

FROM TROPICS TO SWAMP:
HOW COUNTY OF MAUI MUDDIES THE CLEAN WATER ACT

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INTRODUCTION

County of Maui v. Hawaii Wildlife Fund,¹ the latest in a string of Supreme Court decisions that set the jurisdictional bounds of federal water protection, appears to be an environmental victory: a 6–3 decision from a conservative Court that refuses to draw artificial limits around protective regulation.² Despite this positive result, *County of Maui* is a problem for the Clean Water Act (“CWA”).³ The Court introduced a new jurisdictional test, which asks whether an indirect discharge of pollutants is “functionally equivalent to a direct discharge.”⁴ This vague test will complicate administration of the Act and increase the burden on agencies and citizens.

The CWA aims to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”⁵ To this end, the Act prohibits any discharges of pollutants from point sources⁶ into navigable waters,⁷ except when the Environmental Protection Agency (“EPA”) or a state acting under delegated authority⁸ has granted a National Pollutant Discharge Elimination System (“NPDES”) permit.⁹ The CWA also prohibits the disturbance of navigable waters via dredge and fill operations, unless the U.S. Army Corps of Engineers (“USACE”) has granted a permit.¹⁰ By prohibiting all discharges except those from sources which receive permits, the CWA facilitates

¹ 140 S. Ct. 1462 (2020).

² See Ian Milhiser, *Why Did Liberals Win So Many Cases Before a Conservative Supreme Court?*, VOX (July 12, 2020, 9:00 AM), <https://perma.cc/35DF-V3CR>.

³ Federal Water Pollution Control Act, 33 U.S.C §§ 1251–1388.

⁴ *County of Maui*, 140 S. Ct. at 1476.

⁵ 33 U.S.C. § 1251(a).

⁶ A point source is “any discernible, confined, and discrete conveyance,” such as a pipe or ditch. *Id.* § 1362(14).

⁷ “Navigable waters” is a term of art, defined as “waters of the United States,” that includes more than traditionally navigable waters. *Id.* § 1362(7). Agency interpretation of this term is guided primarily by *Rapanos v. United States*, 547 U.S. 715 (2006), and identifies terrain as a navigable water if it is hydrologically connected to or significantly affects traditionally navigable waters. See generally AM. COLLEGE OF ENV’T LAWS., MEMORANDUM FOR ECOS CONCERNING WATERS OF THE UNITED STATES ISSUES (Sept. 11, 2014) [hereinafter ACOEL MEMO], <https://perma.cc/82PU-RKXH>.

⁸ Since forty-six states are so authorized or partially authorized, states issue most NPDES permits. This is the case in Hawaii. See *NPDES State Program Authority*, EPA, <https://perma.cc/UDT7-MPNY>.

⁹ See 33 U.S.C. § 1342.

¹⁰ See *id.* § 1344.

enforcement by largely eliminating the need to prove that pollutants came from a particular source.¹¹

However, because of the hydrological interconnection of land, groundwater, wetlands, and navigable waters, CWA jurisdiction can be unclear. Whether an agency may regulate a particular activity often hinges on the degree of connection to and effects on a traditionally navigable water. Two questions are frequent sources of uncertainty for the agencies and private parties alike. First, when is terrain, like wetland or dry riverbed, sufficiently connected to a traditionally navigable water to be protected by the CWA as water of the United States (“WOTUS”)?¹² Second, when is an indirect discharge from a point source sufficiently connected to traditionally navigable water to require an NPDES permit?¹³

In *County of Maui*, the Supreme Court created a test that decides the latter question: indirect discharges require permits when they are “functionally equivalent to a direct discharge.”¹⁴ This test provides little clarity for individuals and agencies. Equally important, this test ignores another test that answers the first jurisdictional question, which looks for a “significant nexus” between terrain and a traditionally navigable water.¹⁵ By applying the significant nexus test, the Court could have clarified and simplified CWA doctrine by providing a single, intelligible jurisdictional standard for individuals and agencies which would protect our nation’s waters.

I. FACTS AND BACKGROUND

Since 1982, the Lahaina Wastewater Reclamation Facility has injected effluent into the groundwater under Maui.¹⁶ The County of Maui, which operates the facility, has been fully aware that the

¹¹ See David R. Hodas, *Enforcement of Environmental Law in a Triangular Federal System: Can Three Not Be a Crowd When Enforcement Authority Is Shared by the United States, the States, and Their Citizens?*, 54 MD. L. REV. 1552, 1554–57 (1995) (arguing that the permitting scheme responds to the difficulty of proving pollution under prior regime and is “designed . . . for ease of enforcement”).

¹² See generally ACOEL MEMO, *supra* note 7.

¹³ Besides this case, see Allison R. White, *Bridge over Troubled Waters? Ninth Circuit Makes Waves Refusing to Narrow Clean Water Act in Hawaii Wildlife Fund v. County of Maui*, 30 VILL. ENV’T L.J. 351, 361-64 (2019).

¹⁴ *County of Maui v. Haw. Wildlife Fund*, 140 S. Ct. 1462, 1476 (2020)

¹⁵ *Rapanos v. United States*, 547 U.S. 715, 779 (2006) (Kennedy, J., concurring); see also ACOEL MEMO, *supra* note 7, at 7–13 (reviewing the acceptance of this test).

