(6/16/15) Board Meeting
Comments to A-2236(a)-(kk)
Deadline: 6/2/15 by 12:00 noon

RECEIVED
6-2-15
SWRCB Clerk

Comments to A-2236(a)-(kk) LA MS 4 Permit due 6.2.2015 Noon

AUTHORITIES

The Authorities quoted for the Order are:

- Clean Water Act Section 402(p)(3)(B)
- Porter-Cologne Water Quality Control Act (Porter-Cologne Act) Sections 13263 and 13377

Clean Water Act Section 402(p)(3)(B) reads:

> *NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM*
> *SEC. 402. (a)(1) Except as provided in sections 318 and 404 of this Act, the Administrator may, after opportunity for public hearing, issue a permit for the discharge of any pollutant, or combination of pollutants, notwithstanding section 301(a), upon condition that such discharge will meet either (A) all applicable requirements under sections 301, 302, 306, 307, 308, and 403 of this Act, or (B) prior to the taking of necessary implementing actions relating to all such requirements, such conditions as the Administrator determines are necessary to carry out the provisions of this Act.*
>
> *p) MUNICIPAL AND INDUSTRIAL STORMWATER DISCHARGES.—*
>
> *(3) PERMIT REQUIREMENTS.—*
>
> *(B) MUNICIPAL DISCHARGE.—Permits for discharges from municipal storm sewers—*
> *(i) may be issued on a system- or jurisdiction-wide basis;*
> *(ii)* ***shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers****; and*
> *(iii) shall require controls to reduce the discharge of pollutants to the* ***maximum extent practicable, including management practices, control techniques and system, design and engineering methods****, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.*

Pending publication and a sixty-day period following, the CLEAN WATER RULE will be in effect with the definition of “navigable waters”:

> ***§328.3 Definitions.***
> *(a) For purposes of the Clean Water Act, 33 U.S.C. 1251 et. seq. and its implementing regulations, subject to the exclusions in paragraph (b) of this section, the term ‘‘waters of the United States’’ means:*

(1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (2) All interstate waters, including interstate wetlands;
(3) The territorial seas;
(4) All impoundments of waters otherwise identified as waters of the United States under this section;
(5) All tributaries, as defined in paragraph (c)(3) of this section, of waters identified in paragraphs (a)(1) through (3) of this section;
(6) All waters adjacent to a water identified in paragraphs (a)(1) through (5) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;
(7) All waters in paragraphs (i) through (v) of this paragraph where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (a)(1) through (3) of this section. The waters identified in each of paragraphs (i) through (v) of this paragraph are similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (a)(1) through (3) of this section. Waters identified in this paragraph shall not be combined with waters identified in paragraph (a)(6) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (a)(6), they are an adjacent water and no case-specific significant nexus analysis is required.

ADMINISTRATIVE RECORD CLOSURE
WATER QUALITY STANDARDS

In your REVISED DRAFT ORDER, you state:

Among other requests, we are not granting the requests to take official notice of or supplement the Administrative Record with the notices of intent, workplans, draft programs, and other documents filed by Permittees toward development of WMPs/EWMPs and associated monitoring programs following adoption of the Los Angeles MS4 Order or comments submitted on those documents. With regard to factual evidence regarding actions taken by Permittees to comply with the Los Angeles MS4 Order after it was adopted, we believe it appropriate to close the record with the adoption of the Los Angeles MS4 Order. However, we are keenly aware that the success of the Los Angeles MS4 Order in addressing water quality issues depends primarily on the careful and effective development and implementation of programs consistent with the requirements of the Order; we speak to that issue later in our discussion.

The Clean Water Act generally requires NPDES permits to include technology-based effluent limitations and any more stringent limitations necessary to meet water quality standards.36 In the context of NPDES permits for MS4s, however, *the Clean Water Act does not explicitly reference the requirement to meet water quality standards. MS4 discharges must meet a technology-based standard of prohibiting non-storm water discharges and reducing pollutants in the discharge to the Maximum Extent Practicable (MEP) in all cases, but requiring strict compliance with water quality standards (e.g., by imposing numeric effluent limitations) is at the discretion of the permitting agency.37 Specifically the Clean Water Act states as follows:*

Permits for discharges from municipal storm sewers –
. . .

> *(ii) shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers; and*
> *(iii) shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, AND such other provisions as . . . the State determines appropriate for the control of such pollutants.38*

Thus, a permitting agency imposes requirements related to attainment of water quality standards where it determines that those provisions are "appropriate for the control of [relevant] pollutants" pursuant to the Clean Water Act municipal storm water provisions

COMMENTS:

We disagree with the closure of the Administrative Record. The Order incorporates plans not subject to the Clean Water Act when the Clean Water Rule becomes effective.

Prepublication of the Final Clean Water Rule states:

The final rule includes a new exclusion in paragraph (b)(6) for stormwater control features constructed to convey, treat, or store stormwater that are created in dry land. The agencies stated in the proposed rule that the exclusions were guided by decisions of the Supreme Court and were intended to further the agencies' goal of providing clarity and certainty. The agencies in the proposed rule sought to provide a "full description" of the waters that will not be "waters of the United States." 79 FR at 22218.

In response to the agencies' proposal, several commenters indicated additional clarity was needed, particularly with respect to stormwater control features and wastewater recycling facilities. This exclusion responds to numerous commenters who raised concerns that the proposed rule would adversely affect municipalities' ability to operate and maintain their stormwater systems, and also to address confusion about the state of practice regarding jurisdiction of these features at the time the rule was proposed.

The agencies' longstanding practice is to view stormwater control measures that are not built in "waters of the United States" as non-jurisdictional. Conversely, the agencies view some waters, such as channelized or piped streams, as jurisdictional currently even where used as part of a stormwater management system. Nothing in the proposed rule was intended to change that practice. Nonetheless, the agencies recognize that the proposed rule brought to light confusion about which stormwater control features are jurisdictional waters and which are not, and agree that it is appropriate to address this confusion by creating a specific exclusion in the final rule for stormwater controls features that are created in dry land.

Many commenters, particularly municipalities and other public entities that operate storm sewer systems and stormwater management programs, expressed concern that various stormwater control measures—such as ***stormwater treatment systems, rain gardens, low impact development/green infrastructure, and flood control systems****—could be considered "waters of the United States" under the proposed rule, either as part of a tributary system, an adjacent water, or as a result of a case-specific significant nexus analysis. This exclusion should clarify the appropriate limits of jurisdiction relating to these systems.* ***A key element of the exclusion is whether the feature or control system was built in dry land and whether it conveys, treats, or stores stormwater. Certain features, such as curbs and gutters, may be features of stormwater collection systems, but have never been considered "waters of the United States.***

Stormwater control features have evolved considerably over the past several years, and their nomenclature is not consistent, so in order to avoid unintentionally limiting the exclusion, the agencies have not included a list of excluded features in the rule. The rule is intended to exclude the diverse range of control features that are currently in place and may be developed in the future.

Traditionally, stormwater controls were designed to direct runoff away from people and property as quickly as possible. Cities built systems to collect, convey, or store stormwater, using structures such as curbs, gutters, and sewers. Often, cities used existing stream networks as part of the stormwater drainage network. Retention and detention stormwater ponds were built to store excess stormwater until it could be more safely released.

Recently, treatment of stormwater has become more prevalent to remove harmful pollutants before the stormwater is discharged. Even more recently, cities have turned to green infrastructure, using existing natural features or creating new features that mimic natural hydrological processes that work to infiltrate or evapo-transpirate precipitation, to manage stormwater at its source and keep it out of the conveyance system. These engineered components of stormwater management systems can address both water quantity and quality *concerns, as well as provide other benefits to communities. This rule is designed to avoid disincentives to this environmentally beneficial trend in stormwater management practices. This exclusion does not cover transportation ditches; those ditches are addressed under paragraph (b)(3) of the rule. As discussed above, the exclusion in paragraph (b)(6) is intended to address engineered stormwater control structures in municipal or urban environments. Stormwater control features are designed to address runoff that occurs during and shortly after precipitation events; as a result, stormwater features that convey runoff are expected to only carry ephemeral or intermittent flow. For ease of implementation, the agencies want water features to be dealt with under only one provision of the rule. However, the agencies do not expect the scope of ditches excluded to be different under (b)(3) and (b)(6), so there should be little practical need to distinguish between the two.*

Paragraph (b)(7) of the rule clarifies that wastewater recycling structures constructed in dry land are excluded. This new exclusion clarifies the agencies' current practice that such waters and water features used for water reuse and recycling are not jurisdictional when constructed in dry land. The agencies recognize the importance of water reuse and recycling, particularly in areas like California and the Southwest where water supplies can be limited and droughts can exacerbate supply issues. This exclusion responds to numerous commenters and encourages water reuse and conservation while still appropriately protecting the chemical, physical, and biological integrity of the nation's water under CWA.

The agencies specifically exclude constructed detention and retention basins created in dry land used for wastewater recycling as well as groundwater recharge basins and percolation ponds built for wastewater recycling. Many commenters noted the growing interest in and commitment to water recycling and reuse projects. Detention and retention basins can play an important role in capturing and storing water prior to beneficial reuse. Similarly, groundwater recharge basins and percolation ponds are becoming more prevalent tools for water reuse and recycling. These features are used to collect and store water, which then infiltrates into groundwater via permeable soils. Though these features are often created in dry land, they are also often located in close proximity to tributaries or other larger bodies of water. The exclusion also covers water distributary structures that are built in dry land for water recycling. These features often connect or carry flow to other water recycling structures, for example a channel or canal that carries water to a percolation pond. The agencies have not considered these water distributary systems jurisdictional where they do not have surface connections back into, and contribute flow to, "waters of the United States." In contrast, the agencies have consistently regulated aqueducts and canals as "waters of the United States" where they serve as tributaries, removing water from one part of the tributary network and *moving it to another. The exclusion in paragraph (b)(7) codifies long-standing agency practice and encourages water management practices that the agencies agree are important and beneficial.*

Final Clean Water Rule definition reads as follows:

(b) The following are ***not "waters of the United States"*** *even where they otherwise meet the terms of paragraphs (a)(4) through (8) of this section.*

(1) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.
(2) Prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.
(3) The following ditches:
(i) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.
(ii) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.
(iii) Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (a)(1) through (3) of this section.
(4) The following features:
(i) Artificially irrigated areas that would revert to dry land should application of water to that area cease;
(ii) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;
(iii) Artificial reflecting pools or swimming pools created in dry land;
(iv) Small ornamental waters created in dry land;
(v) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;
(vi) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways; and
(vii) Puddles.
(5) Groundwater, including groundwater drained through subsurface drainage systems.
(6) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.
(7) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

You have closed comment on the workplans, draft plans and other documents toward development of WMPs/EWMPs and associated monitoring programs abdicating any responsibility of the Federal NPDES and Clean Water Act compliance. You are relying on the Porter-Cologne Water Quality Control Act and are executing a STATE MANDATE for water quality control under the State definition(s).

MAXIMUM EXTENT PRACTICABLE (MEP)

Storm Water NPDES Permit was opined April 2, 2015 in the Court of Special Appeals of Maryland.

<u>Maryland Department of the Environment v. Anacostia Riverkeeper</u> Opinion No. 2199 concluded:

> ***B. The Permit Is Subject To § 1342, Not § 1311.***
>
> *At the threshold, the parties dispute which of the various federal and state laws drive the requirements the Permit must fulfill. The Department argues that the Act does not require an MS4 to comply with the water quality standards articulated in* ***§ 1311 because the 1987 amendments replaced those standards "with the maximum-extent-practicable standard, and replaced numerical effluent limitations with 'management practices,' 'control techniques,' 'systems, design and engineering methods,' and other provisions that the State 'determines appropriate.'"*** *Anacostia argues that the Permit continues to be subject to the technology-based limitations of* ***§ 1311*** *in addition to "any more stringent limitation necessary to assure compliance with water quality standards for the receiving waters."* ***We disagree, and hold that the Permit is not subject to the technology-based discharge limitations ("TBDLs") of § 1311(a), but rather to § 1342(p)(3)(B), which in turn requires the County to adhere to the TMDL limits imposed by state law via § 1313(d)(1)(c).***

PUBLIC PARTICIPATION

<u>Maryland Department of the Environment v. Anacostia Riverkeeper</u> (Court of Special Appeals of Maryland), Opinion No. 2199 concluded:

> *Transparency is essential to effectuating the goals of the Act.* ***"Public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the [EPA] or any State . . . shall be provided for, encouraged, and assisted by the [EPA] and the States."*** ***33 U.S.C. § 1251(e).*** *The Supreme Court has acknowledged that NPDES permits "defin[e], and facilitat[e] compliance with, and enforcement of, a preponderance of a discharger's obligations under the [Act]."*

EPA v. State Water Res. Control Bd., 426 U.S. 200, 205 (1976). A permit should translate big-picture environmental goals into specific obligations and measurable objectives for each applicant, and provide a way to hold permit-holders accountable—at least theoretically.

Public education and public outreach has been dismal. Specific obligations and measurable objectives have been bypassed by conceptual plans with no funding attached.

NUMERIC EFFLUENT LIMITATIONS

In your REVISED DRAFT ORDER, you state:

> *The Clean Water Act generally requires NPDES permits to include technology-based effluent limitations and any more stringent limitations necessary to meet water quality standards.36 In the context of NPDES permits for MS4s, however, the Clean Water Act does not explicitly reference the requirement to meet water quality standards. MS4 discharges must meet a technology-based standard of prohibiting non-storm water discharges and reducing pollutants in the discharge to the Maximum Extent Practicable (MEP) in all cases, but requiring strict compliance with water quality standards (e.g., by imposing numeric effluent limitations) is at the discretion of the permitting agency.37 Specifically the Clean Water Act states as follows:*
>
> *Permits for discharges from municipal storm sewers –*
>
> *. . .*
>
>> *(ii) shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers; and*
>> *(iii) shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as . . . the State determines appropriate for the control of such pollutants.38*
>
> *Thus, a permitting agency imposes requirements related to attainment of water quality standards where it determines that those provisions are "appropriate for the control of [relevant] pollutants" pursuant to the Clean Water Act municipal storm water provisions*

COMMENTS:

Maryland Department of the Environment v. Anacostia Riverkeeper (Court of Special Appeals of Maryland), Opinion No. 2199 concluded:

> *It falls to the Department, then, to translate these concepts into real-life permits. Over a decade ago, the EPA issued a memorandum (included here in the Department's record extract) designed to harmonize the BMP concept and the*

> *"maximum extent practicable" language. See* ***November 22, 2002, Memorandum from Robert H. Wayland, III, Director, Office of Wetlands, Oceans and Watersheds, EPA, to Water Division Directors, Regions 1-10. This memorandum counseled in favor of "an iterative approach to control pollutants in storm water discharges," and recognized that "storm water discharges are due to storm events that are highly variable in frequency and duration and are not easily characterized****," therefore making it difficult to establish hard, numeric limits. In turn, it viewed* ***BMPs as "an appropriate form of effluent limits"*** *to control pollutants, see* ***40 CFR § 122.44(k)(2), (3). But the EPA did not leave it at that—it stated its express expectation that agencies granting permits will ensure that BMPs are appropriately tailored:***
>
> *EPA expects that the NPDES permitting authority will review the information provided by the TMDL, see* ***40 C.F.R. § 122.44(d)(1)(vii)(B****), and* ***determine whether the effluent limit is appropriately expressed using a BMP approach (including an iterative BMP approach) or a numeric limit****.* ***Where BMPs are used, EPA recommends that the permit provide a mechanism to require use of expanded or better-tailored BMPs when monitoring demonstrates they are necessary to implement the WLA and protect water quality.***

Maryland Department of the Environment v. Anacostia Riverkeeper (Court of Special Appeals of Maryland), Opinion No. 2199 concluded:

> *But that approach is inconsistent with the emphasis on public participation in the Act, which requires permits to include effluent limitations so that citizens can enforce their terms, requirements, and restrictions.* ***33 U.S.C. § 1365(a).***

Safe harbors are not legal. Defined, understandable limits need to be addressed in common language.

WATER QUALITY STANDARDS

In your REVISED DRAFT ORDER, you state:

> *However, when implementing requirements under the Porter-Cologne Act that are not compelled by federal law, the State Water Board and regional water boards (collectively, "water boards") have some flexibility to consider other factors, such as economics, when establishing the appropriate requirements. 40 Accordingly, since the State Water Board has discretion under federal law to determine whether to require strict compliance with the water quality standards of the water quality control plans for MS4 discharges, the State Water Board may also utilize the flexibility under the Porter-Cologne Act to decline to require strict compliance with water quality standards for MS4 discharges.*

> *We have previously exercised the discretion we have under federal law in favor of requiring compliance with water quality standards, but have required less than strict compliance. We have directed, in precedential orders, that MS4 permits require discharges to be controlled so as not to cause or contribute to exceedances of water quality standards in receiving waters, 41 but have prescribed an iterative process whereby an exceedance of a water quality standard triggers a process of BMP improvements: That iterative process involves reporting of the violation, submission of a report describing proposed improvements to BMPs expected to better meet water quality standards, and implementation of these new BMPs.42 The current language of the existing receiving waters limitations provisions was actually developed by USEPA when it vetoed two regional water board MS4 permits that utilized a prior version of the State Water Board's receiving water limitations provisions.43 In State Water Board Order WQ 99-05, we directed that all regional boards use USEPA's receiving water limitations provisions.*

COMMENTS:

Prepublication of the Final Clean Water Rule states:

> *In establishing both the 100-year floodplain and the 4,000 foot bright line boundaries for these* ***case-specific significant nexus determinations in the rule, the agencies are carefully applying the available science****. Consistent with the CWA, the agencies will work with the states in connection with the prevention, reduction and elimination of pollution from state waters. The agencies will work with states to more closely evaluate state-specific circumstances that may be present within their borders and, as appropriate, encourage states* ***to develop rules that reflect their circumstances and emerging science to ensure consistent and effective protection for waters*** *in the states. As is the case today, nothing in this rule restricts the ability of states to more broadly protect state waters.*

There is no science-emerging or otherwise-in this order or studies that can justify the methods in the permit. Modeling is not defined with parameters the citizen can understand nor is it reviewed for accuracy. Scientific data is just plain missing. If the Regional Board has such data, it is not available on a website or easily accessible by the public for both engagement and citizen suits.

