THE TIPPING POINT SOURCE: CLEAN WATER ACT REGULATION OF DISCHARGES TO SURFACE WATER VIA GROUNDWATER, AND SPECIFIC IMPLICATIONS FOR NONPOINT SOURCE AGRICULTURE

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ABSTRACT

The Clean Water Act's evolution turns to whether contaminants conveyed through groundwater can subject a person to civil or criminal liability under the Act. This question has particular relevance to agricultural livestock operations,

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some of which have historically been regulated under the Act as point sources, while others are primarily managed by states and localities as nonpoint sources. The myriad cases considered around the country have resulted in various conclusions by federal Courts of Appeal, positioning the U.S. Supreme Court to answer this question in some form. Currently, livestock operations implement manure management systems to eliminate pollution by recycling livestock waste as a crop fertilizer and soil conditioner, but such systems could subject livestock operations to federal regulation under the theories of liability proffered by environmental advocacy groups in the myriad cases. A Supreme Court decision adopting such a theory has the potential to blur the legal distinction between point and nonpoint sources, thrusting thousands of nonpoint source livestock operations into the Act's regulatory framework and incentivizing livestock operations to abandon the very systems designed to eliminate pollution.

I. INTRODUCTION

The American public, federal government, state environmental protection agencies, and regulated stakeholders currently sit at a critical juncture for water quality and environmental regulation. As courts across the nation consider whether contaminants—which migrate diffusely through groundwater to surface water—establish Clean Water Act (CWA or the Act) liability, the question becomes increasingly ripe for Supreme Court review. While the issue has long been on the mind of some courts, this question percolated to a boil in 2018 when three federal courts of appeal issued divergent opinions in just eight months.[1] As courts consider whether to expand CWA jurisdiction to diffuse groundwater migration, regulated stakeholders ask how such an expansion would affect their day-to-day operations. Uniquely at risk is the agricultural industry—made up of mostly small operations that are exclusively subject to state environmental standards. Should the Supreme Court grant certiorari, a decision affirming groundwater migration as a proper method to invoke Clean Water Act liability would bring thousands of small agricultural operations into the realm of federal environmental regulation for the first time.

Agricultural operations have a long history of regulation under the CWA. Large livestock operations - Concentrated Animal Feeding Operations (CAFOs) - are defined as point sources under the Act.[2] Small and medium livestock operations

1. *See e.g.*, Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 641 (4th Cir. 2018); Tenn. Clean Water Network v. Tenn. Valley Auth., 905 F.3d 436 (6th Cir. 2018); Ky. Waterways All. v. Ky. Utils. Co., 905 F.3d 925 (6th Cir. 2018); Hawai'i Wildlife Fund v. Maui, 881 F.3d 754, 765 (9th Cir. 2018).

2. *Animal Feeding Operations*, EPA, https://perma.cc/299U-2HH8 (archived February 5, 2019).

can be regulated by the Act if they meet certain discharge criteria. In an effort to maintain compliance, small and medium operations implement voluntary manure management systems and some operations utilize conservation practices—often with cost-share funds from the United States Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS).[3] If the Supreme Court were to validate CWA liability for groundwater migration of pollutants, thousands of small and medium livestock operations will be pulled into federal regulatory requirements. This expansion significantly blurs the line between point and nonpoint source (NPS) pollution and creates unnecessary, duplicative regulation for small farms.

II. HISTORY OF THE CLEAN WATER ACT AND NPS MANAGEMENT

The CWA is the cornerstone of water quality management in the United States. When Congress first considered major revisions to the Federal Water Pollution Control Act, they did so to address the nearly two-thirds of American waterways that were unsafe for human activities.[4] Revisions passed in 1972 lay the foundation for the Environmental Protection Agency's (EPA) water quality regulatory scheme.[5] One limiting factor on the EPA and a defining characteristic of the CWA is its jurisdictional limitation to discharges from point sources.[6] The CWA explicitly exerts authority over point sources, and goes on to provide a comprehensive definition:

> 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 storm water discharges and return flows from irrigated agriculture.[7]

The CWA's distinction is unmistakable: the federal government is limited to regulating pollution from sources that can be easily identified and monitored.[8] Congress wrote the CWA with the intention of implementing technology-based,

3. 33 U.S.C. 1329 (2018); *319 Grant: Current Guidance*, EPA, https://perma.cc/QL26-YEDG (archived Feb. 5, 2019).

4. ENVTL. PROT AGENCY, WATER PERMITTING 101, https://perma.cc/943D-XL9H (Archived Feb. 5, 2019).

5. *History of Clean Water Act*, EPA, https://perma.cc/2RGK-YHC6 (archived February 5, 2019).

6. 33 U.S.C. § 1311(e) (2018).

7. 33 U.S.C. § 1362(14) (2018).

8. *See* 33 U.S.C. § 1362(14).

end-of-pipe controls.[9] These controls can only be applied effectively to point sources.[10] Permit compliance ensures that regulated stakeholders implement technology-based solutions to contain pollutants.[11] In exchange, those permit-holders get protection from CWA liability.[12] Anything that does not meet the definition of "point source" is considered a non-point source.[13] In addition to small farms, common examples are septic systems, pet wastes, fertilizer use, or sediment runoff.[14] NPS pollution travels down gradient to jurisdictional surface waters, often during precipitation events.[15] Because these pollutants are not intentionally discharged to waterways and cannot be easily identified, monitored, or traced back to a single source, Congress determined that NPS pollution could not be adequately managed with the Act's technology-based regime, and thus excluded NPSs from CWA regulation.[16]

While the regulatory force of the CWA concentrates on managing point source discharges, it provides the EPA some authority to implement holistic watershed quality improvement. Section 303(d) of the Act provides a framework for EPA's Total Maximum Daily Load (TMDL) program.[17] This program, when executed according to the law, incentivizes NPS to implement voluntary best management practices (BMPs) to reduce pollutant runoff.[18] While the federal government manages the TMDL program, the Act preserves states' primary authority to establish water quality standards and implement programs aimed at improving watershed health.[19]

Often, states incentivize the adoption of BMPs with grants or cost-share agreements. The Act's Sec. 319(h) program directs federal funding to state

9. Envtl. Prot. Agency, *supra* note 4.

10. Jeffrey G. Miller, *Plain Meaning, Precedent and Metaphysics: Interpreting the "Point Source" Element of the Clean Water Act Offense*, 45 Envtl. L. Rep. 11129 (2015).

11. Envtl. Prot. Agency, *supra* note 4.

12. *Sixth Circuit Rules Clean Water Act's Permit Shield Can Protect General Permit Holders From Liability*, TAFT LAW (Mar. 16, 2015), https://perma.cc/K94N-9PC6.

13. *Basic Information about Nonpoint Source (NPS) Pollution*, EPA, https://perma.cc/K7WM-XBWX (archived Feb. 5, 2019).

14. *Id.*

15. *Id.*

16. *See generally* 33 U.S.C 1251 (2018).

17. 33 U.S.C. § 1313(d) (2018); *Clean Water Act Section 303(d): Impaired Waters and Total Maximum Daily Loads*, EPA, https://perma.cc/6W4K-GN6N (archived Feb. 5, 2019).

18. NAT'L CORN GROWERS ASS'N, CLEAN WATER ACT AND THE TMDL PROGRAM AN INTRODUCTION AND BASIC DESK REFERENCE FOR CORN GROWERS 8, 31 (Jan. 2007), https://perma.cc/6KS5-YKHY.

19. *Id.* at 9, 18.

programs in pursuit of NPS management.[20] While section 319 grant funding has steadily increased since 1990,[21] more robust funding for practice implementation can be found at the USDA.[22] The NRCS provides technical assistance and implements congressionally-funded voluntary conservation programs.[23] The Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), and Conservation Reserve Program (CRP) offer cost-share dollars and direct payments to farmers and ranchers who implement voluntary conservation practices on working farms and ranches.[24]

In its infancy, the EPA focused implementation of the Act on the most egregious pollutant discharges.[25] After the EPA established pollution controls for waterbodies like the burning Cuyahoga River, its regulatory focus stretched to increasingly nuanced and complex areas of concern.[26] One such area, a notable zeitgeist among the modern environmental movement, is nutrient impairment. Federal control over nutrients is no easy task given the Act's non-regulatory approach to agriculture, forests, and other NPS.[27] As time went on, EPA's continued stretching and contorting of the law resulted in an impermissible expansion of its regulatory purview. With every additional water quality regulation, the EPA pushed the boundaries of its guiding statute a little further to find the needed authority. In 2010, the EPA established a first-of-its-kind TMDL, so geographically massive and administratively ambitious that it was signed into action by the President of the United States.[28] The Chesapeake Bay TMDL was a significant departure from previous programs implemented under Section 303(d) because the federal government assumed duties previously reserved for the states by the CWA.[29] The Chesapeake Bay TMDL, as currently implemented by the federal government, presents significant federalism concerns. The state-specific

20. 33 U.S.C. 1329 (2018); *319 Grant: Current Guidance*, *supra* note 3.