¹⁶ See Complaint for Declaratory and Injunctive Relief at 43, *Haw. Wildlife Fund v. County of Maui*, 24 F. Supp. 3d 980 (D. Haw. 2014) (No. CV 12 00198). The facility receives sewage from roughly forty thousand residents, see *Haw. Wildlife Fund*, 24 F. Supp. 3d at 983, processes it, and discharges treated effluent through four injection wells into groundwater below the facility, at a rate of around four million gallons per day. *County of Maui*, 140 S. Ct. at 1469.

injected effluent reaches the Pacific Ocean off Maui's coast, a traditionally navigable water.¹⁷ This effluent is a pollutant regulated by the CWA.¹⁸ Upon emergence into the Pacific, the polluted groundwater contains elevated levels of phosphorus and nitrogen, and is warmer, more acidic, less saline, and less oxygenated than other nearshore water.¹⁹ This contaminated groundwater emerges in great volume. When traced with dye, more than half of the facility's discharges emerged from just two small clusters of submarine springs²⁰ and comprised about one of every seven gallons of groundwater that entered the ocean near the facility.²¹ Despite notice in 2010 that these discharges may require an NPDES permit,²² the County continues to inject pollutants without a permit.²³

In 2012, Hawaii Wildlife Fund ("HWF") filed a complaint alleging that the County's unpermitted discharges violated the CWA and damaged marine life close to the submarine springs and seeking injunctive relief and maximum civil penalties.²⁴ The litigation spent eight years working its way through district court, the Ninth Circuit Court of Appeals, and the Supreme Court. The basic question remained the same throughout each proceeding: do indirect discharges require NPDES permits?²⁵ In other words, did passage through groundwater place these point source discharges beyond EPA's CWA jurisdiction? Each court applied a different test to reach the same result: EPA has jurisdiction over at least some indirect discharges.

¹⁷ The county has known at least since 1991, *Haw. Wildlife Fund*, 24 F. Supp. 3d at 984, and perhaps since 1973, see Brief for Respondents at 7, *County of Maui*, 140 S. Ct. 1462 (No. 18-260).

¹⁸ See *Haw. Wildlife Fund*, 24 F. Supp. 3d at 989, 998 (County concedes that effluent is a pollutant); see also 33 U.S.C. § 1362(6) (defining "pollutant" to include heat and municipal waste, inter alia).

¹⁹ See *Haw. Wildlife Fund*, 24 F. Supp. 3d at 1003.

²⁰ See CRAIG R. GLENN ET AL., LAHAINA GROUNDWATER TRACER STUDY FINAL REPORT, at ES-1 (2013), <https://perma.cc/3EWX-LC33>.

²¹ See Brief for Respondents, *supra* note 17, at 10; see also *Haw. Wildlife Fund*, 24 F. Supp. 3d at 1004–05.

²² See *Haw. Wildlife Fund*, 24 F. Supp. 3d at 984.

²³ See *id.* at 986.

²⁴ See Complaint for Relief, *supra* note 16, at 6, 60–64. Hawaii Wildlife Fund was joined by three other environmental nonprofits.

²⁵ See *Haw. Wildlife Fund*, 24 F. Supp. 3d at 991; *Haw. Wildlife Fund v. County of Maui*, 881 F.3d 754, 762 (9th Cir. 2018); *id.* at 768 ("At bottom, this case is about preventing the County from doing indirectly that which it cannot do directly."); *County of Maui v. Haw. Wildlife Fund*, 140 S. Ct. 1462, 1468 (2020).

The district court applied the significant nexus test²⁶ and held the County liable under the CWA.²⁷ In analysis addressing each element of the test, the court found that discharges from the Lahaina Wastewater Reclamation Facility caused “physical, chemical, and biological changes . . . in the water near the [submarine springs]” that were “indisputably neither speculative nor insubstantial” and thus “sufficient to establish . . . the required nexus.”²⁸ However, the court’s analysis was fact-specific: if the significant nexus test were “to govern [all] groundwater cases, it [might] require further clarification and elaboration.”²⁹

A panel of the Ninth Circuit unanimously affirmed, finding liability because these discharges were “fairly traceable” from a point source to a navigable water and added more than *de minimis* pollutants to the ocean.³⁰ The court relied on circuit precedent, including its own,³¹ which “recognized CWA liability where . . . a direct connection does not exist,”³² and on Justice Scalia’s assertion that the word ‘directly’ does not appear in the CWA’s prohibition of pollution.³³ The court “[le]ft for another day the task of determining when, if ever, the connection between a point source and a navigable water is too tenuous to support liability under the CWA.”³⁴ The panel unanimously denied the County’s petition for rehearing en banc.³⁵

²⁶ This test originates in *Rapanos v. United States*, 547 U.S. 715 (2006), and has since been articulated in several cases. Here, the district court accepted the parties’ account of *N. Cal. River Watch v. City of Healdsburg*, 496 F.3d 993 (9th Cir. 2007), and thus applied a two-pronged version of the test that required both a hydrological connection and significant effects. See *Hawaii Wildlife Fund*, 24 F. Supp. 3d at 994.

²⁷ See *id.* at 1005.

²⁸ *Id.* at 1004.

²⁹ *Id.* at 1005.

³⁰ See *Haw. Wildlife Fund*, 881 F.3d at 765. Note that although the Ninth Circuit examines three elements to establish liability, the first element (“the County discharged pollutants from a point source”) is in no way specific to indirect discharges. *Id.*

³¹ *E.g.*, *Greater Yellowstone Coal. v. Lewis*, 628 F.3d 1143 (9th Cir. 2010); *Concerned Area Residents for the Env’t v. Southview Farm*, 34 F.3d 114 (2d Cir. 1994); *Peconic Baykeeper, Inc. v. Suffolk County*, 600 F.3d 180 (2d Cir. 2010); *Sierra Club v. Abston Constr.*, 620 F.2d 41 (5th Cir. 1980).

³² *Haw. Wildlife Fund*, 881 F.3d at 764.

³³ *Id.* at 764; see also *Rapanos v. United States*, 547 U.S. 715, 743 (2006).

