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The Hallmarks of a Good Test: A Proposal for Applying the "Functional Equivalent" Rule From County of Maui v. Hawaii Wildlife Fund

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The Clean Water Act generally requires a federal permit for the discharge of pollutants “from any point source” to navigable waters. It is undisputed that permits are required for discharges of pollutants from point sources that proceed “directly” to regulated waters. But there is much disagreement over the extent to which indirect point-source discharges are regulated. In an attempt to clarify, the United States Supreme Court in County of Maui v. Hawai‘i Wildlife Fund ruled that permits are required not just for direct point-source discharges, but also for any point-source discharge that is the “functional equivalent” of a direct point-source discharge. Unfortunately, the Court did not define the term “functional equivalent,” other than to offer a non-exhaustive list of seven factors to consider (emphasizing time and distance), and to admonish lower courts to both respect the states’ traditional authority over water pollution and be mindful of avoiding decisions that would encourage evasion of the Act’s permitting requirements.

To pick up where County of Maui left off, this Article proposes the “hallmark” interpretation of the functional equivalent test. According to this approach, a pollutant discharge is the “functional
equivalent” of a direct discharge (and therefore requires a permit) if it bears the hallmarks of a direct discharge—in other words, if the discharged pollutants still betray the traces of having been emitted from a “discernible, confined and discrete conveyance” (the statutory definition of “point source”). In contrast, if the pollutants lack those hallmarks, and thus are indistinguishable from pollutants added by nonpoint sources, then their discharge is not a regulated “functional equivalent.” This “hallmark” approach is consistent not only with County of Maui’s articulation of the functional equivalent rule, but also with the Court’s expectation of how that rule should be implemented. In support of the proposed hallmark analysis, the Article defines the reference point (“direct discharge”) and its functions, then explains how to determine whether the hallmarks of the pollutants at issue are equivalent to the hallmarks of a direct discharge. Finally, it cautions that, consistent with County of Maui’s admonition, the functional equivalent analysis must include a “perspective” check to prevent the Act from being used to undercut the states’ traditional authority over water quality, while also respecting Congress’ intent that certain point-source discharges be federally regulated.

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I. INTRODUCTION

The Clean Water Act$^1$ generally forbids the “discharge” of “pollutants” into “navigable waters” without a permit.$^2$ Unfortunately, the scope of the Act’s permit mandate is notoriously difficult to ascertain, principally because no one seems quite sure what the statute means when it defines “navigable waters” as “waters of the United States” (sometimes abbreviated “WOTUS”).$^3$

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2. See id. §§ 1311(a), 1362(7), (12), (16). We say “generally” because there are limited exemptions, chiefly for certain discharges of dredged or fill material. See id. § 1344(f)(1)(A)–(F).
However, the intensity of the WOTUS wars may give the impression that the rest of the statute is easy to apply. The Supreme Court’s 2019 Term decision in County of Maui v. Hawaii Wildlife Fund belies that view.

In County of Maui, the Court construed another component of the Clean Water Act’s permitting requirement—namely, the definition of “discharge of a pollutant” as the addition of pollutants “from any point source.” The statute defines the term “point source” as any “discernible, confined and discrete conveyance,” but it does not define the phrase “from any point source.” That raises a number of questions. Is a pollutant “from” a point source only if it traveled directly from the point source to the regulated “water of the United States”? If not, then how indirect may the pollutant’s path be and yet still be deemed “from” a point source? A few miles’ distance? A few days’ time? Through overland sheet flow? Or, how about, as in County of Maui, from “a sewage treatment plant [that] discharges polluted water into the ground where it mixes with groundwater, which, in turn, flows into . . . the ocean”?

To help answer that question, the majority in County of Maui adopted the “functional equivalent” rule, according to which a point-source discharge of a pollutant is regulated under the Clean Water Act if it either directly emits pollutants into regulated waters, or, if not directly, in a manner that is the functional equivalent of such a direct discharge. But what is a functional equivalent of a direct discharge? The Court did not define the term or provide guidance, other than to offer a non-exhaustive list of factors that lower courts should consider in distinguishing between what is and what is not a functional equivalent, while admonishing that a court applying the functional equivalent test should be mindful of the states’ traditional authority over water pollution as well as the goal of avoiding law evasion.

6. Id. § 1362(14).
7. County of Maui, 140 S. Ct. at 1468.
8. Id. at 1476 (holding that the Clean Water Act “requires a permit when there is a direct discharge from a point source into navigable waters or when there is the functional equivalent of a direct discharge.”).
What, then, is the regulated public to do given that the functional equivalent rule “does not supply a bright-line test”? To pick up where the Court left off, we propose in this article the “hallmark” interpretation of the functional equivalent test. Consistent with this gloss, a pollutant discharge is the functional equivalent of a direct discharge (and therefore regulated) if it bears the hallmarks of a direct discharge—in other words, if one can ascertain that the pollutants still bear the traces of having been emitted from a “discernible, confined and discrete conveyance.” We believe that this approach is consistent not only with the Court’s articulation of the functional equivalent rule, but also with the Court’s expectation of how that rule should be implemented.

To provide context for the hallmark analysis’s operation, we adhere to the statutory purposes as identified by the Court—preserving traditional state authority without creating loopholes—but with some modification to avoid a latent tension in the Court’s articulation of those purposes. For us, the Clean Water Act’s goals are best served by outcomes that avoid federalization of groundwater pollution and other water-quality problems typically addressed by states, while also ensuring that otherwise regulated parties do not avoid regulation by merely reconfiguring the mechanics of existing discharges.

Part I provides background on the Clean Water Act, emphasizing the importance of the Act’s cooperative federalism framework. Part III rehearses the litigation history of attempts to construe the “from any point source” requirement. Finally, Part IV

9. Id. at 1479 (Kavanaugh, J., concurring); accord id. at 1476 (majority opinion) (“The difficulty with [the functional equivalent] approach, we recognize, is that it does not, on its own, clearly explain how to deal with middle instances.”).
11. See County of Maui, 140 S. Ct. at 1476 (“Whether pollutants that arrive at navigable waters after traveling through groundwater are ‘from’ a point source depends upon how similar . . . the particular discharge is to a direct discharge.”).
12. See id. at 1477 (“[C]ourts can provide guidance through decisions in individual cases. . . . And the traditional common-law method, making decisions that provide examples that in turn lead to ever more refined principles, is sometimes useful, even in an era of statutes.”).
13. Id. at 1471, 1473.
sets forth the hallmark analysis, as well as our take on how statutory purpose should guide application of the functional equivalent test.

II. BACKGROUND ON THE CLEAN WATER ACT

A. Regulation of water quality prior to the Clean Water Act

The first federal regulation of the Nation’s waters consisted primarily of laws designed to promote commerce and prohibit obstructions to navigation.\(^\text{14}\) For example, the Rivers and Harbors Act of 1890 prohibited the discharge of “waste of any kind into . . . navigable waters of the United States which shall tend to impede or obstruct navigation,” unless the discharger first obtained “a permit from the Secretary of War.”\(^\text{15}\) A later statute, the Rivers and Harbors Act of 1899, prohibited the unpermitted “discharge” of “any refuse matter of any kind . . . other than that flowing from streets and sewers and passing therefrom in a liquid state, into any navigable water of the United States.”\(^\text{16}\)

Expanding on these early regulatory attempts, the 1948 Federal Water Pollution Control Act\(^\text{17}\) emphasized the important role of states in “prevent[ing], control[ling], and abat[ing] water pollution.”\(^\text{18}\) The Pollution Control Act’s “primary mechanism” for seeking to control pollution was the use of “water quality standards,” which “specif[ied] the acceptable levels of pollution in a State’s interstate navigable waters.”\(^\text{19}\) States were required to set and work to achieve quality metrics for the waters within their boundaries. However, as the United States Supreme Court later recognized,

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\(^{15}\) Rivers and Harbors Act of 1890, 26 Stat. 426.


three features of the Pollution Control Act made it ineffective: first, it focused solely on *effects* (i.e., pollution levels) rather than *causes* (i.e., the discharge of pollutants); second, there was “awkwardly shared federal and state responsibility for promulgating [water quality] standards”; and third, there were “cumbersome enforcement procedures.” The combination of these features made it “very difficult” to enforce the Act or to reduce water pollution.

For the next several decades, Congress sought to remedy these problems through a series of amendments to the Act. The amendments focused on offering federal grants to promote states’ and localities’ regulatory efforts, improving cooperation between the federal government and the states, and establishing a federal agency to administer the program. In 1970, Congress further amended the Act to address specific water-quality issues, including “oil discharges, discharge of hazardous substances, discharge of sewage from vessels, . . . [and] acid mine drainage.”

Despite these revisions, in evaluating the Pollution Control Act and its amendments, the Senate Committee on Public Works concluded in 1972 that “the Federal water pollution control program . . . has been inadequate in every vital aspect.” Among the problems cited by the Committee were the country’s “severely polluted” navigable waters and the frequent use of “[r]ivers, lakes, and streams” for waste disposal rather than for other beneficial uses. The Committee emphasized its belief that “restoration of the natural

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20. Id.
21. See id.
22. S. Rep. No. 92-414, at 2–3. The new agency was originally known as the Federal Water Pollution Control Administration. Id. at 2. Over the years, its authority was transferred to the Secretary of the Interior, then to the Administrator of the Environmental Protection Agency. Id.
23. Id. at 2–3.
24. Id. at 7.
25. Id. This is not to say that state and local governments were indifferent to the pollution problems. See Jonathan H. Adler, *Fables of the Cuyahoga: Reconstructing a History of Environmental Protection*, 14 *Fordham Envtl. L.J.* 89, 111 (2002) (“Although reliable data on water quality in the 1960s is hard to come by, there is reason to believe that state and local efforts produced measurable, if modest, improvement in water quality in many areas.”).
chemical, physical, and biological integrity of the Nation’s waters is
essential.”26 In pursuance of that goal, the Committee recommended
“a major change in the enforcement mechanism of the Federal water
pollution control program.”27

B. The 1972 Clean Water Act’s system of effluent
limitations and cooperative federalism

Building on the Committee’s efforts, in 1972 Congress adopted
major Amendments to the Federal Water Pollution Control Act.28
These Amendments constitute what is commonly known as the
Clean Water Act, and they “were viewed by Congress as a ‘total
restructuring’ and ‘complete rewriting’ of the existing water pollution
legislation.”29

Mirroring language from the Senate Committee, the primary
stated objective of the Clean Water Act, found in subpart (a) of the
first statutory section, “is to restore and maintain the chemical,
physical, and biological integrity of the Nation’s waters.”30 But that
was not Congress’ only concern. Subpart (b) of that same
introductory section emphasizes the critical—and indeed, primary—
role of states in controlling water pollution: “[i]t is the policy of the
Congress to recognize, preserve, and protect the primary
responsibilities and rights of States to prevent, reduce, and eliminate
pollution [and] to plan the development and use (including
restoration, preservation, and enhancement) of land and water
resources.”31 Thus, the 1972 Amendments reaffirmed the need for
cooperative federalism and renewed a “partnership between the
States and the Federal Government” with the common goal of
protecting the nation’s waters.32

27. Id.
28. See Federal Water Pollution Control Act Amendments of 1972, Pub. L. 92–
500, 86 Stat. 816.
the legislative history); see also id. at 318 (stating that in enacting the Clean Water
Act, Congress sought to “establish an all-encompassing program of water pollution
regulation”).
30. 33 U.S.C. § 1251 (entitled “Congressional declaration of goals and policy”).
31. Id. § 1251(b).
Yet there is no doubt that the Clean Water Act constituted a major reorientation as to water pollution control. Unlike the Pollution Control Act, which focused primarily and directly on water quality, the Clean Water Act focused instead on sources of pollution by establishing “effluent limitations.” Specifically, the Clean Water Act proscribed “the discharge of any pollutant by any person,” unless done in compliance with new statutory requirements. The term “pollutant” is broadly defined, to include not only materials such as “solid waste,” “sewage,” “garbage,” and “chemical waste,” but also naturally occurring, non-toxic substances such as “rock,” “sand,” and even “heat.” The Clean Water Act was intended to control and limit the discharge of any such materials into the country’s waters by requiring that it be done only with a permit.