21. ENVTL. PROT. AGENCY, A NATIONAL EVALUATION OF THE CLEAN WATER SECTION 319 PROGRAM 142-43 (Nov. 2011), https://perma.cc/J74J-UGJ6.

22. *See Id.* at 117-29.

23. *See generally Id.*

24. *See id.* at 98-111.

25. *History of the Clean Water Act (CWA)*, EPA WATERSHED ACADEMY, https://perma.cc/VL8Y-CXSA (archived Apr. 21, 2019).

26. *Id.*

27. *Types of Nonpoint Source Pollution*, EPA, https://perma.cc/XN6U-FK2L (archived Apr. 21, 2019).

28. Exec. Order No. 13508, 74 Fed. Reg. 23099 (May 15, 2009). *See also*, *Chesapeake Bat Total Maximum Daily Load (TMDL)*, EPA, https://perma.cc/EWS5-CMVH (archived Apr. 22, 2019).

29. *See* Exec. Order No. 13508, 74 Fed. Reg. 23099.

design of the TMDL program was intended for state departments of environmental quality to tailor BMPs for maximum effect.[30]

Attempting to solve a regional water quality problem with a one-size-fits-all solution presents a myriad of inadequacies. For example, farmers in Virginia are offered the opportunity to fence cattle out of streams through 100% cost-share programs.[31] Fencing is a BMP under the NRCS's EQIP program, the cost of building is fully reimbursed; when implemented properly, this practice can effectively improve water quality.[32] However, states and local regulatory agencies feel tremendous pressure from the federal government to fund projects with the most linear feet of stream exposure due to the EPA-approved Watershed Improvement Plan's goal of stream-fencing expressed in linear feet.[33] This emphasis on linear feet of fencing complicated the use of limited state BMP dollars in a very expensive program by unfairly emphasizing stream frontage over identifying where stream access by cattle may be most effectively controlled.[34] In many cases, wholesale stream exclusion as promoted under EPA's plan becomes unnecessarily expensive. EPA's emphasis on stream fencing programs based on linear feet of stream frontage often results in excessive costs of BMP installation, provides no assistance for future maintenance and may lower the cost-benefit return for program goals when feet of stream fenced are prioritized over potential pounds of nutrient and sediment sequestered.

In 2016, the EPA took another leap in asserting federal jurisdiction over NPSs, arguing to the Ninth Circuit Court of Appeals that the CWA provides the EPA with authority to regulate pollutant releases that migrate through groundwater and eventually reach surface waters.[35] In that case, Hawaii Wildlife Fund sued a wastewater treatment facility, alleging the migration of sewage from underground

30. *Overview of Identifying and Restoring Impaired Waters under Section 303(d) of the CWA*, EPA, https://perma.cc/7NA2-PDRB (archived Apr. 22, 2019).

31. VA DEP'T OF CONSERVATION & RECREATION, VIRGINIA LIVESTOCK EXCLUSION SYS. 2 (Sept. 12, 2013), http://perma.cc/QTX8-KRWV.

32. NATURAL RESOURCES CONSERVATION SERVICE CONSERVATION PRACTICE STANDARD FENCE, NAT. RES. CONSERVATION SERV. (Apr. 2013), https://perma.cc/NCT9-PPZA.

33. *See Rulemakers Must Follow the Rules, Too: Oversight of Agency Compliance with Congressional Review Act: Hearing before H. Comm. on the Judiciary*, 115th Cong. (2017) (testimony submitted by Jason Carter, Executive Director, Virginia Cattlemen's Association), https://perma.cc/Z22N-CGS5; *see also* ENVTL. PROT. AGENCY, STORMWATER BEST MANAGEMENT PRACTICE: SILT FENCES 2 (Apr. 2012), https://perma.cc/7N4F-JH2E [hereinafter STORMWATER]; ERIC SOMERVILLE & BRUCE PRUITT, PHYSICAL STREAM ASSESSMENT: A REVIEW OF SELECTED PROTOCOLS FOR USE IN THE CLEAN WATER ACT SECTION 404 PROGRAM (Sept. 2004), https://perma.cc/W5XS-6WMT.

34. *See* STORMWATER, *supra* note 33.

35. W. Parker Moore et al., *Justices Request the Government's Views on CWA Discharge* Cases, NAT'L L. REV. (Dec. 5, 2018), https://perma.cc/43UN-J79J.

injection wells into the Pacific Ocean constituted an illegal CWA discharge.[36] The litigants claimed that the groundwater migration of pollution was clearly within the purview of the CWA by virtue of a novel legal theory called the conduit theory.[37] The conduit theory is one such theory of liability in what has become a duo of competing tests that will be discussed further in this article. The result, though, is the same under either theory—which has led to much concern from municipal and industry groups—that groundwater migration is unequivocally a point source discharge.

While expanded federal jurisdiction creates additional concern for all regulated entities, American agriculture is arguably the most heavily affected. The CWA explicitly lists CAFOs as point sources subject to permitting and discharge liability.[38] The vast majority of American farms and ranches are not defined as CAFOs, leaving environmental regulation to state authority. Implementation of the conduit or direct hydrologic connection theory would disregard the CAFO limitation entirely. Rather than focusing attention and resources on traditionally regulated CAFOs, implementation of the conduit or direct hydrologic connection theory would bolster EPA's power to regulate small farms not subject to federal environmental regulation. According to the EPA, 6,591 out of 19,961 CAFOs currently hold a National Pollutant Discharge Elimination System (NPDES) permits.[39] USDA-NRCS estimates approximately 450,000 AFOs are currently in operation around the country.[40]

As the federal government continues to stretch its regulatory authority, one thing is clear; the CWA does not grant the EPA authority to regulate nonpoint sources. Adoption of the conduit or direct hydrologic connection theory will result in a permanent blurring of the essential line which separates point and nonpoint sources, creating duplicative regulation and contravening the clear intent of the CWA. The stress of federal regulatory pressure exerted on small farms and ranches will push our modern farm economy over a tipping point that will drive landowners away from food production.

36. Haw. Wildlife Fund v. Maui, 881 F.3d 754, 758 (9th Cir. Feb. 1, 2018).

37. *Id*.

38. 33 U.S.C. § 1362(14) (2018); *Animal Feeding Operations*, *supra* note 2.

39. ENVTL. PROT. AGENCY, NPDES CAFO PERMITTING STATUS REPORT-NATIONAL SUMMARY (2017), https://perma.cc/VBG6-ZNVU. Only CAFOs that discharge to a water of the United States need a permit.

40. *Animal Feeding Operations*, USDA, https://perma.cc/FSN2-ZHJ3 (archived on Feb. 5, 2019) [hereinafter AFO].

III. AMERICAN AGRICULTURE AND THE CLEAN WATER ACT REGULATORY REGIME

Under the CWA, CAFOs are categorical point sources, a discharge from which requires an NPDES permit.[41] In 1976 and 2003, the EPA crafted regulations to clarify what types of livestock or poultry farms meet the definition of a CAFO and what is required of these operations.[42] For a farm to be considered a CAFO, it must first meet the definition of an Animal Feeding Operation (AFO).[43] AFOs are defined as

> [a] lot or facility (other than an aquatic animal production facility) where the following conditions are met: (i) Animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and (ii) Crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.[44]

The EPA categorized large CAFOs by the number and type of animal units, more than 1,000, managed by an operation:

> 700 mature dairy cows, 1,000 head of cattle other than mature dairy cows or veal calves…, 2,500 swine each weighing 55 pounds or more); 10,000 swine each weighing less than 55 pounds; 500 horses; 10,000 sheep or lambs; 55,000 turkeys; 30,000 laying hens or broilers; 125,000 chickens (other than laying hens); 82,000 laying hens if the AFO uses other than a liquid manure handling system; 30,000 ducks if the AFO uses other than a liquid manure handling system; or 5,000 ducks if the AFO uses a liquid manure handling system.[45]

Operations that manage between 300 and 1,000 animal units are Medium AFOs, and operations with less than 300 animal units are categorized as Small AFOs.[46]

Broadly, a CAFO includes both a farm's production area and land application area.[47] The CAFO rules defines "production area" to include "the

41. 33 U.S.C. § 1362(14).

42. ENVTL. PROT. AGENCY, NPDES PERMIT WRITERS' MANUAL FOR CONCENTRATED ANIMAL FEEDING OPERATIONS 2-1 (Feb. 2012), https://perma.cc/3J8D-NJQA.