CASE-SPECIFIC SIGNIFICANT NEXUS

Prepublication of the Final Clean Water Rule states:

> *The rule identifies particular waters that are not jurisdictional by rule but are subject to case-specific analysis to determine if a significant nexus exists and the water is a "water of the United States."* ***This category of case-specific waters***

is based upon available science and the law, and in response to public comments that encouraged the agencies to ensure more consistent determinations and reduce the complexity of conducting jurisdictional determinations*. Consistent with the significant nexus standard articulated in the Supreme Court opinions, waters are "waters of the United States" if they significantly affect the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, or the territorial seas. This determination will most typically be made on a water individually, but can, when warranted, be made in combination with other waters where waters function together.*

In this final rule, the agencies have identified by rule, five specific types of waters in specific regions that science demonstrates should be subject to a significant nexus analysis and are considered similarly situated by rule because they function alike and are sufficiently close to function together in affecting downstream waters. These five types of waters are Prairie potholes, Carolina and determined that such waters should be analyzed "in combination" (as a group, rather than individually) in the watershed that drains to the nearest traditional navigable water, interstate Delmarva bays, pocosins, western vernal pools in California, and Texas coastal prairie wetlands. Consistent with Justice Kennedy's opinion in Rapanos*, the agencies water, or the territorial seas when making a case-specific analysis of whether these waters have a significant nexus to traditional navigable waters, interstate waters, or territorial seas.*

The final rule also provides that waters within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas and waters within 4,000 feet of the high tide line or the ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, impoundments, or covered tributary are subject to case-specific significant nexus determinations, unless the water is excluded under paragraph (b) of the rule. The science available today does not establish that waters beyond those defined as "adjacent" should be jurisdictional as a category under the CWA, but the agencies' experience and expertise indicate that there are many waters within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas or out to 4,000 feet where the science demonstrates that they have a significant effect on downstream waters.

In circumstances where waters within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas or within 4,000 feet of the high tide line or ordinary high water mark are subject to a case-specific significant nexus analysis and such waters may be evaluated as "similarly situated," it must be first demonstrated that these waters function alike and are sufficiently close to function together in affecting downstream waters. The significant nexus analysis must then be conducted based on consideration of the functions provided by those waters in combination in the point of entry watershed. A "similarly situated" analysis is conducted where it is determined that there is a likelihood that there *are waters that function together to affect downstream water integrity. To provide greater clarity and transparency in determining what functions will be considered in determining what constitutes a significant nexus, the final rule lists specific functions that the agencies will consider.*

In establishing both the 100-year floodplain and the 4,000 foot bright line boundaries for these case-specific significant nexus determinations in the rule, the agencies are carefully applying the available science. Consistent with the CWA, the agencies will work with the states in connection with the prevention, reduction and elimination of pollution from state waters. The agencies will work with states to more closely evaluate state-specific circumstances that may be present within their borders and, as appropriate, encourage states to develop rules that reflect their circumstances and emerging science to ensure consistent and effective protection for waters in the states. As is the case today, nothing in this rule restricts the ability of states to more broadly protect state waters.

Floodplain issues have not been addressed in this Order yet, the City of Los Angeles is circulating their Draft Floodplain Management Plan from the Department of Public Works-Bureau of Engineering.

ITERATIVE PROCESS

In your REVISED DRAFT ORDER, you state:

As stated above, both the Clean Water Act and the Porter-Cologne Act afford some discretion to not require compliance with water quality standards for MS4 discharges. In each of the discussed court cases above, the court's decision is based on the specific permit language; thus the cases do not address our authority with regard to requiring compliance with water quality standards in an MS4 permit as a threshold matter, and they do not require us to continue to exercise our discretion as we decided in State Water Board Order WQ 99-05. Although it would be inconsistent with USEPA's general practice of requiring compliance with water quality standards over time through an iterative process, 48 we may even have the flexibility to reverse 49 our own precedent regarding receiving water limitations and receiving water limitations provisions and make a policy determination that, going forward, we will either no longer require compliance with water quality standards in MS4 permits, or will deem good faith engagement in the iterative process to constitute such compliance. 50

COMMENTS:

Due Process is not served as the Public is not engaged in the process.

Maryland Department of the Environment v. Anacostia Riverkeeper (Court of Special Appeals of Maryland), Opinion No. 2199 concluded:

> *Transparency is essential to effectuating the goals of the Act.* ***"Public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the [EPA] or any State . . . shall be provided for, encouraged, and assisted by the [EPA] and the States*****."*** ***33 U.S.C. § 1251(e).*** *The Supreme Court has acknowledged that NPDES permits "defin[e], and facilitat[e] compliance with, and enforcement of, a preponderance of a discharger's obligations under the [Act]."* ***EPA v. State Water Res. Control Bd., 426 U.S. 200, 205 (1976). A permit should translate big-picture environmental goals into specific obligations and measurable objectives for each applicant, and provide a way to hold permit-holders accountable—at least theoretically.***

Maryland Department of the Environment v. Anacostia Riverkeeper (Court of Special Appeals of Maryland), Opinion No. 2199 concluded:

> ***b. Specific shortcomings of the Permit.***
> ***i. The public can't comment about decisions that have yet to be made.***
>
> *To be sure, the process leading up to the Permit ostensibly allowed for several "****public participation" opportunities. But the Permit deferred the process of defining important substantive provisions (TMDL implementation plans, SWMP plans, etc.) until well after approval.*** *This creates an obvious flaw: the public can't comment on a program that doesn't yet exist, and by the time the program did exist, the time for comment on it had passed.10*

You may address Beneficial Use but and fail to address contrived WMP Watershed Management Plans and EWMP Enhanced Watershed Management Plans. TMDLs implementation plans and time orders may not coincide. The public does not see an iterative process to address the issues.

COMPLIANCE BYPASSES LOCAL PLANNING

In your REVISED DRAFT ORDER, you state:

> *However, with this Order, we now decline to do either. As the storm water management programs of municipalities have matured, an increasing body of monitoring data indicates that many water quality standards are in fact not being met by many MS4s.* ***The iterative process has been underutilized and ineffective to date in bringing MS4 discharges into compliance with water quality standards.*** *Compliance with water quality standards is and should remain the ultimate goal of any MS4 permit. We reiterate and confirm our determination that provisions requiring compliance with receiving water*

limitations are "appropriate for the control of . . . pollutants" addressed in MS4 permits and that therefore, consistent with our authority under the Clean Water Act, we will continue to require compliance with receiving water limitations.51

COMMENTS:

Outfall Monitoring, part of the MS4 system, is not addressed nor does it appear on any Circulation Element, outside of LA County Department of Public Works. We do not know or understand the drainage system and the related responsibility of street cleaning.

The execution of EWMPS Enhanced Watershed Management Plans and WMPS Watershed Management Plans bypass the COMMUNITY PLANS, CIRCULATION ELEMENTS and any RECREATION or CONSERVATION ELEMENTS. Governor's Office of Planning and Research has the authority as local governments are tasked, by State law, for this planning. There are no authorities under the STATE BOARD or REGIONAL BOARD for Streets and Highways.

EWMPs and WMPs now allow a built environment without the planning process. Streets, sidewalks, parks and your property will be affected. In Los Angeles, the responsibility for sidewalks is being transferred to the property owner. Not discussed is this Permit and Order is the placement of infrastructure on private property without any scientific evidence or data that substantiates that execution. The taxpayer is expected to pay for this change out of their own pocketbook.

The REGIONAL BOARD is tasked with SURFACE WATER and the BASIN PLAN. They have no jurisdiction of subsurface rights. Those rights come with the property OR are adjudicated to DESIGNATED property owners such as the City of Los Angeles under the jurisdiction of the LADWP and the other cities in the County.

The REGIONAL BOARD is creating water supply. For Los Angeles, the Bureau of Sanitation is the main beneficiary, not the LADWP. Per LA City Charter, the LADWP can supply water to the residents of the City (Pueblo Rights) and control the WATER ASSETS.

CITIZENS ABILITY TO LITIGATE

This is a taxation scheme without elected representation and DUE PROCESS.

Without understanding your right to litigate and the terms on which you can litigate, you have NO VOICE.

US Code Title 33 § 1365. Citizen suits reads:

(a) Authorization; jurisdiction

Except as provided in subsection (b) of this section and section 1319(g)(6) of this title, any citizen may commence a civil action on his own behalf—
(1) against any person (including (i) the United States, and (ii) any other governmental instrumentality or agency to the extent permitted by the eleventh amendment to the Constitution) who is alleged to be in violation of (A) an effluent standard or limitation under this chapter or (B) an order issued by the Administrator or a State with respect to such a standard or limitation, *or*
(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator.

The district courts shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce such an effluent standard or limitation, or such an order, or to order the Administrator to perform such act or duty, as the case may be, and to apply any appropriate civil penalties under section 1319(d) of this title.

STATE MANDATE

In your REVISED DRAFT ORDER, you state:

As we explained in 2001, "[u]rban runoff is causing and contributing to impacts on receiving waters throughout the state and impairing their beneficial uses."52 ***More than a decade later, this is still true. By definition, many of our urban waterways will never attain water quality standards and fully realize their beneficial uses if municipal runoff is allowed to continue to cause or contribute to exceedances of water quality standards****. Further, the efforts of other dischargers who are required to not cause or contribute to exceedances of water quality standards would be largely in vain if we did not regulate MS4 dischargers with a somewhat even hand.*

Such an approach is additionally consistent with the Porter-Cologne Act's emphasis on water quality control plans as the cornerstone of water quality planning and regulation and the act's expectation that all waste discharge requirements will implement the water quality control plans.

COMMENTS:

No definitive Water Quality Control Plans is in the Permit but are in concept. No Baseline exists. Your direction is not the implementation of a NPDES permit, but a State direction for Water Quality Control Plans and Watershed Initiatives.

NO BASELINE FOR MONITORING AND BACKSLIDING IDENTIFICATION

In your REVISED DRAFT ORDER, you state:

> *We do not agree with the Environmental Petitioners that the WMP/EWMP provisions of the Los Angeles MS4 Order violate the anti-backsliding provisions of either the Clean Water Act or the federal regulations. Anti-backsliding provisions are an important aspect of the Clean Water Act that generally promote continued progress toward clean water, but the provisions do not apply in all circumstances and are subject to certain exceptions. The 2001 Los Angeles MS4 Order required compliance with receiving water limitations, directed Permittees to achieve those limitations through the iterative process, but retained the Los Angeles Water Board's discretion to enforce compliance with the receiving water limitations at any time. The Los Angeles MS4 Order requires compliance with receiving water limitations, but allows implementation of control measures through the WMPs/EWMPs to constitute such compliance, and reserves direct enforcement of the receiving water limitations to situations where a permittee fails to comply with the WMP/EWMP provisions. The approaches under the prior and current orders are designed to achieve the same results – compliance with receiving water limitations – but through distinct paths that are not easily comparable for purposes of the specific, technical anti-backsliding requirements laid out in federal law.64 We nevertheless discuss the provisions below*

COMMENTS:

We question how TMDLs are derived and monitored. Scientific information is not discussed. Conceptual plans should have no CEQA documentation attached, but the Los Angeles County Flood Control decided to issue a PEIR Programmatic Environmental Impact Report for the Enhanced Watershed Management Plans. Failure to comply is not addressed.

ANTIDEGRADATION POLICY

In your REVISED DRAFT ORDER, you state:

> *The Los Angeles MS4 Order must also comply with any requirements of State Water Board Resolution No. 68-16 beyond those imposed through incorporation of the federal antidegradation policy.80 In particular, the Los Angeles Water Board must find that not only present, but also anticipated future uses of water are protected, and must ensure "best practicable treatment or control" of the discharges."81*

And

> *The Los Angeles Water Board has provided a more extensive analysis of why the Los Angeles MS4 Order complies with the antidegradation policies in its*

October 15, 2013 Response. The Los Angeles Water Board argues that most of the water bodies impacted by the Los Angeles MS4 Order are already impaired for multiple constituents and that, even if some of these water bodies may have been higher quality in 1968, a scenario largely contradicted by the available data,85 the appropriate baseline for the quality of such waters is the level of control achieved under the prior permit. The Los Angeles Water Board further argues that the Los Angeles MS4 Order has provisions that are equally or more stringent than those of the 2001 Los Angeles MS4 Order and therefore will not allow water quality to degrade below the level of control achieved under the prior permit.

COMMENTS:

Largely is not definitive and those waterbodies and their associated TMDLs need to be identified. Is “scenario” modeling or another form of concept?

BASELINES

In your REVISED DRAFT ORDER, you state:

We are not persuaded, however, that the level of control achieved under the 2001 Los Angeles MS4 Order necessarily represents the baseline for purposes of an antidegradation analysis. The 2001 Los Angeles MS4 Order had only minimal findings regarding antidegradation and it is not apparent that any degradation that may have continued under the conditions of the 2001 Los Angeles MS4 Order was anticipated by the Los Angeles Water Board and supported with appropriate analysis regarding economic and social benefits88 and best practicable treatment or control. We therefore find that the appropriate baseline remains 1968 or the highest quality of receiving waters attained since 1968. We acknowledge that the evidence in the record indicates that it is unlikely that many water bodies were high quality even as far back as 1968, but we cannot make a blanket statement to that effect.89

88 We note that the administrative record provides evidence that some discharge of storm water is to the maximum benefit of the people of the state because such discharge is necessary for flood control and public safety and helps accommodate development. (See, e.g., Administrative Record, section 10.VI.C, RB-AR30101; RB-AR32557-32558.)

Despite this conclusion, we will not remand the anti-degradation issue to the Los Angeles Water Board for further consideration, but will make the findings ourselves based on the record before us. Our findings are necessarily made at a generalized level. Even if the directive of APU 90-004 to carry out a complete anti-degradation analysis for each water body-pollutant combination is applicable here, there is simply insufficient data available (to us or the Los Angeles Water

Board) to make such findings. The APU 90-004 contemplates the appropriate anti-degradation analysis for a discrete discharge or facility. It has limited value when considering anti-degradation in the context of storm water discharges from diffuse sources, conveyed through multiple outfalls, with multiple pollutants impacting multiple water bodies within a municipality, or in this case, region, especially given that reliable data on the baseline water quality from 1968 is not available.90

COMMENTS:

The public cannot see the data on degradation in any of these documents or ascertain those levels of water quality in 1968.

Your samples are not based in science. Footnote 88 you refer to Administrative Records RB-AR30101 which is part of the report RB-AR30097 Concept Development: Design Storm for Water Quality in the Los Angeles Region and RB-AR32557-32558 which is part of the report RB-AR32553 Storm Water: Asset not Liability.

AMENDMENTS

YOU STATE:

We shall amend Part VI.C.8 by adding new subsections a.iv. and b. as follows:

VI. Provisions
C. Watershed Management Programs
8. Adaptive Management Process
***a.** Watershed Management Program Adaptive Management Process*
***i.** Permittees in each WMA shall implement an adaptive management process, every two years from the date of program approval, adapting the Watershed Management Program or EWMP to become more effective, based on, but not limited to a consideration of the following:*
(1) Progress toward achieving interim and/or final water quality-based effluent limitations and/or receiving water limitations in Part VI.E and Attachments L through R, according to established compliance schedules;
(2) Progress toward achieving improved water quality in MS4 discharges and achieving receiving water limitations through implementation of the watershed control measures based on an evaluation of outfall-based monitoring data and receiving water monitoring data;

a.
iv. Permittees shall report the following information to the Regional Water Board concurrently with the reporting for the adaptive management process:
(1) On-the-ground structural control measures completed;
(2) Non-structural control measures completed;

(3) Monitoring data that evaluates the effectiveness of implemented control measures in improving water quality;
(4) Comparison of the effectiveness of the control measures to the results projected by the RAA;
(5) Comparison of control measures completed to date with control measures projected to be completed to date pursuant to the Watershed Management Program or EWMP;
(6) Control measures proposed to be completed in the next two years pursuant to the Watershed Management Program or EWMP and the schedule for completion of those control measures;
(7) Status of funding and implementation for control measures proposed to be completed in the next two years.

b. Watershed Management Program ~~Six-Year~~ Resubmittal Process
***i. In addition to adapting the Watershed Management Program or EWMP every two years as described in Part VI.C.8.a, Permittees must submit an updated Watershed Management Program or EWMP with an updated Reasonable Assurance Analysis** by June 30, 2021, ~~at an interval to be determined by the Regional Board but not to exceed every six years~~ **for review and approval by the Regional Water Board Executive Officer. The updated Reasonable Assurance Analysis must incorporate both water quality data and control measure performance data**, and any other information informing the two-year adaptive management process, **gathered** ~~in the prior years~~ through December 31, 2020. ~~and, a~~ A**s appropriate,** the Permittees must consider **any new numeric analyses or other methods** developed **for the reasonable assurance analysis. The updated Watershed Management Program or EWMP must comply with all provisions in Part VI.C. The Regional Water Board Executive Officer will allow a 60-day public review and comment period with an option to request a hearing. The Regional Water Board Executive Officer must approve or disapprove the updated Watershed Management Program or EWMP** by June 30, 2022 ~~within 120 days of submittal~~.*

COMMENTS:

Adaptive Management has no definition and does not appear in Porter-Cologne Act or the Prepublication of the Final Clean Water Rule. USEPA supports this approach, but the public has little to no understanding of its meaning. We attempted to attend a USEPA-led workshop called Extreme Events and Climate Adaptation Planning Workshop on the issue and was denied attendance.