The most significant permitting requirement established by the Clean Water Act is the National Pollutant Discharge Elimination System (NPDES), which “requires dischargers to obtain permits that place limits on the type and quantity of pollutants that can be

33. See 33 U.S.C. § 1311; see also id. § 1362(11) (“The term ‘effluent limitation’ means any restriction . . . on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters . . . .”).

34. Id. § 1311(a); see also City of Milwaukee, 451 U.S. at 310–11 (stating that the Clean Water Act “established a new system of regulation under which it is illegal for anyone to discharge pollutants into the Nation’s waters except pursuant to [sic] a permit”). A “person,” for purposes of the Clean Water Act, includes any “individual, corporation, partnership, association, State, municipality, commission, or political subdivision of a State, or any interstate body.” 33 U.S.C. § 1362(5).

35. 33 U.S.C. § 1362(6) (“The term ‘pollutant’ means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.”). The definition excludes certain discharges from military vessels and materials injected into oil and gas production wells. Id.


released into the Nation’s waters.” The NPDES permitting program is a good example of the Clean Water Act’s cooperative federalism approach, since states and territories can choose to administer the permitting program themselves, or leave administration to the EPA. Most states have elected to operate NPDES permitting programs, in whole or in part.

C. The point-source/nonpoint-source distinction—a key part of the Act’s cooperative federalism framework

Among the changes implemented in the Clean Water Act was the introduction of a new concept in federal water pollution regulation: the “point source.” This term appears throughout the Act, including in the definition of the term “discharge of a pollutant,” which is primarily defined as “any addition of any pollutant to navigable waters from any point source.” Thus, the only pollution to which the Act’s permitting requirements apply is pollution that


42. 33 U.S.C. § 1362(12)(A) (emphasis added). The “discharge of a pollutant” also includes “any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft.” Id. § 1362(12)(B) (emphasis added); see also id. § 1362(9) (defining the term “contiguous zone”).
comes from a point source. Somewhat circularly, the Act defines “point source” as “any discernible, confined and discrete conveyance . . . from which pollutants are or may be discharged.” This definition is not a model of legislative clarity, and, as we will see, the dispute in County of Maui centered on how to interpret and apply it.

In contrast to point sources, pollution that is not added from a “discernible, confined and discrete conveyance” must instead have come from a nonpoint source. Although the Act does not specifically define that term, it repeatedly uses it. Examples of nonpoint source pollution include rainwater runoff carrying excess fertilizer from a field or oil residue from a highway. More broadly, any method of transporting pollution to navigable waters that does not qualify as a point source is necessarily a nonpoint source. There is no third option.

Unlike point source pollution, nonpoint source pollution does not require an NPDES permit. In fact, the Act does not directly regulate nonpoint-source pollution at all, leaving it instead to the states and

43. E.g., Or. Nat. Desert Ass’n v. Dombeck, 172 F.3d 1092, 1096 (9th Cir. 1998) (“Nonpoint source pollution is not regulated directly by the Act, but rather through federal grants for state wastewater treatment plans.”).

44. 33 U.S.C. § 1362(14). The definition lists various examples of point sources, as well as two exemptions. See id. (“The term ‘point source’ means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.”).

45. See infra Part III.


47. See Basic Information about Nonpoint Source (NPS) Pollution, EPA (Oct. 7, 2020), https://www.epa.gov/nps/basic-information-about-nonpoint-source-nps-pollution [https://perma.cc/C8R2-JUU6] (“NPS pollution is caused by rainfall or snowmelt, moving over and through the ground. As the runoff moves, it picks up and carries natural and human-made pollutants, depositing them into lakes, rivers, wetlands, coastal waters and ground waters.”).

48. Id. (“The term ‘nonpoint source’ is defined to mean any source of water pollution that does not meet the legal definition of ‘point source’ . . . .”).
Indeed, under 33 U.S.C. § 1329(b), each state is required to create its own management program “for controlling pollution added from nonpoint sources to the navigable waters within the State.” This division of responsibility—requiring federal permits for point source pollution but leaving regulation of nonpoint sources to the states—is a clear manifestation of the cooperative federalism framework that underlies the Act.

III. THE COUNTY OF MAUI LITIGATION

A. Pre-County of Maui groundwater litigation

It did not take long for questions—and conflicting court opinions—to arise as to the extent to which the Clean Water Act provided federal agencies with authority over groundwater. In a 1975 decision, United States v. GAF Corp., a federal district court in Texas held that an NPDES permit was not required for “[t]he disposal of chemical wastes into underground waters which have not been alleged to flow into or otherwise affect surface waters.” That was because, the court held, “the regulation of subsurface discharges is not within the enforcement purview of the Act.” Not long after, the Seventh Circuit disagreed with that conclusion, at least where the subsurface regulation was connected to “an interim NPDES permit program concerning surface discharges.” And just one month later, the Fifth Circuit issued an opinion conflicting with the Seventh Circuit’s, holding that the “navigable waters” limitation in the Act meant that the EPA could not regulate deep-well injection of wastes, even in connection with its regulation of surface waters.

49. See Rapanos v. United States, 547 U.S. 715, 803 (2006) (Stevens, J., dissenting) (asserting that under the Clean Water Act, states are given “nearly exclusive responsibility for containing pollution from nonpoint sources”).
50. 33 U.S.C. § 1329(b)(1). Such management programs are subject to EPA approval and may be eligible for federal funding. See id. § 1329(d), (h), (i).
52. Id.
53. U.S. Steel Corp. v. Train, 556 F.2d 822, 852 (7th Cir. 1977).
54. Exxon Corp. v. Train, 554 F.2d 1310, 1322 (5th Cir. 1977).
Courts also quickly differed as to whether groundwater is itself part of the “waters of the United States,” especially where the groundwater is “hydrologically connected” to a regulated surface water. For example, a federal district court in Michigan accepted the argument that, “while the term ‘navigable waters’ is construed broadly, Congress did not intend to include groundwater within its definition.” The Seventh Circuit similarly concluded that “[n]either the Clean Water Act nor the EPA’s definition of ‘waters of the United States’ asserts authority over ground waters, just because these may be hydrologically connected with surface waters.” Yet courts in California and Colorado held that, although “Congress did not intend to require NPDES permits for discharges of pollutants to isolated groundwater,” permits might be required if the groundwater “has a direct hydrological connection to surface waters that themselves constitute ‘waters of the United States.’”

Over the ensuing years, courts continued to struggle with whether and how to apply the Clean Water Act to groundwater pollution. The EPA attempted to deal with the question by issuing

61. *Compare* EPA, FACT SHEET: DRAFT GENERAL PERMITS FOR STORMWATER DISCHARGES SYSTEMS FROM SMALL MUNICIPAL SEPARATE SEWER SYSTEMS IN MASSACHUSETTS 18 (2014), https://www3.epa.gov/region1/npdes/stormwater/ma/2014FactSheet.pdf [https://perma.cc/Z88S-5DYW] (“[D]ischarges to groundwater are not addressed in the NPDES program and as such are not addressed by this permit.”), and EPA, RESPONSE TO PUBLIC COMMENTS: EPA NPDES PESTICIDE GENERAL PERMIT at xxii (2011), (“Generally, discharges to groundwater are not regulated under the NPDES program . . . .”), and Memorandum from the U.S. EPA Acting Deputy Gen. Couns. to the U.S. EPA Region IX Reg’l Couns. at 2–3 (Dec. 13, 1973) (“[T]he term ‘discharge of a pollutant’ is defined so as to include only discharges into navigable waters (or the contiguous zone or the ocean). Discharges into ground waters are not included.”), with Final General NPDES Permit for Concentrated Animal Feeding Operations (CAFO) in Idaho ID-G-01-0000, 62 Fed. Reg. 20,177, 20,178 (Apr. 25, 1997) (“The only situation in which groundwater may

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Maui, the question of groundwater pollution was already well-trodden in the lower courts.

B. County of Maui district court litigation

For forty years, the County of Maui, Hawaii, has owned the Lahaina Wastewater Reclamation Facility, a wastewater treatment plant that disposes of treated sewage into underground injection control wells. The plant receives and treats about 4 million gallons of wastewater per day from the western part of the island of Maui and injects the resulting effluent into the injection wells. By design, the treated wastewater mixes with groundwater, which then seeps through the aquifer toward the Pacific Ocean about a half-mile away. Although the County obtained various state and federal permits for the construction and use of the injection wells, it did not seek or receive an NPDES permit for their continued operation.

In 2011, the EPA ordered a study where tracer dye was added into the wells. Over time, researchers were able to detect about 64% of the added dye emerging into the Pacific Ocean from underwater springs, taking an average of about 15 months to reach be affected by the NPDES program is when a discharge of pollutants to surface waters can be proven to be via groundwater.

the ocean. The study therefore concluded that a similar portion of the County’s treated wastewater must also discharge into the ocean from those same underwater springs.

In light of that conclusion, a coalition of environmental groups sued the County in federal district court under the Clean Water Act’s citizen-suit provision for discharging treated wastewater without a federal NPDES permit. The lawsuit claimed that the ocean discharge was harming the chemical, physical, and biological integrity of the oceanic environment. The County disputed that assertion, but also argued that an NPDES permit was unnecessary because the injection wells do not discharge into a navigable water, but into groundwater. Furthermore, the County argued that even though effluent from the wells reaches the Pacific Ocean (which is indisputably a navigable water, at least to the extent of the territorial sea), it does so only through diffuse subterranean groundwater flow, which is nonpoint-source pollution that falls outside the scope of the NPDES program.