43. 40 C.F.R. § 122.23(b)(2) (2018).

44. 40 C.F.R. § 122.23(b)(1).

45. 40 C.F.R. § 122.23(b)(4).

46. 40 C.F.R. § 122.23(b)(6) (describing the range of different animals); 40 C.F.R. § 122.23(b)(9).

47. 40 C.F.R. § 122.23(b)(3-8).

animal confinement areas, manure storage areas, raw materials storage areas, and waste containment areas."[48] This rule goes further to describe each category:

> The animal confinement area includes but is not limited to open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milkrooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways, and stables. The manure storage area includes but is not limited to lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles. The raw materials storage area includes but is not limited to feed silos, silage bunkers, and bedding materials. The waste containment area includes but is not limited to settling basins, and areas within berms and diversions which separate uncontaminated storm water. Also included in the definition of production area is any egg washing or egg processing facility, and any area used in the storage, handling, treatment, or disposal of mortalities.[49]

In addition to the production area, the CAFO also includes the land application area.[50] This is any "land under the control of an AFO owner or operator, whether it's owned, rented, or leased, to which manure, litter or process wastewater from the production area is or may be applied."[51] Discharges from both the production area and the land application area of a CAFO are regulated by the EPA and subject to CAFO permit requirements.

The CWA gives small and medium AFOs a presumptive NPS status, but site-specific factors allow the government to regulate an otherwise NPS AFO as a CAFO.[52] A Medium AFO may be designated a CAFO if it meets certain discharge criteria, including the discharge of pollutants to waters of the United States (WOTUS) through a man-made ditch, flushing system, or other similar man-made device.[53] Using beef cattle feedlots as an example, any operation with fewer than 1,000 head but greater than 300 head may be considered a Medium AFO, and potentially a Medium CAFO.[54] Small AFOs, or beef cattle operations with fewer than 300 head, are only managed by state regulatory authorities unless the EPA determines that the operation is a significant contributor of pollutants to regulated waters.[55] In order to finalize a CAFO designation, the State or EPA Regional

48. 40 C.F.R. § 122.23(b)(8).
49. *Id*.
50. 40 C.F.R. § 122.23(b)(3).
51. *Id*.
52. 40 C.F.R. § 122.23(b)(6)(ii)(A)-(B).
53. *Id*.
54. 40 C.F.R. § 122.23(b)(6)(i)(C).
55. 40 C.F.R. § 122.23(c).

Administrator must conduct an on-site inspection of the AFO and determine that it should be regulated under the federal permit program.[56]

Following designation of a livestock or poultry operation as a CAFO, the operation in question is required to meet NPDES requirements.[57] The CAFO NPDES permit contains an engineering standard, or effluent limitation, for the production area to contain all pollutants that may be discharged from the CAFO as a result of a "25 -year, 24-hour storm event."[58] CAFOs are required to develop and implement a nutrient management plan (NMP); each NMP is designed to be site-specific to the individual farm on which it will be implemented.[59] Each NMP is required to include BMPs which achieve the nine minimum measures required by the CAFO Rule, and which are incorporated as enforceable terms and conditions in the permit.[60] The nine minimum measures are manure storage, mortality management, clean water diversion, prevention of direct animal contact with water, chemical handling, conservation practices to control runoff, manure and soil testing protocols, land application protocols, and record-keeping requirements.[61] Large CAFOs are also required to include BMPs to address the form, source, amount, timing and method of application and include a field-specific assessment of the potential for nitrogen and phosphorus transport from the field to surface waters.[62] When properly implemented, an NMP is prima facie evidence that a CAFO is not discharging into a waters of the United States in violation of the CWA. In exchange for maintaining compliance with all permit requirements, the operation is protected from liability for discharge that occurs.[63] Rather than the CAFO permit serving as a "license to pollute," implementation of the 25-year, 24-hour engineering standard and the NMP ensures that CAFOs only discharge under the most extreme circumstances.[64]

56. 40 C.F.R. § 122.23(c)(2)-(3).

57. 40 C.F.R. § 122.23(a).

58. ENVT'L PROT. AGENCY, GUIDE MANUAL ON NPDES REGULATIONS FOR CONCENTRATED ANIMAL FEEDING OPERATIONS 2 (Dec. 1995) https://perma.cc/Q5JH-B2K9 [hereinafter GUIDE MANUAL].

59. ENVT'L PROT. AGENCY, NUTRIENT MANAGEMENT PLANNING 5-2, https://perma.cc/HQ7V-GJJQ (archived Feb. 6, 2019) [hereinafter NUTRIENT MANAGEMENT PLANNING].

60. 40 C.F.R. § 122.42(e)(1) (2018); *id.*

61. *Id.*

62. 40 C.F.R. § 122.42(e)(5). *See generally* NUTRIENT MANAGEMENT PLANNING, *supra* note 60.

63. Jeff L. Todd, Comment, *Environmental Law: The Clean Water Act—Understanding When a Concentrated Animal Feeding Operation Should Obtain an NPDES Permi*t, 49 Okla. L. R. 481, 488 (1996).

64. *Id.*

Two agricultural phenomena are explicitly exempt from the Act's "point source" definition and NPDES requirements. The agricultural stormwater exemption protects farm and ranch operations from CWA liability for runoff that occurs due to precipitation.[65] The 1987 amendments to the CWA exempt most discharges composed entirely of stormwater from the NPDES permitting.[66] Congress directed the EPA to continue permitting stormwater discharges "associated with industrial activity."[67] However, agriculture is not intended for inclusion in this muddled regulatory web. Unlike other forms of stormwater which are exempted from regulation under the NPDES program specifically, Congress precluded regulators from making such an assessment regarding agriculture deciding to exclude agricultural stormwater from the definition of "point source," making it immune to all CWA liability.[68]

In 1994, the Second Circuit considered the limitations of the agricultural stormwater discharge.[69] A dairy was applying manure, which flowed downhill to navigable waters in both dry and rainy weather.[70] The dairy farm attempted to claim that they were exempt from liability under the CWA's agricultural stormwater provision.[71] The court differentiated between the discharge of liquid manure that occurs during a precipitation event, and the discharge of liquid manure that occurs because of a precipitation event and found that agricultural operations can only receive the stormwater exemption when the discharge in question is a result of precipitation.[72] This is a key distinction which prevents bad actors from dumping pollutant during a rain event in order to evade liability.

In 2013, a U.S. District Court determined that the agricultural stormwater exemption applies to discharges beyond a CAFO land application area.[73] Considering litter and feathers that blew out of poultry houses before being washed into a stream, the court found that the agricultural stormwater exemption could be broadly applied.[74] Citing the Second Circuit's decision in *Waterkeeper v. EPA*, the court concluded that the agricultural stormwater exemption was added by Congress to reduce burden on farmers for "agriculture-related discharges triggered

65. *Id.* at 498.

66. 33 U.S.C. § 1342(p)(1) (2018).

67. 33 U.S.C. § 1342(p)(2). *See generally* Decker v. Northwest Envtl. Def. Ctr., 568 U.S. 597, 601 (2013).

68. 33 U.S.C. § 1362(14) (2018).

69. Concerned Area Residents for the Env't v. Southview Farm, 34 F.3d 114, 115 (2d Cir. 1994).

70. *Id.* at 116.

71. *Id.* at 118.

72. *Id.* at 120-21.

73. *See* Lois Alt v. EPA, 979 F. Supp. 2d 701, 715 (N.D.W.V. 2013).

74. *Id.* at 714.

not by negligence or malfeasance, but by the weather–even when those discharges came from what would otherwise be point sources."[75]

The CWA also exempts discharges that occur as a result of return flows from irrigated agriculture.[76] Like agricultural stormwater, Congress added this exemption in 1977, to the definition of "point source" and to section 402 of the CWA, the NPDES program.[77] Groups have challenged the breadth of the return flow exemption, arguing that because the NPDES exemption says that flows must be made "entirely of return flows from irrigated agriculture," that exempted discharges are limited to those that are wholly irrigation.[78] To controvert this assertion, courts look to the Senate Report which accompanies the 1977 amendments.[79] The Senate Environment and Public Works Committee proposed adding the word "entirely," but clarified the term's intent:

> In exempting discharges composed 'entirely' of return flows from irrigate agriculture from the [NPDES permitting] requirements of section 402, the committee did not intend to differentiate among return flows based upon their content. The word 'entirely' was intended to limit the exception to ***only those flows which*** do not contain additional discharges from activities unrelated to crop production.[80]

Courts have widely accepted the return flow exemption to be broad in nature. In *Pacific Coast Federation of Fishermen's Associations v. Glaser*, a California court found that "Congress used the broad term 'return flows from irrigated agriculture' because it intended to exempt drainage from farms practicing crop-production agriculture facilitated by irrigation, rather than focusing on what the components of a particular flow are on any given day."[81] Further, the *Glaser* court found that drainage falls under the return flow exemption when irrigated agriculture is the actual and proximate cause of such drainage.[82] However, most informing might be the court's analysis of plaintiff's assertion that three types of discharges existed: surface irrigation return flows, subsurface irrigation return

75. *Id.* (citing Waterkeeper Alliance, Inc. v. EPA, 399 F.3d 486, 507 (2nd Cir. 2005)).