³⁴ *Haw. Wildlife Fund*, 881 F.3d at 765.

³⁵ *Haw. Wildlife Fund v. County of Maui*, 886 F.3d 737 (9th Cir. 2018) (denial of hearing en banc). The denial includes three minor amendments to the opinion, which clarify how this opinion relates to the broader body of CWA jurisprudence. See *id.* at 741.

II. THE SUPREME COURT MAJORITY: ‘FUNCTIONAL EQUIVALENCE’

The Supreme Court employed a new test to reach the same conclusions, holding that EPA jurisdiction extends only to indirect discharges that are “the functional equivalent of a direct discharge” into navigable waters.³⁶ Justice Breyer, writing for a 6–3 majority, set forth the test’s objective—“to advance, in a manner consistent with the [CWA’s] language, the statutory purposes that Congress sought to achieve”³⁷—and enumerated several considerations that should guide its application. “Time and distance will be the most important factors in most cases,”³⁸ but broader context, “includ[ing] the need . . . to preserve state regulation of groundwater and other nonpoint sources,”³⁹ should also limit which discharges are functionally direct.

The functional equivalence test implicates “too many potentially relevant factors” to be exhaustively enumerated,⁴⁰ and consequently provides limited clarity for future courts or parties. The Court envisioned that the substantial gaps in articulation will be spanned by EPA guidance and common law.⁴¹ However, the contemporary Court has been less than deferential to agency interpretations of the CWA,⁴² and this test adds further uncertainty to an unsettled permitting regime.⁴³

Before articulating the functional equivalence test, the Court rejected three other standards: a ‘fairly traceable plus proximate cause’ test advanced by HWF;⁴⁴ a ‘direct hydrological connection’ test proposed by the Solicitor General, which excluded hydrological connections made via groundwater; and a ‘means of delivery’ test proposed by the County, which stipulated that point sources must

³⁶ *County of Maui v. Haw. Wildlife Fund*, 140 S. Ct. 1462, 1476 (2020). This test likely favors the plaintiffs, given the prior district court opinion. *See Haw. Wildlife Fund*, 24 F. Supp. 3d 980, 998 (D. Haw. 2014) (implying that these discharges are “functionally . . . into navigable water”); *id.* at 1005 (“County is liable under both [frameworks.]”).

³⁷ *County of Maui*, 140 S. Ct. at 1476.

³⁸ *Id.* at 1477.

³⁹ *Id.* at 1476.

⁴⁰ *Id.* There are *at least* five potentially relevant factors, in addition to “time and distance.” *Id.* at 1476–77.

⁴¹ *Id.* at 1477.

⁴² *See* Mark A. Latham, *(Un)restoring the Chemical, Physical, and Biological Integrity of Our Nation’s Waters: The Emerging Clean Water Act Jurisprudence of the Roberts Court*, 28 VA. ENV’T L.J. 411, 413 (2010) (“[T]he Roberts Court . . . has weakened the CWA through selective application of Chevron deference.”).

⁴³ Referring to the CWA’s jurisdictional regime, unsettled by the ongoing battle to define WOTUS. *See, e.g.*, Christopher D. Thomas, *Can Anyone Define WOTUS? A Cranky History of Clean Water Act Jurisdiction*, FED. LAW., June 2018, at 44, 45, <https://perma.cc/56R8-BW7S>.

⁴⁴ As it sounds, this test would add a proximate cause requirement to the Ninth Circuit’s test. *See County of Maui*, 140 S. Ct. at 1470–71.

discharge directly into navigable water.⁴⁵ Each test defined when a pollutant added to navigable waters is *from* a point source.⁴⁶ In evaluating each, the Court largely rejected textual arguments in favor of pragmatism about EPA's permitting regime and respect for the stated purposes of the CWA.

Respondent's 'fairly traceable' test would grant the EPA "broad authority" and thus trod on states' "substantial responsibility and autonomy" for groundwater protection.⁴⁷ In the Court's view, modern technology could render nearly any pollutant "fairly traceable."⁴⁸ A proximate-cause requirement would also do little to constrain EPA authority, since proximate cause "takes on its specific content based primarily on 'policy' considerations."⁴⁹

On the other end of the regulatory spectrum, the County and Solicitor General's tests suffered from a fatal loophole. Since EPA authority would be destroyed by *any* transit through groundwater, polluters might avoid permitting simply by moving point sources a few feet from navigable water.⁵⁰ The application of either test would thus "risk serious interference with EPA's ability to regulate ordinary point source discharges."⁵¹

III. CONCURRENCES AND DISSENTS

In a brief concurrence, Justice Kavanaugh emphasized the majority's adherence to Scalia's plurality decision in *Rapanos v. United States*,⁵² which rejected the idea that the CWA forbids only direct discharges. Citing Justice Scalia, Justice Kavanaugh maintained that the vagueness of 'functional equivalence' springs from the CWA, since the statute supplies no "bright-line test regarding when a pollutant may be considered to have come 'from' a point source."⁵³

Justice Thomas, in a dissent joined by Justice Gorsuch, contended that the text and structure of the CWA "excludes anything other than a direct discharge."⁵⁴ Thomas also complained that "the Court's interpretation . . . gives almost no guidance" about the

⁴⁵ *See id.* at 1472–76.

⁴⁶ *See id.* at 1470.

⁴⁷ *Id.*

⁴⁸ *See id.* at 1470.

⁴⁹ *Id.* at 1470–71 (quoting *CSX Transp., Inc. v. McBride*, 564 U.S. 685, 701 (2011) (plurality opinion)).

⁵⁰ *See id.* at 1473.

⁵¹ *Id.*

⁵² 547 U.S. 715, 779 (2006).