The federal district court in Hawaii granted summary judgment for the environmental groups. It applied what it called a “conduit theory” to hold that the County’s injection wells are point sources requiring NPDES permits. Under that theory, even though the wells did not directly discharge into a navigable water, they are still

65. Id. at ES-3. The dye was first detected in the ocean about 3 months after injection, and the study estimated that it would take about four years to fully exit the coast. Id.
66. Id. ("[I]t is also our conclusion based on these calculations that 64 percent of the treated wastewater injected into these wells currently discharges from the submarine spring areas.").
68. See Haw. Wildlife Fund v. County of Maui, 24 F. Supp. 3d 980, 986 (D. Haw. 2014), aff’d, 881 F.3d 754 (9th Cir. 2018), and aff’d, 886 F.3d 737 (9th Cir. 2018), vacated and remanded, 140 S. Ct. 1462 (2020).
69. Id. at 984–85.
70. See id. at 985, 998–1000.
71. See 33 U.S.C. § 1362(7)–(8) ("The term ‘territorial seas’ means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles.").
73. Id. at 1005.
74. Id. at 996, 1005.
point sources because the groundwater acted as a “conduit” that transported pollution to a navigable water.\textsuperscript{75} The district court asserted that, under the conduit theory, “Plaintiffs may . . . prevail if they show that the discharge into the groundwater . . . is functionally equivalent to a discharge into the ocean itself.”\textsuperscript{76} In adopting the conduit theory, the district court recognized that, although in its view, the theory “makes sense,” it could not “point to controlling appellate law or statutory text expressly allowing” the conduit theory.\textsuperscript{77}

\section*{C. \textit{County of Maui} in the Ninth Circuit}

Maui County appealed the district court’s grant of summary judgment. The Ninth Circuit’s decision did not directly address the district court’s “conduit theory,” but it rejected the lower court’s broad conclusion that “liability under the Clean Water Act is triggered when pollutants reach navigable water, \textit{regardless of how they get there}.”\textsuperscript{78} Instead, the Ninth Circuit devised a different standard: the “fairly traceable” test.\textsuperscript{79} Under this test, it held that the County was liable under the Clean Water Act for discharging pollutants into the Pacific Ocean because “the pollutants are fairly traceable from the point source to a navigable water such that the discharge is the functional equivalent of a discharge into the navigable water” and because the pollutant levels reaching the navigable water were “more than \textit{de minimis}.”\textsuperscript{80}

In adopting its test, the Ninth Circuit rejected a different standard that had been proposed by the EPA as \textit{amicus}.\textsuperscript{81} Under the EPA’s proposed approach, “discharges moving through groundwater...
to a jurisdictional surface water are subject to CWA permitting requirements if there is a ‘direct hydrological connection’ between the groundwater and the surface water.” \(^{82}\) The Ninth Circuit criticized the EPA’s proposed test for “read[ing] two words into the CWA (‘direct’ and ‘hydrological’) that are not there” and opined that the Ninth Circuit rule “better aligns with the statutory text.” \(^{83}\)

D. The Kinder Morgan and Kentucky Waterways Alliance decisions

Shortly after the Ninth Circuit issued its decision in *County of Maui*, two other Circuit Courts addressed the same issue—namely, whether the discharge of pollution into groundwater that travels to a navigable water requires an NPDES permit. \(^{84}\)

The Fourth Circuit agreed in *Upstate Forever v. Kinder Morgan Energy Partners* that an NPDES permit may be required for the discharge of pollutants into groundwater that passes through to a navigable water. \(^{85}\) In *Kinder Morgan*, several hundred thousand gallons of gasoline had spilled from a rupture in an underground pipeline in South Carolina. \(^{86}\) Although the pipeline owner swiftly repaired the breach, the spilled gasoline continued to seep into nearby wetlands and waterways. \(^{87}\) The Fourth Circuit agreed with the Ninth Circuit that a discharge need not be directly into navigable waters to fall under the Clean Water Act, but rather than follow the Ninth Circuit’s traceability rule, the Fourth Circuit adopted the

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83. *Haw. Wildlife Fund*, 886 F.3d at 749 n.3. Of course, as was pointed out in the County’s appeal from the Ninth Circuit decision, the terms “fairly traceable” and “de minimis” from the Ninth Circuit’s test are also not found in the Clean Water Act. Brief for Petitioner at 15–16, 31, County of Maui v. Haw. Wildlife Fund, 140 S. Ct. 1462 (2020) (No. 18-260).
85. See *Upstate Forever*, 887 F.3d at 641–42, 651–52.
86. *Id.* at 641.
87. *Id.* at 643.
EPA's position. That is, the Fourth Circuit held that a plaintiff must allege and prove that there is a “direct hydrological connection between ground water and navigable waters . . . for a discharge of a pollutant that passes through ground water.”

In contrast to the other two circuits, the Sixth Circuit in Kentucky Waterways Alliance v. Kentucky Utilities Co. held that an NPDES permit is not required for discharges into groundwater. In Kentucky Waterways Alliance, chemicals leaching from coal ash ponds were alleged to have contaminated groundwater, which in turn contaminated a nearby lake. The plaintiffs asserted that under the “hydrological connection” theory, the owner of the ponds should be liable under the Clean Water Act. The Sixth Circuit, however, rejected the theory, holding that “[t]he text and statutory context of the CWA make [it] clear” that it “does not extend its reach to this form of pollution.” In so deciding, the court expressly disagreed with the decisions in Upstate Forever and Hawaii Wildlife Fund.

E. County of Maui in the Supreme Court

Given the acknowledged circuit split on the question of Clean Water Act jurisdiction over discharges into groundwater, the

88. Id. at 649–51 & n.12 (noting, however, that the Fourth Circuit panel saw “no functional difference” between the Ninth Circuit’s rule and the EPA’s “direct hydrological connection” position).
89. Id. at 651.
90. 905 F.3d 925, 940 (6th Cir. 2018).
91. Id. at 928.
92. Id. at 932–33. The court stated in a footnote that “[t]his theory has also been referred to as the ‘conduit’ theory,” id. at 932 n.5 (citing Damien Schiff, Keeping the Clean Water Act Cooperatively Federal – Or, Why the Clean Water Act Does Not Directly Regulate Groundwater Pollution, 42 WM. & MARY ENV’T. L. & POL’Y REV. 447, 467–68 (2018)), although there is at least a conceptual difference between whether there is a “conduit” to a navigable water and whether there is a “direct hydrological connection” with such water.
93. Id. at 933.
94. Id.
Supreme Court unsurprisingly granted certiorari to review the Ninth Circuit’s decision.95

1. Positions in the parties’ briefs

The Supreme Court had plenty of options to choose from in deciding on the appropriate test to apply to discharges into groundwater. In addition to the decisions of the circuit courts, the parties, plus the United States as amicus curiae, suggested three different ways to read the language of the CWA.

First, the County argued for a “bright-line test” focused on the “means of delivery” of the pollutant.96 Under the County’s position, an NPDES permit “is necessary only where pollutants are being delivered to navigable waters by a point source or series of point sources.”97 In contrast, “[a] point source permit is not required if pollutants are instead being delivered to navigable waters by nonpoint sources, such as runoff or groundwater.”98 Thus, under the County’s “bright-line test,” if there is a nonpoint source between the discharge from a point source and the navigable water, no permit is required.

Second, the United States, as amicus, argued for a slightly different interpretation.99 The United States’ position was based on

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95. See Haw. Wildlife Fund v. County of Maui, 886 F.3d 737 (9th Cir. 2018), cert. granted, 139 S. Ct. 1164 (Feb. 19, 2019) (No. 18–260). In addition to the question of whether the Clean Water Act applies “when pollutants originate from a point source but are conveyed to navigable waters by a nonpoint source, such as groundwater,” Maui County had sought certiorari on a second question, which the Supreme Court did not grant. See Petition for Writ of Certiorari, Haw. Wildlife Fund, 866 F.3d 737 (No. 18–260) (“Whether the County of Maui had fair notice that a CWA permit was required for its underground injection control wells that operated without such a permit for nearly 40 years.”). The defendant in Kinder Morgan also sought certiorari of the Fourth Circuit decision, and the Supreme Court held the petition pending a decision in County of Maui, after which it granted certiorari, vacated the Fourth Circuit decision, and remanded for further consideration. See Kinder Morgan Energy Partners, L.P. v. Upstate Forever, 887 F.3d 637, cert. granted, judgement vacated and remanded, 140 S. Ct. 2736, (2020) (mem.).


97. Id. at 27.

98. Id. at 28.

99. See Brief for the United States as Amicus Curiae Supporting Petitioner, County of Maui, 140 S. Ct. 1462 (No. 18-260).
an “Interpretive Statement” issued by the EPA after the Supreme Court granted certiorari, but before merits briefing began. After reviewing more than 50,000 comments, prior court decisions, the legislative history, and the EPA’s prior approach to the question, the agency issued an Interpretive Statement adopting what might be called a “groundwater is different” approach. Under this approach, “the best, if not the only, reading of the statute is that all releases to groundwater are excluded from the scope of the NPDES program, even where pollutants are conveyed to jurisdictional surface waters via groundwater.” There are two alternative rationales that underlie this approach to treating groundwater differently: “[t]he interposition of groundwater between a point source and the navigable water . . . may be said to break the causal chain between the two, or alternatively may be described as an intervening cause.” Under either view of causality, a discharge into groundwater does not require an NPDES permit. However, unlike the County’s bright-line test, the United States’ position was categorically limited to discharges into groundwater. It argued that the Court “need not decide whether and how the Act would apply when pollutants travel from a point source to jurisdictional surface waters through a medium other than groundwater,” a situation for which the Interpretive Statement reaffirmed a “case-by-case approach to determining . . . [w]hether a permit is required.”

Third, the environmental group plaintiffs basically agreed with the Ninth Circuit that an NPDES permit is required if a pollutant reaching navigable water is “fairly traceable” back to a point source. Perhaps recognizing the breadth of that argument, the

101. Id. at 16,810.
102. Id. at 16,814.
103. Id.
105. Brief for Respondents at 20, County of Maui, 140 S. Ct. 1462 (No. 18-260).
plaintiffs suggested a slight modification of the Ninth Circuit test—a requirement that “the point-source release be a proximate cause of the addition of pollutants to navigable waters.”106 In other words, “the pollution of navigable waters must be a ‘foresee[able]’ or ‘natural and probable’ consequence of the point-source discharge.”107

2. Oral argument

Oral argument was held on November 6, 2019.108 In his opening remarks, counsel for the County made three main points. First, the issue is not whether Maui County’s disposal of wastewater should be regulated, but how. That is, “several existing state and federal environmental programs, including the Clean Water Act’s nonpoint source program,” already regulate the County’s injection wells; the question is whether they are also subject to point source regulation.109 Second, with regard to text, the County focused on the Act’s definition of “point source” as a “conveyance,”110 arguing that the key question “is not where a pollutant comes from but how it reaches navigable waters.”111 If it is delivered by a point source, then a permit is required; otherwise, it is not. Third, the County emphasized the importance of predictability. Given the strict penalties for noncompliance, regulated parties should be able to know in advance whether to seek a permit.112

106. Id.; see also id. (“The [Clean Water Act’s] textual requirement that pollutants come ‘from’ a point source also implicates ‘[t]he legal concept of “proximate cause,” a ‘shorthand for the policy-based judgment that not all factual causes contributing to an injury should be legally cognizable causes.’” (second alteration in original) (quoting U.S. Br. at 23)).