76. 33 U.S.C. § 1362(14) (2018).

77. 33 U.S.C. § 1362(14); *Clean Water Act, Section 402: National Pollutant Discharge Elimination System*, EPA, https://perma.cc/D4S5-EX4F (archived Feb. 5, 2019).

78. 33 U.S.C. § 1342(d)(l)(1)(2018).

79. *See* S. Rep. No. 95-370, at 35 (1977).

80. S. Rep. No. 95-370, at 75.

81. Pac. Coast Fed'n of Fishermen's Ass'ns v. Glaser, No. CIVS-2:11-2980-KJM-CKD, 2013 U.S. Dist. LEXIS 132240 at *24 (E.D. Cal. 2013).

82. *Id.* at *46.

flows, and subsurface tile drainage.[83] Perhaps most importantly, while the court found that tile drainage satisfied the return flow exemption, it did not apply the exemption to other subsurface irrigation return flows, finding that "seepage is a classic 'non-point source' under the CWA."[84]

IV. GROUNDWATER DISCHARGE LIABILITY UNDER THE CWA: A QUADRUPLE CIRCUIT SPLIT

A. Fifth and Seventh Circuits

While some federal circuit courts have recently addressed liability related to groundwater discharges for the first time, other courts have grappled with the question for years. In 1994, the Seventh Circuit considered whether retention ponds constructed adjacent to a warehouse discharged pollutants in a manner that was not prohibited by the Clean Water Act.[85] The court in *Village of Oconomowoc Lake v. Dayton Hudson Corp.* did not expand jurisdiction to these releases, holding "ground waters are not part of the (statutory) 'waters of the United States.' The possibility of a hydrological connection cannot be denied, […] but neither the statute nor the regulations make such a possibility a sufficient ground of regulation."[86] *Dayton Hudson* laid vital groundwork in this issue area.[87] As the first appellate court to consider the question, the Seventh Circuit looked at both the standard's legal basis and practical implications.[88] In preventing the expansion of CWA jurisdiction to groundwater discharges, the court considered Congress's reasoning behind its term "waters of the United States:"

> [a]ll groundwaters could be thought within the power of the national government. But the Clean Water Act does not attempt to assert national power to the fullest. "Waters of the United States" must be a subset of "water"; otherwise why insert the qualifying clause in the statute? Neither the Clean Water Act nor the EPA's definition asserts authority over ground waters, just because these may be hydrologically connected with surface waters.[89]

83. *Id.* at *13.

84. *Id.*

85. Vill. of Oconomowoc Lake v. Dayton Hudson Corp., 24 F.3d 962, 963, 965-66 (7th Cir. 1994).

86. *Id.* at 965-66.

87. *See generally id.*

88. *See generally id.*

89. *Id.* at 965.

The court went on to conclusively state that the federal government "has not asserted a claim of authority over artificial ponds that drain into ground waters."[90]

In 2001, the Fifth Circuit followed this approach, finding that CWA's authority does not extend to "discharges onto land, with seepage into groundwater, that have only an indirect, remote, and attenuated connection with an identifiable body of 'navigable waters.'"[91] The Fifth Circuit was the first court to address connection, noting that even while groundwater may be connected to navigable waters, the federal government does not have regulatory jurisdiction.[92] The court referenced its previous opinion in *Exxon Corp. v. Train*, finding "the text and legislative history of the CWA 'belied an intention to impose direct federal control over any phase of pollution of subsurface waters.'"[93] Allowing the EPA to control discharges to groundwater would directly contradict the intent of the CWA.

B. Ninth Circuit

In 2014, the U.S. District Court for the District of Hawai'i adjudicated a case where a municipal wastewater treatment facility injected pollutants into underground wells which leaked pollutants into the Pacific Ocean via groundwater migration.[94] The Court found that pollutant released from a point source that reaches surface water via groundwater migration constitutes an illegal discharge under the Clean Water Act.[95] In *Hawai'i Wildlife Fund v. County of Maui*, the district court developed what is known as the Conduit Theory:

> There is nothing inherent about groundwater conveyances and surface water conveyances that requires distinguishing between these conduits under the Clean Water Act. When either type of waterway is a conduit through which pollutants reach the ocean, then there has been the 'addition of [a] pollutant to navigable waters.'[96]

The district court's decision clearly indicates a deliberate refusal to consider statutory language, and instead considers factual evidence in a vacuum. Upon appeal to the Ninth Circuit, the EPA submitted a brief in support of Hawai'i Wildlife Fund's position but suggested a different standard with new terminology.[97]

90. Rice v. Harken Expl. Co., 250 F.3d 264, 272 (5th Cir. 2001).
91. *Id.* at 272.
92. *Id.* at 271.
93. *Id.* at 272 (citing Exxon Corp. v. Train 554 F.2d 1310, 1322 (5thCir. 1977)).
94. Haw. Wildlife Fund v. Maui, 24 F. Supp. 3d 980, 983 (D. Haw. 2014).
95. *Id.* at 991.
96. *Id.* at 995.
97. *See generally* Brief for the United States as Amicus Curiae in Supporting Appellees at 25, Haw. Wildlife Fund v. Maui, 886 F.3d 737 (9th Cir. 2018) (No. 12-CV-198).

The EPA made the case for expanded jurisdiction under the Direct Hydrologic Connection theory.[98] The Agency's strongest argument for its position is found in the 2001 CAFO rule proposal.[99] Th preamble contained language which would "require CAFOs to achieve zero discharge to groundwater beneath the production area that has a direct hydrologic connection to surface water."[100] However, following public comment the EPA removed this provision. According to the EPA, "Site-specific variables" prevented the establishment of national technology-based standards, and imposing requirements through a national effluent limitation guideline would "divert resources from other technologies and practices that are more effective at controlling CAFO discharges to surface waters."[101] The EPA went on to state that "the factors affecting whether such discharges are occurring. . .are so variable from site to site that a national technology-based standard is inappropriate."[102]

Litigation surrounding the 2003 CAFO rule considered the extent to which large CAFOs were required to apply for permits and the effectiveness of nutrient management plans.[103] Following a decision and court order from the Second Circuit, the EPA revised the CAFO rule to address legality concerns.[104] When an agency is directed by a court to make changes in regulations or guidance, these revisions do not require public comment but can be done through a direct final rule.[105] EPA's 2008 direct final rule contained preamble language which stated that requirements limiting the discharge of pollutants to surface water via groundwater that has a direct hydrologic connection to surface water should be addressed on a site-specific basis.[106] The EPA also indicated "that nothing in the 2003 rule was to be construed to expand, diminish, or otherwise affect the jurisdiction of the CWA over discharges to surface water via groundwater that has a direct hydrologic

98. *Id*.

99. *Id*.

100. National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations (CAFOs), 68 Fed. Reg. 7176, 7216 (Feb. 12, 2003).

101. *Id*.

102. *Id*.

103. Waterkeeper All., Inc. v. EPA, 399 F.3d 486, 495 (2d Cir. 2005).

104. *See generally id*.

105. 5 U.S.C. § 553(b)(3)(B) (2018).

106. Revised National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines for Concentrated Animal Feeding Operations in Response to the Waterkeeper Decision, 73 Fed. Reg. 70418, 70420 (Nov. 20, 2008).

connection to surface water."[107] The reference to the 2003 Final Rule is out of context and inaccurately portrayed by the Agency in the 2008 Rule. In the 2003 Final Rule, the EPA addressed site-specific concerns but in a limited scope.[108] Site-specific standards concerning a direct hydrologic connection only mentioned additional storage that may be required to meet management or regulatory goals.[109] In this section of the rule, the EPA recommended implementation of NRCS practices "to ensure appropriate design and construction."[110] The rule has no mention of liability for discharges that result from storage, but only requires additional storage following site-specific assessment as part a farm's nutrient management plan development.[111]

Further, EPA's advisory statement preserving its regulatory authority carries little weight. While such a statement may seem powerful in the 2008 Rule, it has little meaning when placed in context of the 2003 Final Rule.[112] In the 2003 Final Rule, this statement follows the Agency's explicit recognition of scientific uncertainty and conflicting legal precedent in this area, as well as EPA's stated refusal to establish requirements for discharges to surface water that occur via groundwater with a direct hydrologic connection.[113]

With no regulatory justification, the EPA argued that discharges which reach surface waters via groundwater with a direct hydrologic connection are subject to liability under the CWA.[114] The EPA outlined in explicit detail how the CWA's jurisdiction encapsulates discharges that make their way to WOTUS via diffuse groundwater migration.[115] The crux of EPA's argument was not the inclusion of any language in the CWA, rather, the absence of language that they claimed would limit federal jurisdiction.[116] EPA's primary argument was that Congress did not limit regulatory jurisdiction to only direct discharges, and that such an omission gave the EPA power over indirect discharges, so long as their connection was direct.[117] In 1971, Congress considered the impact of indirect discharges to water quality, yet chose to forgo federal authority over groundwater, only including

107. National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations (CAFOs), 68 Fed. Reg. 7176 (Feb. 12, 2003).

108. *Id*.

