the plain language, purpose, and surrounding case law suggests that the CWA extends liability to pollution that originates *from* a point source, travels through groundwater, and reaches navigable waters. However, neither the Ninth or Fourth Circuits offered satisfactory tests. Instead, the proper test extends CWA liability to *the measured amount of pollution that is more likely than not traced back to a defendant's point source*. The suggested test is superior because it transcends the hydrological connection theory and can be accurately and consistently applied at the district court level. Furthermore, although the amicus briefs offer some frightening statistics, the amicus concerns are unrealistic when analyzed. Therefore, in conclusion, the United States Supreme Court should uphold the hydrological connection theory.

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[171] *Id.*
[172] *Id.* at 17.
[173] *Id.* at 19.
[174] *Id.* at 4.
[175] *Compare id.* at 1–4 *with id.* at 17–19 (emphasis added).