107. Id. at 20–21 (alteration in original) (quoting Milwaukee & St. Paul Ry. Co. v. Kellogg, 94 U.S. 469, 475 (1876)).


109. Id. at 3.


111. Transcript of Oral Argument at 3–4, County of Maui, 140 S. Ct. 1462 (No. 18-260).

112. Id. at 4. Justice Kavanaugh picked up on this last point when questioning counsel for the plaintiffs, highlighting the need for “some clear line for the property owner” and for a standard “that’s objectively clear on the front end,” not only “after a lot of litigation.” Id. at 59–60. His concurring opinion, however, did not press the point. See infra Part III.E.6.
The Justices’ questions to the County centered on its bright-line position. For example, the Chief Justice began by asking whether “any intervention of groundwater [between a point source and a navigable water] removes the jurisdiction of the point source program?”\textsuperscript{113} The County agreed that it would. This concerned Justice Breyer, who worried that the County’s position would provide “an absolute road map for people who want to avoid . . . point source regulation.”\textsuperscript{114} That is, a polluter could just end its pipe or other source of pollution “five feet from” the navigable water to avoid point source regulation.\textsuperscript{115} Instead, Justice Breyer stated that he was looking for “a standard that would prevent evasion.”\textsuperscript{116} Justice Kagan also took issue with the County’s reading of the statute, arguing that the textual analysis is simple: “here [the pollution is] from a point source, which is the well, and it’s to navigable waters, which is the ocean, and it’s an addition. How does this statute not apply?”\textsuperscript{117} The County’s response was that the word “from” “takes its meaning from the words that are around it,” including the terms “conveyance” and “addition,” which require something more than mere traceability.\textsuperscript{118}

The United States also participated in the argument, as amicus. It reiterated the “groundwater is different” approach from its Interpretive Statement, arguing that Congress intended that groundwater breaks the causal chain such that a permit is not required for discharges into groundwater.\textsuperscript{119} The Chief Justice again asked whether “any little bit of groundwater” is sufficient, even “two inches.”\textsuperscript{120} The United States agreed that would be enough, but

\textsuperscript{113} Transcript of Oral Argument at 5–6, County of Maui, 140 S. Ct. 1462 (No. 18-260) (emphasis added).
\textsuperscript{114} Id. at 9.
\textsuperscript{115} Id.; see also id. at 11 (“JUSTICE KAGAN: . . . [N]obody would ever have to go through that process of getting a permit if they knew that they could do something like what Justice Breyer was suggesting, just stop the pipe five feet before the ocean.”).
\textsuperscript{116} Id. at 9.
\textsuperscript{117} Id. at 14 (emphases added).
\textsuperscript{118} Id. at 14–16.
\textsuperscript{119} Id. at 24.
\textsuperscript{120} Id.
highlighted that in the United States’ view (in contrast to the County’s), a permit would be required if the pollutant travels over land instead of through groundwater.121 Justice Breyer suggested that, in his view, an alternative approach would be to require permits if a discharge into groundwater is “the functional equivalent of a direct discharge.”122 That approach, he asserted, would be “narrower than the Ninth Circuit” but would “leave[] a lot of room for the EPA to write regulations, to decide what is the functional equivalent of a direct discharge.”123 The United States’ attorney expressed some skepticism, but ultimately stated that “if [the EPA] had rule-making authority and could . . . flesh that out, it would be helpful.”124

Finally, counsel for the environmental group plaintiffs focused his initial remarks on the fact that the Clean Water Act is not limited to “direct” discharges, but broadly prohibits all additions of pollutants to navigable waters from any point source.125 As to the meaning of the word “from” in the statute, plaintiffs’ counsel used the example of groceries to illuminate his argument: “When you buy groceries, you say they came from the store, not from your car, even though that’s the last place they were before they entered your house.”126 Plaintiffs’ counsel also explained that the EPA had interpreted the Clean Water Act consistent with this view for 30 years without the “parade of horribles” that the County argued for, and he noted the potential under the County’s argument for evasion by large-scale polluters.127

The Chief Justice was the first to ask questions again, focusing on concerns with the two purported limiting principles of the plaintiffs’ argument: traceability and proximate cause.128 The Chief Justice took issue with both, calling traceability a “technological issue” that depends on “how sophisticated the instruments are that

121. See id. at 24–26.
122. Id. at 31. That was the approach ultimately adopted by a majority of the Court, in an opinion by Justice Breyer. See infra Part III.E.4.
123. Transcript of Oral Argument at 31, County of Maui, 140 S. Ct. 1462 (No. 18-260).
124. Id. at 32.
125. Id. at 33.
126. Id.
127. Id. at 33–35.
128. Id. at 35.
can trace it” and stating that proximate cause is a “notoriously manipulable” standard. Justice Alito also chimed in, using an example that featured prominently in the briefs—that of septic tanks. He asked whether an “ordinary family out in the country” that buys a septic tank would be liable under the Clean Water Act if the septic tank were to leach pollutants that make their way into navigable waters. The plaintiffs’ response was that a properly installed septic tank would not discharge pollution at all, but that under a traceability standard, “usually, when you have one septic tank, you have more, and so just because you find pollutants in the water doesn’t mean you know which one it’s from.”

Justice Breyer echoed concern about the traceability test and again suggested a “functional equivalent” test, fleshed out by EPA regulation. Counsel for the plaintiffs agreed that his side could embrace that test. But the Chief Justice questioned whether the “functional equivalent” test would provide a workable standard. He criticized it as just “as vague as fairly traceable”—and little different in practice: “it seems to me that your answer to me is that the functional equivalent is anything that gets to a jurisdictional water.”

129. Id. at 36. Later in the argument, Chief Justice Roberts and Justice Kagan had a fascinating extended back-and-forth about how the proximate cause standard works and whether it could be appropriate in this context. See id. at 52–55.
130. Id. at 40.
131. Id.
132. Id. at 44. But see id. at 53 (“CHIEF JUSTICE ROBERTS: . . . So all you have to do is get a bunch of neighbors and all put the septic tanks in, and then you’re scot free?”).
133. Id. at 45.
134. Id. at 47–48.
135. See id. at 48 (“I don’t mean to be critical of the author of the phrase, but what does ‘functional equivalent’ mean?”); see also id. (“CHIEF JUSTICE ROBERTS: Well, what’s the functional equivalent of a pipe when you’re talking about groundwater?”). Note, however, that Chief Justice Roberts ultimately joined the majority opinion adopting a “functional equivalent” standard. See infra Part III.E.4.
136. Transcript of Oral Argument at 50, County of Maui, 140 S. Ct. 1462 (No. 18-260).
Based on the comments and questions at oral argument, the Court appeared to be fairly evenly divided, with no clear preferred standard.

3. The majority’s rejection of the parties’ arguments

The Supreme Court decided the case on April 23, 2020.\textsuperscript{137} The Justices issued four separate opinions, with Justice Breyer writing for a six-Justice majority.\textsuperscript{138} His opinion took a purposive approach,\textsuperscript{139} primarily seeking an interpretation of the Clean Water Act that would support Congress’ objective of “restor[ing] and maintain[ing] the chemical, physical, and biological integrity of the Nation’s waters.”\textsuperscript{140} Accordingly, the majority opinion sought to devise a standard that would make it hard for polluters to avoid permitting requirements.\textsuperscript{141}

The majority emphasized that the key textual dispute in the case was as to the meaning of the word “from.”\textsuperscript{142} As noted above, the Clean Water Act prohibits the unpermitted discharge of pollutants to navigable waters “from” a point source.\textsuperscript{143} Yet, how close of a

\begin{itemize}
  \item \textsuperscript{137} County of Maui v. Haw. Wildlife Fund, 140 S. Ct. 1462 (2020).
  \item \textsuperscript{138} Id. (Justice Breyer's opinion was joined by Chief Justice Roberts and by Justices Ginsburg, Sotomayor, Kagan, and Kavanaugh).
  \item \textsuperscript{139} See, e.g., John F. Manning, \textit{The New Purposivism}, 2011 SUP. CT. REV. 113, 120 (2011) (“[T]he traditional version of purposivism holds that judges must implement, as accurately as possible, the directives that Congress embeds in statutes.”); John F. Manning, \textit{What Divides Textualists from Purposivists?}, 106 COLUM. L. REV. 70, 87 (2006) (“[P]urposivism is characterized by the conviction that judges should interpret a statute in a way that carries out its reasonably apparent purpose and fulfills its background justification . . . .”); see generally Anita S. Krishnakumar, \textit{Backdoor Purposivism}, 69 DUKL J. 1275 (2020) (studying purposive approaches in the Roberts Court).
  \item \textsuperscript{140} 33 U.S.C. § 1251(a) (cited in County of Maui, 140 S. Ct. at 1468).
  \item \textsuperscript{141} See, e.g., \textit{County of Maui}, 140 S. Ct. at 1474 (rejecting the EPA’s reading because it “would open a loophole allowing easy evasion of the statutory provision’s basic purposes”); \textit{id.} at 1473 (“We do not see how Congress could have intended to create such a large and obvious loophole in one of the key regulatory innovations of the Clean Water Act.”); \textit{id.} at 1477 (“Decisions [regarding Clean Water Act applicability] should not create serious risks . . . of creating loopholes that undermine the statute’s basic federal regulatory objectives.”).
  \item \textsuperscript{142} \textit{Id.} at 1470 (“The linguistic question here concerns the statutory word ‘from.’”).
  \item \textsuperscript{143} 33 U.S.C. §§ 1311(a), 1362(12)(A).
\end{itemize}
connection does there need to be between the point source and the navigable water? Justice Breyer’s opinion recognizes that the answer is not obvious because the word “from” is context-dependent. For example, if someone asks, “Where have you come from?”, it usually would not be appropriate to answer with the name of the country in which you were born. (Of course, in some contexts—e.g., immigration—that might be the proper answer.)

In deciding how to interpret whether a pollutant is “from” a point source, the majority rejected all three tests put forward by the parties. It concluded that both the County’s test (“means of delivery”) and the United States’ test (“groundwater is different”) were too narrow. Echoing concerns expressed by several of the Justices at oral argument, Justice Breyer wrote that those tests would be too easy to circumvent; for example, a polluter may try shifting a pipe back a few yards from a navigable water so that pollutants released by the pipe travel first through groundwater, then enter the navigable water. Because that would create a “large and obvious loophole,” the majority concluded that Congress could not have intended an interpretation that would allow such circumvention.

The majority afforded little weight to the Interpretive Statement promulgated by the EPA. It emphasized that the government had not asked for Chevron deference to the Interpretive Statement.

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144. County of Maui, 140 S. Ct. at 1470.
145. Id. (“The word ‘from’ is broad in scope, but context often imposes limitations.”).
146. Id. at 1473–74.
147. See, e.g., Transcript of Oral Argument at 8–9, 11, 25–26, County of Maui, 140 S. Ct. 1462 (No. 18-260).
148. County of Maui, 140 S. Ct. at 1473 (“If [the County’s position] is the correct interpretation of the statute, then why could not the pipe’s owner, seeking to avoid the permit requirement, simply move the pipe back, perhaps only a few yards, so that the pollution must travel through at least some groundwater before reaching the sea?”).
149. Id.
150. Id. at 1474.
151. Id.; see also Chevron U.S.A. Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 844 (1984). The majority did not address the question of whether the government can waive Chevron deference by not asserting it, an issue on which the
and even though the Court often “pay[s] particular attention to an agency's views,” because the EPA's reading would open up the same “loophole” as the County’s position, the majority concluded that its interpretation “is neither persuasive nor reasonable.”

As for the traceability test advocated by the plaintiffs and adopted by the Ninth Circuit, the majority held that it is too broad because virtually all water eventually makes its way to navigable water. Therefore, given scientific advances, a traceability standard might require permits for pollutants that take “many years” to reach navigable water and arrive in “highly diluted forms.” In addition to the breadth of the Ninth Circuit standard, the majority listed three other reasons for rejecting it. First, the structure of the Clean Water Act shows that Congress intended to leave responsibility for groundwater pollution and nonpoint source pollution to the individual states. The majority emphasized that “the States have developed methods of regulating nonpoint source pollution through water quality standards, and otherwise.” A traceability test would impinge on the states’ sphere of authority. Second, the majority concluded that the legislative history (for “those who look to legislative history to help interpret a statute”) contradicts the Ninth Circuit’s broad test, given that Congress has rejected several proposals to give the EPA permitting authority over groundwater. Third, the Court concluded that “longstanding regulatory practice” repudiates the traceability test. That is,

lower courts are divided. See James Durling & E. Garrett West, May Chevron Be Waived?, 71 STAN. L. REV. ONLINE 183, 185–87 (2019).