⁵³ *County of Maui*, 140 S. Ct. at 1478 (Kavanaugh, J., concurring).

⁵⁴ *Id.* at 1479 (Thomas, J., dissenting).

practical meaning of functionally equivalent and might lead the EPA to promulgate rules that would be “constitutionally suspect.”⁵⁵

Justice Alito, dissenting alone, similarly asserted that the majority “provide[d] no clear guidance and invite[d] arbitrary and inconsistent application.”⁵⁶ Reading the CWA to require all-or-nothing coverage of indirect discharges, Alito dubbed the Court’s rule “implausible”⁵⁷ and added that the listed factors provide “no real answer” to those wondering when a discharge is functionally direct.⁵⁸

IV. SIGNIFICANT NEXUS WOULD CLEAR THE JURISDICTIONAL WATERS

In *County of Maui*, the Court formulated a novel test to determine when indirect discharges require NPDES permitting. In doing so, it overlooked an option that would simplify application of the CWA for judges, agencies, and private parties: Justice Kennedy’s ‘significant nexus’ test.⁵⁹ Although this test originated in a different branch of CWA jurisprudence, it has the legal and analytic scope to determine jurisdiction over indirect discharges. Moreover, it hews much more closely to the text and structure of the CWA than does the functional equivalence test, has been articulated by lower courts, and would gain further clarity and authority through the Court’s endorsement.

The Court should have adopted the significant nexus test to unite and clarify agency CWA jurisdiction. The functional equivalence test achieves neither of these ends and has two additional shortcomings. First, its novelty and lack of substantive guidance will confuse courts and parties concerned with the limits of NPDES permitting. Second, the guidance it does provide is designed for discharges through groundwater and fails to address a broader range of indirect discharges. Application and articulation of the significant nexus test would resolve the question presented in *County of Maui* and provide beneficial consistency for the Court’s CWA jurisprudence. This consistency would simplify administration of the CWA and help to settle the jurisprudential debris stirred up by *Rapanos*.⁶⁰ While the significant nexus test reached its present form in *Rapanos*, its construction reflects the broad purposes of the CWA. Properly articulated, it is suitable and desirable as a broad test for agency CWA jurisdiction.

⁵⁵ *Id.* at 1481.

⁵⁶ *Id.* at 1483 (Alito, J., dissenting).

⁵⁷ *Id.* at 1485.

⁵⁸ *Id.* at 1483.

⁵⁹ See *Rapanos v. United States*, 547 U.S. 715, 759 (2006).

⁶⁰ See Mark Ryan, *An Unwinnable Battle*, 35 NAT. RES. & ENV’T 64, 64 (2020).

V. THE SHORTCOMINGS OF ‘FUNCTIONAL EQUIVALENCE’

Functional equivalence is an addition to the already complex world of CWA jurisdiction. Its vagueness and novelty will add a new wrinkle to the furrowed brows of dischargers and agencies trying to determine their responsibilities. This isn’t inherently a problem: major polluters shouldn’t rest easy just because they aren’t spewing directly into navigable waters. But for the sake of private parties acting in good faith and agencies that shoulder complex regulatory duties, the limits of CWA jurisdiction should be as intelligible and consistent as possible. Functional equivalence, hobbled by its vagueness and novelty, does not reach this bar.

A. ‘Functional Equivalence’ Provides Only Vague Guidance for Courts and Parties

The Court articulated three aspects of the functional equivalence test, but gave no specific guidance as to how these aspects should interact or what sorts of presumptions they should impose:

- 1) Time and distance are usually, but not always, the most important factors;⁶¹
- 2) Substantial state responsibility and autonomy over groundwater and nonpoint source regulation should be preserved;⁶² and
- 3) Context will provide other factors weighing for or against EPA’s jurisdiction, which are too numerous to be specified.⁶³

Without elaboration, each aspect individually raises questions and would be difficult to apply with any consistency to the wide array of “middle instances.”⁶⁴ How do time and distance weigh against each other? At what distance and speed should discharges be presumed ‘functionally direct’? If a discharge pollutes a large amount of groundwater that eventually reaches navigable water, should that weigh in favor of CWA permitting, because of the amount of pollutant reaching navigable water, or against, because it renders a great deal of groundwater subject to federal regulation? If a state embraces federal regulation, does that weigh in favor of EPA jurisdiction, even though the state’s stance has no bearing on the flow of pollutants? If pollutant A becomes pollutant B during transit, but the causation is

⁶¹ *County of Maui*, 140 S. Ct. at 1477.

⁶² *Id.* at 1471.

⁶³ *Id.* at 1476–77. In addition to time and distance, the Court lists five other “factors that may prove relevant,” discussed *infra*. *Id.* at 1476.

⁶⁴ *Id.* at 1476.

still clear, is the discharge covered? What if pollutant B is more toxic than pollutant A? And how do the answers to these questions weigh against one another, in the final jurisdictional balance?

This laundry list of questions, only a few of those which might be posed, does not demonstrate that functional equivalence *cannot* be administered by courts. To the contrary, courts will extract relevant principles from each case before them and will usually reach reasonable conclusions. However, the chronic problem of CWA jurisdiction is that private parties and administering agencies must wade through a swamp of unpredictable jurisprudence to determine where jurisdiction exists.⁶⁵ The issue is not that courts cannot extract factors from facts; it is that these actors have little way to know ahead of time which factors courts will deem salient. This problem will be especially acute and likely to persist for longer because functional equivalence is both complex and underarticulated.⁶⁶

Besides the specific aspects above, the Court provided two signposts to the application of functional equivalence: the name itself and the restatement of the test. Do the phrases “functional equivalent of a direct discharge” and “reaches the same result through roughly similar means” provide clarity?⁶⁷ Not much. They leave basic questions: how similar, and in which ways? An indirect discharge cannot reach the exact same result as a direct discharge; it must be translocated in time and space and somewhat diluted or otherwise attenuated. The means of conveyance will vary, and it is not obvious whether transit through any particular groundwater, through any medium, or across any land is “roughly similar” to a direct discharge. As the Court suggested, functional equivalence is a highly contextual inquiry; but, as discussed, contextual factors do little to make this test predictable.