It is surprising to see that 2 years determines an adaptive management process. In the world of the environment and ecosystems, that adaptation would involved some time for evolution.

Reasonable Assurance Analysis development is not defined as to method, involvement, data, science, nexus or public participation and input.

Watersheds are not incorporated in the GENERAL PLAN and ITS ELEMENTS and bypasses the system which engages the public.

AMENDMENT

YOU STATE:

We shall amend Part VI.B. as follows:
VI. Provisions
B. Monitoring and Reporting Program (MRP) Requirements

B. Monitoring and Reporting Program (MRP) Requirements
1. *Dischargers shall comply with the MRP and future revisions thereto, in Attachment E of this Order or may, in coordination with an approved Watershed Management Program per Part VI.C, implement a customized monitoring program that achieves the five Primary Objectives set forth in Part II.A. of Attachment E and includes the elements set forth in Part II.E. of Attachment E.*

2. Compliance Determination *for Commingled Discharges*
a. For commingled discharges addressed by a TMDL, ***~~A~~a Permittee shall demonstrate compliance with the requirements of Part E as specified at Part E.2****.b****.***
b. *For commingled discharges not addressed by a TMDL, ~~A~~a* ***Permittee shall demonstrate compliance with the requirements of Part V.A*** *~~for commingled discharges~~* ***as follows:***
i. Pursuant to 40 CFR section 122.26(a)(3)(vi), each Permittee is only responsible for discharges from the MS4 for which they are owners and/or operators.
ii. Where Permittees have commingled discharges to the receiving water, or where Permittees' discharges commingle in the receiving water, compliance in the receiving water shall be determined for the group of Permittees as a whole unless an individual Permittee demonstrates that its discharge did not cause or contribute to the exceedance, pursuant to subpart iv. below.
iii. For purposes of compliance determination, each Permittee is responsible for demonstrating that its discharge did not cause or contribute to an exceedance of the receiving water limitation in the target receiving water.
iv. A Permittee may demonstrate that its discharge did not cause or contribute to an exceedance of a receiving water limitation in one of the following ways:

(1) Demonstrate that there was no discharge from the Permittee's MS4 into the applicable receiving water during the relevant time period;

(2) Demonstrate that the discharge from the Permittee's MS4 was controlled to a level that did not cause or contribute to the exceedance in the receiving water; or
(3) Demonstrate that there is an alternative source of the pollutant that caused the exceedance, ~~and~~ that the pollutant is not typically associated with MS4 discharges*, and that the pollutant was not discharged from the Permittee's MS4* **.**
(4) Demonstrate that the Permittee is in compliance with the Watershed Management Programs provisions under VI.C.

COMMENTS:

Does comingling include Industrial NPDES permittees and/or Caltrans?

AMENDMENT

YOU STATE:

We shall amend section III.D.1.a. at page F-18, Attachment F, Fact Sheet, as follows:

Attachment F–Fact Sheet
III. Applicable Statutes, Regulations, Plans, and Policies
D. State and Federal Regulations, Policies, and Plans
1. Water Quality Control Plans. *The CWA requires the Regional Water Board to establish water quality standards for each water body in its region. Water quality standards include beneficial uses, water quality objectives and criteria that are established at levels sufficient to protect those beneficial uses, and an antidegradation policy to prevent degrading waters. On June 13, 1994, the Regional Water Board adopted a Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (hereinafter Basin Plan). The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters in the Los Angeles Region. The Regional Water Board has amended the Basin Plan on multiple occasions since 1994. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to the surface water bodies that receive discharges from the Los Angeles County MS4 generally include those listed below:*
Table F-3. Basin Plan Beneficial Uses (omitted)

a. ***Permit Structure: Watershed Management Approach and Total Maximum Daily Load (TMDL) Implementation (at F-17)***

*The Regional Water Board determined that the cities of Signal Hill and Downey, the five upper San Gabriel River cities, and the LACFCD are included as Permittees in this Order***. In making that determination, the Regional Water Board distinguished between the permitting status of those cities and the permitting status of the City of Long Beach** *at this time*~~*. The Regional Water Board will continue to issue an individual permit to the City of Long Beach*~~ ***because the City of Long Beach*** ~~*has been permitted under an individual permit for over a decade*~~ ***and has a proven track record in*** ~~*implementation of*~~ *implementing an individual* ***permit*** ~~*requirements*~~ ***and*** ~~*development*~~ *developing* ~~*of*~~ ***a robust monitoring program under that individual permit, as well as in cooperation with other MS4 dischargers on watershed based implementation. While all other incorporated cities with discharges within the coastal watersheds of Los Angeles County, as well as Los Angeles County and the Los Angeles County Flood Control District, are permitted under this Order,*** *individually tailored permittee requirements are provided in this Order, where appropriate*

COMMENTS:

With a Watershed Initiative approach, we do not understand how you can distinguish one city aside from the whole. How does data differ, modeling, or case-specific nexus occur?

Are wetlands also city alienated and not navigable water identified?

Joyce Dillard
P.O. Box 31377
Los Angeles, CA 90031

Attachments:
Prepublication of the Final Clean Water Rule
Maryland Dept of the Environment v Anacostia Riverkeeper No. 2199

6560-50-P

DEPARTMENT OF DEFENSE

Department of the Army, Corps of Engineers

33 CFR Part 328

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 110, 112, 116, 117, 122, 230, 232, 300, 302, and 401

[EPA-HQ-OW-2011-0880; FRL-9927-20-OW]

RIN 2040- AF30

Clean Water Rule: Definition of "Waters of the United States"

AGENCIES: U.S. Army Corps of Engineers, Department of the Army, Department of Defense; and Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) and the U.S. Department of the Army (Army) are publishing a final rule defining the scope of waters protected under the Clean Water Act (CWA or the Act), in light of the statute, science, Supreme Court decisions in *U.S.* v. *Riverside Bayview Homes*, *Solid Waste Agency of Northern Cook County* v. *U.S. Army Corps of*

Engineers (SWANCC), and *Rapanos* v. *United States (Rapanos)*, and the agencies' experience and technical expertise. This final rule reflects consideration of the extensive public comments received on the proposed rule. The rule will ensure protection for the nation's public health and aquatic resources, and increase CWA program predictability and consistency by clarifying the scope of "waters of the United States" protected under the Act.

DATES: This rule is effective on [60 days after Federal Register publication]. In accordance with 40 CFR part 23, this regulation shall be considered issued for purposes of judicial review at 1 p.m. Eastern time on [INSERT DATE 2 WEEKS AFTER PUBLICATION IN THE FR].

FOR FURTHER INFORMATION CONTACT: Ms. Donna Downing, Office of Water (4502–T), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460; telephone number 202–566–2428; e-mail address: *CWAwaters@epa.gov.* Ms. Stacey Jensen, Regulatory Community of Practice (CECW–CO–R), U.S. Army Corps of Engineers, 441 G Street, NW, Washington, DC 20314; telephone number 202–761–5856; email address: *USACE_CWA_Rule@usace.army.mil.*

SUPPLEMENTARY INFORMATION:

This final rule does not establish any regulatory requirements. Instead, it is a definitional rule that clarifies the scope of "waters of the United States" consistent with the Clean Water Act (CWA), Supreme Court precedent, and science. Programs established by the CWA, such as the section 402 National Pollutant Discharge Elimination System (NPDES) permit program, the section 404 permit program for discharge of dredged or fill material, and the section 311 oil spill prevention and response programs, all rely on the definition of "waters of the United States." Entities currently are, and will continue to be, regulated under these programs that protect "waters of the United States" from pollution and destruction.

State, tribal, and local governments have well-defined and longstanding relationships with the Federal government in implementing CWA programs and these relationships are not altered by the final rule. Forty-six states and the U.S. Virgin Islands have been authorized by EPA to administer the NPDES program under section 402, and two states have been authorized by the EPA to administer the section 404 program. All states and forty tribes have developed water quality standards under the CWA for waters within their boundaries. A federal advisory committee has recently been announced to assist states in identifying the scope of waters assumable under the section 404 program.

The scope of jurisdiction in this rule is narrower than that under the existing regulation. Fewer waters will be defined as "waters of the United States" under the rule than under the existing regulations, in part because the rule puts important qualifiers on some existing categories such as tributaries. In addition, the rule provides greater clarity regarding which waters are subject to CWA jurisdiction, reducing the instances in which permitting authorities, including the states and tribes with authorized section 402 and 404 CWA permitting programs, would need to make jurisdictional determinations on a case-specific basis.

Table of Contents

I. General Information

A. How Can I Get Copies of This Document and Related Information?

1. *Docket.* An official public docket for this action has been established under Docket Id. No. EPA-HQ-OW-2011-0880. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. The official public docket also includes a Technical Support Document that provides additional legal and scientific discussion for issues raised in this rule, and the Response to Comments document. Although a part of the official docket, the public docket does not include

Confidential Business Information or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the OW Docket, EPA West, Room 3334, 1301 Constitution Ave. NW, Washington, DC 20004. This Docket Facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The OW Docket telephone number is 202–566–2426. A reasonable fee will be charged for copies.

2. *Electronic Access.* You may access this **Federal Register** document electronically under the ''**Federal Register**'' listings at *http://www.regulations.gov*. An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may access EPA Dockets at *http://www.regulations.gov* to view public comments, access the index listing of the contents of the official public docket, and access those documents in the public docket that are available electronically. For additional information about EPA's public docket, visit the EPA Docket Center homepage at *http://www.epa.gov/epahome/dockets.htm*. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the Docket Facility.

B. Under What Legal Authority Is This Rule Issued?

The authority for this rule is the Federal Water Pollution Control Act, 33 U.S.C. 1251, *et seq*., including sections 301, 304, 311, 401, 402, 404 and 501.

II. Executive Summary

In this final rule, the agencies clarify the scope of "waters of the United States" that are protected under the Clean Water Act (CWA), based upon the text of the statute, Supreme Court decisions, the best available peer-reviewed science, public input, and the agencies' technical expertise and experience in implementing the statute. This rule makes the process of identifying waters[1] protected under the CWA easier to understand, more predictable, and consistent with the law and peer-reviewed science, while protecting the streams and wetlands that form the foundation of our nation's water resources.

Congress enacted the CWA "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters," section 101(a), and to complement statutes that protect the navigability of waters, such as the Rivers and Harbors Act. 33 U.S.C. 401, 403, 404, 407. The CWA is the nation's single most important statute for protecting America's clean water against pollution, degradation, and destruction. To provide that protection, the Supreme Court has consistently agreed that the geographic scope of the CWA reaches beyond waters that are navigable in fact. Peer-reviewed science and practical experience demonstrate that upstream waters, including headwaters and wetlands, significantly affect the chemical, physical, and biological integrity of downstream waters by playing a crucial role in controlling sediment, filtering pollutants, reducing flooding, providing habitat for fish and other aquatic wildlife, and many other vital chemical, physical, and biological processes.

This final rule interprets the CWA to cover those waters that require protection in order to restore and maintain the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, and the territorial seas. This interpretation is based not only on legal

[1] The agencies use the term "water" and "waters" in categorical reference to rivers, streams, ditches, wetlands, ponds, lakes, oxbows, and other types of natural or man-made aquatic systems, identifiable by the water contained in these aquatic systems or by their chemical, physical, and biological indicators. The agencies use the terms "waters" and "water bodies" interchangeably in this preamble.

precedent and the best available peer-reviewed science, but also on the agencies' technical expertise and extensive experience in implementing the CWA over the past four decades. The rule will clarify and simplify implementation of the CWA consistent with its purposes through clearer definitions and increased use of bright-line boundaries to establish waters that are jurisdictional by rule and limit the need for case-specific analysis. The agencies emphasize that, while the CWA establishes permitting requirements for covered waters to ensure protection of water quality, these requirements only apply with respect to discharges of pollutants to the covered water. In the absence of a discharge of a pollutant, the CWA does not impose permitting restrictions on the use of such water.

Additionally, Congress has exempted certain discharges, and the rule does not affect any of the exemptions from CWA section 404 permitting requirements provided by CWA section 404(f), including those for normal farming, ranching, and silviculture activities. CWA section 404(f); 40 CFR 232.3; 33 CFR 323.4. This rule not only maintains current statutory exemptions, it expands regulatory exclusions from the definition of "waters of the United States" to make it clear that this rule does not add any additional permitting requirements on agriculture. The rule also does not regulate shallow subsurface connections nor any type of groundwater, erosional features, or land use, nor does it affect either the existing statutory or regulatory exemptions from NPDES permitting requirements, such as for agricultural stormwater discharges and return flows from irrigated agriculture, or the status of water transfers. CWA section 402(l)(1); CWA section 402(l)(2); CWA section 502(14); 40 CFR 122.3(f); 40 CFR 122.2.

Finally, even where waters are covered by the CWA, the agencies have adopted many streamlined regulatory requirements to simplify and expedite compliance through the use of measures such as general permits and standardized mitigation measures. The agencies will continue to develop general permits and simplified procedures, particularly as they affect crossings of covered ephemeral and intermittent tributaries jurisdictional under this rule to ensure that projects that offer significant social benefits, such as renewable energy development, can proceed with the necessary environmental safeguards while minimizing permitting delays.

The jurisdictional scope of the CWA is "navigable waters," defined in section 502(7) of the statute as "waters of the United States, including the territorial seas." The term "navigable waters" is used in a number of provisions of the CWA, including the section 402 National Pollutant Discharge Elimination System (NPDES) permit program, the section 404 permit program, the section 311 oil spill prevention and response program,[2] the water quality standards and total maximum daily load programs (TMDL) under section 303, and the section 401 state water quality certification process. However, while there is only one CWA definition of "waters of the United States," there may be other statutory factors that define the reach of a particular CWA program or provision.[3] Existing regulations (last codified in 1986) define "waters of the

[2] While section 311 uses the phrase "navigable waters of the United States," EPA has interpreted it to have the same breadth as the phrase "navigable waters" used elsewhere in section 311, and in other sections of the CWA. *See United States v. Texas Pipe Line Co.*, 611 F.2d 345, 347 (10th Cir. 1979); *United States v. Ashland Oil & Transp. Co.*, 504 F.2d 1317, 1324-25 (6th Cir. 1974). In 2002, EPA revised its regulatory definition of "waters of the United States" in 40 CFR part 112 to ensure that the language of the rule was consistent with the regulatory language of other CWA programs. *Oil Pollution Prevention & Response; Non –Transportation-Related Onshore & Offshore Facilities*, 67 FR 47042, July 17, 2002. A district court vacated the rule for failure to comply with the Administrative Procedure Act, and reinstated the prior regulatory language. *American Petroleum Ins. v. Johnson*, 541 F. Supp. 2d 165 (D. D.C. 2008). However, EPA interprets "navigable waters of the United States" in CWA section 311(b), in the pre-2002 regulations, and in the 2002 rule to have the same meaning as "navigable waters" in CWA section 502(7).

[3] For example, the CWA section 402 (33 U.S.C. § 1342) program regulates discharges of pollutants from "point sources" to "waters of the United States," whether these pollutants reach jurisdictional waters directly or indirectly. The plurality opinion in *Rapanos* noted that "there is no reason to suppose that our construction today significantly affects the enforcement of §1342. .

United States" as traditional navigable waters, interstate waters, all other waters that could affect interstate or foreign commerce, impoundments of waters of the United States, tributaries, the territorial seas, and adjacent wetlands. 33 CFR 328.3; 40 CFR 122.2.[4]

However, the Supreme Court has issued three decisions that provide critical context and guidance in determining the appropriate scope of "waters of the United States" covered by the CWA. In *United States* v. *Riverside Bayview Homes*, 474 U.S. 121 (1985) (*Riverside*), the Court, in a unanimous opinion, deferred to the Corps' ecological judgment that adjacent wetlands are "inseparably bound up" with the waters to which they are adjacent, and upheld the inclusion of adjacent wetlands in the regulatory definition of "waters of the United States." *Id.* at 134. The Court observed that the broad objective of the CWA to restore and maintain the integrity of the Nation's waters "incorporated a broad, systemic view of the goal of maintaining and improving water quality …. Protection of aquatic ecosystems, Congress recognized, demanded broad federal authority to control pollution, for '[w]ater moves in hydrologic cycles and it is essential that discharge of pollutants be controlled at the source.' In keeping with these views, Congress chose to define the waters covered by the Act broadly." *Id.* at 132-33 (*citing* Senate Report No. 92-414, p. 77 (1972)).

. . 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.'" 547 U.S. at 743.

[4] There are numerous regulations that utilize the definition of "waters of the United States" and each is codified consistent with its place in a particular section of the Code of Federal Regulations. For simplicity, throughout the preamble the agencies refer to the rule as organized into (a), (b), (c) provisions and intend the reference to encompass the appropriate cites in each section of the Code of Federal Regulations. For example, a reference to (a)(1) is a reference to all instances in the CFR identified as subject to this rule that state "All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide."