152. County of Maui, 140 S. Ct. at 1474.
153. Id. at 1470–71 (“Our view is that Congress did not intend the point source-permitting requirement to provide EPA with such broad authority as the Ninth Circuit’s narrow focus on traceability would allow.”).
154. Id. at 1470; see also id. at 1471 (concluding that a traceability test could require NPDES permits in “surprising, even bizarre, circumstances, such as for pollutants carried to navigable waters on a bird’s feathers, or . . . the 100-year migration of pollutants through 250 miles of groundwater to a river.”).
155. Id. at 1471.
156. Id.
157. Id. at 1471–72 (“Congress was fully aware of the need to address groundwater pollution, but . . . left general groundwater regulatory authority to the States; its failure to include groundwater in the general EPA permitting provision was deliberate.”).
158. Id. at 1472.
although the EPA “for many years has applied the permitting provision to pollution discharges from point sources that reached navigable waters only after traveling through groundwater,” it “has opposed applying the Act’s permitting requirements to discharges that reach groundwater only after lengthy periods.” 159 A traceability test would contravene that approach.

The majority further concluded that the plaintiffs’ proposed “proximate cause” limitation to the Ninth Circuit’s test could not salvage it. That limitation is inappropriate, the majority concluded, because it is not found in the text of the Clean Water Act and is instead derived from tort law and based primarily on policy considerations. 160 Furthermore, “[i]n the context of water pollution, we do not see how it significantly narrows the statute” beyond the Ninth Circuit test. 161

4. The majority’s “functional equivalent” test

Rejecting the parties’ positions as either too broad or too narrow, the majority sought a middle ground for indirect discharges into navigable waters. It settled on the following standard: “[T]he statute requires a permit . . . when [the discharge into groundwater] is the functional equivalent of a direct discharge.” 162 The phrase “functional equivalent,” the majority concluded, “best captures, in broad terms, those circumstances in which Congress intended to

159. Id.
160. Id. at 1470–71.
161. Id. at 1471.
162. Id. at 1476. The Court did not derive this term out of whole cloth. Both the district court and the Ninth Circuit had referenced “functional equivalence” in their rulings. Haw. Wildlife Fund v. County of Maui, 24 F. Supp. 3d 980, 994 (D. Haw. 2014) (“Under this court’s reading of the Clean Water Act and the court’s extrapolation from appellate law, Plaintiffs may also prevail if they show that the discharge into the groundwater below the LWRF is functionally equivalent to a discharge into the ocean itself.”); Haw. Wildlife Fund v. County of Maui, 886 F.3d 737, 749 (9th Cir. 2018) (“We hold the County liable under the CWA because . . . the pollutants are fairly traceable from the point source to a navigable water such that the discharge is the functional equivalent of a discharge into the navigable water . . .”).
require a federal permit.”  

Put another way, where a discharge does not “directly deposit[] pollutants into navigable waters,” an NPDES permit is nonetheless required if “the discharge reaches the same result through roughly similar means.”

Recognizing that the phrase “functional equivalent” (like the phrase “roughly similar”) is not self-explanatory, the majority returned to purposive language: “The object in a given scenario will be to advance, in a manner consistent with the statute’s language, the statutory purposes that Congress sought to achieve.”

The majority recognized that these “purposes” necessarily include the Congressionally mandated role of states in regulating groundwater and nonpoint source pollution: “Th[e] context includes the need, reflected in the statute, to preserve state regulation of groundwater and other nonpoint sources of pollution.”

After announcing the “functional equivalent” standard, the majority explained that its application will be sufficiently clear at the extremes. That is, the permitting requirement “clearly” applies to a pipe that emits pollutants that travel only “a few feet” to a navigable water. In contrast, permitting requirements “likely do not apply” where “the pipe ends 50 miles from navigable waters and the pipe emits pollutants that travel with groundwater, mix with much other material, and end up in navigable waters only many years later.”

But what about the more common scenario, where a discharge into groundwater occurs somewhere between “a few feet” and “50 miles” from a navigable water? The majority recognized that its approach “does not . . . clearly explain how to deal with middle instances.” However, the majority felt that it could not announce a more precise standard, since “there are too many potentially relevant factors

163. County of Maui, 140 S. Ct. at 1476.
164. Id.; see also id. (“Whether pollutants that arrive at navigable waters after traveling through groundwater are ‘from’ a point source depends upon how similar to (or different from) the particular discharge is to a direct discharge.”).
165. Id.
166. Id.
167. Id.
168. Id.
169. Id.
applicable to factually different cases for [the] Court now to use more specific language.\(^{170}\)

5. **The majority’s list of non-exclusive factors**

Nonetheless, in an attempt to flesh out the “functional equivalent” test, the majority identified factors that could be taken into account in evaluating whether a permit is required for a discharge into groundwater that travels to a navigable water. It listed seven non-exclusive factors that “may prove relevant (depending upon the circumstances of a particular case).”\(^ {171}\) These include, for a given pollutant discharge:

1) transit time,
2) distance traveled,
3) the nature of the material through which the pollutant travels,
4) the extent to which the pollutant is diluted or chemically changed as it travels,
5) the amount of pollutant entering the navigable waters relative to the amount of the pollutant that leaves the point source,
6) the manner by or area in which the pollutant enters the navigable waters, [and]
7) the degree to which the pollution (at that point) has maintained its specific identity.\(^ {172}\)

According to the majority, the first two factors—time and distance—will usually be the two most important factors, “but not necessarily [in] every case.”\(^ {173}\) Beyond that, the majority did not explain how courts are to balance or apply any of the factors. Just as significantly, the majority did not explain how persons subject to the Clean Water Act are to evaluate or weigh the factors in deciding

\(^{170}\) *Id.*

\(^{171}\) *Id.* at 1476–77.

\(^{172}\) *Id.*

\(^{173}\) *Id.* at 1477; *see also id.* at 1476 (“Time and distance are obviously important.”).
whether to seek a permit. Instead, the majority referred again to the purposes of the Clean Water Act, stating that permit decisions “should not create serious risks either of undermining state regulation of groundwater or of creating loopholes that undermine the statute’s basic federal regulatory objectives.” 174 But after looking at these factors, just how is a landowner—let alone a court—to decide whether the permit requirement applies in a given case?

In an attempt to provide at least a partial answer, Justice Breyer noted two other potential sources of guidance. First, courts can provide common-law direction through decisions in specific cases. 175 In his view, such judicial decisions may “lead to ever more refined principles” of application of the Clean Water Act. 176 Second, the EPA can provide “administrative guidance” through making permitting decisions and promulgating rules. 177 In the majority’s view, court decisions and administrative guidance will help explain, over time, how the test is to apply.

6. Justice Kavanaugh’s concurrence

Justice Kavanaugh joined the majority in full but filed a concurring opinion to emphasize three things. First, in his view the majority’s interpretation is consistent with Justice Scalia’s plurality opinion in the 2006 case Rapanos v. United States. 178 In Rapanos, Justice Scalia wrote for a four-Justice plurality that one cannot “evade the permitting requirement of [the Clean Water Act] simply by discharging . . . pollutants into noncovered intermittent watercourses that lie upstream of covered waters.” 179 That is because the Clean Water Act “does not forbid the ‘addition of any pollutant directly to navigable waters from any point source,’ but

174. Id. at 1477.
175. Id.
176. Id.
177. Id.
178. Id. at 1478 (Kavanaugh, J., concurring) (citing Rapanos v. United States, 547 U.S. 715 (2006)) (“[U]nder Justice Scalia’s interpretation in Rapanos, the fact that the pollutants from Maui’s wastewater facility reach the ocean via an indirect route does not itself exempt Maui’s facility from the Clean Water Act’s permitting requirement for point sources. The Court today adheres to Justice Scalia’s analysis in Rapanos on that issue.”).
179. Rapanos, 547 U.S. at 742–43 (plurality opinion).
rather the ‘addition of any pollutant to navigable waters.’”\textsuperscript{180} In Justice Kavanaugh’s view, the \textit{Rapanos} plurality opinion already established that “the fact that the pollutants from Maui’s wastewater facility reach the ocean via an indirect route does not itself exempt Maui’s facility from the Clean Water Act’s permitting requirement for point sources.”\textsuperscript{181} The \textit{County of Maui} majority were simply following that precedent.

Second, Justice Kavanaugh’s concurrence argues that, although the test adopted by the majority fails to “establish a bright-line,” the vagueness found in the “functional equivalent” test is due to “Congress’ statutory text, not the Court’s opinion.”\textsuperscript{182} In other words, blame the text, not the Court. Third, in response to Justice Thomas’s dissent,\textsuperscript{183} the Kavanaugh concurrence reiterates that, under the majority opinion, time and distance are usually going to be the most important factors.\textsuperscript{184} This emphasis on time and distance, in his view, “will help guide application of the statutory standard going forward.”\textsuperscript{185}

7. Dissents by Justices Thomas and Alito

Justices Thomas (joined by Justice Gorsuch) and Alito each wrote a dissenting opinion. Justice Thomas would have adopted essentially the position advocated by Maui County and concluded that the text and structure of the Clean Water Act only require permits for the direct release of pollutants from a point source to a navigable water.\textsuperscript{186} In his view, it is a mistake for the majority to adopt the “functional equivalent” test based on an “open-ended inquiry into congressional intent and practical considerations.”\textsuperscript{187}

\textsuperscript{180} \textit{Id.} at 743.
\textsuperscript{181} \textit{County of Maui}, 140 S. Ct. at 1478 (Kavanaugh, J., concurring).
\textsuperscript{182} \textit{Id.}
\textsuperscript{183} \textit{See infra} Part III.E.7.
\textsuperscript{184} \textit{County of Maui}, 140 S. Ct. at 1478 (Kavanaugh, J., concurring).
\textsuperscript{185} \textit{Id.} at 1479.
\textsuperscript{186} \textit{Id.} (Thomas, J., dissenting).
\textsuperscript{187} \textit{Id.}
Instead, the Court should “adhere to the text.” Further, as he reads the statute, the definition of a discharge as an “addition” to navigable water “from” a point source “indicates that the statute excludes anything other than a direct discharge.”

Justice Thomas also disagrees with the majority’s claim that limiting the statute to direct discharges would create a “massive loophole.” Instead, he opines that his reading of the statute “is the most logical because it is consonant with the scope of Congress’ [commerce] power” and “ties the statute more closely to navigable waters, on the theory that they are at least a channel of these kinds of commerce.” In his view, the majority’s multifactor test and list of seven factors does little to explain when a permit will be required. “The Court does not commit to whether those factors are the only relevant ones, whether those factors are always relevant, or which factors are the most important.” The majority’s list and discussion of potentially relevant factors “ultimately does little to explain how functionally equivalent an indirect discharge must be to require a permit.”