In addition to time and distance, the Court suggested five more contextual factors: medium of conveyance, dilution during travel, percentage of pollutant conveyed, manner of entry to navigable waters, and consistency of composition.⁶⁸ These factors highlight some features of conveyance that will determine the similarity between a point-source discharge and the liquid that reaches navigable waters. They also provide justifications for a wide range of results. Since none of these factors are given weights or baselines, any one could be interpreted as determinative or unimportant in a given case. These

⁶⁵ See Hammons P. Hepner, *The Shifting Definition: The Clean Water Act, “Waters of the United States,” and the Impact on Agriculture*, 73 OKLA. L. REV. 337, 341, 344 (2021) (commenting on the complexity and confusion of jurisdictional determinations).

⁶⁶ That is, it will take lower courts longer to establish a practicable regime that operationalizes functional equivalence.

⁶⁷ *County of Maui*, 140 S. Ct. at 1476.

⁶⁸ *Id.* at 1476–77.

are the sorts of factors that implicate agency expertise. In judges' hands, they provide discretion to reach a desired conclusion and leave jurisdiction unpredictable.

B. Functional Equivalence Reflects a Focus on Discharges Through Groundwater

Although passage through groundwater is not the only means of indirect discharge,⁶⁹ the Court's opinion was preoccupied with discharges through groundwater. This preoccupation led to an emphasis on state regulatory supremacy that may constrain or confuse jurisdiction for other indirect discharges.

The CWA's text and history leave groundwater regulation to states,⁷⁰ and the Court's only explicit guidance regarding context—it “includes the need . . . to preserve state regulation of groundwater and other nonpoint sources of pollution”—reflected this statutory limitation.⁷¹ However, that limitation is relevant only to discharges through groundwater, since nonpoint sources of pollution are definitionally excluded from NPDES permitting. By failing to clarify this, the Court left its test open to basic misinterpretation. The CWA preserves state regulatory authority over some groundwater and all nonpoint source pollution,⁷² but is fundamentally a regime of prohibition and point source permitting.⁷³ Since the indirect discharges at issue are definitionally from point sources, the Court's reference to nonpoint sources⁷⁴ makes little sense and may obscure the line between indirect discharges and nonpoint discharges. If there is a genuine dispute as to whether a source is a point source, that is a matter for other jurisprudence. This case, and its test, deal with the connection between clear point sources and navigable waters, and the test should clearly reflect that.

VI. THE BETTER SOLUTION: SIGNIFICANT NEXUS

The significant nexus test is a jurisdictional test which reflects the stated purposes of the CWA and bestows jurisdiction when a

⁶⁹ Other means could include overflow from sediment basins, *see* *Sierra Club v. Abston Constr. Co.*, 620 F.2d 41 (5th Cir. 1980), and aerial spraying, *see* *Peconic Baykeeper, Inc. v. Suffolk County*, 600 F.3d 180 (2d Cir. 2010).

⁷⁰ *See County of Maui*, 140 S. Ct. at 1471–72.

⁷¹ *Id.* at 1476.

⁷² *Id.*

⁷³ *See* David Drelich, *Restoring the Cornerstone of the Clean Water Act*, 34 COLUM. J. ENV'T L. 267, 283 (2009).

⁷⁴ *See County of Maui*, 140 S. Ct. at 1476 (“That context includes the need, reflected in the statute, to preserve state regulation of groundwater and other nonpoint sources of pollution.”).

particular discharge would have significant chemical, physical, and biological effects on traditionally navigable waters. The significant nexus test is suited to analyze the full array of CWA discharges, directly connects permitting to the protection of navigable water from the deleterious effects of pollution, and has been further articulated by lower courts. Furthermore, because lower courts are still actively articulating the significant nexus test, the Supreme Court's application of the test in *County of Maui* could have clarified multiple points of CWA jurisprudence.⁷⁵

A. *The Significant Nexus Test's Murky Beginnings*

The significant nexus test originated in a line of cases which addressed a similar jurisdictional question to that posed in *County of Maui*. In those cases (*United States v. Riverside Bayview*,⁷⁶ *Solid Waste Agency of Northern Cook County v. USACE*,⁷⁷ and *Rapanos*) the Court articulated the term 'navigable waters' and thus defined the limits of EPA and USACE CWA jurisdiction. The significant nexus test was articulated by Justice Kennedy's concurrence in *Rapanos*, which held that EPA and USACE had jurisdiction over terrain with a significant nexus to traditionally navigable waters or their tributaries. Under Justice Kennedy's formulation, a significant nexus exists if a water (1) has significant effects on the chemical, physical, and biological integrity of a traditionally navigable water, (2) which effects are more than speculative or insubstantial.⁷⁸ However, the significant nexus test was not the only jurisdictional test to emerge from the Court's 4–1–4 decision in *Rapanos*. Justice Scalia, writing for the plurality, provided a test granting agency jurisdiction over wetlands with a nonephemeral hydrological connection to navigable waters.⁷⁹ Lower courts have described the problem of discerning which standard to apply as baffling.⁸⁰ This is problematic for private parties, EPA, and USACE. Determining whether terrain is sufficiently connected to navigable water is a lengthy and scientifically complex task, made only more burdensome by an unclear legal standard.⁸¹

Lower courts also continue to develop the substance of the significant nexus test, varying in particular on the level of evidence

⁷⁵ That is, indirect discharges and WOTUS.