109. *Id*. at 7215.

110. *Id*.

111. *Id*. at 7218.

112. *Id*. at 7176.

113. *Id*.

114. *Id*.

115. *See generally id*.

116. *Id*.

117. *See id*.

"groundwater" as a medium subject to non-regulatory federal programming.[118] But beyond its substantive inaccuracy, this claim is logically flawed. Courts and agencies are required to interpret the text of statutes to determine Congressional intent— they are not asked to speculate what Congress intended by leaving out any given word or phrase. Such an exercise would leave the courts unable to resolve any legal question. If courts had the power consider theories beyond those explicitly conveyed in statutory text, words on paper would mean nothing.

The Ninth Circuit considered both the conduit and direct hydrologic connection theories but accepted neither in its opinion.[119] The Court held the County of Maui liable but under a different standard entirely.[120] The standard adopted by the court is made up of three parts:

> We hold the County liable under the CWA because (1) the County discharged pollutants from a point source, (2) 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 (3) the pollutant levels reaching navigable water are more than *de minimis*.[121]

The Ninth Circuit gave no explanation for its three-part test.[122] Particularly interesting is the court's third consideration that the discharge reaches a certain threshold.[123] Not only does this add a new layer to the groundwater discharge liability question, but the larger issue of CWA liability generally. The magnitude of a discharge is not part of the CWA liability scheme – the act by nature is a strict liability statute with no *de minimus* provision.[124] However, the Ninth Circuit rationalizes, even without acknowledging it, that discharge liability via groundwater cannot be applied if the CWA is to function as Congress intended.[125]

118. "The only reason for a request for Federal authority over ground waters was to assure that we have control over the water table in such a way as to insure that our authority over interstate and navigable streams cannot be circumvented, so we can obtain water quality by maintaining a control over all the sources of pollution, be they discharged directly into any stream or through the ground water table." Water Pollution Control Legislation – 1971 (Proposed Amendments to Existing Legislation): Hearings before the H. Comm. On Pub. Works, 92nd Cong. 230 (1971) (statement of Hon. William Ruckelshaus, Administrator, EPA).

119. *See* Hawai'i Wildlife Fund v. Maui, 881 F.3d 754, 765 (9th Cir. 2018).

120. *See generally id*.

121. *Id*.

122. *See id*.

123. *Id*. at 764.

124. Piney Run Preservation Ass'n v. Cty. Comm'rs of Carroll, 268 F.3d 255, 265 (4th Cir. 2001).

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

C. Fourth Circuit

In 2014, an underground pipeline leaked gasoline that made its way to tributaries of the Savannah River in South Carolina.[126] Environmental groups sued the company under the Clean Water Act's citizen suit provision, arguing that the release was an unpermitted point source discharge.[127] The Fourth Circuit agreed.[128] However, rather than a complete adoption of the Ninth Circuit's three-part test, the Conduit Theory, or EPA's Direct Hydrologic Connection theory, the Fourth Circuit established a hybrid standard:

> Although we conclude that an indirect discharge may fall within the scope of the CWA, such discharges must be sufficiently connected to navigable waters to be covered under the Act. As the Ninth Circuit recently held, a discharge that passes from a point source through ground water to navigable waters may support a claim under the CWA. However, a discharge through groundwater does not always support liability under the Act. Instead, the connection between a point source and navigable waters must be clear.[129]

The Fourth Circuit refused to adopt the Ninth's Circuit's "fairly traceable" standard, instead following EPA's standard which requires a distinct connection from point source, to groundwater, to surface water.[130] The Fourth Circuit strays from EPA's Direct Hydrologic Connection standard, refusing to limit liability to those discharges with only an indirect connection.[131] However, another Fourth Circuit case, released only five months after the *Kinder Morgan* decision, limited this analysis significantly.[132] In *Sierra Club v. Virginia Electric & Power Company*, the court rejected claims that coal ash seepage through groundwater, which made its way to navigable waters, could be regulated under the CWA.[133] Coal ash ponds allow water to separate from solids, leaving ash to sit on the bottom of the pond.[134] The Fourth Circuit opined that coal ash ponds are not CWA point sources because they do not convey pollutant.[135] This is a key distinction. Rather than delivering pollutant to jurisdictional surface waters, coal ash ponds are "'stationary feature[s]

126. Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637, 641 (4th Cir. 2018).
127. *Id*.
128. *See id*.
129. *Id*. at 651.
130. *Id*.
131. *Id*. at 651-652.
132. *See* Sierra Club v. Va Elec. & Power Co., 903 F.3d 403 (4th Cir. 2018).
133. *Id*. at 413.
134. *Id*. at 408.
135. *Id*. at 411.

of the landscape through which rainwater or groundwater can move diffusely,' resulting in a type of discharge that the CWA does not regulate."[136]

D. Sixth Circuit

Most recently, the Sixth Circuit released opinions in two cases, *Kentucky Waterways Alliance v. Kentucky Utilities Company* and *Tennessee Clean Water Network v. Tennessee Valley Authority*.[137] Both cases considered CWA liability for coal ash ponds designed to permanently store coal combustion residuals.[138] Environmental groups claimed that selenium from the ash made its way to a nearby WOTUS, diminishing local fish populations.[139] The Sixth Circuit followed the Fourth Circuit's decision in *Sierra Club*, finding that coal ash ponds are not point sources.[140] However, in both cases the Sixth Circuit diverged from the Ninth and Fourth Circuits by finding that even if the coal ash ponds were point sources, pollutants that make their way from a point source to navigable waters through no discernable, confined, and discrete conveyance are not discharges that can be regulated under the CWA.[141]

Acquiescing to the Fourth Circuit's decision in *Sierra Club*, the Sixth Circuit distinguished between facilities which are designed and constructed to convey pollutant and those which are designed to store pollutant.[142] Both the Fourth and Sixth Circuits found that a "simple causal link does not fulfill the Clean Water Act's requirement that the discharge be from a point source."[143]

The Court concluded that groundwater, while perhaps a conveyance, is neither confined nor discrete.[144] In reaching this conclusion, the court relied on *South Florida Water Management District v. Miccosukee Tribe of Indians*, which established a standard for CWA conveyances.[145] Following the *Miccosukee Tribe* analysis, the Sixth circuit considered whether groundwater was a channel or

136. *Id.* at 409 (quoting 33 U.S.C. § 1362(14)(2018)).

137. *See generally* Tenn. Clean Water Network v. Tenn. Valley Auth., 905 F.3d 436 (6th Cir. 2018); Ky. Waterways All. v. Ky. Utils. Co., 905 F.3d 925 (6th Cir. 2018).

138. *See* Tenn. Valley Auth., 905 F.3d 435; *Ky. Waterways All.*, 905 F.3d at 925.

139. *Ky. Waterways All.*, 905 F.3d at 931.

140. *Id.* at 935 (citing Sierra Club v. Va. Elec. & Power Co., 903 F. 3d 403 (4th Cir. 2018)).

141. *Tenn. Valley Auth.*, 905 F.3d at 444-45; *Ky. Waterways All.*, 905 F.3d at 938.

142. *Tenn. Valley Auth.*, 905 F.3d at 443-44.

143. *Ky. Waterways All.*, 905 F.3d at 936. *See also,* Tenn. Valley Auth., 905 F.3d at 444.

144. *Ky. Waterways All.*, 905 F.3d at 936 (citing S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians, 541 U.S. 95, 105 (2004)).

145. *Id.* (quoting S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians, 541 U.S. 95, 102 (2004) ("[A] point source need not be the original source of the pollutant; it need only convey the pollutant to 'navigable waters'"(emphasis added)).

medium which facilitated the movement of something from one place to another.[146] Groundwater's diffuse nature prevents it from consideration as a CWA conveyance because it does not possess channelized flow—pollutants that make their way to WOTUS via groundwater migration occurs by happenstance.