In *Solid Waste Agency of Northern Cook County* v. *U.S. Army Corps of Engineers*, 531 U.S. 159 (2001) (*SWANCC*), the Supreme Court held that the use of "isolated" non-navigable intrastate ponds by migratory birds was not by itself a sufficient basis for the exercise of federal regulatory authority under the CWA. Although the *SWANCC* decision did not call into question earlier decisions upholding the CWA's coverage of wetlands or other waters "adjacent" to traditional navigable waters, it created uncertainty with regard to the jurisdiction of other waters and wetlands that, in many instances, may play an important role in protecting the integrity of the nation's waters. The majority opinion in *SWANCC* introduced the concept that it was a "significant nexus" that informed the Court's reading of CWA jurisdiction over waters that are not navigable in fact.

Five years later, in *Rapanos* v. *United States*, 547 U.S. 715 (2006) (*Rapanos*), all Members of the Court agreed that the term "waters of the United States" encompasses some waters that are not navigable in the traditional sense. In addition, Justice Kennedy's opinion indicated that the critical factor in determining the CWA's coverage is whether a water has a "significant nexus" to downstream traditional navigable waters such that the water is important to protecting the chemical, physical, or biological integrity of the navigable water, referring back to the Court's decision in *SWANCC*. Justice Kennedy's concurrence in *Rapanos* stated that to constitute a "water of the United States" covered by the CWA, "a water or wetland must possess a 'significant nexus' to waters that are or were navigable in fact or that could reasonably be so made." *Id*. at 759 (Kennedy, J., concurring in the judgment) (*citing SWANCC*, 531 U.S. at 167, 172). Justice Kennedy concluded that wetlands possess the requisite significant nexus if the wetlands "either alone or in combination with similarly situated [wet]lands in the region, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as 'navigable.'" 547 U.S. at 780.

In this rule, the agencies interpret the scope of the "waters of the United States" for the CWA using the goals, objectives, and policies of the statute, the Supreme Court case law, the relevant and available science, and the agencies' technical expertise and experience as support. In particular, the agencies looked to the objective of the CWA "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters," and the scientific consensus on the strength of the effects of upstream tributaries and adjacent waters, including wetlands, on downstream traditional navigable waters, interstate waters, and the territorial seas. An important element of the agencies' interpretation of the CWA is the significant nexus standard. This significant nexus standard was first informed by the ecological and hydrological connections the Supreme Court noted in *Riverside Bayview*, developed and established by the Supreme Court in *SWANCC*, and further refined in Justice Kennedy's opinion in *Rapanos.* The agencies also utilized the plurality standard in *Rapanos* by establishing boundaries on the scope of "waters of the United States" and in support of the exclusions from the definition of "waters of the United States." The analysis used by the agencies has been supported by all nine of the United States Courts of Appeals that have considered the issue.

The agencies assess the significance of the nexus in terms of the CWA's objective to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." When the effects are speculative or insubstantial, the "significant nexus" would not be present. The science demonstrates that the protection of upstream waters is critical to maintaining the integrity of the downstream waters. The upstream waters identified in the rule as jurisdictional function as integral parts of the aquatic environment, and if these waters are polluted or destroyed, there is a significant effect downstream.

.In response to the Supreme Court opinions, the agencies issued guidance in 2003 (post-*SWANCC*) and 2008 (post-*Rapanos*). However, these two guidance documents did not provide the public or agency staff with the kind of information needed to ensure timely, consistent, and predictable jurisdictional determinations. Many waters are currently subject to case-specific jurisdictional analysis to determine whether a "significant nexus" exists, and this time and resource intensive process can result in inconsistent interpretation of CWA jurisdiction and perpetuate ambiguity over where the CWA applies. As a result of the ambiguity that exists under current regulations and practice following these recent decisions, almost all waters and wetlands across the country theoretically could be subject to a case-specific jurisdictional determination.

Members of Congress, developers, farmers, state and local governments, energy companies, and many others requested new regulations to make the process of identifying waters protected under the CWA clearer, simpler, and faster. Chief Justice Roberts' concurrence in *Rapanos* underscores the importance of this rulemaking effort.[5] In this final rule, the agencies are responding to those requests from across the country to make the process of identifying waters

[5] Chief Justice Roberts' concurrence in *Rapanos* emphasized that "[a]gencies delegated rulemaking authority under a statute such as the Clean Water Act are afforded generous leeway by the courts in interpreting the statute they are entrusted to administer." *Id*. at 758. Chief Justice Roberts made clear that, if the agencies had undertaken such a rulemaking, "the Corps and the EPA would have enjoyed plenty of room to operate in developing *some* notion of an outer bound to the reach of their authority." *Id.* (Emphasis in original.)

protected under the CWA easier to understand, more predictable, and more consistent with the law and peer-reviewed science.

The agencies proposed a rule clarifying the scope of waters of the United States in April, 2014, and solicited comments for over 200 days. This final rule reflects the over 1 million public comments on the proposal, the substantial majority of which supported the proposed rule, as well as input provided through the agencies' extensive public outreach effort, which included over 400 meetings nationwide with states, small businesses, farmers, academics, miners, energy companies, counties, municipalities, environmental organizations, other federal agencies, and many others. The agencies sought comment on a number of approaches to specific jurisdictional questions, and many of these commenters and stakeholders urged EPA to improve upon the April 2014 proposal, by providing more bright line boundaries and simplifying definitions that identify waters that are protected under the CWA, all for the purpose of minimizing delays and costs, making protection of clean water more effective, and improving predictability and consistency for landowners and regulated entities.

The agencies' interpretation of the CWA's scope in this final rule is guided by the best available peer-reviewed science – particularly as that science informs the determinations as to which waters have a "significant nexus" with traditional navigable waters, interstate waters, or the territorial seas.

The relevant science on the relationship and downstream effects of waters has advanced considerably in recent years. A comprehensive report prepared by the EPA's Office of Research and Development entitled "Connectivity of Streams and Wetlands to Downstream Waters: A

Review and Synthesis of the Scientific Evidence"[6] (hereafter the Science Report) synthesizes the peer-reviewed science.

The Science Report provides much of the technical basis for this rule. The Science Report is based on a review of more than 1,200 peer-reviewed publications. EPA's Science Advisory Board (SAB) conducted a comprehensive technical review of the Science Report and reviewed the adequacy of the scientific and technical basis of the proposed rule. The Science Report and the SAB review confirmed that:

- Waters are connected in myriad ways, including physical connections and the hydrologic cycle; however, connections occur on a continuum or gradient from highly connected to highly isolated.
- These variations in the degree of connectivity are a critical consideration to the ecological integrity and sustainability of downstream waters.
- The critical contribution of upstream waters to the chemical, physical, and biological integrity of downstream waters results from the accumulative contribution of similar waters in the same watershed and in the context of their functions considered over time.

The Science Report and the SAB review also confirmed that:

- Tributary streams, including perennial, intermittent, and ephemeral streams, are chemically, physically, and biologically connected to downstream waters, and influence the integrity of downstream waters.

[6] U.S. Environmental Protection Agency, *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence* (Final Report), EPA/600/R-14/475F, (Washington, D.C.: U.S. Environmental Protection Agency, (2015)). http://www.epa.gov/ncea

- Wetlands and open waters in floodplains and riparian areas are chemically, physically, and biologically connected with downstream waters and influence the ecological integrity of such waters.
- Non-floodplain wetlands and open waters provide many functions that benefit downstream water quality and ecological integrity, but their effects on downstream waters are difficult to assess based solely on the available science.

Although these conclusions play a critical role in informing the agencies' interpretation of the CWA's scope, the agencies' interpretive task in this rule – determining which waters have a "significant nexus" – requires scientific and policy judgment, as well as legal interpretation. The science demonstrates that waters fall along a gradient of chemical, physical, and biological connection to traditional navigable waters, and it is the agencies' task to determine where along that gradient to draw lines of jurisdiction under the CWA. In making this determination, the agencies must rely, not only on the science, but also on their technical expertise and practical experience in implementing the CWA during a period of over 40 years. In addition, the agencies are guided, in part, by the compelling need for clearer, more consistent, and easily implementable standards to govern administration of the Act, including brighter line boundaries where feasible and appropriate.

Major Rule Provisions

In this final rule, the agencies define "waters of the United States" to include eight categories of jurisdictional waters. The rule maintains existing exclusions for certain categories of waters, and adds additional categorical exclusions that are regularly applied in practice. The rule reflects the agencies' goal of providing simpler, clearer, and more consistent approaches for identifying the geographic scope of the CWA. The rule recognizes jurisdiction for three basic categories: waters that are jurisdictional in all instances, waters that are excluded from jurisdiction, and a narrow category of waters subject to case-specific analysis to determine whether they are jurisdictional.

Decisions about waters in each of these categories are based on the law, peer-reviewed science, and the agencies' technical expertise, and were informed by public comments. This rule replaces existing procedures that often depend on individual, time-consuming, and inconsistent analyses of the relationship between a particular stream, wetland, lake, or other water with downstream waters. The agencies have greatly reduced the extent of waters subject to this individual review by carefully incorporating the scientific literature and by utilizing agency expertise and experience to characterize the nature and strength of the chemical, physical, and biological connections between upstream and downstream waters. The result of applying this scientific analysis is that the agencies can more effectively focus the rule on identifying waters that are clearly covered by the CWA and those that are clearly not covered, making the rule easier to understand, consistent, and environmentally more protective.

The jurisdictional categories reflect the current state of the best available science, and are based upon the law and Supreme Court decisions. The agencies will continue a transparent review of the science, and learn from on-going experience and expertise as the agencies implement the rule. If evolving science and the agencies' experience lead to a need for action to alter the jurisdictional categories, any such action will be conducted as part of a rule-making process.

The first three types of jurisdictional waters, traditional navigable waters, interstate waters, and the territorial seas, are jurisdictional by rule in all cases. The fourth type of water, impoundments of jurisdictional waters, is also jurisdictional by rule in all cases. The next two types of waters, "tributaries" and "adjacent" waters, are jurisdictional by rule, as defined, because the science confirms that they have a significant nexus to traditional navigable waters, interstate waters, or territorial seas. For waters that are jurisdictional by rule, no additional analysis is required.

The final two types of jurisdictional waters are those waters found after a case-specific analysis to have a significant nexus to traditional navigable waters, interstate waters, or the territorial seas, either alone or in combination with similarly situated waters in the region. Justice Kennedy acknowledged the agencies could establish more specific regulations or establish a significant nexus on a case-by-case basis, *Rapanos* at 782, and for these waters the agencies will continue to assess significant nexus on a case-specific basis.

The major elements of the final rule are briefly summarized here.

Traditional Navigable Waters, Interstate Waters, Territorial Seas, and Impoundments of Jurisdictional Waters

Consistent with existing regulations and the April 2014 proposed rule, the final rule includes traditional navigable waters, interstate waters, territorial seas, and impoundments of jurisdictional waters in the definition of "waters of the United States." These waters are jurisdictional by rule.

Tributaries

Previous definitions of "waters of the United States" regulated all tributaries without qualification. This final rule more precisely defines "tributaries" as waters that are characterized by the presence of physical indicators of flow – bed and banks and ordinary high water mark – and that contribute flow directly or indirectly to a traditional navigable water, an interstate water, or the territorial seas. The rule concludes that such tributaries are "waters of the United States." The great majority of tributaries as defined by the rule are headwater streams that play an important role in the transport of water, sediments, organic matter, nutrients, and organisms to downstream waters. The physical indicators of bed and banks and ordinary high water mark demonstrate that there is sufficient volume, frequency, and flow in such tributaries to a traditional navigable water, interstate water, or the territorial seas to establish a significant nexus. "Tributaries," as defined, are jurisdictional by rule.

The rule only covers as tributaries those waters that science tells us provide chemical, physical, or biological functions to downstream waters and that meet the significant nexus standard. The agencies identify these functions in the definition of "significant nexus" at paragraph (c)(5). Features not meeting this legal and scientific test are not jurisdictional under this rule. The rule continues the current policy of regulating ditches that are constructed in tributaries or are relocated tributaries or, in certain circumstances drain wetlands, or that science clearly demonstrates are functioning as a tributary. These jurisdictional waters affect the chemical, physical, and biological integrity of downstream waters. The rule further reduces existing confusion and inconsistency regarding the regulation of ditches by explicitly excluding certain categories of ditches, such as ditches that flow only after precipitation. Further, the rule explicitly excludes from the definition of "waters of the United States" erosional features, including gullies, rills, and ephemeral features such as ephemeral streams that do not have a bed and banks and ordinary high water mark.

Adjacent Waters

The agencies determined that "adjacent waters," as defined in the rule, have a significant nexus to traditional navigable waters, interstate waters, and the territorial seas based upon their hydrological and ecological connections to, and interactions with, those waters. Under this final rule, "adjacent" means bordering, contiguous, or neighboring, including waters separated from other "waters of the United States" by constructed dikes or barriers, natural river berms, beach dunes and the like. Further, waters that connect segments of, or are at the head of, a stream or river are "adjacent" to that stream or river. "Adjacent waters" include wetlands, ponds, lakes, oxbows, impoundments, and similar water features. However, it is important to note that "adjacent waters" do not include waters that are subject to established normal farming, silviculture, and ranching activities as those terms are used in Section 404(f) of the CWA.

The final rule establishes a definition of "neighboring" for purposes of determining adjacency. In the rule, the agencies identify three circumstances under which waters would be "neighboring" and therefore "waters of the United States":

(1) Waters located in whole or in part within 100 feet of the ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, an impoundment of a jurisdictional water, or a tributary, as defined in the rule.

(2) Waters located in whole or in part in the 100-year floodplain and that are within 1,500 feet of the ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, an impoundment, or a tributary, as defined in the rule ("floodplain waters").

(3) Waters located in whole or in part within 1,500 feet of the high tide line of a traditional navigable water or the territorial seas and waters located within 1,500 feet of the ordinary high water mark of the Great Lakes.

The agencies emphasize that the rule has defined as "adjacent waters" those waters that currently available science demonstrates possess the requisite connection to downstream waters and function as a system to protect the chemical, physical, or biological integrity of those waters. The agencies also emphasize that the rule does not cover "adjacent waters" that are otherwise excluded. Further, the agencies recognize the establishment of bright line boundaries in the rule for adjacency does not in any way restrict states from considering state specific information and concerns, as well as emerging science to evaluate the need to more broadly protect their waters under state law. The CWA establishes both national and state roles to ensure that states specific circumstances are properly considered to complement and reinforce actions taken at the national level.

"Adjacent" waters as defined are jurisdictional by rule. The agencies recognize that there are individual waters outside of the "neighboring" boundaries stated above where the science may demonstrate through a case-specific analysis that there exists a significant nexus to a downstream traditional navigable water, interstate water, or the territorial seas. However, these waters are not determined jurisdictional by rule and will be evaluated through a case-specific analysis. The strength of the science and the significance of the nexus will be established on a case-specific basis as described below.

Case-Specific Significant Nexus

The rule identifies particular waters that are not jurisdictional by rule but are subject to case-specific analysis to determine if a significant nexus exists and the water is a "water of the United States." This category of case-specific waters is based upon available science and the law, and in response to public comments that encouraged the agencies to ensure more consistent determinations and reduce the complexity of conducting jurisdictional determinations. Consistent with the significant nexus standard articulated in the Supreme Court opinions, waters are "waters of the United States" if they significantly affect the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, or the territorial seas. This determination will most typically be made on a water individually, but can, when warranted, be made in combination with other waters where waters function together.

In this final rule, the agencies have identified by rule, five specific types of waters in specific regions that science demonstrates should be subject to a significant nexus analysis and are considered similarly situated by rule because they function alike and are sufficiently close to function together in affecting downstream waters. These five types of waters are Prairie potholes, Carolina and Delmarva bays, pocosins, western vernal pools in California, and Texas coastal prairie wetlands. Consistent with Justice Kennedy's opinion in *Rapanos*, the agencies determined that such waters should be analyzed "in combination" (as a group, rather than individually) in the watershed that drains to the nearest traditional navigable water, interstate water, or the territorial seas when making a case-specific analysis of whether these waters have a significant nexus to traditional navigable waters, interstate waters, or territorial seas.

The final rule also provides that waters within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas and waters within 4,000 feet of the high tide line or the ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, impoundments, or covered tributary are subject to case-specific significant nexus determinations, unless the water is excluded under paragraph (b) of the rule. The science available today does not establish that waters beyond those defined as "adjacent" should be jurisdictional as a category under the CWA, but the agencies' experience and expertise indicate that there are many waters within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas or out to 4,000 feet where the science demonstrates that they have a significant effect on downstream waters.

In circumstances where waters within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas or within 4,000 feet of the high tide line or ordinary high water mark are subject to a case-specific significant nexus analysis and such waters may be evaluated as "similarly situated," it must be first demonstrated that these waters function alike and are sufficiently close to function together in affecting downstream waters. The significant nexus analysis must then be conducted based on consideration of the functions provided by those waters in combination in the point of entry watershed. A "similarly situated" analysis is conducted where it is determined that there is a likelihood that there are waters that function together to affect downstream water integrity. To provide greater clarity and transparency in determining what functions will be considered in determining what constitutes a significant nexus, the final rule lists specific functions that the agencies will consider.

In establishing both the 100-year floodplain and the 4,000 foot bright line boundaries for these case-specific significant nexus determinations in the rule, the agencies are carefully applying the available science. Consistent with the CWA, the agencies will work with the states in connection with the prevention, reduction and elimination of pollution from state waters. The agencies will work with states to more closely evaluate state-specific circumstances that may be present within their borders and, as appropriate, encourage states to develop rules that reflect their circumstances and emerging science to ensure consistent and effective protection for waters in the states. As is the case today, nothing in this rule restricts the ability of states to more broadly protect state waters.

Exclusions

All existing exclusions from the definition of "waters of the United States" are retained, and several exclusions reflecting longstanding agency practice are added to the regulation for the first time.