⁷⁶ *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121 (1985)

⁷⁷ *Solid Waste Agency of N. Cook Cnty. v. U.S. Army Corps of Engineers*, 531 U.S. 159 (2001).

⁷⁸ *See Rapanos v. United States*, 547 U.S. 715, 779–80 (2006).

⁷⁹ *See id.* at 741.

⁸⁰ *See e.g.*, *United States v. Robison*, 521 F.3d 1319, 1323 (11th Cir. 2008).

⁸¹ *See Jacob Finkle, Jurisdictional Determinations: An Important Battlefield in the Clean Water Act Fight*, 43 *ECOLOGY L.Q.* 301, 334 (2016).

needed to establish significant effects. Some have conducted “very factually intense analysis . . . includ[ing] expert testimony, field tests, a topological survey, historical maps, scientific literature, pictures, and soil testing,”⁸² while others have concluded that even the potential for downstream transport of pollutants can create a significant nexus.⁸³

Thus, the reach and substance of the significant nexus test, while clearer than functional equivalence, are still being developed. This creates uncertainty and additional litigation, burdening private parties and agencies alike. Further clarification from the Court could alleviate both issues.

B. The Significant Nexus Test Should Not Be Limited to Navigable Waters Questions

Although the significant nexus test defines the boundaries of WOTUS jurisdiction, its provisions reflect the core purpose of the CWA, giving it broader jurisdictional potential. Justice Kennedy, in establishing the test, drew language directly from the stated purpose of the CWA—“to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters”⁸⁴—which is as applicable to EPA’s NPDES jurisdiction as to USACE’s dredge/fill jurisdiction. Nothing about significant nexus analysis inherently limits its application to USACE jurisdictional analysis or to WOTUS analysis,⁸⁵ and its case of origin, *Rapanos*, is more analogous to *County of Maui* than it may initially appear.

At issue in both *Rapanos* and *County of Maui* are the jurisdictional limits of CWA permitting. Although framed differently, *Rapanos* is, like *County of Maui*, about a standard that governs the necessary level of connection between a discharge and a traditionally

⁸² ACOEL MEMO, *supra* note 7, at 24 (citing *Precon Dev. Corp. v. U.S. Army Corps of Eng’rs*, 984 F. Supp. 2d 538, 562 (E.D. Va. 2013)).

⁸³ See *Wis. Res. Prot. Council v. Flambeau Mining Co.*, 903 F. Supp. 2d 690, 715 (W.D. Wis. 2012).

⁸⁴ 33 U.S.C. § 1251(a).

⁸⁵ The significant nexus test is currently understood as a test for WOTUS because of its origins. But as noted throughout this comment, those origins are exceptionally confusing and thus permit some reinterpretation. A slight shift in the understanding of the significant nexus test would focus it on the regulatory scheme of the CWA, rather than on an isolated statutory term. It could define limits of jurisdiction by delineating permissible targets of regulation. In the context of *Rapanos*, this means “the Corps’ jurisdiction over wetlands depends on the existence of a significant nexus between the wetlands in question and navigable waters in the traditional sense.” *Rapanos v. United States*, 547 U.S. 715, 779 (2006). In the context of *County of Maui*, it would mean that EPA’s jurisdiction over point source discharges would depend on an analogous significant nexus between the discharge and navigable waters.

navigable water.⁸⁶ From an agency perspective, the classifications are analogous. USACE's jurisdiction, which concerns dredge/fill operations, is necessarily focused on which waters may be protected because of their connection to traditionally navigable waters. EPA's jurisdiction, which concerns discharges from typically stationary sources, is necessarily focused on which sources may be controlled because of their connection to traditionally navigable waters.

Indeed, wetlands hydrologically and ecologically resemble groundwater more than most traditionally navigable waters.⁸⁷ Beyond the obvious shared lack of navigability, both wetlands and groundwater are often connected to other waters through multiple diffuse interfaces, rather than one or a few defined channels. Both can store pollutants and release them slowly over many years and both can perform chemical and physical filtration, cleaning water that moves through them.⁸⁸ These shared features are all relevant to a significant nexus analysis, since each may affect the transmission of pollutants to navigable waters.⁸⁹ Application of the significant nexus test to the facts of this case is intelligible, appropriate, and would prioritize the protective purposes of the CWA.

VII. THE SIGNIFICANT NEXUS TEST ANSWERS COUNTY OF MAUI'S QUESTION

The significant nexus test addresses the jurisdictional question in *County of Maui*, and unlike functional equivalence, the Court has articulated it enough to guide parties going forward. The Court's question in *County of Maui*, "[w]hether the CWA requires a permit when pollutants originate from a point source but are conveyed to

⁸⁶ Although *Rapanos* directly concerns dredge and fill operations, the definition of WOTUS is the same for point source discharges, and Justice Kennedy classifies both as "discharge." 547 U.S. at 774.

⁸⁷ In fact, the two categories are coextensive: unconfined aquifers, one type of groundwater, are responsible for the inundation of some wetlands. Just such a wetland was considered in *N. Cal. River Watch v. City of Healdsburg*, 496 F.3d 993, 998 (9th Cir. 2007).

⁸⁸ See *Rapanos*, 547 U.S. at 775; EPA, GETTING UP TO SPEED: GROUND WATER CONTAMINATION 2 (2015), <https://perma.cc/WMB7-3E2W>. Both can also have these functions disturbed through human intervention, via filling or dredging in the case of wetlands, see *Rapanos*, 547 U.S. at 775, and hydraulic fracturing in the case of groundwater, see Abraham Lustgarten, *Injection Wells: The Poison Beneath Us*, PROPUBLICA (June 21, 2012, 8:20 AM), <https://perma.cc/S8BK-D27F>.