V. STATUTORY FLEXIBILITY: THE CONDUIT AND DIRECT HYDROLOGIC CONNECTION THEORIES IN CONTEXT

When considering whether administrative agencies have authority to interpret statutory language, courts generally follow the Supreme Court's test as presented in *Chevron*.[147] The test asks two questions: (1) whether the statutory language in question is ambiguous, and (2) if so, whether the agency's interpretation of that ambiguous language reasonable.[148] In order for a court to reach analysis of the agency's interpretation, it first must determine if the statutory language is unclear. Little need exists for a court to reach whether EPA's interpretation of "discharge of a pollutant to navigable waters" is reasonable. A plain reading of the statute leads to the conclusion that discharges of pollutants via groundwater are excluded – the Clean Water Act is clear in this regard.

A regulated discharge of pollutants has five elements: "(1) a pollutant must be (2) added (3) to navigable waters (4) from (5) a point source."[149] For a discharge to occur, all five elements must be present. Neither the conduit theory nor direct hydrologic connection theory satisfy all five elements. All cases considering this issue meet the first three elements of discharge—pollutants are added to navigable waters. At question is whether these pollutants come from point sources.

Section 502(14) of the CWA provides that point sources have two elements: (1) a conveyance (2) from which pollutants are or may be discharged.[150] Further, the CWA provides specific requirements for conveyances—they must be discernable, confined, and discrete.[151] Both the Fourth and Ninth Circuits found liability for discharges via groundwater by classifying groundwater as a "conveyance."[152] The Sixth Circuit in *Kentucky Utilities* also considered whether groundwater met the CWA standard for conveyances.[153] While groundwater

146. *Id*. at 936.

147. *See* Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837 (1984).

148. *Id*. at 843-44.

149. Nat'l Wildlife Fed'n v. Gorsuch, 693 F.2d 156, 165 (D.C. Cir. 1982).

150. 33 U.S.C. § 1362(14) (2018).

151. *Id*.

152. *See* Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F. 3d 637, 652 (4th Cir. 2018); Hawai'i Wildlife Fund v. Maui, 881 F.3d 754, 760 (9th Cir. 2018).

153. Ky. Waterways All. v. Ky. Utils. Co., 905 F.3d 925, 933 (6th Cir. 2018).

generally satisfies the dictionary definition of "conveyance," it fails to meet the additional statutory requirement of being "discernable, confined, and discrete." [154]

Prior case law in this area suggests that a point source may be separated from a jurisdictional surface water, and that a point source may still be subject to permitting and enforcement if a conveyance exists which connects it to the surface water.[155] Both the Ninth and Fourth Circuits misinterpret the Act's intended use of the word "conveyance".[156] Two cases relied upon by these Circuits were *Rapanos v. United States* and *Concerned Area Residents for the Environment v. Southview Farms*, however, neither of these cases supply any applicable precedent.[157]

The Second Circuit considered federal water jurisdiction in *Southview Farms*, finding that the land application area of a dairy farm was regulated as part of a CAFO which discharged to navigable waters.[158] The discharge occurred when land-applied liquid manure ran off to nearby surface waters via an on-farm swale.[159] The analysis and holding in *Southview Farms* cannot be applied to present considerations because the facts differ significantly. Swales, or shallow ditches, transferred pollutant from the point of application to navigable waters in *Southview Farms*.[160] The nature of the ditches and the flow to jurisdictional surface water under dry circumstances clearly met the "conveyance" definition.[161] Unlike groundwater, swales are man-made and designed to move fluid in a channelized manner intended to keep the fluid in a concentrated form.[162] Groundwater, by its nature, does not flow in an exact direction, nor is its flow distinctive.[163] Depending on the chemical composition of the pollutants that come into contact with groundwater and subsurface soil stratigraphy, some pollutants may be diffused throughout the hydrological system or intermingle with other pollutants.[164] While the Ninth Circuit attempted to compare diffuse groundwater migration with surface water flow

154. *See id*.

155. *See* S. Fla. Mgmt. Dist. v. Miccosukee Tribe of Indians, 541 U.S. 95 (2004); Concerned Area Residents for the Env't v. Southview Farm, 34 F.3d 114 (2d Cir. 1994).

156. *See generally Miccosukee Tribe of Indians*, 541 U.S. 95; *Southview Farm*, 34 F.3d 114.

157. *See Upstate Forever*, 887 F.3d 637; *Wildlife Fund*, 881 F.3d at 754. *See generally* Rapanos v. U.S., 547 U.S. 715 (2006); *Southview Farm*, 34 F.3d 114.

158. *Southview Farm*, 34 F.3d at 123.

159. *Id*. at 116.

160. *Id*. at 118.

161. *See id*.

162. *Id*. at 118.

163. *Groundwater: What is Groundwater?*, U.S. GEOLOGICAL SURV., https://perma.cc/Z8MN-77SK (archived Apr. 23, 2019).

164. *Contaminants of Groundwater*, U.S. GEOLOGICAL SURV., https://perma.cc/BRE8-LYTP (archived Apr. 23, 2019).

through its dependence on *Southview Farms*, the difference between groundwater flow and channelized surface flow is clear.[165] Indeed, swales are "discernable, confined and discrete."[166] The Ninth and Fourth Circuits erred by improperly conflating the two.[167]

While both jurisdictional definitions and the breadth of regulation over discharges are questions solicited by the Clean Water Act, they should not be answered in reliance on one another. However, courts in both the Ninth and Fourth Circuits relied heavily on Justice Scalia's *Rapanos* finding that "the Act does not forbid the 'addition of any pollutant *directly* to navigable waters from any point source,' but rather the 'addition of any pollutant to navigable waters.'"[168] Scalia's statement did not regard subsurface connections, but rather the connection of intermittently flowing tributaries to perennial waters.[169] This statement bolstered his argument that, because intermittently flowing streams eventually reach a navigable water, those streams should not be regulated independently under the CWA.[170] The additional regulation of intermittently flowing tributaries would be duplicative. Justice Scalia's attempt to bolster his continuous surface connection theory is unrelated to the present issue.[171] The Supreme Court in *Rapanos* was not tasked with determining what level of "connection" leads to discharge liability, only which waterbodies are federally jurisdictional."[172]

Even if courts consider Scalia's statement on connection requirements, they should find the statement does not apply because again, unlike a ditch, groundwater is not a discernable, confined, and discrete conveyance.[173] In discussing the absence of a direct connection requirement, Scalia only refers to cases that involve a point source and jurisdictional surface water separated by a discernable, confined, and discrete conveyance, such as a tunnel, ditch, or pipe.[174] Even when Scalia continues his analysis by discussing the categorization of flowing channels as "point sources," he never strays from conveyances with a

165. Hawai'i Wildlife Fund v. County of Maui, 881 F.3d 754, 763 (9th Cir. 2016) (citing Concerned Area Residents for the Env't v. Southview Farm, 34 F.3d 114, 119 (2d Cir. 1994)).

166. *Southview Farm*, 34 F.3d at 118.

167. *See Haw. Wildlife Fund*, 881 F.3d at 754; Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F. 3d 637 (4th Cir. 2018).

168. Rapanos v. U.S., 547 U.S. 715, 743 (2006).

169. *Id.* at 743.

170. *Id.*

171. *See Id.*

172. *Id.* at 729.

173. *Id.* at 743.

174. *Id.* (citing United States v. Velsicol Chemical Corp., 438 F. Supp. 945, 946-947 (WD Tenn. 1976)); Sierra Club v. El Paso Gold Mines, Inc., 421 F.3d 1133, 1137, 1141 (10th Cir. 2005).

defined nature.[175] The analyses in *County of Maui* and *Kinder Morgan* stumbled by equating diffuse migration of groundwater to the confined flow of pollutant through a pipe or ditch, and the Courts were mistaken in asserting that Justice Scalia intended to pull groundwater into the Act's jurisdiction when he drafted this section of the *Rapanos* opinion.[176]

The Sixth Circuit considered the dictionary definitions of these terms, all of which require that a substance flow distinctly, limited to a particular location.[177] The *Kentucky Utilities* and *Tennessee Valley Authority* courts concluded that groundwater does none of those things.[178] "By its very nature, groundwater is a 'diffuse medium' that seeps in all directions, guided only by the general pull of gravity."[179] The language of the Act is clear and unambiguous. Because pollutants do not reach navigable waters via a discernable, confined, and discrete conveyance, no "discharge of a pollutant" exists under the CWA.[180] In determining if the language is unambiguous, courts should see no need to consider the reasonableness of EPA's direct hydrologic connection theory.