Justice Alito wrote a much longer dissent, nearly as long as the majority opinion. His dissent is quite critical, accusing the majority of “mak[ing] up a rule that provides no clear guidance and invites arbitrary and inconsistent application.” In his view, there are only two ways to read the text of the Clean Water Act: either it requires permits only for direct discharges, or it requires permits for every discharge from a point source that eventually makes its way to a navigable water. The majority’s attempt to carve a middle road with the “functional equivalent” test (a phrase not found in the

188. *Id.*
189. *Id.*
190. *Id.* at 1481.
191. *Id.*
192. *Id.*
193. *Id.*; see also *id.* at 1481 n.2 (“The majority’s nonexhaustive seven-factor test ‘may aid in identifying relevant facts for analysis, but—like most multifactor tests—it leaves courts adrift once those facts have been identified.’” (quoting Dietz v. Bouldin, 136 S. Ct. 1885, 1898 (2016) (Thomas, J., dissenting))).
194. See *id.* at 1482–92 (Alito, J., dissenting).
195. *Id.* at 1483.
196. *Id.*
statute) “is not a plausible interpretation of the statutory text and, to make matters worse, . . . has no clear meaning.”\textsuperscript{197} Although the term “may have a quasi-technical ring,” the majority fails to give it much substance or to explain “[h]ow similar is sufficiently similar.”\textsuperscript{198} Lamenting the lack of a “real answer,” Justice Alito notes that, although the majority states that time and distance are most important, “at least five other factors may have a bearing on the question, and even this list is not exhaustive.”\textsuperscript{199} In his view, no one is well-served by the new standard. Regulated entities “are left to guess how this nebulous standard will be applied”, “[r]egulators are given the discretion . . . to make of this standard what they will”; “[a]nd the lower courts? The Court’s advice, in essence, is: ‘That’s your problem. Muddle through as best you can.’”\textsuperscript{200}

In Justice Alito’s view, without a clear explanation for the “functional equivalent test,” all the majority has done is “adopt[] a nebulous standard, enumerate[] a non-exhaustive list of potentially relevant factors, and wash[] its hands of the problem.”\textsuperscript{201} He foresees that, in nearly every case, “dischargers will be able to argue that the Court’s multifactor test does not require a permit. Opponents will be able to make the opposite argument. Regulators will be able to justify whatever result they prefer in a particular case. And judges will be left at sea.”\textsuperscript{202}

\section*{IV. APPLYING THE “FUNCTIONAL EQUIVALENT” TEST WITH A “HALLMARKS” APPROACH}

The Court in \textit{County of Maui} confirmed that (i) all direct point source discharges are regulated, but (ii) at least some indirect point sources discharges are not.

\begin{itemize}
\item \textsuperscript{197} \textit{Id.}
\item \textsuperscript{198} \textit{Id.} at 1485–86. Justice Alito also points out an absurdity of the majority’s position: it means that a pollutant emitted from a point source into groundwater “is ‘from’ the point source for some portion of its journey, but once it has travelled a certain distance or once a certain amount of time has elapsed, it is no longer ‘from’ the point source and is instead ‘from’ a non-point source.” \textit{Id.} at 1485.
\item \textsuperscript{199} \textit{Id.} at 1483.
\item \textsuperscript{200} \textit{Id.}
\item \textsuperscript{201} \textit{Id.} at 1491.
\item \textsuperscript{202} \textit{Id.} at 1486.
\end{itemize}
source discharges are not regulated, and (iii) the difference between (i) and (ii) depends on an undefined “functional equivalence” guided by sometimes-at-cross-purposes statutory objectives. So now what?

It’s time to present, and hopefully convince the reader of the propriety of, the hallmarks gloss. First, we explain why we believe that such a gloss is necessary. Second, we discuss the four essential steps of any functional equivalent analysis and then apply those steps (with due regard for the Court’s factors) to the Clean Water Act context. Finally, we reformulate the Court’s articulation of the Act’s objectives and explain how a modestly limited purpose-based analysis can be a helpful check on over-expansive applications of County of Maui.

A. Why is the “hallmarks” gloss necessary?

One may well begin the analysis by questioning our entire endeavor. Is help really needed to implement County of Maui’s functional equivalent rule? Doesn’t the majority opinion provide an extensive list of factors, and guiding statutory purposes to boot, for identifying the functional equivalent of a direct discharge? Perhaps true. Nevertheless, neither the factors nor the purported statutory purposes can really lead the analysis all the way to a clear determination of what is and what is not a functional equivalent.

First, the seven factors themselves do not compel any particular result. For example, that one must take time and distance into account does not mean that any particular combination of the two (outside of the bookends stated in the opinion) will necessarily command an answer. As the Court itself conceded in articulating

203. Id. at 1476–77 (majority opinion).
204. Id. at 1483 (Alito, J., dissenting) (“Just what is the ‘functional equivalent’ of a ‘direct discharge’? The Court provides no real answer.”).
205. See id. at 1476 (majority opinion).
206. That the Court appears to assign more weight in most cases to the time and distance factors does not eliminate the potentially decisive relevance of the other factors, and thus the critiques of “balancing test[s] in which unweighted factors mysteriously are weighed,” Marrs v. Motorola, Inc., 577 F.3d 783, 788 (7th Cir. 2009), are still apt. See generally June Med. Servs. LLC v. Russo, 140 S. Ct. 2103, 2135–36 (2020) (Roberts, C.J., concurring) (“Under such tests, ‘equality of treatment is . . . impossible to achieve; predictability is destroyed; judicial arbitrariness is facilitated;
the factors, “[t]he difficulty . . . is that it does not, on its own, clearly explain how to deal with middle instances.” 207 The Court’s factors only clearly answer the extreme cases about which there likely would not be disagreement and thus for which a gloss on the functional equivalent test would be unnecessary. 208

Second, reliance on statutory purpose is unhelpful because the statute’s purposes are in tension. The County of Maui majority counseled that “[d]ecisions should not create serious risks either of undermining state regulation of groundwater or of creating loopholes that undermine the statute’s basic federal regulatory objectives.” 209 Fair enough, but the reality is that one person’s “deference to state regulation” can very easily be characterized as another person’s “loophole” in federal regulation. Put more broadly, every pollutant discharge that escapes federal regulation could be characterized as (i) Congress’ decision to defer to state regulatory authority or (ii) an undesirable gap in Congress’ comprehensive federal regulation of water pollution. 210 Statutory objectives simply cannot provide guidance when, as defined in County of Maui, they point in opposite directions. 211

Something more than factors and purposes is therefore needed to direct implementation of the functional equivalent test.

judicial courage is impaired.” (quoting Antonin Scalia, The Rule of Law as a Law of Rules, 56 U. Chi. L. Rev. 1175, 1182 (1989)).

207. County of Maui, 140 S. Ct. at 1476.

208. And it is precisely because the rest of the required analysis is often not spelled out that multi-factor “tests” leave excessive discretion to judges and thereby threaten Congress’ legislative prerogative. Gonzaga v. Doe, 536 U.S. 273, 286 (2002) (“But we fail to see how relations between the branches are served by having courts apply a multifactor balancing test to pick and choose which federal requirements may be enforced . . . .”).

209. County of Maui, 140 S. Ct. at 1477.

210. Perhaps one could interpret the Court’s purpose-based analysis to avoid such tension. See infra Part IV.B.5.

211. Even if the statutory purposes here were not in conflict, the built-in deficiencies of a purpose-based approach would still counsel against any such purpose-based test. See Schiff, supra note 92, at 474–75.
B. The hallmark interpretation in practice

In this section we set forth a four-step method for implementing a functional equivalent analysis to determine whether pollutants have been discharged “from any point source.” In brief, these steps are:

1) to identify the reference point, i.e., Y in “X is the functional equivalent of Y”
2) to identify the pertinent “functions”—or, in the case of County of Maui’s functional equivalent test, the “hallmarks” of Y—let’s call this Y₁
3) to identify the functions (or hallmarks) of X, namely X₁
4) to determine whether X₁ is the “equivalent” of Y₁

We note at the outset that only some of these steps need to be repeated for each application of a functional equivalent test. For example, once the reference point (Y) and its pertinent functions (Y₁) have been identified, those will remain the same for every employment of County of Maui’s functional equivalent test. In contrast, the non-direct-discharge, its hallmarks, and its possible equivalence with the reference point are variables whose content will change depending on the facts of any given case. Here, however, given that this is the initial run of the hallmark test, we set out below an explication of each step in the analysis.

1. The first step—the reference point Y

Every functional equivalent test must begin with identifying the reference point, that is, the thing to which comparison will be made. In County of Maui the Court identified the reference point as a “direct discharge.” 212 This is not a statutory term, and the Court did not define it. 213 However, from the Court’s discussion of the term, it appears to mean the discharge of pollutants from a point source that

212. County of Maui, 140 S. Ct. at 1468.
213. See id. at 1485 (Alito, J., dissenting) (“The Clean Water Act, however, says nothing about ‘the functional equivalent’ of a direct discharge. That is the Court’s own concoction, and the Court provides no clear explanation of its meaning.”); id. at 1483 (“Just what is the ‘functional equivalent’ of a ‘direct discharge’? The Court provides no real answer.”).
immediately enter a regulated surface water. In explaining why Maui County’s and the EPA’s tests were too narrow, that is, why a functional equivalent test is necessary, the Court began its analysis by offering the example of “a pipe that spews pollution directly into coastal waters,” for which “a permit is required.” The Court then went on to state Maui County’s and the EPA’s position that no permit would be required if the pollutant had to travel through any amount of groundwater—in other words, why the functional equivalent of the prior example should not be regulated. Hence, it follows that, in the Court’s view, the prior example of the pollutant travelling nearly instantaneously from the point source to the regulated water is a “direct discharge.”

This interpretation of direct discharge is supported by how the plurality opinion in *Rapanos v. United States*, discussed in several of the *County of Maui* opinions, understood the concept of “indirect discharge.” According to that theory of liability, a point-source discharger can be liable for pollution “that naturally washes downstream . . . , even if the pollutants discharged from a point source do not emit ‘directly into’ covered waters, but pass ‘through conveyances’ in between.” In fact, the majority in *County of Maui* cited the *Rapanos* plurality for this proposition to support its view that the statute regulates more than just discharges that proceed from a point source “directly” or “immediately” to a regulated water. Thus, we have good grounds to make a “direct discharge” the Y in our functional equivalent template and to interpret a “direct discharge” as one that causes pollutants to immediately enter a regulated surface water.

214. See id. at 1473 (majority opinion).
215. Id.
216. Id. at 1475; id. at 1478 (Kavanaugh, J., concurring); id. at 1482 (Thomas, J., dissenting); id. at 1487 & n.5 (Alito, J., dissenting).
218. Id. at 743 (emphasis omitted).
219. *County of Maui*, 140 S. Ct. at 1475.
2. The second step—the relevant function $Y_1$

Because we are attempting to apply a test for functional equivalence, we must next identify the functions, i.e., the $Y_1$, of a direct discharge $Y$. But here we encounter a difficulty. The “function” of a pollutant discharge, whether direct or indirect, is the same—to convey (i.e., to discharge) pollutants from one place to another. The only difference between the two is the manner in which the pollutants are transported. In the one case, pollution is nearly continuously conveyed to the navigable water by pipes or channels or other similarly transport-facilitating structures. In the other, pollution is conveyed by gravity or pressure without the help of such structures. Hence, a strict application of functional equivalence—whether the pollutants have moved—would result in the regulation of all discharges from point sources, an outcome that County of Maui expressly rejected. We therefore must look elsewhere for $Y_1$.

We propose that the content of $Y_1$ can be found by looking to the hallmarks of the “from any point source” pollution at the moment it reaches regulated waters. Put in the form of a question: does the pollution entering a navigable water look like it came from a point source? By “look like,” we of course are not simply referring to visible characteristics such as color and clarity, but to any relevant measurable characteristics—including temperature, flow rate, and chemical composition, to name just a few examples. Viewing the issue this way allows us to rely on specific statutory guidance, for the Act defines “point source” as a discernable, confined, and discrete conveyance.