Prior converted cropland and waste treatment systems have been excluded from the definition of "waters of the United States" definition since 1992 and 1979 respectively, and continue to be excluded. Ministerial changes are made for purposes of clarity, but these two exclusions remain substantively and operationally unchanged. The agencies add exclusions for waters and features previously identified as generally exempt (e.g., exclusion for certain ditches that are not located in or drain wetlands) in preamble language from *Federal Register* notices by the Corps on November 13, 1986, and by EPA on June 6, 1988. This is the first time these exclusions have been established by rule. The agencies for the first time also establish by rule that certain ditches are excluded from jurisdiction, including ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary, and ditches with intermittent flow that are not a relocated tributary, or excavated in a tributary, or drain wetlands. The agencies add exclusions for groundwater and erosional features, as well as exclusions for some waters that were identified in public comments as possibly being found jurisdictional under proposed rule language where this was never the agencies' intent, such as stormwater control features constructed to convey, treat, or store stormwater, and cooling ponds that are created in dry land. These exclusions reflect the agencies' current practice, and their inclusion in the rule as specifically excluded furthers the agencies' goal of providing greater clarity over what waters are and are not protected under the CWA.

Role of States and Tribes Under the Clean Water Act

States and tribes play a vital role in the implementation and enforcement of the CWA. Section 101(b) of the CWA states that it is Congressional policy to preserve the primary responsibilities and rights of states to prevent, reduce, and eliminate pollution, to plan the development and use of land and water resources, and to consult with the Administrator with respect to the exercise of the Administrator's authority under the CWA.

Of particular importance, states and tribes may be authorized by the EPA to administer the permitting programs of CWA sections 402 and 404. Forty-six states and the U.S. Virgin Islands are authorized to administer the NPDES program under section 402, while two states administer the section 404 program. The CWA identifies the waters over which states may assume section 404 permitting jurisdiction. *See* CWA section 404(g)(1). The scope of waters that are subject to state and tribal permitting is a separate inquiry and must be based on the statutory language in CWA section 404. States administer approved CWA section 404 programs for "waters of the United States" within the state, except those waters remaining under Corps jurisdiction pursuant to CWA section 404(g)(1) as identified in a Memorandum of Agreement between the state and the Corps. 40 CFR 233.14; 40 CFR 233.70(c)(2); 40 CFR 233.71(d)(2). EPA has initiated a separate process to address how the EPA can best clarify assumable waters for dredged and fill material permit programs pursuant to the Clean Water Act section 404(g)(1). 80 FR 13539 (Mar. 16, 2015). Additional CWA programs that utilize the definition of "waters of the United States" and are of importance to the states and tribes include the section 311 oil spill prevention and response program, the water quality standards and total maximum daily load (TMDL) programs under section 303, and the section 401 state water quality certification process.

States and federally-recognized tribes, consistent with the CWA, retain full authority to implement their own programs to more broadly and more fully protect the waters in their jurisdiction. Under section 510 of the CWA, unless expressly stated, nothing in the CWA precludes or denies the right of any state to establish more protective standards or limits than the Federal CWA. Congress has also provided roles for eligible Indian tribes to administer CWA programs over their reservations and expressed a preference for tribal regulation of surface water quality on Indian reservations to ensure compliance with the goals of the CWA. See 33 U.S.C. § 1377; 56 FR 64876, 64878-79 (Dec. 12, 1991)). Tribes also have inherent sovereign authority to establish more protective standards or limits than the Federal CWA. Where appropriate, references to states in this document may also include eligible tribes. Many states and tribes, for example, regulate groundwater, and some others protect wetlands that are vital to their environment and economy but outside the jurisdiction of the CWA. Nothing in this rule limits or impedes any existing or future state or tribal efforts to further protect their waters. In fact, providing greater clarity regarding what waters are subject to CWA jurisdiction will reduce the need for permitting authorities, including the states and tribes with authorized section 402 and 404 CWA permitting programs, to make jurisdictional determinations on a case-specific basis.

Overview of the Preamble

The remainder of this preamble is organized as follows. Section III (Significant Nexus Standard) provides additional background on the rule, including a discussion of Supreme Court precedent, the science underpinning the rule, and the agencies' overall interpretive approach to applying the significant nexus standard. Section IV (Definition of Waters of the United States) explains the provisions of the final rule, including subsections on each of the major elements of the rule. Section V summarizes the economic analysis of the rule and Section VI addresses Related Acts of Congress, Executive Orders and Agency Initiatives.

III. Significant Nexus Standard

With this rule, the agencies interpret the scope of the "waters of the United States" for the CWA in light of the goals, objectives, and policies of the statute, the Supreme Court case law, the relevant and available science, and the agencies' technical expertise and experience. The key to the agencies' interpretation of the CWA is the significant nexus standard, as established and refined in Supreme Court opinions: waters are "waters of the United States" if they, either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, or the territorial seas. The agencies interpret specific aspects of the significant nexus standard in light of the science, the law, and the agencies' technical expertise: the scope of the region in which to evaluate waters when making a significant nexus determination; the waters to evaluate in combination with each other; and the functions provided by waters and strength of those functions, and when such waters significantly affect the chemical, physical, or biological integrity of the downstream traditional navigable waters, interstate waters, or the territorial seas.

In the rule, the agencies determine that tributaries, as defined ("covered tributaries"), and "adjacent waters", as defined ("covered adjacent waters"), have a significant nexus to downstream traditional navigable waters, interstate waters, and the territorial seas and therefore are "waters of the United States." In the rule, the agencies also establish that defined sets of additional waters may be determined to have a significant nexus on a case-specific basis: (1) five specific types of waters that the agencies conclude are "similarly situated" and therefore must be analyzed "in combination" in the watershed that drains to the nearest traditional navigable water, interstate water, or the territorial seas when making a case-specific significant nexus analysis; and (2) waters within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas, or waters within 4,000 feet of the high tide line or ordinary high water mark of traditional navigable waters, interstate waters, the territorial seas, impoundments or covered tributaries. The rule establishes a definition of significant nexus, based on Supreme Court opinions and the science, to use when making these case-specific determinations.

Significant nexus is not a purely scientific determination. The opinions of the Supreme Court have noted that as the agencies charged with interpreting the statute, EPA and the Corps must develop the outer bounds of the scope of the CWA, while science does not provide bright line boundaries with respect to where "water ends" for purposes of the CWA. Therefore, the agencies' interpretation of the CWA is informed by the Science Report and the review and comments of the SAB, but not dictated by them. With this context, this section addresses, first, the Supreme Court case law and the significant nexus standard, second, the relevant scientific conclusions reached by analysis of existing scientific literature, and third, the agencies' significant nexus determinations underpinning the rule. Section IV of the preamble addresses in more detail the precise definitions of the covered waters promulgated by the agencies to provide the bright line boundaries identifying "waters of the United States."

A. The Significant Nexus Standard

Congress enacted the CWA "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 101(a). The agencies' longstanding regulations define "waters of the United States" for purposes of the Clean Water Act, and the Supreme Court has addressed the scope of "waters of the United States" protected by the CWA in three cases. The significant nexus standard evolved through those cases.

In *United States* v. *Riverside Bayview Homes*, 474 U.S. 121 (1985) (*Riverside*), which involved wetlands adjacent to a traditional navigable water in Michigan, the Court, in a unanimous opinion, deferred to the Corps' ecological judgment that adjacent wetlands are "inseparably bound up" with the waters to which they are adjacent, and upheld the inclusion of adjacent wetlands in the regulatory definition of "waters of the United States." *Id*. at 134. The Court observed that the broad objective of the CWA to restore and maintain the integrity of the Nation's waters "incorporated a broad, systemic view of the goal of maintaining and improving water quality …. Protection of aquatic ecosystems, Congress recognized, demanded broad federal authority to control pollution, for '[w]ater moves in hydrologic cycles and it is essential that discharge of pollutants be controlled at the source.' In keeping with these views, Congress chose to define the waters covered by the Act broadly." *Id.* at 132-33 (*citing* Senate Report No. 92-414). The Court also recognized that "[i]n determining the limits of its power to regulate discharges under the Act, the Corps must necessarily choose some point at which water ends and land begins. Our common experience tells us that this is often no easy task: the transition from water to solid ground is not necessarily or even typically an abrupt one. Rather, between open waters and dry land may lie shallows, marshes, mudflats, swamps, bogs — in short, a huge array of areas that are not wholly aquatic but nevertheless fall far short of being dry land. Where on this continuum to find the limit of 'waters' is far from obvious." *Id*. The Court then deferred to the agencies' interpretation: "In view of the breadth of federal regulatory authority contemplated by the Act itself and the inherent difficulties of defining precise bounds to regulable waters, the Corps' ecological judgment about the relationship between waters and their adjacent wetlands provides an adequate basis for a legal judgment that adjacent wetlands may be defined as waters under the Act." *Id.* at 134.

The issue of CWA jurisdiction over "waters of the United States" was addressed again by the Supreme Court in *Solid Waste Agency of Northern Cook County* v. *U.S. Army Corps of Engineers*, 531 U.S. 159 (2001) (*SWANCC*). In *SWANCC*, the Court (in a 5-4 opinion) held that the use of "isolated" non-navigable intrastate ponds by migratory birds was not by itself a sufficient basis for the exercise of federal regulatory authority under the CWA. The *SWANCC* Court noted that in *Riverside* it had "found that Congress' concern for the protection of water quality and aquatic ecosystems indicated its intent to regulate wetlands 'inseparably bound up with the 'waters' of the United States" and that "[i]t was the significant nexus between the wetlands and 'navigable waters' that informed our reading of the CWA" in that case. *Id.* at 167. *SWANCC* did not invalidate any parts of the regulatory definition of "waters of the United States."

Five years after *SWANCC*, the Court again addressed the term "waters of the United States" in *Rapanos* v. *United States*, 547 U.S. 715 (2006) (*Rapanos*). *Rapanos* involved two consolidated cases in which the CWA had been applied to wetlands adjacent to non-navigable tributaries of traditional navigable waters. All Members of the Court agreed that the term "waters of the United States" encompasses some waters that are not navigable in the traditional sense. A four-Justice plurality in *Rapanos* interpreted the term "waters of the United States" as covering "relatively permanent, standing or continuously flowing bodies of water . . .," *id.* at 739, that are connected to traditional navigable waters, *id.* at 742, as well as wetlands with a "continuous surface connection . . ." to such water bodies, *id*. (Scalia, J., plurality opinion). The *Rapanos* plurality noted that its reference to "relatively permanent" waters did "not necessarily exclude streams, rivers, or lakes that might dry up in extraordinary circumstances, such as drought," or "*seasonal* rivers, which contain continuous flow during some months of the year but no flow during dry months . . . ." *Id.* at 732 n.5 (emphasis in original).

Justice Kennedy concurred that the cases should be remanded for further decision making, and stated that "to constitute 'navigable waters' under the Act, a water or wetland must possess a 'significant nexus' to waters that are or were navigable in fact or that could reasonably be so made." *Id*. at 759 (*citing SWANCC*, 531 U.S. at 167, 172). Justice Kennedy concluded that "The required nexus must be assessed in terms of the statute's goals and purposes. Congress enacted the law to 'restore and maintain the chemical, physical, and biological integrity of the

Nation's waters,' 33 U.S.C. § 1251(a), and it pursued that objective by restricting dumping and filling in 'navigable waters,' §§ 1311(a), 1362(12)." *Id.* at 779. He concluded that wetlands possess the requisite significant nexus if the wetlands "either alone or in combination with similarly situated [wet]lands in the region, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as 'navigable.'" 547 U.S. at 780. Justice Kennedy's opinion notes that such a relationship with navigable waters must be more than "speculative or insubstantial." *Id*. at 780.

While Justice Kennedy's opinion focused on adjacent wetlands in light of the facts of the cases before him, his opinion is clear that a significant nexus is the basis for jurisdiction to protect non-navigable waters and wetlands under the CWA (*id*. at 759), and there is no indication in his opinion that the analytical framework his opinion provides for determining significant nexus for adjacent wetlands is limited to adjacent wetlands. In addition, the four dissenting Justices in *Rapanos*, who would have affirmed the court of appeals' application of the agencies' regulation, also concluded that the term "waters of the United States" encompasses, inter alia, all tributaries and wetlands that satisfy "either the plurality's [standard] or Justice Kennedy's." *Id.* at 810 & n.14 (Stevens, J., dissenting). Neither the plurality nor the Kennedy opinion invalidated any of the current regulatory provisions defining "waters of the United States."

Chief Justice Roberts' concurrence in *Rapanos* emphasized that "[a]gencies delegated rulemaking authority under a statute such as the Clean Water Act are afforded generous leeway by the courts in interpreting the statute they are entrusted to administer." *Id*. at 758. Chief Justice Roberts made clear that, if the agencies had undertaken such a rulemaking, "the Corps and the EPA would have enjoyed plenty of room to operate in developing *some* notion of an outer bound to the reach of their authority." *Id.* (Emphasis in original.)

The agencies utilize the significant nexus standard, as articulated by Justice Kennedy's opinion and informed by the unanimous opinion in *Riverside Bayview* and the plurality opinion in *Rapanos* which all recognize that the Act and the agencies must identify the scope of CWA jurisdiction "on this continuum to find the limit of 'waters,'" *Riverside Bayview* at 132, to interpret the scope of the statutory term "waters of the United States." While a significant nexus determination is primarily weighted in the scientific evidence and criteria, the agencies also consider the statutory language, the statute's goals, objectives and policies, the case law, and the agencies' technical expertise and experience when interpreting the terms of the CWA.

B. Science Report

EPA's Office of Research and Development prepared the Science Report, a peer-reviewed compilation and analysis of published peer-reviewed scientific literature summarizing the current scientific understanding of the connectivity of and mechanisms by which streams and wetlands, singly or in combination, affect the chemical, physical, and biological integrity of downstream waters. The final Science Report is available in the docket and at http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=296414.

The process for developing the Science Report followed standard information quality guidelines for EPA. In September 2013, EPA released a draft of the Science Report for an independent SAB review and invited submissions of public comments for consideration by the SAB panel. In October 2014, after several public meetings and hearings, the SAB completed its peer review of the draft Science Report. The SAB was highly supportive of the draft Science Report's conclusions regarding streams, riparian and floodplain wetlands, and open waters, and recommended strengthening the conclusion regarding non-floodplain waters to include a more definitive statement that reflects how numerous functions of such waters sustain the integrity of downstream waters.[7] The final peer review report is available on the SAB website, as well as in the docket for this rulemaking. EPA revised the draft Science Report based on comments from the public and recommendations from the SAB panel.

The SAB was established in 1978 by the Environmental Research, Development, and Demonstration Authorization Act (ERDDAA), to provide independent scientific and technical advice to the EPA Administrator on the technical basis for Agency positions and regulations. Advisory functions include peer review of EPA's technical documents, such as the Science Report. At the time the peer review was completed, the chartered SAB was comprised of more than 50 members from a variety of sectors including academia, non-profit organizations, foundations, state governments, consulting firms, and industry. To conduct the peer review, EPA's SAB staff formed an ad hoc panel based on nominations from the public to serve as the primary reviewers. The panel consisted of 27 technical experts in an array of relevant fields, including hydrology, wetland and stream ecology, biology, geomorphology, biogeochemistry, and freshwater science. Similar to the chartered SAB, the panel members represented sectors including academia, a federal government agency, non-profit organizations, and consulting firms. The chair of the panel was a member of the chartered SAB.

The SAB process is open and transparent, consistent with the Federal Advisory Committee Act, 5 U.S.C., App 2, and agency policies regarding Federal advisory committees.

[7] U.S. EPA. 2014. SAB review of the draft EPA report *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence*. EPA-SAB-15-001, U.S. Environmental Protection Agency, Washington, DC. ("SAB 2014a.")

Consequently, the SAB has an approved charter, which must be renewed biennially, announces its meetings in the *Federal Register*, and provides opportunities for public comment on issues before the Board. The SAB staff announced via the *Federal Register* that they sought public nominations of technical experts to serve on the expert panel: SAB Panel for the Review of the EPA Water Body Connectivity Report (via a similar process the public also is invited to nominate chartered SAB members). 78 FR 15012 (Mar. 8, 2013). The SAB staff then invited the public to comment on the list of candidates for the panel. Once the panel was selected, the SAB staff posted a memo on its website addressing the formation of the panel and the set of determinations that were necessary for its formation (*e.g.*, no conflicts of interest). In the public notice of the first public meetings interested members of the public were invited to submit relevant comments for the SAB Panel to consider pertaining to the review materials, including the charge to the Panel. Over 133,000 public comments were received by the Docket. Every meeting was open to the public, noticed in the *Federal Register*, and had time allotted for the public to present their views. In total, the Panel held a two-day in-person meeting in Washington, DC, in December 2013, and three four-hour public teleconferences in April, May, and June 2014. The SAB Panel also compiled four draft versions of its peer review report to inform and assist the meeting deliberations that were posted on the SAB website. In September 2014, the chartered SAB conducted a public teleconference to conduct the quality review of the Panel's final draft peer review report. The peer review report was approved at that meeting, and revisions were made to reflect the chartered SAB's review. The culmination of that public process was the release of the final peer review report in October 2014. All meeting minutes and draft reports are available on the SAB website for public access.

The final Science Report states that connectivity is a foundational concept in hydrology and freshwater ecology. Connectivity is the degree to which components of a system are joined, or connected, by various transport mechanisms and is determined by the characteristics of both the physical landscape and the biota of the specific system. Connectivity for purposes of interpreting the scope of "waters of the United States" under the CWA serves to demonstrate the "nexus" between upstream water bodies and the downstream traditional navigable water, interstate water, or the territorial sea. The scientific literature does not use the term "significant" as it is defined in a legal context, but it does provide information on the strength of the effects on the chemical, physical, and biological functioning of the downstream water bodies from the connections among covered tributaries, covered adjacent waters, and case-specific waters and those downstream waters. The scientific literature also does not use the terms traditional navigable waters, interstate waters, or the territorial seas. However, evidence of strong chemical, physical, and biological connections to larger rivers, estuaries, and lakes applies to that subset of rivers, estuaries, and lakes that are traditional navigable waters, interstate waters, or the territorial seas.