⁸⁹ These features are more likely to weigh in favor of jurisdiction over wetlands, and against jurisdiction over groundwater, since in the former case they may *increase* the effects of the wetland on downstream waters, by providing ecosystem services, while in the latter case they decrease the chance that a discharge will affect downstream waters. However, significant nexus analysis already incorporates such features through its focus on effects.

navigable waters by a nonpoint source, such as groundwater,”⁹⁰ implicates not only groundwater discharges but *all* discharges that move indirectly from point source to navigable water. The functional equivalence test was not the only or best option to address this question: it was plucked from the ether and crafted too narrowly.⁹¹ The significant nexus test would provide a better match for the full range of indirect discharges, draws directly on the CWA’s text,⁹² and already partially defines EPA’s authority.⁹³ Numerous courts have interpreted the significant nexus test.⁹⁴ Agencies and dischargers have relied on the test to make and dispute jurisdictional and enforcement claims.⁹⁵ In short, the significant nexus test could have effectively answered the question before the Court and would have provided a similar result with better prudential ramifications.

VIII. BENEFITS OF APPLYING THE SIGNIFICANT NEXUS TEST TO CWA PROBLEMS

Although circuit precedent has developed some particulars of the significant nexus test, further articulation from the Supreme Court would improve the clarity and predictability of CWA jurisdiction. Since *Rapanos*, no case before the Court has provided an opportunity for such articulation.⁹⁶ *County of Maui* provided not only an opportunity to clarify inconsistencies in lower courts’ administration of *Rapanos*, but an opportunity to examine the district court’s application of the significant nexus test to the facts of this case. Thus, the Court could provide analysis of the significant nexus test’s application and substance honed through direct response to preexisting analysis.

CWA jurisdiction is a conundrum for private parties,⁹⁷ in part because the Court has not clarified its confusing holding in *Rapanos*.

⁹⁰ Petition for Writ of Certiorari at i, *County of Maui v. Haw. Wildlife Fund*, 140 S. Ct. 1462 (2020) (No. 18-260), 2018 WL 4205010.

⁹¹ Although the test is also suggested by the district court, it is based purely on “extrapolation.” *Haw. Wildlife Fund v. County of Maui*, 24 F. Supp. 3d 980, 994 (D. Haw. 2014).

⁹² See *Rapanos*, 547 U.S. at 779–80 (Kennedy, J., concurring).

⁹³ See *id.* at 806 (Stevens, J., dissenting) (“The EPA’s authority over pollutants . . . stems from the identical statutory language that gives rise to the Corps’ § 404 jurisdiction.”).

⁹⁴ See ACOEL MEMO, *supra* note 7, at 19-23.

⁹⁵ See, e.g., J.B. Ruhl, *Proving the Rapanos Significant Nexus*, 33 NAT. RES. & ENV’T 51 (2018).

⁹⁶ Neither *U.S. Army Corps of Engineers v. Hawkes Co.*, 136 S. Ct. 1807 (2016) (considering whether a jurisdictional determination is a final agency action), nor *Sackett v. EPA*, 566 U.S. 120 (2012) (considering whether an action may be brought to challenge an EPA compliance order) could have reached this issue.

⁹⁷ See, e.g., Finkle, *supra* note 81 [Error! Bookmark not defined.](#), at 302–05.

Although EPA and USACE have promulgated regulations that guide jurisdictional determinations, confused precedent makes it unclear which legal standard will ultimately guide determinations in locations with attenuated connections to navigable waters. Judges are confused by the problem of which *Rapanos* test to apply in a WOTUS analysis,⁹⁸ and at least one circuit has taken the approach of avoiding the question altogether, conducting their analysis under the standard that parties have mutually agreed to.⁹⁹ The EPA has also changed its tune: 2015's Clean Water Rule¹⁰⁰ was based around the significant nexus test, while 2020's Navigable Waters Protection Rule¹⁰¹ was based around Justice Scalia's limits on ephemeral flow.

While providing binding precedent on the controlling 'navigable waters' standard is beyond the scope of *County of Maui*,¹⁰² the Court could have signaled that the significant nexus test is broadly applicable for determining federal jurisdiction over waterborne pollution. Such a signal would settle existing circuit precedent, since most circuits favor the significant nexus test but remain at least somewhat undecided on their application of *Rapanos*, and no circuit applies Justice Scalia's test alone.¹⁰³ The application of the significant nexus test in *County of Maui* would have hacked a clearer path through the thorny problem of interpreting *Rapanos*'s precedential value, giving courts more doctrinal space to focus on developing the particulars of the test itself. Additionally, the inclusion of the significant nexus test in indirect discharge cases would provide additional opportunities for articulation, leading to additional clarity.

The functional equivalence test does the opposite, creating a new source of uncertainty for landowners and other dischargers. Neither the functional equivalence nor the significant nexus tests can be effectively administered without expert guidance, and anyone who is uncertain whether they need a permit will find resolution only through a jurisdictional determination.¹⁰⁴ But most potential dischargers will be doing their best to come to an independent conclusion before this formal process occurs. In this, they will now face

⁹⁸ See ACOEL MEMO, *supra* note 7, at 8, 13.

⁹⁹ See *id.* at 13. The district court in this case followed a similar procedure. See *Haw. Wildlife Fund v. County of Maui*, 24 F. Supp. 3d 980, 1001 (D. Haw. 2014).