It is important to recall that “pollutant” and “discharge of a pollutant” are statutorily defined terms, and thus a common-sense or layman’s understanding of the function of a pollutant discharge, e.g., “getting rid of pollution,” may not be helpful for understanding and applying County of Maui’s functional equivalent test. For example, one could “get rid” of pollutants by chemically treating them so that they are no longer harmful. But given how capacious the statute defines “pollutant,” Jeffrey G. Miller, Plain Meaning, Precedent, and Metaphysics: Interpreting the “Pollutant” Element of the Federal Water Pollution Offense, 44 ENV'T L. REP. NEWS & ANALYSIS 10960, 10961 (2014) (“[I]t is difficult to imagine a substance discharged into water that is not included . . . .”), the resulting substance would likely still qualify as a pollutant.

See County of Maui, 140 S. Ct. at 1471.

A hallmark test is essentially what the Court envisions. As it offered, “a pipe [that ends] a few feet from navigable waters and . . . emits pollutants that travel those few feet through groundwater (or over the beach)” is not a direct discharge but is the functional equivalent of one.\textsuperscript{223} That is so because such pollutants will likely function in the receiving water in the same way as pollutants that come immediately from a point source.\textsuperscript{224}

This focus on pollutants’ hallmarks also melds well with the Court’s list of seven factors. For example, time and distance would naturally, as the Court states, be the most important factors in a typical hallmark analysis,\textsuperscript{225} as those are the two factors that would bear most upon whether a discharge retains its discernable, confined, and discrete aspects. Just imagine a hose with water coming out of it. Put that hose directly over a stream, and the flow of water when hitting the stream is going to be confined. Now, place that same hose attached to a sprinkler on a front lawn a hundred yards away. Although much of that water will still reach the stream, the flow will be much less confined and may well contain ambient material not to be found in the direct discharge.

\textsuperscript{223} County of Maui, 140 S. Ct. at 1476. Another example that suggests the Court is thinking in terms of hallmarks comes from a question posed by the Chief Justice during oral argument. Transcript of Oral Argument at 7, County of Maui, 140 S. Ct. 1462 (2020) (No. 18-260) (“CHIEF JUSTICE ROBERTS: So, if you have a point source under pressure that . . . doesn’t seep up, [but] shoots the pollutants out, and [with] that motion [the pollutant] gets to the jurisdictional water, would that be covered? . . . I’m envisioning two different things, one where . . . the pollutant is put in the groundwater and then gradually . . . seeps into the . . . ocean, and one where it’s . . . forcefully expelled, although it goes through the groundwater.”).

\textsuperscript{224} To be sure, the categories of pollutants’ effects might remain the same regardless of the manner of those pollutants’ conveyance. For example, a pound of arsenic would harm a stream’s ecosystem to some degree whether or not it ever traveled through a point source. But toxicity is largely a function of dose; the greater the concentration, the greater the harm. Joseph V. Rodricks, Evaluating Disease Causation in Humans Exposed to Toxic Substances, 14 J. L. & Pol’y 39, 45–46 (2006). Hence, to the extent that pollutants retain the hallmarks of having been conveyed through a discrete and confined structure, one should expect their effects to approach those of pollutants emanating directly from such a structure, as opposed to pollutants that never did so.

\textsuperscript{225} County of Maui, 140 S. Ct. at 1477.
The foregoing hose example focuses on the concentration hallmark of point-source discharges, but there are of course other hallmarks that can be useful. Take, for example, the hallmark of speedy delivery. To be sure, the speed of conveyance of the pollutants is not expressly mentioned in the statutory definition of point source, but we think that it is fairly implied. In general, a pollutant discharged through a confined and discrete conveyance is likely to travel more quickly than one through an unconfined and indiscrete conveyance. That point is demonstrated by the following hypothetical. Imagine a pipe that discharges into a large (not jurisdictional) wetland, which itself ultimately drains to a regulated surface water. The wetland operates as a conveyance of the pipe’s pollutants, but certainly not as a confined and discrete transporter. Rather, the open, broad marsh with innumerable rivulets that we envisage is much more like the unconfined and indiscrete conveyance which produces nonpoint-source pollution. Such a natural network of capillaries will undoubtedly result in a slowing of the transport of pollutants, at least in comparison to a pipe running through the wetland directly to the regulated surface water. This extended transport time, another relevant hallmark, would counsel against federal regulation of the original point-source discharge through the NPDES permitting program.226

The hallmarks approach can also be used just as effectively from the opposite perspective of nonpoint-source pollution. By implied necessity, the statute’s express limitation to pollutants “from any point source” means that pollution coming from any nonpoint source is not federally regulated.227 Thus, rather than asking whether the pollutant discharge looks like a direct discharge from a point source, one may instead address the problem of functional equivalence from the perspective of whether the pollutant discharge looks like it came from a nonpoint source. If the pollution in question bears the hallmarks of nonpoint-source pollution, then necessarily it no longer

226. As we explain below, infra Part IV.B.5., the discharge could still be regulated, if necessary, to vindicate the statutory purpose of loophole minimization—for example, if the pipe could just as easily be situated to discharge directly into the surface water as opposed to through the wetland.

227. As discussed supra Part II.C, the Act generally prohibits the unpermitted “discharge of any pollutant,” 33 U.S.C. § 1311(a), which is defined as “any addition of any pollutant . . . from any point source,” id. § 1362(12).
bears (if it ever did) any sign that it came from a point source. To be sure, the Court in County of Maui framed the issue as when liability for a point-source discharge should cease. But it didn’t deny the related principle that direct regulation of nonpoint-source pollution—most of which is ultimately traceable to point sources anyway—is left to the states.

What, then, are the hallmarks of nonpoint-source pollution? As noted above, although the Clean Water Act refers to such pollution, the Act does not define it. Typically, however, the term is used to denote, as the EPA has explained, “pollution generally resulting from land runoff, precipitation, atmospheric deposition, drainage, seepage or hydrologic modification.” It therefore follows that the hallmarks of nonpoint-source pollution are the flip side of point-source pollution, viz., a hard-to-discern and unconfined addition of pollutants, such as sheet flow of stormwater over a

228. See County of Maui, 140 S. Ct. at 1470.

229. See id. (noting that “the power of modern science” to trace pollutants “may well allow EPA to assert permitting authority over the release of pollutants that reach navigable waters many years after their release . . . and in highly diluted forms”); Jeffrey G. Miller, Plain Meaning, Precedent, and Metaphysics: Interpreting the “Point Source” Element of the Clean Water Act Offense, 45 ENV’T L. REP. NEWS & ANALYSIS 11129, 11147–48 (2015).

230. County of Maui, 140 S. Ct. at 1471 (“[P]erhaps most important, the structure of the statute indicates that, as to groundwater pollution and nonpoint source pollution, Congress intended to leave substantial responsibility and autonomy to the States.”).

231. See supra Part II.C.


233. Basic Information about Nonpoint Source (NPS) Pollution, supra note 47.
field\textsuperscript{234} (although of course nonpoint-source pollution can become point-source pollution before it reaches a surface water\textsuperscript{235}).

Either way—point source or nonpoint source—the content of \( Y \) should be supplied by an analysis, using the Court’s seven factors, of the hallmarks of the discharge in question, focusing on the degree to which the pollution bears traces of having been emitted from a discernable, confined, and discrete conveyance. The attention, however, should remain on the hallmarks, not on the factors used to identify those hallmarks. Thus, if the discharge’s hallmarks are made plain using time and distance, there is no need to analyze, for example, the nature of the material through or over which the pollutants traveled.

3. The third step—the function \((X_3)\) of the candidate functional equivalent \((X)\)

We now move to the third step of the functional equivalent analysis: identifying the hallmarks of the pollution at issue. As with the prior step, here too the Court’s seven factors are helpful, but ultimately the focus is on the pollution as it arrives at the regulated surface water. Naturally, the analysis at this step will be much less

\textsuperscript{234} Although one may speak of the hallmarks of nonpoint-source pollution, it doesn’t make much sense to talk about its functions. “Function” as we use the term in this article implies intelligent agency. (We assume that a natural feature could not qualify as a point source. See United States v. Plaza Health Labs., Inc., 3 F.3d 643, 647 (2d Cir. 1993) (“[T]he term ‘point source’ is comprehensible only if it is held to the context of industrial and municipal discharges.”); accord Or. Nat. Desert Ass’n v. Dombeck, 172 F.3d 1092, 1099 (9th Cir. 1998) (“[T]he term ‘point source’ does not include a human being, or any other animal.”); cf. Sierra Club v. Abston Constr. Co., Inc., 620 F.2d 41, 45 (5th Cir. 1980) (“Conveyances of pollution formed either as a result of natural erosion or by material means, and which constitute a component of a mine drainage system, may fit the statutory definition and thereby subject the operators to liability under the Act.”)). Because nonpoint-source pollution is pollution the transport of which to regulated waters is largely due to the natural forces of the hydrological cycle—that is, accomplished by and large in the absence of human agency—it does not in the sense of this article have a “function.”

\textsuperscript{235} Nw. Env’t Def. Ctr. v. Brown, 640 F.3d 1063, 1071 (9th Cir. 2011) (“[R]unoff is not inherently a nonpoint or point source of pollution. Rather, it is a nonpoint or point source . . . depending on whether it is allowed to run off naturally (and is thus a nonpoint source) or is collected, channeled, and discharged through a system of ditches, culverts, channels, and similar conveyances (and is thus a point source discharge).”), rev’d on other grounds sub nom. Decker v. Nw. Env’t Def. Ctr., 568 U.S. 597 (2013).
theoretical than in prior steps because one will be analyzing an actual discharge. Hence, one can expect that data collection and expert analysis will be prominent.

4. The fourth step—does $X_1 = Y_1$?

The fourth step of the analysis is the critical one: are the hallmarks of the pollution at issue the “equivalent” of the hallmarks of directly discharged pollution? The most significant part of this step is of course figuring out what “equivalent” means. With respect to undefined statutory text, an interpreter is supposed to look to ordinary language, and that usually means reference to the dictionary.  In fact, that is what Justice Alito did in his dissenting opinion when he tried to further define the meaning of point source. There doesn’t seem to be any reason why this canon of interpretation should not apply to judicial opinions. Not surprisingly, a variety of dictionaries define “equivalent” to mean something that is equal in value, measure, or other quality.

Besides dictionary definitions, case law can be helpful in figuring out the Court’s understanding of “equivalent,” especially by looking at how rules like the Court’s “functional equivalent of a direct discharge” standard have been employed in similar contexts. In Crown Simpson Pulp Co. v. Costle, the Court held that the Clean Water Act’s provision for direct review in the courts of appeals of certain types of EPA actions extends to an EPA veto of a state-issued Clean Water Act permit. The Court reasoned that such an action is “functionally similar” to an EPA action “denying any permit,” for

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which direct review is expressly provided. The Court explained that “the precise effect” of either EPA action is the denial of a permit, and treating the two differently would produce “a seemingly irrational bifurcated system” of permit review, one that the Court would not impute to Congress absent a clearer expression of legislative intent.

Another Clean Water Act example is the Ninth Circuit’s decision in *Environmental Defense Center v. EPA*, which the Second Circuit followed in *Waterkeeper Alliance v. EPA*. The question in these cases was whether a notice of intent to proceed under a general Clean Water Act permit is ever subject to the requirements that govern the processing of permits themselves. Both courts held in the affirmative, ruling that the Act’s notice and comment requirements apply whenever the notice of intent operates as the “functional equivalent” of the latter; that is, when the notice “crosses the threshold from being an item of procedural correspondence to being a substantive component of a regulatory regime.”