The Science Report presents evidence of those connections from various categories of waters, evaluated singly or in combination, which affect downstream waters and the strength of that effect. The objectives of the Science Report are (1) to provide a context for considering the evidence of connections between downstream waters and their tributary waters, and (2) to summarize current understanding about these connections, the factors that influence them, and the mechanisms by which the connections affect the function or condition of downstream waters. The connections and mechanisms discussed in the Science Report include transport of physical materials and chemicals such as water, wood, sediment, nutrients, pesticides, and mercury;

functions that covered adjacent waters perform, such as storing and cleansing water; movement of organisms or their seeds and eggs; and hydrologic and biogeochemical interactions occurring in and among surface and groundwater flows, including hyporheic zones[8] and alluvial aquifers.

The Science Report presents five major conclusions:

Conclusion 1: Streams

The scientific literature unequivocally demonstrates that streams, individually or cumulatively, exert a strong influence on the chemical, physical, and biological integrity of downstream waters. All tributary streams, including perennial, intermittent, and ephemeral streams, are chemically, physically, and biologically connected to downstream rivers via channels and associated alluvial deposits where water and other materials are concentrated, mixed, transformed, and transported. Streams are the dominant source of water in most rivers, and the majority of tributaries are perennial, intermittent, or ephemeral headwater streams. Headwater streams also convey water into local storage compartments such as ponds, shallow aquifers, and floodplains, and into regional and alluvial aquifers; these local storage compartments are important sources of water for maintaining baseflow in rivers. In addition to water, streams transport sediment, wood, organic matter, nutrients, chemical contaminants, and many of the organisms found in rivers. The scientific literature provides robust evidence that streams are biologically connected to downstream waters by the dispersal and migration of aquatic and semiaquatic organisms, including fish, amphibians, plants, microorganisms, and

[8] The hyporheic zone is the subsurface area immediately below the bed of intermittent and ephemeral streams that remains wet even when there is no surface flow. These areas are extremely important to macro-benthic organisms critical to the bio-chemical integrity of streams.

invertebrates, that use both upstream and downstream habitats during one or more stages of their life cycles, or provide food resources to downstream communities. In addition to material transport and biological connectivity, ephemeral, intermittent, and perennial flows influence fundamental biogeochemical processes by connecting channels and shallow groundwater with other landscape elements. Chemical, physical, and biological connections between streams and downstream waters interact via integrative processes such as nutrient spiraling. This occurs when stream communities assimilate and chemically transform large quantities of nitrogen and other nutrients that otherwise would be transported directly downstream, thereby increasing nutrient loads and associated impairments due to excess nutrients in downstream waters. Science Report at ES-2.

Conclusion 2: Riparian/Floodplain Wetlands and Open Waters

The scientific literature clearly shows that wetlands and open waters in riparian areas and floodplains are chemically, physically, and biologically integrated with rivers via functions that improve downstream water quality, including the temporary storage and deposition of channel-forming sediment and woody debris, temporary storage of local groundwater that supports baseflow in rivers, and transformation and transport of stored organic matter. Riparian/floodplain wetlands and open waters improve water quality through the assimilation, transformation, and sequestration of pollutants, including excess nutrients and chemical contaminants such as pesticides and metals that can degrade downstream water integrity. In addition to providing effective buffers to protect downstream waters from point source and nonpoint source pollution, these systems form integral components of river food webs, providing nursery habitat for breeding fish and amphibians, colonization opportunities for stream invertebrates, and maturation habitat for stream insects. Lateral expansion and contraction of the river in its floodplain result in an exchange of organic matter and organisms, including fish populations that are adapted to use floodplain habitats for feeding and spawning during high water, that are critical to river ecosystem function. Riparian/floodplain wetlands and open waters also affect the integrity of downstream waters by subsequently releasing (desynchronizing) floodwaters and retaining large volumes of stormwater, sediment, and contaminants in runoff that could otherwise negatively affect the condition or function of downstream waters. Science Report at ES-2 to ES-3.

Conclusion 3: Non-floodplain Wetlands and Open Waters

Wetlands and open waters in non-floodplain landscape settings ("non-floodplain wetlands") provide numerous functions that benefit downstream water integrity. These functions include storage of floodwater; recharge of groundwater that sustains river baseflow; retention and transformation of nutrients, metals, and pesticides; export of organisms or seeds to downstream waters; and habitats needed for stream species. This diverse group of wetlands (*e.g.*, many Prairie potholes or vernal pools) can be connected to downstream waters through surface water, shallow subsurface water, and groundwater flows, and through biological and chemical connections.

In general, connectivity of non-floodplain wetlands occurs along a gradient, and can be described in terms of the frequency, duration, magnitude, timing, and rate of change of water, material, and biotic fluxes to downstream waters. These descriptors are influenced by climate, geology, and terrain, which interact with factors such as the magnitudes of the various functions within wetlands (e.g., amount of water storage or carbon export) and their proximity to downstream waters to determine where wetlands occur along the connectivity gradient. At one end of this gradient, the functions of non-floodplain wetlands clearly affect the condition of downstream waters if a visible (e.g., channelized) surface water or a regular shallow subsurface-water connection to the river network is present. For non-floodplain wetlands lacking a channelized surface or regular shallow subsurface connection (i.e., those at intermediate points along the gradient of connectivity), generalizations about their specific effects on downstream waters from the available literature are difficult because information on both function and connectivity is needed. Science Report at ES-3.

Conclusion 4: Degrees and Determinants of Connectivity

Connectivity of streams and wetlands to downstream waters occurs along a gradient that can be described in terms of the frequency, duration, magnitude, timing, and rate of change of water, material, and biotic fluxes to downstream waters. These terms, which we refer to collectively as connectivity descriptors, characterize the range over which streams and wetlands vary and shift along the connectivity gradient in response to changes in natural and anthropogenic factors and, when considered in a watershed context, can be used to predict probable effects of different degrees of connectivity over time. The evidence unequivocally demonstrates that the stream channels and riparian/floodplain wetlands or open waters that together form river networks are clearly connected to downstream waters in ways that profoundly influence downstream water integrity. The connectivity and effects of non-floodplain wetlands and open waters are more variable and thus more difficult to address solely from evidence available in peer-reviewed studies. Science Report at ES-3 to ES-4.

Conclusion 5: Cumulative Effects

The incremental effects of individual streams and wetlands are cumulative across entire watersheds, and therefore, must be evaluated in context with other streams and wetlands. Downstream waters are the time-integrated result of all waters contributing to them. For example, the amount of water or biomass contributed by a specific ephemeral stream in a given year might be small, but the aggregate contribution of that stream over multiple years, or by all ephemeral streams draining that watershed in a given year or over multiple years, can have substantial consequences on the integrity of the downstream waters. Similarly, the downstream effect of a single event, such as pollutant discharge into a single stream or wetland, might be negligible but the cumulative effect of multiple discharges could degrade the integrity of downstream waters.

When considering the effect of an individual stream or wetland, all contributions and functions of that stream or wetland should be evaluated cumulatively. For example, the same stream transports water, removes excess nutrients, transports pollutants, mitigates flooding, and provides refuge for fish when conditions downstream are unfavorable; if any of these functions is ignored, the overall effect of that stream would be underestimated. Science Report at ES-5 to ES-6.

SAB Review of the Proposed Rule

In addition to its peer review of the draft Science Report, in a separate effort the SAB also reviewed the adequacy of the scientific and technical basis of the proposed rule and provided its advice and comments on the proposal in September 2014.[9] The same SAB Panel that reviewed the draft Science Report met via two public teleconferences in August 2014 to discuss the scientific and technical basis of the proposed rule. The Panel submitted comments to

[9] U.S. EPA. 2014. SAB Consideration of the Adequacy of the Scientific and Technical Basis of the EPA's Proposed Rule titled "Definition of Waters of the United States under the Clean Water Act." EPA-SAB-14-007, U.S. Environmental Protection Agency, Washington, DC. ("SAB 2014b.")

the Chair of the chartered SAB. A work group of chartered SAB members considered comments provided by panel members, agency representatives, and the public on the adequacy of the science informing the rule. This work group then led the September 2014 public teleconference discussion of the chartered SAB. The public had an opportunity to submit oral or written comments during these two public meetings. The SAB's final letter to the EPA Administrator can be found on the SAB website and in the docket for this rule.

The SAB found that the available science provides an adequate scientific basis for the key components of the proposed rule. The SAB noted that although water bodies differ in degree of connectivity that affects the extent of influence they exert on downstream waters (i.e., they exist on a "connectivity gradient"), the available science supports the conclusion that the types of water bodies identified as "waters of the United States" in the proposed rule exert strong influence on the chemical, physical, and biological integrity of downstream waters. In particular, the SAB expressed support for the proposed rule's inclusion of tributaries and "adjacent waters" as categorical waters of the United States and the inclusion of "other waters" on a case-specific basis, though noting that certain "other waters" can be determined as a subcategory to be similarly situated.

Regarding tributaries, the SAB found, "[t]here is strong scientific evidence to support the EPA's proposal to include all tributaries within the jurisdiction of the Clean Water Act. Tributaries, as a group, exert strong influence on the physical, chemical, and biological integrity of downstream waters, even though the degree of connectivity is a function of variation in the frequency, duration, magnitude, predictability, and consequences of physical, chemical, and biological processes." The Board advised EPA to reconsider the definition of tributaries because not all tributaries have ordinary high water marks (e.g., ephemeral streams with arid and semiarid environments or in low gradient landscapes where the flow of water is unlikely to cause an ordinary high water mark). The SAB also advised EPA to consider changing the wording in the definition to "bed, bank, and other evidence of flow." SAB 2014b at 2. The agencies did not make this change because this recommendation seemed to suggest that any hydrologic connection is sufficient for CWA jurisdiction. The definition of "tributary" in the rule better identifies tributaries that have a significant nexus to downstream traditional navigable waters, interstate waters, or the territorial seas. In addition, the SAB suggested that EPA reconsider whether flow-through lentic systems should be included as "adjacent waters" and wetlands, rather than as tributaries.

Regarding "adjacent waters" and wetlands, the SAB stated, "[t]he available science supports the EPA's proposal to include "adjacent waters" and wetlands as a waters of the United States. …because [they] have a strong influence on the physical, chemical, and biological integrity of navigable waters." *Id.* In particular, the SAB noted, "the available science supports defining adjacency or determination of adjacency on the basis of functional relationships," rather than "solely on the basis of geographical proximity or distance to jurisdictional waters." *Id.* at 2-3. The agencies have determined which waters are adjacent, and thus jurisdictional under the rule, based on both functional relationships and proximity because those factors identify the waters that have a strong influence on the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, or the territorial seas. Section C. and IV.F below. The agencies' determination is informed by the science, and consideration of proximity is reasonable in interpreting the scope of adjacency.

In the evaluation of "other waters," the SAB found that "scientific literature has established that 'other waters' can influence downstream waters, particularly when considered in aggregate." *Id.* at 3. The SAB thus found it "appropriate to define 'other waters' as waters of the United States on a case-by-case basis, either alone or in combination with similarly situated waters in the same region." *Id.* The SAB found that distance could not be the sole indicator used to evaluate the connection of "other waters" to jurisdictional waters. The agencies' identification of the areas within which a water is assessed on a case-specific basis for a significant nexus is informed by the science and the agencies' experience and technical expertise, and consideration of proximity is reasonable in interpreting the scope of the statute. The SAB also expressed support for language in one of the options discussed in the preamble to the proposed rule. Specifically, the SAB stated there is "also adequate scientific evidence to support a determination that certain subcategories and types of 'other waters' in particular regions of the United States (e.g., Carolina and Delmarva Bays, Texas coastal prairie wetlands, prairie potholes, pocosins, western vernal pools) are similarly situated (i.e., they have a similar influence on the chemical, physical, and biological integrity of downstream waters and are similarly situated on the landscape) and thus could be considered waters of the United States." *Id.* The Board noted that other sets of wetlands could be identified as "similarly situated" as the science continues to develop and that science does not support excluding groups of "other waters" or subcategories thereof from jurisdiction.

The exclusions paragraph of the proposed rule generated the most comments from the SAB. The SAB noted, "[t]he Clean Water Act exclusions of groundwater and certain other exclusions listed in the proposed rule and the current regulation do not have scientific justification." *Id.* With regard to ditches, the Board found that there is a lack of scientific knowledge to determine whether ditches should be categorically excluded. For example, some ditches that would be excluded in the Midwest may drain Cowardin wetlands and may provide certain ecosystem services, while gullies, rills, and non-wetland swales can be important conduits for moving water between jurisdictional waters. The SAB also noted that artificial lakes or ponds, or reflection pools, can be directly connected to jurisdictional waters via either shallow or deep groundwater. The SAB also recommended that the agencies clarify in the preamble to the final rule that "significant nexus" is a legal term, not a scientific one.

C. Significant Nexus Conclusions

As noted earlier, the agencies interpret the scope of "waters of the United States" protected under the CWA based on the information and conclusions in the Science Report, other relevant scientific literature, the Technical Support Document that provides additional legal and scientific discussion for issues raised in this rule, the relevant Supreme Court decisions, the agencies' technical expertise and experience, and the objectives and requirements of the CWA. In light of this information, the agencies made scientifically and technically informed judgments about the nexus between the relevant waters and the significance of that nexus and conclude that "tributaries" and "adjacent waters," each as defined by the rule, have a significant nexus such that they are "waters of the United States" and no additional analysis is required. The agencies also determined that additional waters may, on a case-specific basis, have a significant nexus to traditional navigable waters, interstate waters, and the territorial seas, either alone or in combination with similarly situated waters. The agencies' interpretation of the scope of "waters of the United States" is informed by the Science Report and the review and comments of the SAB. The rule reflects the judgment of the agencies in balancing the science, the agencies' expertise, and the regulatory goals of providing clarity to the public while protecting the environment and public health, consistent with the law.

Since the *Rapanos* decision, the agencies have gained extensive experience making significant nexus determinations, and that experience and expertise has informed the judgment of the agencies as reflected in the provisions of the rule. The agencies, most often the Corps, have made more than 400,000 CWA jurisdictional determinations since 2008. Of those, more than 120,000 are case-specific significant nexus determinations. The agencies made determinations in every state in the country, from the arid West to the tropics of Hawaii, from the Appalachian Mountains in the East to the lush forests of the Northwest. With field staff located in 38 Corps District offices and 10 EPA regional offices, the agencies have almost a decade of nationwide experience in making significant nexus determinations. These individual jurisdictional determinations have been made for waters ranging from an intermittent stream that provides flow to a drinking water source, to a group of floodplain wetlands in North Dakota that provide important protection from floodwaters to downstream communities alongside the Red River, to headwater mountain streams that provide high quality water that supplies baseflow and reduces the harmful concentrations of pollutants in the main part of the river below. Through this experience, the agencies developed wide-ranging technical expertise in assessing the hydrologic flowpaths along which water and materials are transported and transformed that determine the degree of chemical, physical, or biological connectivity, as well as the variations in climate, geology, and terrain within and among watersheds and over time that affect the functions (such as the removal or transformation of pollutants) performed by streams and wetlands for downstream traditional navigable waters, interstate waters or the territorial seas.

The agencies utilize many tools and many sources of information to help make jurisdictional determinations, including U.S. Geological Survey (USGS) and state and local topographic maps, aerial photography, soil surveys, watershed studies, scientific literature and references, and field work. For example, USGS and state and local stream maps and datasets, aerial photography, gage data, watershed assessments, monitoring data, and field observations are often used to help assess the contributions of flow of tributary streams, including intermittent and ephemeral streams, to downstream traditional navigable waters, interstate waters or the territorial seas. Similarly, floodplain and topographic maps of federal, state and local agencies, modeling tools, and field observations can be used to assess how wetlands are trapping floodwaters that might otherwise affect downstream waters. Further, the agencies utilize the large body of scientific literature regarding the functions of tributaries, including tributaries with ephemeral, intermittent and perennial flow and of wetlands and open waters to inform their evaluations of significant nexus. In addition, the agencies have experience and expertise for decades prior to and since the *SWANCC* and *Rapanos* decisions with making jurisdictional determinations, and consider hydrology, ordinary high water mark, biota, and other technical factors in implementing Clean Water Act programs. This immersion in the science along with the practical expertise developed through case-specific determinations across the country and in diverse settings is reflected in the agencies' conclusions with respect to waters that have a significant nexus, as well as where the agencies have drawn boundaries demarking where "waters of the United States" end.

1. Scope of Significant Nexus Analysis

Under the significant nexus standard, waters possess the requisite significant nexus if they "either alone or in combination with similarly situated [wet]lands in the region, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as 'navigable.'" *Rapanos* at 780. Several terms in this standard were not defined. In this rule the agencies interpret these terms and the scope of "waters of the United States" based on the goals, objectives, and policies of the statute, the scientific literature, the Supreme Court opinions, and the agencies' technical expertise and experience. Therefore, for purposes of a significant nexus analysis, the agencies have determined (1) which waters are "similarly situated," and thus should be analyzed in combination, in (2) the "region," for purposes of a significant nexus analysis, and (3) the types of functions that should be analyzed to determine if waters significantly affect the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, or the territorial seas. These determinations underpin many of the key elements of the rule and are reflected in the definition of "significant nexus" in the rule.

a. Similarly situated waters

As reflected in the rule's definition of "significant nexus," the agencies determined that it is reasonable to consider waters as "similarly situated" where they function alike and are sufficiently close to function together in affecting the nearest traditional navigable water, interstate water, or the territorial sea. Since the focus of the significant nexus standard is on protecting and restoring the chemical, physical, and biological integrity of the nation's waters, the agencies interpret the phrase "similarly situated" in terms of whether particular waters are providing common, or similar, functions for downstream waters such that it is reasonable to consider their effect together. Regarding covered tributaries and covered adjacent waters, the agencies define each water type such that the functions provided are similar and the waters are situated so as to provide those functions together to affect downstream waters.