VI. BLURRING THE LINE BETWEEN POINT AND NONPOINT SOURCES

Congress did not intend for federal agencies to regulate the discharge of pollutants into surface water via groundwater. Two explicit distinctions in the Act demonstrate this point. First, Congress drew a dividing line between point source discharges and NPS pollution, subjecting only point source discharges to CWA permitting.[181] Second, courts have differentiated between "navigable waters" and "ground waters," limiting the CWA's point source requirements to additions to "navigable waters."[182] Both NPS pollution control and groundwater regulation fall within the traditional authority of state governments. Maintaining the distinctions between point and nonpoint sources and between navigable and ground waters is

175. *Rapanos*, 547 U.S. at 743 (citing S. Fla. Water Mgmt. Dist. v. Miccosukee tribe of Indians, 541 U.S. 95, 105 (2004)).

176. *See generally* Haw. Wildlife Fund v. Maui, 881 F.3d 754, 764 (2018); *Rapanos*, 547 U.S. at 743 (citing S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians, 541 U.S. 95, 105 (2004)); Upstate Forever v. Kinder Morgan Energy Partners, 887 F.3d 637, 641 (4th Cir. 2018).

177. Ky. Waterways All. v. Ky. Utils. Co., 905 F.3d 925, 933 (6th Cir. 2018).

178. *See id.*; Tenn. Clean Water Network v. Tenn. Valley Auth., 905 F.3d 436 (2018).

179. *Ky. Waterways All.*, 905 F.3d at 933.

180. *Id.* at 934.

181. 33 U.S.C. §. 1362 (12) (2018).

182. 33 U.S.C. §. 1362 (12); Rapanos v. U.S., 547 U.S. 715, 743 (citing S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians, 541 U.S. 95, 105 (2004)).

critical to the federal-state balance that Congress established as the CWA's common thread.

For example, consider the federal and state regulatory balance of AFOs. As previously stated, CAFOs are point sources under the CWA.[183] In order to meet the CAFO threshold, an operation must first satisfy the definitional standards for AFOs.[184] Large AFOs are automatically regulated as CAFOs, but Small and Medium AFOs are only regulated as CAFOs if they meet specific discharge criteria.[185] Medium AFOs, specifically, can be defined or designated as CAFOs if they discharge pollutants to waters of the United States via some "man-made ditch, flushing system, or other similar man-made device."[186] Owners and operators of Medium AFOs are aware of this standard and implement practices to prevent discharge including liners in wastewater retention structures, agronomic land application, and a host of other best management practices.[187] Excess nutrients that pass the root zone of a crop can be filtered out by soil before reaching the water table and have a negligible environmental impact.

Manure management systems are specifically designed to contain pollutants. Implementation of such systems can be expensive, but the government realizes their value and provides cost-share programs through the USDA.[188] USDA's NRCS sets technical standards for manure management systems which must be abided to receive cost-share dollars.[189] However, NRCS standards allow for small amounts of seepage; even the best practices are unable to achieve a zero-discharge standard.[190] As a matter of good public policy, medium or small AFOs that implement NRCS conservation standards on their operations to manage and contain all on-farm nutrients should be absolved of CWA liability. Regrettably, NRCS standards are not enough to foreclose liability under the conduit and direct hydrologic connection theories. Indeed, the very manure management systems constructed to contain pollutants are the legal linchpin to CWA liability. These structures meet the discharge criteria of "man-made ditch, flushing system, or other similar man-made device".[191] A retention pond or other storage structure at a Medium AFO

183. *Animal Feeding Operations*, *supra* note 2.

184. 40 § C.F.R. 122.23(b)(1) (2018).

185. 40 § C.F.R. 122.23(b) (4), (6), and (9).

186. 40 § C.F.R. 122.23 (b)(6)(ii).

187. GUIDE MANUAL, *supra* note 59, at Appendix C.

188. U.S. DEP'T OF AGRIC., ENVIRONMENTAL QUALITY INCENTIVES PROGRAM, https://perma.cc/HN5T-AS4S (archived Apr. 24, 2019).

189. NAT. RES. CONSERVATION SERV., CONSERVATION PRACTICE STANDARD, POND SEALING OR LINING-COMPACTED SOIL TREATMENT, (May 2016), https://perma.cc/JA9P-U7WQ.

190. *Id*.

191. 40 § C.F.R. 122.23(b)(6)(ii) (2018).

readily satisfies the catch-all category of man-made device providing the means of defining or designating a Medium AFO as a CAFO.[192] Paradoxically, rather than creating an incentive to implement on-farm conservation programs, the conduit and direct hydrologic connection theories create a deterrent. Such a standard has the potential to regulate thousands of additional livestock and poultry operations, catapulting previously unregulated NPS AFOs into the CWA's strict liability schema.

Outside the CAFO and AFO world, row crop agriculture stands to lose its long-recognized NPS status. Following the Sixth Circuit's contentious decision in *Cotton Council v. EPA,* crop producers are required to obtain NPDES permits if they use pesticides.[193] As mentioned above, the CWA exempts agricultural irrigation return flows from regulation and discharge liability.[194] While courts have expanded the irrigation return flow exemption to various sources, no court has considered the scope of "runoff." Widespread implementation of the direct hydrologic connection or conduit theory in permits would significantly reduce the effectiveness of the CWA's return flow exemption and promote unsustainable practices. No-till crop production is a viable option for many producers in the United States, depending on their climate and soil conditions. This best management practice is supported by NRCS, in part because it significantly reduces surface runoff, making nutrient application more efficient and effective.[195] However, even the most agronomic application of nutrients cannot ensure 100% nutrient uptake. As some nutrients make it past the root zone, courts may find those producers liable because they implemented a sustainable practice. At what point does regulation penalize excellence in the pursuit of perfection? Courts and the EPA can avoid this unintended consequence by clarifying the irrigation return flow exemption covers discharges that occur from agricultural operations through groundwater due to irrigation. Potential additional liability in light of expanded CWA jurisdiction, without clarification of the Act's statutory exemptions would lead to farmers abandoning voluntary conservation practices. Such a jurisdictional expansion without equivalent coverage in statutory exemptions would create a new class of regulated stakeholders. For example, organic crop producers that were never previously subject to NPDES regulation under the pesticide permit would need to identify whether they will need coverage due to subsurface water under their cropland.

192. 40 § C.F.R. 122.23(b)(6).

193. *See* Nat'l Cotton Council of Am. v. EPA, 553 F.3d 927, 940 (6th Cir. 2009).

194. 33 U.S.C. § 1362(14) (2018).

195. NAT'L RES. CONSERVATION SERV., FACTSHEET: NO TILLAGE CROPPING SYSTEMS, https://perma.cc/FHC4-3T58 (archived Apr. 24, 2019).

Farmers and ranchers work hard to ensure that they manage manure in a way that prevents its escape to jurisdictional surface waters. Similarly, crop producers are required to apply pesticides in compliance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).[196] If the Supreme Court ultimately finds that groundwater serves as a conduit from point sources to surface water, the implementation of voluntary on-farm manure management systems will provide no regulatory relief for agricultural producers and will even expose them to CWA liability.

A significant portion of agricultural producers and other regulated entities would face a constant, unpreventable risk of discharge under the direct hydrologic connection or conduit theory. A negligible risk of discharge always exists, proactive regulated stakeholders will attempt to obtain a CWA NPDES permit to avert liability. The conduit and direct hydrologic connection theories move the goalposts, forcing agricultural producers out of voluntary conservation partnerships and into mandated permitting requirements. Such blurring of the lines will have significant economic impact on regulated stakeholders, and the American economy by consequence. As the EPA under the Trump Administration work to rescind the Clean Water Rule (CWR), one driving force is the negative impact that increased federal jurisdiction could have on economic development, with ever-diminishing environmental benefits. Should the EPA rescind the CWR, returning surface water jurisdiction to the status quo, implementation of the conduit or direct hydrologic connection theory would counteract this action by stretching federal jurisdiction through other means.

VII. DUPLICATIVE REGULATION

Excluding pollutant releases to surface water that occur via groundwater migration from CWA point source liability does not exempt NPS from regulatory oversight and management. Pollutant releases to groundwater are managed by the EPA through the Safe Drinking Water Act (SDWA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and Resources Conservation Recovery Act (RCRA).[197] Additionally, as stated above, states have been given authority to regulate groundwater quality, and many do so through their state NPDES permits.[198] The SDWA's Underground Injection Control program covers, among other things, hundreds of thousands of stormwater drainage wells, septic system leach fields, agricultural drainage wells, and aquifer

196. *See generally* Pesticide Registration Improvement Extension Act of 2012, Pub. L. No. 112-177, 126 Stat. 1327 (2012).

197. *See* 42 U.S.C. § 300f (2018); 42 U.S.C. § 9601 (2018); 42 U.S.C. § 6901 (2018).