These decisions employing “functionally similar” and “functionally equivalent” standards support a plain-meaning understanding of the equivalence component of *County of Maui’s* “functional equivalent of a direct discharge” test. The cases look to the effect of the action and then determine whether a rule governing another action with the same (or very similar) effect should apply to both actions. That is basically the same analysis that we propose here for ascertaining *County of Maui’s* functional equivalent. The focus should not be on function per se but rather on comparing the

241. *Id.* at 196 (construing 33 U.S.C. § 1369(b)(1)(F)).
242. *Id.* at 196–97.
243. *Env’t Def. Ctr. v. EPA*, 344 F.3d 832 (9th Cir. 2003).
244. *Waterkeeper All. v. EPA*, 399 F.3d 486 (2d Cir. 2005).
245. “Under the traditional general permitting model, each general permit identifies the output limitations and technology-based requirements necessary to adequately protect water quality from a class of dischargers. Those dischargers may then acquire permission to discharge under the Clean Water Act by filing [notices of intent], which embody each discharger’s agreement to abide by the terms of the general permit.” *Env’t Def. Ctr.*, 344 F.3d at 853. The most significant of these are the obligations to provide the public a copy of the proposed permit as well as a hearing on the same. 33 U.S.C. § 1342(o), (a)(1).
246. *Env’t Def. Ctr.*, 344 F.3d at 853.
effects of the discharges, a comparison based on the extent to which the pollution bears the marks of having come from a point source.

In summary—the ordinary meaning of equivalent is “the same” (or, in our article’s semiotics, “=”), and in the context of County of Maui’s functional equivalent test, as well as analogous Clean Water Act case law, “equivalent” means that the discharged pollution has the same effect, or bears the same hallmarks, that one would expect to see from a direct point-source discharge.

5. Step five—a statutory purpose and federalism check

We’ve now run through the essential steps of a functional equivalent analysis. We have shown how to identify the reference point of “direct discharge” (Y), its function-hallmarks (Y₁), the function-hallmarks (X₁) of the discharge under investigation (X), and the required relationship between X₁ and Y₁ (the same or “=” in hallmarks or effects). Shouldn’t that be the end of the story?

Arguably yes, but the County of Maui majority made clear that its functional equivalent test also has to take into account the statutory purposes, and actually, more than that. The majority suggests that something that might otherwise look like the functional equivalent of a direct discharge is not such if its regulation (or presumably the regulation of the class of discharges of which it is a part) would result in a significant federal intrusion into traditional state areas of regulation, such as groundwater. 247 Similarly, the majority suggests that something that might otherwise not look like a direct discharge may still be regulated if a decision not to regulate would create big loopholes in the Clean Water Act. 248

247. County of Maui v. Haw. Wildlife Fund, 140 S. Ct. 1462, 1476 (2020) (referring to “Congress’ basic aim” to regulate “without undermining the States’ longstanding regulatory authority over land and groundwater”); id. (highlighting “the need, reflected in the statute, to preserve state regulation of groundwater and other nonpoint sources of pollution”); id. at 1477 (“Decisions should not create serious risks . . . of undermining state regulation of groundwater . . .”).

248. Id. at 1477.
Now, as we have already noted, County of Maui’s nod to purpose is even more fraught with interpretive danger than the usual purposivist excursus entails because the identified statutory objectives—deferring to state regulation and ensuring ample federal regulation—are frequently at cross-purposes. Even so, perhaps some meaningful direction can be squeezed out of the Court-identified statutory objectives. The purpose of deferring to state regulation seems clear enough. As for avoiding federal loopholes, perhaps what the Court meant was not so much a federal-state regulatory toggle but rather avoiding instances where a rule will lead existing direct-point-source dischargers to reconfigure the same discharge so as to avoid liability.\textsuperscript{249} Thus, this statutory purpose isn’t necessarily violated simply because regulation of a given discharge is now left to the states—that would re-present the cross-purposes problem. Instead, the statutory purpose is violated only if the discharger, in light of the rule articulated, would choose to do the same thing a different way rather than either keep doing the same thing or cease discharging altogether.

A good example is septic tanks, the regulation of which both the majority and the Alito dissent were concerned about.\textsuperscript{250} Regulating septic tank discharges to groundwater under the NPDES permitting program would be a huge expansion of federal control. That would violate the first statutory objective. But what about the second objective? Septic tanks are not designed to discharge directly to surface water, and we suspect that few, if any, septic tanks do in fact so discharge. Rather, septic tanks are designed to, and in fact do, discharge directly into groundwater.\textsuperscript{251} Altering that fact would require a major overhaul of the purpose, design, and function of septic tanks—and is exceedingly unlikely to happen. Hence, deferring to the states to regulate septic tank discharges conforms to both of the statutory objectives identified by County of Maui: it preserves traditional state authority over groundwater while

\textsuperscript{249} Id. at 1473.
\textsuperscript{250} Id. at 1477, 1489.
avoiding the encouragement of law evasion through the reconfiguring of direct discharges.

Another example, with perhaps a less clear outcome, is bottom ash from coal-fired power plants. A byproduct of the plants’ heat-generation, bottom ash is typically disposed of by being mixed with water and piped to settling ponds. Unfortunately, the ponds’ contents can seep into the underlying groundwater, which can convey the pollutants to surface waters. Should such pollution be federally regulated under the NPDES program? Setting aside the County of Maui factors and just looking at the statutory purposes, it is not clear whether the answer should be pro-federal-regulation or contra. If the focus is groundwater pollution, then the federalism purpose should weigh against regulation. If the question is instead minimizing the environmental harm of the byproducts of electricity generation, then perhaps the federalism concern is not as pronounced. But, what may be decisive is that the loophole purpose does not appear to support regulation at all. Just like septic tanks, settling ponds are not designed to discharge to surface waters (ideally, they shouldn’t discharge at all). Nor is that a design change that has any likelihood of being made. Moreover, groundwater discharges from coal ash settling ponds are already regulated under the federal Resource Conservation and Recovery Act, so concerns about law evasion should be minimal.

Ultimately, we expect that the Court’s purpose-based approach for applying a functional equivalence test will operate like the “logical stopping point” test employed in Commerce Clause cases.


254. See United States v. Lopez, 514 U.S. 549, 567 (1995) (“To uphold the Government’s contentions here, we would have to pile inference upon inference in a manner that would bid fair to convert congressional authority under the Commerce Clause to a general police power of the sort retained by the States.”). The parallel to the Commerce Clause cases is especially strong given that County of Maui’s purpose “check” presumably operates on categories of discharges, as opposed to individual discharges (the regulation of which would likely never pose a federalism or loophole problem). Cf. Gonzales v. Raich, 545 U.S. 1, 17 (2005) (“Our case law firmly
That test is intended to preserve the Constitution’s federal structure. That is, the test is not really a stand-alone rule—the analysis does not necessarily turn on purpose (or on logical stopping points)—but rather is something like a quality control measure, or guardrail, to provide and maintain perspective. In other words, even if a given discharge would appear to be the functional equivalent of a direct discharge, a court should not impose liability if federal regulation of the class of such discharges would upset the Act’s federal-state balance. On the other hand, a court may well be justified in imposing liability if not doing so would incentivize law evasion through the reconfiguring of otherwise regulated direct discharges.

One final point. In our experience, the reason why a court would employ a functional equivalent test is to capture activity that would not be regulated under a strict reading of pertinent legal text. In other words, courts seek out functional equivalents because they want to expand an existing rule to cover something else, i.e., to explain why Xs should be subject to Y rules. For example, in *Crown Simpson*, a strict reading of the Clean Water Act’s direct judicial review provision would have meant that the EPA’s vetoes are not subject to that provision because technically they are not permit denials. However, since the Court found that result to be “irrational,” it adopted a functional equivalent test to effectively expand the text’s scope.255 Yet, in *County of Maui*, a strict reading of the text arguably would have supported the respondents because the discharges in question were indeed “from any point source.”256 The Court, we think correctly, rejected that strict approach, yet it did so in favor of functional equivalence. That, as noted above, is not a concept normally employed to narrow a rule. We note this peculiarity here simply to underscore how courts should not be led unwittingly to adopt broad applications of the Act based on the inherent scope-

establishes Congress’ power to regulate purely local activities that are part of an economic ‘class of activities’ that have a substantial effect on interstate commerce.”

255. Although there are certainly circumstances where one could imagine no court seriously indulging a functional equivalent test—for example, allowing a 34-year-old to serve as president, on the ground that the person has the physical, emotional, and intellectual resources of and therefore is the functional equivalent of a 35-year-old. See U.S. CONST. art. II, § 1.

expanding dynamic of a functional equivalent test, especially in light of the particular context in which *County of Maui* adopted it.

V. CONCLUSION

When does the Clean Water Act regulate point-source discharges? From the text, one might well conclude that it regulates all such discharges. But not even the Ninth Circuit (or for that matter the respondents in *County of Maui* was willing to go that far. Hence, to best understand *County of Maui* one must address the interpretive question from the perspective of seeking a narrowing construction. The question is, just how narrow? The majority says narrow enough such that one regulates only “direct discharges” and their “functional equivalent.” That answer, as “a nebulous standard” guided by “a non-exhaustive list of potentially relevant factors,” is not quite satisfying.

Thus, to avoid forcing “regulated parties to ‘feel their way on a case-by-case basis,’” we have presented the hallmark gloss on *County of Maui* as a way to determine whether an “indirect” pollutant discharge is nevertheless the functional equivalent of a direct discharge. According to that test, if the pollutants bear the hallmarks of having been emitted from a point source—that is, if the pollutants reflect having been conveyed through a discernible, confined, and discrete conveyance—then their discharge is the

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257. *See id.* at 1471 (“[T]o interpret the word ‘from’ in this literal way would require a permit in surprising, even bizarre, circumstances, such as for pollutants carried to navigable waters on a bird’s feathers, or, to mention more mundane instances, the 100-year migration of pollutants through 250 miles of groundwater to a river.”).

258. *Id.* at 1470 (“The respondents suggest that the standard can be narrowed by adding a ‘proximate cause’ requirement.”).

259. *See Haw. Wildlife Fund v. County of Maui, 886 F.3d 737, 749 (9th Cir. 2018)* (“We therefore disagree with the district court that ‘liability under the Clean Water Act is triggered when pollutants reach navigable water, regardless of how they get there.’”) (emphasis omitted).

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

261. *Id.* at 1491 (Alito, J., dissenting).

262. *Id.* at 1491-92 (quoting *Rapanos v. United States, 547 U.S. 715, 758 (2006)* (Roberts, C.J., concurring)).
functional equivalent of a direct discharge. In contrast, if the pollutants do not still bear those hallmarks, but rather are indistinguishable from pollutants added by nonpoint sources, then their discharge is not a functional equivalent.

In employing this analysis, the Court’s factors certainly have a role to play.\textsuperscript{263} Also relevant are the Court-identified statutory purposes.\textsuperscript{264} But the most important consideration is to keep the analysis focused on the nature of pollution when it reaches the regulated surface water and not to become engrossed in measuring or qualifying the path that the pollution took to reach the regulated water. In contrast to an unelaborated \textit{County of Maui} analysis, our gloss on the functional equivalent test will provide needed guidance to the lower courts, the EPA, and—most importantly—individual citizens still feeling their way through the Clean Water Act’s not yet fully elucidated commands.

\textsuperscript{263} \textit{Id.} at 1476–77 (majority opinion).

\textsuperscript{264} \textit{Id.} at 1477.