The science demonstrates that covered tributaries provide many common vital functions important to the chemical, physical, and biological integrity of downstream waters, regardless of the size of the tributaries. The science also supports the conclusion that sufficient volume, duration, and frequency of flow are required to create a bed and banks and ordinary high water mark. The science also supports the conclusion that tributaries function together to affect downstream waters. The agencies conclude that covered tributaries with a bed and banks and ordinary high water mark are similarly situated for purposes of the agencies' significant nexus analysis.

For covered adjacent waters, the science demonstrates that these waters provide many similar vital functions to downstream waters, and the agencies defined "adjacent waters" with distance boundaries to ensure that the waters are providing similar functions to downstream waters and that the waters are located comparably in the region such that the agencies' reasonably judged them to be similarly situated.

For waters for which a case-specific significant nexus determination is required the agencies have determined that some waters in specific regions are similarly situated; for other specified waters, the determination of whether there are any other waters providing similar functions in a similar situation in the region must be made as part of a case-specific determination. See section IV.H.

Assessing the functions of identified waters in combination is consistent not only with Justice Kennedy's significant nexus standard, but with the science. Scientists routinely combine the effects of groups of waters, aggregating the known effect of one water with those of ecologically similar waters in a specific geographic area, or to a certain scale. This is because the chemical, physical, and biological integrity of downstream waters is directly related to the aggregate contribution of upstream waters that flow into them, including any tributaries and connected wetlands. As a result, the scientific literature and the Science Report consistently document that the health of larger downstream waters is directly related to the aggregate health of waters located upstream, including waters such as wetlands that may not be hydrologically connected but function together to ameliorate the potential impacts of flooding and pollutant contamination from affecting downstream waters. *See* Technical Support Document.

For example, excess nutrients discharged into small tributary streams in the aggregate can cause algal blooms downstream that reduce dissolved oxygen levels and increase turbidity in traditional navigable waters, interstate waters, and the territorial seas. Water low in dissolved oxygen cannot support aquatic life. This widely-recognized phenomenon, known as hypoxia, has impacted commercial and recreational fisheries in the northern Gulf of Mexico. In this instance, the cumulative effects of nutrient export from the many small headwater streams of the Mississippi River have resulted in large-scale ecological and economically harmful impacts hundreds of miles downstream. *See* Technical Support Document.

In review of the scientific and technical adequacy of the rule, the SAB panel members "generally agreed that aggregating 'similarly situated' waters is scientifically justified, given that the combined effects of these waters on downstream waters are often only measurable in aggregate."[10] As stated in section III.B. above, one of the main conclusions of the Science Report is that the incremental contributions of individual streams and wetlands are cumulative across entire watersheds, and their effects on downstream waters should be evaluated within the

[10] September 2, 2014. Memorandum from Dr. Amanda Rodewald to Dr. David Allen. Comments to the chartered SAB on the Adequacy of the Scientific and Technical Basis of the EPA's Proposed Rule titled "Definition of 'Waters of the United States' under the Clean Water Act." ("SAB 2014c.")

context of other streams and wetlands in that watershed. For example, the Science Report finds, "[t]he amount of nutrients removed by any one stream over multiple years or by all headwater streams in a watershed in a given year can have substantial consequences for downstream waters." Science Report at 1-11. Cumulative effects of streams, wetlands, and open waters across a watershed must be considered because "[t]he downstream consequences (e.g., the amount and quality of materials that eventually reach a river) are determined by the aggregate effect of contributions and sequential alterations that begin at the source waters and function along continuous flowpaths to the watershed outlet." *Id.* at 1-19.

The agencies conclude that it is appropriate to assess the effects of waters in combination based on the similarity of the functions they provide to the downstream water and their location in the watershed. This is consistent with the science and effectively meets the goals of the CWA.

b. In the region

Since Justice Kennedy did not define the "region," the agencies determined that the single point of entry watershed is a reasonable and technically appropriate scale for identifying "in the region" for purposes of the significant nexus standard. A single point of entry watershed is the drainage basin within whose boundaries all precipitation ultimately flows to the nearest single traditional navigable water, interstate water, or the territorial sea. The agencies determined that because the movement of water from watershed drainage basins to coastal waters, river networks, and lakes shapes the development and function of these systems in a way that is critical to their long-term health, the watershed is a reasonable and technically appropriate way to identify the scope of waters that together may have an effect on the chemical, physical, or biological integrity of a particular traditional navigable water, interstate water, or territorial sea. The watershed includes all streams, wetlands, lakes, and open waters within its boundaries.

Using the watershed that flows to the nearest single traditional navigable water, interstate water, or territorial sea is consistent with court decisions that these waters are the ultimate focus of CWA protections. Using the single point of entry watershed ensures that any analysis of significant nexus is appropriately connected to these touchstone waters.

Because the movement of water from watershed drainage basins to coastal waters, river networks, and lakes shapes the development and function of these systems in a way that is critical to their integrity, using a watershed as the framework for conducting significant nexus evaluations is scientifically supportable. Watersheds are generally regarded as the most appropriate spatial unit for water resource management. Anthropogenic actions and natural events can have widespread effects within the watershed that collectively impact the integrity and quality of the relevant traditional navigable water, interstate water, or the territorial sea. The functions of the contributing waters are inextricably linked and have a cumulative effect on the integrity of the downstream traditional navigable water, interstate water, or the territorial sea. For these reasons, it is more appropriate to conduct a significant nexus analysis at the watershed scale than to focus on a specific site, such as an individual stream segment. *See* proposal Appendix A, Scientific Analysis, 79 FR 22246, April 21, 2014, Science Report, and Technical Support Document.

Concluding that the watershed is the reasonable and appropriate region for purposes of a significant nexus analysis is also consistent with the agencies' longstanding practice and experience. To restore or maintain the health of the downstream affected water, the agencies' standard practice is to evaluate the condition of the waters that are in the contributing watersheds and to develop a plan to address the issues of concern. The Corps has used watershed framework approaches for water sources, for navigation approaches for more than 100 years, and in the regulatory program since its inception. Also, using a watershed framework is consistent with more than two decades of practice by EPA and many other governmental, academic, and additional entities that recognize that a watershed approach is the most effective framework to address water resource challenges. Finally, the watershed that drains to the nearest (i.e., first downstream) traditional navigable water, interstate water, or the territorial seas is likely to be of a size commonly understood as a "region."

In light of the scientific literature, the longstanding approach of the agencies' implementation of the CWA, and the statutory goals underpinning Justice Kennedy's significant nexus framework, the watershed draining to the nearest traditional navigable water, interstate water, or the territorial sea, is the appropriate "region" for a significant nexus analysis. *See* the proposed rule preamble and Technical Support Document.

c. Significantly affect chemical, physical, or biological integrity

The agencies' definition of the term "significant nexus" in the rule is consistent with language in *Riverside Bayview, SWANCC,* and *Rapanos*, and with the goals, objectives, and policies of the CWA. The definition reflects that not all waters have a requisite connection to traditional navigable waters, interstate waters, or the territorial seas sufficient to be determined jurisdictional. Justice Kennedy was clear that to be covered, waters must significantly affect the chemical, physical, or biological integrity of a downstream navigable water and that the requisite nexus must be more than "speculative or insubstantial," *Rapanos,* at 780. The agencies define significant nexus in precisely those terms. Under the rule a "significant nexus" is established by a showing of a significant chemical, physical, or biological effect. In characterizing the significant nexus standard, Justice Kennedy stated: "[t]he required nexus must be assessed in terms of the statute's goals and purposes. Congress enacted the [CWA] to 'restore and maintain the chemical, physical, and biological integrity of the Nation's waters' . . . ." 547 U.S. at 779. It is clear that Congress intended the CWA to "restore and maintain" all three forms of "integrity," Section 101(a), so if any one is compromised then that is contrary to the statute's stated objective. It would subvert the objective if the CWA only protected waters upon a showing that they had effects on every attribute of the integrity of a traditional navigable water, interstate water, or the territorial sea.

In the rule's definition of "significant nexus," the agencies identify the functions that waters provide that can significantly affect the chemical, physical, or biological integrity of traditional navigable waters, interstate waters and the territorial seas. In identifying the functions to be considered the agencies were informed by the goals of the statute and the available science. Among the means to achieve the CWA's objective to restore and maintain the chemical, physical, and biological integrity of the Nation's waters, Congress established an interim national goal to achieve wherever possible "water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water." Section 101(a)(2). Functions to be considered for the purposes of determining significant nexus are sediment trapping; nutrient recycling; pollutant trapping, transformation, filtering, and transport; retention and attenuation of floodwaters; runoff storage; contribution of flow; export of organic matter; export of food resources; and provision of life-cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, and use as a nursery area) for species located in traditional navigable waters, interstate waters, or the territorial seas. The effect of an upstream water can be significant even when a water, alone or in combination, is providing a subset, or even just one, of the functions listed.

Science demonstrates that these aquatic functions provided by smaller streams, ponds, wetlands and other waters are important for protecting the chemical, physical, and biological integrity of downstream traditional navigable waters, interstate waters, and the territorial seas. For example, States identify sediment and nutrients as the primary contaminants in the nation's waters. Sediment storage and export via streams to downstream waters is critical for maintaining the river network, including the formation of channel features. Although sediment is essential to river systems, excess sediment can impair ecological integrity by filling interstitial spaces, reducing channel capacity, blocking sunlight transmission through the water column, and increasing contaminant and nutrient concentrations. Streams and wetlands can prevent excess deposits of sediment downstream and reduce pollutant concentrations in downstream waters. Thus the function of trapping of excess sediment, along with export of sediment, have a significant effect on the chemical, physical, and biological integrity of downstream waters.

Nutrient recycling results in the uptake and transformation of large quantities of nitrogen and other nutrients that otherwise would be transported directly downstream, thereby decreasing nutrient loads and associated impairments due to excess nutrients in downstream waters. Streams, wetlands and open waters improve water quality through the assimilation, transformation, or sequestration of pollutants, including excess nutrients and chemical contaminants such as pesticides and metals that can degrade downstream water integrity. Nutrient transport exports nutrients downstream and can degrade water quality and lead to stream impairments. Nutrients are necessary to support aquatic life, but excess nutrients lead to excessive plant growth and hypoxia, in which over-enrichment causes dissolved oxygen concentrations to fall below the level necessary to sustain most aquatic animal life in the downstream waters. Nutrient recycling, retention, and export can significantly affect downstream chemical integrity by impacting downstream water quality.

The contribution of flow downstream is an important role, as upstream waters can be a cumulative source of the majority of the total mean annual flow to bigger downstream rivers and waters, including via the recharge of baseflow. Streams, wetlands, and open waters contribute surface and subsurface water downstream, and are the dominant sources of water in most rivers. Contribution of flow can significantly affect the physical integrity of downstream waters, helping to sustain the volume of water in larger waters.

Small streams and wetlands are particularly effective at retaining and attenuating floodwaters. By subsequently releasing (desynchronizing) floodwaters and retaining large volumes of stormwater that could otherwise negatively affect the condition or function of downstream waters, streams and adjacent wetlands and open waters affect the physical integrity of downstream traditional navigable waters, interstate waters, or the territorial seas. This function can reduce flood peaks downstream and can also maintain downstream river baseflows by recharging alluvial aquifers.

Streams, wetlands, and open waters supply downstream waters with dissolved and particulate organic matter (*e.g.*, leaves, wood), which support biological activity throughout the river network. In addition to organic matter, streams, wetlands, and open waters can also export other food resources downstream, such as aquatic insects that are the food source for fish in downstream waters. The export of organic matter and food resources downstream is important to maintaining the food webs and thus the biological integrity of traditional navigable waters, interstate waters, and the territorial seas.

Streams, wetlands, and open waters provide life-cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, and use as a nursery area) for species located in traditional navigable waters, interstate waters, or the territorial seas. Many species require different habitats for different resources (*e.g.*, food, spawning habitat, overwintering habitat), and thus move throughout the river network over their life-cycles. For example, headwater streams can provide refuge habitat under adverse conditions, enabling fish to persist and recolonize downstream areas once conditions have improved. These upstream systems form integral components of downstream food webs, providing nursery habitat for breeding fish and amphibians, colonization opportunities for stream invertebrates, and maturation habitat for stream insects, including for species that are critical to downstream ecosystem function. The provision of life-cycle dependent aquatic habitat for species located in downstream waters significantly affects the biological integrity of those downstream waters.

Tributaries, adjacent wetlands, and open waters can perform multiple functions, including functions that change depending upon the season. For example, the same stream can contribute flow when evapotranspiration is low and can retain water when evapotranspiration is high. These functions, particularly when considered in aggregate with the functions of similarly situated waters in the region, can significantly affect the chemical, physical, or biological integrity of a traditional navigable water, interstate water, or the territorial seas. When considering the effect of an individual stream, wetland, or open water, all contributions and functions that the water provides should be evaluated cumulatively. For example, the same wetland retains sediment, removes excess nutrients, mitigates flooding, and provides habitat for amphibians that also live downstream; if any of these functions is ignored, the overall effect of that wetland would be underestimated. It is important to note, however, that a water or wetland can provide just one function that may significantly affect the chemical, physical or biological integrity of the downstream water.

2. Categories of Waters Determined to Have a Significant Nexus

In this rule, the agencies determine that: (1) covered tributaries, in combination with other covered tributaries located in a watershed that drains to a traditional navigable water, interstate water, or the territorial seas, significantly affect the chemical, physical, and biological integrity of that water; and (2) covered adjacent waters, in combination with other covered adjacent waters located in a watershed that drains to a traditional navigable water, interstate water, or the territorial seas, significantly affect the chemical, physical, and biological integrity of that water.

a. Covered tributaries

The agencies determine based on their scientific and technical expertise that waters meeting the definition of "tributary" in a single point of entry watershed are similarly situated and have a significant nexus because they significantly affect the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, and the territorial seas. As such, it is appropriate to conclude covered tributaries as a category are "waters of the United States." *See* Technical Support Document. The agencies limited the tributaries that are "waters of the United States" to those that have both a bed and banks and another indicator of ordinary high water mark. That limitation served as a reasonable basis to consider covered tributaries similarly situated because those physical characteristics indicated sufficient flow that the covered tributaries are performing similar functions and located such that they are working together in the region to provide those functions to the nearest traditional navigable water, interstate water, or the territorial seas. Justice Kennedy noted that the requirement of a perceptible ordinary high water mark for tributaries, a measure that had been used by the Corps, "may well provide a reasonable measure of whether specific minor tributaries bear a sufficient nexus with other regulated waters to constitute 'navigable waters' under the Act." 547 U.S. at 781, *see also id.* at 761. The science supports this.

The agencies analyzed the Science Report and other scientific literature to determine whether tributaries to traditional navigable waters, interstate waters, or the territorial seas have a significant nexus to constitute "waters of the United States" under the Act such that it is reasonable to assert CWA jurisdiction over all such tributaries by rule. Covered tributaries have a significant impact on the chemical, physical, or biological integrity of waters into which they eventually flow— for CWA purposes, traditional navigable waters, interstate waters, and the territorial seas. The great majority of covered tributaries are headwater streams, and whether they are perennial, intermittent, or ephemeral, they play an important role in the transport of water, sediments, organic matter, nutrients, and organisms to downstream waters. Covered tributaries serve to store water, thereby reducing flooding; provide biogeochemical functions that help maintain water quality; trap and transport sediments; transport, store and modify pollutants; provide habitat for plants and animals; and sustain the biological productivity of downstream rivers, lakes, and estuaries. Such waters have these significant effects whether they are natural, modified, or constructed.

Covered tributaries significantly affect the chemical integrity of traditional navigable waters, interstate waters, and the territorial seas. Covered tributaries influence the chemical composition of downstream waters, through the transport and removal of chemical elements and compounds, such as nutrients, ions, organic matter and pollutants. Ecosystem processes in covered tributaries transform, remove, and transport these substances to downstream waters. In turn, these chemical compounds can influence water quality, sediment deposition, nutrient availability, and biotic functions in rivers. Because water flow transports chemical substances downstream, chemical effects are closely related to hydrological connectivity. Within covered tributaries, there are processes that occur that transform and export nutrients and carbon to downstream waters, serving important source functions that influence the chemical integrity of downstream waters. Organic carbon, in both dissolved and particulate forms, exported from covered tributaries is consumed by downstream organisms. The organic carbon that is exported downstream thus supports biological activity throughout the river network.

Covered tributaries act as both sinks and sources of chemical substances, further affecting the chemical integrity of traditional navigable waters, interstate waters, and the territorial seas. Covered tributaries provide sink functions by trapping chemicals through absorption to sediments in the stream substrate (e.g., phosphorous adsorption to clay particles). They provide source functions by transporting chemicals to downstream traditional navigable waters, interstate waters, and the territorial seas as chemicals dissolved in the waters or as chemicals attached to suspended sediments.