198. 33 U.S.C. 1342(b) (2018).

storage and recovery projects.[199] Subjecting Class V wells to NPDES permitting would mean the imposition of duplicative and inconsistent regulatory requirements on operations that have not previously been subject to the Clean Water Act.[200] CERCLA authorizes the EPA to remove pollutants if any "hazardous substance is released or there is a substantial threat of such a release into the environment."[201] CERCLA defines "environment" broadly, to include both "ground water" and "subsurface strata."[202]

The Sixth Circuit in *Kentucky Utilities* and *Tennessee Valley Authority* found little reason to regulate coal ash ponds under the CWA because the EPA has established regulatory practices for such sites under RCRA.[203] RCRA provides the EPA authority to regulate the disposal of solid waste.[204] EPA's Coal Combustion Residual Rule specifically addresses coal ash pond permitting under RCRA.[205] In determining whether a product meets the standard of "solid waste," the court in *Safe Air for Everyone v. Meyer* (SAFE) considered the product's intended reuse with a three-part test:

> (1) whether the material in question is "destined for beneficial reuse or recycling in a continuous process by the generating industry itself;" (2) whether the materials are being actively reused, or whether they merely have the potential of being reused; and (3) whether the materials are being reused by its original owner, as opposed to use by a salvager or reclaimer…[206]

If a product satisfies the SAFE test, it is not regulated solid waste under RCRA.[207] Coal ash, when deposited into a pond or landfill, has reached the end of its useful life in the energy production cycle.[208] It is not destined for reuse, and while it may have potential for reuse, there is no active reuse.[209] Therefore, such forms of disposal

199. *Class V Wells for Injection of Non-Hazardous Fluids into or Above Underground Sources of Drinking Water*, EPA, (archived Feb. 5, 2019), https://perma.cc/6HAU-D94H.

200. *Id.*

201. 42 U.S.C. § 9604(a)(1) (2018).

202. 42 U.S.C. § 9601(8).

203. *See* Tenn. Clean Water Network v. Tenn. Valley Auth., 905 F.3d 436, 445-46 (2018); Ky. Waterways All. v. Ky. Utils. Co., 905 F.3d 925, 940 (6th Cir. 2018).

204. 42 U.S.C. § 6904 (2018); *Resource Conservation and Recovery Act (RCRA) Laws and Regulations*, EPA, https://perma.cc/R8TC-J2UD 9archived Feb. 5, 2019).

205. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities, 80 Fed. Reg. 21302 (April 17, 2015).

206. Safe Air For Everyone v. Meyer, 373 F.3d 1035, 1043 (9th Cir. 2004).

207. *Id.*

208. *Ky. Waterways All,* 905 F.3d at 931.

209. *See id.*

meet the standard for regulation under RCRA, and the Sixth Circuit acknowledged this.[210]

However, it is important to distinguish clear disposal of solid waste from holding manure and other by-products for continuous use in an ongoing farming operation. Agricultural producers recycle manure and crop residue to restore nutrients in cropland and to condition the soil with organic matter.[211] Manure is stored temporarily in lagoons or retention ponds.[212] Temporary storage does not equate to a disposal, and the ultimate application of organic matter to land improves the agricultural utility of land.[213] Agricultural operations cannot be equated to industrial plants that dispose of wastes in unlined ponds.

Courts have conclusively determined that the CWA leaves management of groundwater discharges to the states.[214] Stripping this authority would directly contradict the statute and violate stare decisis. In the CWA, Congress codified its policy to recognize, preserve, and protect the primary responsibility of the States to control water pollution and plan the development and use of land and water resources.[215] In previously mentioned cases, states repeatedly explain that their laws protect groundwater independent of CWA regulation.[216] State laws prohibit discharges to "waters of the state," which frequently include both surface and groundwater, unless authorized under a CAFO permit.[217] State statutes provide vital safeguards against groundwater pollution and any resulting effects on surface

210. *Id*.

211. *Beneficial Uses of Manure and Environmental Protection*, NAT'L CATTLEMEN'S BEEF ASSOC. (Aug. 2015), https://perma.cc/4JHJ-93MM.

212. TEX. COMM'N ON ENVTL. QUALITY, GENERAL PERMIT TO DISCHARGE WASTES (July 9, 2009), https://perma.cc/3SKK-2T9C.

213. *Beneficial Uses of Manure and Environmental Protection*, *supra* note 209.

214. *Supra* Part IV.

215. *See* 33 U.S.C. § 1251(b) (2018).

216. *See, e.g.,* Brief of Chamber of Commerce of the U.S., et al. as Amici Curiae Supporting Defendant-Appellees, Upstate Forever v. Kinder Morgan Energy Partners, L.P., 887 F.3d 637 (Fourth Cir. 2017) (No. 17-1640); Brief of the State of Alabama et al. as Amici Curiae Supporting Appellant, Tenn. Clean Water Network v. Tenn. Valley Auth. (6th Cir. Feb. 6, 2018) (No. 17-6155); Brief of States of Arizona et al. as Amici Curiae, Hawai'i Wildlife Fund v. Maui, 886 F.3d 737 (9th Cir. Mar. 12, 2018) (No. 15-17447).

217. Tex. Comm'n on Envtl. Quality, *supra* note 211; STATE OF NEB., NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR CONCENTRATED ANIMAL FEEDING OPERATIONS CONFINING CATTLE IN OPEN LOTS (Apr. 1, 2008), https://deq.ne.gov/Publica.nsf/xsp/.ibmmodres/domino/OpenAttachment/Publica.nsf/DA31D47BD6F5D82306256CFD005A45EB/Attach/General%20Permit.pdf; COLO. DEP'T OF PUB. HEALTH & ENV'T, Certification: Colorado Discharge Permit System, https://perma.cc/8L9L-YHCR (archived Apr. 24, 2019).

water. Courts have relied upon these statutes in the past[218], and they must continue to rely on them now. Regulating discharges to surface water via groundwater under the federal NPDES program would result in duplicative permitting and displacement of more suitable regulatory programs.

VIII. CONCLUSION

In August 2018, the County of Maui and Kinder Morgan filed petitions for certiorari with the United States Supreme Court.[219] In considering these and other cases which have deepened the national Circuit split on this issue, the Supreme Court should focus on the nature of pollutant releases and whether such releases are diffuse or distinct. The Sixth Circuit concluded that coal ash ponds could not be treated as point sources because these features do not deliver pollutant to jurisdictional surface waters.[220] This standard should be expanded to include other features that do not individually satisfy the point source definition. The Seventh Circuit concluded that a retention pond was not a point source, further supporting such a distinction between mechanisms which are engineered and constructed to transfer pollutant and those which are put in place to store pollutant.[221] But the analysis cannot end there; this finding requires one to juxtapose the very nature of pollutant release under these varying circumstances, asking whether the release is diffuse or meets the discernable, confined, and discreet conveyance standard. As stated above, Congress established the NPDES program to create engineering solutions for water pollution. If control technologies are not feasible for a storage function with diffuse pollutant releases, as concluded in the 2003 final CAFO rule, then the NPDES program cannot regulate such releases.

While the future of the Clean Water Act is uncertain, one thing remains clear. Expanding the Clean Water Act to allow federal regulation of discharges to surface water via groundwater would have dire implications for American agriculture. Stretching federal regulatory authority under the CWA will disincentivize the implementation of voluntary conservation practices. Blurring the line between point and nonpoint source regulation, while creating needless duplication between

218. *See generally* Ky. Waterways All. v. Ky. Utils. Co., 905 F.3d 925, 931 (6th Cir. 2018).

219. Petition for Writ of Certiorari, County of Maui v. Hawai'i Wildlife Fund, 881 F.3d 925 (No. 18-260); Petition for Writ of Certiorari Kinder Morgan Energy Partners, L.P. & Plantation Pipe Line Company, Inc. v. Upstate Forever and Savannah Riverkeeper, 887 F.3d 637 (No. 18-268).

220. *See* Tenn. Clean Water Network v. Tenn. Valley Auth., 905 F.3d 436 (6th Cir.2018); *Ky. Waterways All.*, 905 F.3d at 925.

221. *See* Vill. of Oconomowoc Lake v. Dayton Hudson Corp., 24 F.3d 962, 963, 965-66 (7th Cir. 1994).

existing federal and state statutes will impact all regulated stakeholders. Should the Supreme Court validate the direct hydrologic connection or conduit theory, it must limit either concept's implementation to those discharges that are the product of defined conveyances. Additionally, courts and regulatory agencies alike must preserve and bolster the CWA's existing exemptions for agricultural stormwater and irrigation return flows. Wholesale adoption of the direct hydrologic connection or conduit theories would cripple American agricultural producers, other regulated stakeholders, and the agencies responsible for administering the CWA. Overly expansive regulation will only reduce the effectiveness of vital environmental statutes, stretching state and the federal government resources, ultimately weakening their ability to improve critically impaired waters.