¹⁰⁰ Clean Water Rule: Definition of "Waters of the United States," 80 Fed. Reg. 37,054 (June 29, 2015).

¹⁰¹ The Navigable Waters Protection Rule: Definition of "Waters of the United States," 85 Fed. Reg. 22,250 (Apr. 21, 2020).

¹⁰² Since *County of Maui* does not concern this question, any declarations on this point would be dicta.

¹⁰³ Some circuits allow jurisdiction under either test, others under variations of Significant Nexus. See ACOEL MEMO, *supra* note 7, at 10–14.

¹⁰⁴ This is a very fact-intensive, time-consuming, and expensive process. See Finkle, *supra* note [Error! Bookmark not defined.](#), at 334.

two challenging standards, which will overlap in some but not all instances.

Owners of wetlands, arroyos, or other pieces of geography with uncertain connections to navigable waters must now ask first, could this location have a significant nexus to a navigable water, and second, could a point source discharge here be functionally equivalent to a direct discharge? The answer to these questions may often be the same; but that is true of the significant nexus test and Justice Scalia's *Rapanos* standard as well. The problem is that it is unclear when these tests will yield different results. What is more, there exists no agency guidance on how functional equivalence will be administered, while there exists more than a decade of precedent for how EPA and USACE might administer the significant nexus test.¹⁰⁵

As the final blow, the Court's abiding focus on groundwater has led to a standard tailored to address indirect discharges through groundwater but applied to all indirect discharges. Since travel through groundwater is not the only indirect means of reaching navigable waters, potential dischargers must also wonder: Will this standard in fact control all indirect discharges? Or will the EPA or lower courts apply the functional equivalence test's current form to groundwater and seek out other "potentially relevant factors" when they consider "factually different cases"?¹⁰⁶ The significant nexus test, designed for the CWA's broad purposes and well-suited to consider any potential connection between point source and traditionally navigable waters, does not have this problem. By eschewing the significant nexus test, the Court leaves interested parties "at sea."¹⁰⁷

CONCLUSION

The significant nexus test provides what functional equivalence does not: a broadly applicable, textually grounded test that ties jurisdiction to the CWA's protective purposes and provides a degree of substantive guidance. Yet, for all its vagueness and narrowness, functional equivalence is the test we must work with, which affirmatively declares that some, perhaps many, indirect discharges fall within CWA's proscription of point source discharges. This alone should encourage environmentalists and pave the way for future EPA administrators to promulgate rules covering a wide range of indirect discharges. Indeed, there is nothing in the Court's articulation of functional equivalence to prevent the EPA from considering the

¹⁰⁵ In addition to the Clean Water Rule, see ACOEL MEMO, *supra* note 7, at 24–32 (summarizing various agency CWA guidance, much of which follows *Rapanos*).

¹⁰⁶ *County of Maui v. Haw. Wildlife Fund*, 140 S. Ct. 1462, 1476 (2020).

¹⁰⁷ *Id.* at 1486 (Alito, J., dissenting).

significance of biological, physical, and chemical effects on navigable waters, alongside factors like distance and time.

But EPA, and other parties that might urge a broad coverage of indirect discharges, should tread softly. Though *County of Maui* arrived as a 6–3 decision, the Court has changed. The addition of Justice Barrett has likely precipitated a further shift towards the granular textualism found in Thomas and Alito’s dissents.¹⁰⁸ It is not hard to imagine either Chief Justice Roberts or Justice Kavanaugh deciding that functional equivalence needs some limits that further protect state supremacy or business interests.¹⁰⁹ *County of Maui* had the virtue of clear facts: a recent study provided compelling evidence that most of more than a billion gallons of effluent was entering Maui’s ocean each year through just two springs, after “less than half a mile” and three months of transit.¹¹⁰ A case with smaller volume of discharge, smaller percentage of transmittance, or longer transit time or distance could easily serve as a vehicle for a conservative Court to severely constrain agency jurisdiction over indirect discharges. Unless Congress is willing and able to restore EPA’s jurisdiction, attempts to establish broad jurisdiction over indirect discharges, especially those through groundwater, will be fraught.

Lower courts should take what chances they get to support and clarify EPA’s jurisdictional reach through articulation of functional equivalence. In doing so, they should look to time and distance, as the Court commands, but also take to heart the Court’s implicit instruction to apply “relevant factors” which are not bound to groundwater, but grounded in the CWA’s purposes.¹¹¹ As indicated, these factors should resemble the effects considered in the significant nexus test. But since indirect discharges are already constrained by time and distance, the inquiry into effects should perhaps be not too demanding. Perhaps time and distance should be limiting factors only in edge cases—when a point source is “50 miles from navigable waters”—leaving effects-based factors as the primary determinants of jurisdiction.¹¹² Even if such jurisprudence is eventually repudiated by the Court, it will assist agency enforcement in the meantime and will help to simplify jurisdictional determinations for agencies and private parties, by at least partially uniting the two jurisdictional tests.

¹⁰⁸ See Jody Freeman, *What Amy Coney Barrett’s Confirmation Will Mean for Joe Biden’s Climate Plan*, VOX, <https://perma.cc/2U6B-DSFH> (Oct. 26, 2020, 10:18 AM).

¹⁰⁹ Note that this does not mean overturning *County of Maui*—more likely, it would mean cabining functional equivalence to narrow circumstances, a feat easily achieved given the majority’s meager articulation and lip-service to state regulatory supremacy.

¹¹⁰ See *Haw. Wildlife Fund v. County of Maui*, 24 F. Supp. 3d 980, 1002 (D. Haw. 2014); see also *County of Maui*, 140 S. Ct. at 1469.

¹¹¹ *County of Maui*, 140 S. Ct. at 1476.

¹¹² *Id.*