Covered tributaries significantly affect the physical integrity of traditional navigable waters, interstate waters, and the territorial seas. Physical connections between covered tributaries and traditional navigable waters, interstate waters, and the territorial seas result from the hydrologic transport from covered tributaries to downstream waters of numerous materials, including water, sediment and organic matter such as leaves and wood. This transport affects the physical characteristics of downstream waters. Covered tributaries, even when seasonally dry, are the dominant source of water in most rivers, rather than direct precipitation or groundwater input to main stem river segments. One of the primary functions of covered tributaries is transporting sediment to downstream waters. Covered tributaries, particularly headwaters, shape and maintain river channels by accumulating and gradually or episodically releasing sediment and large woody debris into river channels. These effects occur even when the covered tributaries flow infrequently (such as ephemeral covered tributaries), and even when the covered tributaries are great distances from the traditional navigable water, interstate water, or the territorial sea (such as some headwater covered tributaries).

Covered tributaries significantly affect the biological integrity of traditional navigable waters, interstate waters, and the territorial seas. Covered tributaries, including intermittent and ephemeral streams, are critical in the life-cycles of many organisms capable of moving throughout river networks. In fact, many organisms, such as anadromous salmon, have complex life-cycles which involve migration through the river network, from headwaters to downstream rivers and oceans and back, over the course of their lives. In addition to providing critical habitat for complex life-cycle completion, covered tributaries provide refuge from predators and adverse physical conditions in rivers, and are reservoirs of genetic- and species-level diversity. Covered tributaries contribute materials to downstream food networks and supporting populations for aquatic species, including economically important species such as salmon. These effects occur even when the covered tributaries flow infrequently (such as ephemeral covered tributaries), and even when the covered tributaries are large distances from the traditional navigable waters, interstate waters, and the territorial seas (such as some headwater covered tributaries).

Similarly, modified and constructed tributaries perform the same functions as natural tributaries, especially the conveyance of water that carries nutrients, pollutants, and other constituents, both good and bad, to traditional navigable waters, interstate waters, and the territorial seas. Modified and constructed covered tributaries also provide corridors for movement of organisms between headwaters and traditional navigable waters, interstate waters, and the territorial seas. The important effect – and thus the significant nexus – between a covered tributary and a traditional navigable water, interstate water, and the territorial sea is not broken where the covered tributary flows through a culvert or other structure. The scientific literature recognizes that features that convey water, whether they are natural, modified, or constructed, provide substantial connectivity between streams and downstream waters. For example, ditches that meet the definition of tributary and are not excluded quickly move water downstream to traditional navigable waters, interstate waters, and the territorial seas due to their often straightened and channelized nature, transporting downstream sediment, nutrients, and other materials.

The CWA regulates and controls pollution at its source, in part because most pollutants do not remain at the site of the discharge, but instead flow and are washed downstream through the tributary system to endanger drinking water supplies, fisheries, and recreation areas. These fundamental facts about the movement of pollutants and the interconnected nature of the tributary system demonstrate why covered tributaries of traditional navigable waters, interstate waters, and the territorial seas, alone or in combination with other covered tributaries in a watershed, have a significant nexus with those downstream waters. Thus, in the rule the agencies assert CWA jurisdiction over all covered tributaries as defined. Those covered tributaries are "waters of the United States" without the need for further analysis.

b. Covered adjacent waters

Based on the agencies' review of the scientific literature and the law, the agencies determine that covered adjacent waters, as defined, have a significant nexus and are "waters of the United States." The scientific literature, including the Science Report, consistently supports the conclusion that covered adjacent waters provide similar functions and work together to maintain the chemical, physical, and biological integrity of the downstream traditional navigable waters, interstate waters, and the territorial seas because of their hydrological and ecological connections to, and interactions with, those waters. Science demonstrates that this functional connectivity is particularly evident where covered adjacent waters are located within the floodplain of the traditional navigable water, interstate water, the territorial seas, covered tributary, or impoundment to which they are adjacent or are otherwise sufficiently proximate to waters with no floodplain, such as lakes and ponds. Location within the floodplain and proximity ensure that the aquatic functions performed by covered adjacent waters are effectively and consistently provided to downstream waters. *See* Technical Support Document.

The agencies conclude that all waters meeting the definition of "adjacent" in the rule are similarly situated for purposes of analyzing whether they have a significant nexus to a traditional navigable water, interstate water, or the territorial sea. Based on a review of the scientific literature, the agencies conclude that these bordering, contiguous, or neighboring waters provide similar functions and function together to significantly affect the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, or the territorial seas. Further, because the definition of "adjacent" considers both the functional relationships and the proximity of the waters (i.e., those that are located near traditional navigable waters, interstate waters, the territorial seas, impoundments, and covered tributaries), interpreting the term "similarly situated" to include all covered adjacent waters, as defined in the rule, is informed by the science and is a reasonable interpretation of the scope of the statute. The geographic proximity of an "adjacent" water relative to the traditional navigable waters, interstate waters, the territorial seas, impoundments, and covered tributaries is indicative of the relationship to it, with many of its defining characteristics resulting from the movement of materials and energy between the categories of waters. The scientific literature supports that waters, including wetlands, ponds, lakes, oxbow lakes, and similar waters, that are "adjacent," as defined in the rule, to traditional navigable waters, interstate waters, the territorial seas, impoundments, and covered tributaries, are integral parts of stream networks because of their ecological functions and how they interact with each other, and with downstream traditional navigable waters, interstate waters, or the territorial seas.

Covered adjacent waters function together to maintain the chemical, physical, or biological health of traditional navigable waters, interstate waters, and the territorial seas to which they are directly adjacent or to which they are connected by the tributary system. This functional interaction can result from hydrologic connections or because covered adjacent waters can act as water storage areas holding damaging floodwaters or filtering harmful pollutants. These chemical, physical, and biological connections affect the integrity of downstream traditional navigable waters, interstate waters, and the territorial seas through the temporary storage and deposition of channel-forming sediment and woody debris, temporary storage of local groundwater sources of baseflow for downstream waters and their tributaries, and transformation and transport of organic matter. Covered adjacent waters improve water quality through the assimilation, transformation, or sequestration of pollutants, including excess nitrogen and phosphorus, and chemical contaminants such as pesticides and metals that can degrade downstream water integrity. In addition to providing effective buffers to protect downstream waters from pollution, covered adjacent waters form integral components of downstream food webs, providing nursery habitat for breeding fish and amphibians, colonization opportunities for stream invertebrates, and maturation habitat for stream insects. Covered adjacent waters serve an important role in the integrity of traditional navigable waters, interstate waters, and the territorial seas by subsequently releasing (desynchronizing) floodwaters and retaining large volumes of stormwater, sediment, nutrients, and contaminants that could otherwise negatively impact the condition or function of traditional navigable waters, interstate waters, and the territorial seas.

Floodplain areas connect aquatic environments through both surface and shallow subsurface hydrologic flowpaths. Waters in these areas are therefore uniquely situated in watersheds to receive and process water that passes over densely vegetated areas and through subsurface zones before reaching streams and rivers. When contaminants reach a floodplain water, they can be sequestered in sediments, assimilated into wetland plants and animals, transformed into less harmful and/or mobile forms or compounds, or lost to the atmosphere. Wetlands located in floodplains store large amounts of sediment and organic matter from upstream and upland areas. In addition, the primary function of many floodplain wetlands in the Western United States is sediment exchange, which can transform materials and compounds temporarily on floodplains.

Wetlands and other similar waters in floodplain areas act as buffers that are among the most effective tools for mitigating nonpoint source pollution. The literature shows that collectively, wetlands and other similar waters improve water quality through assimilation, transformation, or sequestration of nutrients, sediment, and other pollutants—such as pesticides and metals—that can affect downstream water quality. These pollutants enter floodplain wetlands from dry and wet atmospheric deposition, runoff from upland agricultural and urban areas, spray drift, subsurface water flows, outfalls, pipes, and ditches.

Floodplain waters, including wetlands, can reduce flood peaks by storing and desynchronizing floodwaters. They can also maintain river baseflows by recharging alluvial aquifers. Many studies have documented the ability of floodplain wetlands to reduce flood pulses by storing excess water from streams and rivers. One review of wetland studies reported that floodplain wetlands reduced or delayed floods in 23 of 28 studies. For example, peak discharges between upstream and downstream gaging stations on the Cache River in Arkansas were reduced 10−20 percent primarily due to floodplain water storage.

Ecosystem function within a river system is driven by interactions between the physical environment and the diverse biological communities living within the river system. Wetlands in floodplains become important seed sources for the river network, especially if catastrophic flooding scours vegetation and seed banks in other parts of the channel. Movements of organisms that connect aquatic habitats and their populations, even across different watersheds, are important for the survival of individuals, populations, and species, and for the functioning of the river ecosystem. For example, lateral expansion and contraction of the river in its floodplain results in an exchange of matter and organisms, including fish populations that are adapted to use floodplain habitat for feeding and spawning during high water. The organisms that live within the hyporheic zone for these mid- and large-sized river systems have a demonstrated connection outward to several miles within the floodplain. General field practice observations further indicate that covered adjacent waters with a close proximity have a significant nexus with the downstream waters.

Waters adjacent to impoundments and covered tributaries are integrally linked to the chemical, physical, and biological functions of the waters to which they are adjacent and, through those waters, are integrally linked to the chemical, physical, and biological functions of the downstream traditional navigable waters, interstate waters, or the territorial seas. Thus, where waters are adjacent to impoundments or covered tributaries, they also have a significant nexus to the downstream traditional navigable waters, interstate waters, or the territorial seas. The important functions that covered adjacent waters perform that impact downstream traditional navigable waters, interstate waters, and the territorial seas and their integrated behavior with the tributary system demonstrate why all waters adjacent to traditional navigable waters, interstate waters, or the territorial seas as well as impoundments and covered tributaries, alone or in combination with other covered adjacent wetlands in a watershed have a significant nexus with those downstream waters.

Based on the science and their technical expertise and experience, the agencies determine it is appropriate to protect all covered adjacent waters because those waters are functioning as an integrated system with the downstream traditional navigable waters, interstate waters, or the territorial seas and significantly affect such downstream waters. Consequently, these waters are "adjacent" and therefore "waters of the United States" under the CWA. Covered adjacent waters are "waters of the United States" without the need for further analysis.

3. Case-Specific Significant Nexus Determinations

a. Two exclusive circumstances for case-specific significant nexus determinations

The rule identifies two exclusive circumstances under which a significant nexus determination is made on a case-specific basis to determine whether the water is a "water of the United States." First, there are five subcategories of waters – Prairie potholes, Carolina and Delmarva bays, pocosins, western vernal pools in California, and Texas coastal prairie wetlands – that the agencies conclude must be analyzed "in combination" as "similarly situated " waters when making a case-specific significant nexus analysis. Second, there are waters for which the agencies have made no conclusions with respect to which waters are "similarly situated" but for which a case-specific significant nexus analyses may be undertaken. The rule establishes that case-specific determinations may be made for waters located within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas, and for waters located within 4,000 feet from the high tide line or the ordinary high water mark of traditional navigable waters, interstate waters, the territorial seas, impoundments, or tributaries.

b. Summary of rationale for "similarly situated" determinations

Based on the agencies' expertise and experience and available literature and data, the agencies have determined that waters in the five subcategories of waters identified in paragraph (a)(7) are similarly situated and must be combined with other waters in the same subcategory located in the same watershed that drains to the nearest traditional navigable water, interstate water, or the territorial seas. *See* Technical Support Document. The scientific literature shows that these subcategories of waters are frequently located together in a complex or are otherwise closely co-located and perform similar functions. The agencies specifically sought comment in the proposal on options to address these five subcategories of waters, including whether waters in these subcategories should be found "similarly situated" by rule.

Based on the body of scientific literature regarding the subcategories of waters specified in paragraph (a)(7) and their functions, the agencies determined that waters of the specified subcategories are similarly situated because they perform similar functions and they are located sufficiently close to each other to function together in affecting downstream waters and therefore reasonably be evaluated in combination with regard to their effects on the integrity of traditional navigable waters, interstate waters, or the territorial seas. The specified subcategories of waters perform similar functions as waters of the same subcategory in the same single point of entry watershed and collectively function together to affect a traditional navigable water, interstate water, or the territorial seas. Among the functions and relationships in the landscape the agencies considered to conclude that the subcategories are each similarly situated are the physical capacity of the waters to provide flood and sediment retention. In determining that the waters in each of the five subcategories are "similarly situated," the agencies concluded that these subcategories of waters are co-located to each other or similar to the tributary system such that they have cumulative and additive effects on pollutant removal through parallel, serial, or sequential processing, such as the role of pocosins in maintaining water quality in estuaries. The subcategories of waters are sufficiently near each other or the tributary system to function as an integrated habitat that can support the life-cycle of a species or more broadly provide habitat to a large number of a single species.

The SAB expressed support for the agencies' option in the preamble of the proposed rule to identify certain subcategories of waters as similarly situated and highlighted these same five subcategories. It stated, "[t]here is also adequate scientific evidence to support a determination that certain subcategories and types of 'other waters' in particular regions of the United States (e.g., Carolina and Delmarva Bays, Texas coastal prairie wetlands, prairie potholes, pocosins, western vernal pools) are similarly situated (i.e., they have a similar influence on the physical, chemical and biological integrity of downstream waters and are similarly situated on the landscape) and thus could be considered waters of the United States. Furthermore, as the science continues to develop, other sets of wetlands may be identified as 'similarly situated.'" SAB 2014b at 3.

The agencies concluded that the specific subcategories of waters listed in paragraph (a)(7) are similarly situated for purposes of a case-specific significant nexus based on the following:

(i) Prairie potholes are a complex of glacially formed wetlands, usually occurring in depressions that lack permanent natural outlets that are found in the central United States and Canada. In the United States, they are found from central Iowa through western Minnesota, eastern South Dakota, and North Dakota. Prairie potholes demonstrate a wide range of hydrologic permanence; some hold permanent standing water and others are wet only in years with high precipitation. This in turn influences the diversity and structure of their biological communities.

Prairie potholes generally accumulate and retain water effectively due to the low permeability of their underlying soil, which can modulate flow characteristics of nearby streams and rivers. One of the most noted hydrologic functions of Prairie potholes is water storage. Because most of the water outflow in Prairie potholes is via evapotranspiration, Prairie potholes can become water sinks, preventing flow to downstream waters. Prairie potholes also can accumulate chemicals in overland flow, thereby reducing chemical loading to other bodies of water. When Prairie potholes are artificially connected to streams and lakes through drainage, they become sources of water and chemicals to downstream waters. Prairie potholes also support a community of highly mobile organisms, from plants to invertebrates that move among Prairie potholes and that can biologically connect the entire complex to the river network.

Prairie potholes can be highly connected to other Prairie potholes via shallow subsurface connections and via surface hydrologic connections during the wet season. They can also be connected to the stream network via surface and shallow subsurface connections. Intense precipitation events or high cumulative precipitation over one or more seasons can result in temporary hydrologic connectivity between Prairie potholes and from Prairie potholes to the tributary system via "fill-and-spill" events.

Their density across the landscape varies from region to region as the result of several factors, including patterns of glacial movement, topography, and climate. In some parts of the region, prairie pothole density is very high. Though their density varies across the landscape, Prairie potholes often act as a complex. They have similar functions that can collectively impact downstream waters.

Prairie potholes have been determined to be similarly situated based on the characteristics of Prairie potholes, including their density on the landscape, their interaction and formation as a complex of wetlands and open waters, their connections to each other and the tributary network, and their similar functions. In addition, their chemical, physical, and biological connections to downstream waters and the strength of their effects on the chemical, physical, or biological integrity of a traditional navigable water, interstate water, or the territorial seas support this determination that Prairie potholes are similarly situated by rule.

(ii) Carolina and Delmarva bays are ponded depressional wetlands that occur along the Atlantic coastal plain from northern Florida to New Jersey. Though Carolina and Delmarva bays are from the same category of wetland and perform similar functions, they are located in different parts of the Atlantic coastal plain and thus have unique names. Carolina bays are most abundant in North Carolina and South Carolina, while Carolina bays found in the Delmarva Peninsula are commonly referred to as Delmarva bays or Delmarva potholes.

Most bays receive water through precipitation, lose water through evapotranspiration, and lack natural surface outlets. Both mineral-based and peat-based bays have shown connections to shallow groundwater. Bays typically are in proximity to each other or to streams, providing for hydrologic connections to each other and to downstream waters in large rain events via overland flow or shallow subsurface connections. Some Delmarva bays have surface water connections to the Chesapeake Bay. In addition, human channeling and ditching of the bays are widespread and create surface connections to other waters, including the tributary system and estuaries. These ditches commonly connect the surface water of bays to other bays that are lower on the landscape, and ultimately, to streams.

The hydrology in bays allow for denitrification (chemical and biological processes that remove nitrogen from water), which can reduce the amount of nitrate in both groundwater and downstream surface waters. Because bays are frequently connected chemically to downstream waters through ditches, they can be sources of sediment and nutrients to downstream waters. Where they are not connected via confined surface connections, bays can act as sediment and nutrient sinks.

Fish are reported in bays that are known to dry out, indirectly demonstrating surficial connections. Amphibians and reptiles use bays extensively for breeding and for rearing young. These animals can disperse many feet on the landscape and can colonize, or serve as a food source to, downstream waters. Similarly, bays foster abundant insects that have the potential to become part of the downstream food chain. Humans have ditched and channelized a high percentage of bays, creating new surface connections to downstream waters and allowing transfer of nutrients, sediment, and other pollutants, such as methylmercury.

Carolina and Delmarva bays can occur in high density on the landscape and can act as a wetlands complex. Bays have similar functions to other bays and cumulatively these functions can impact downstream waters.

The agencies conclude that Carolina and Delmarva bays are similarly situated based on their close proximity to each other and the tributary network, their hydrologic connections to each other and the tributary network, their density on the landscape, and their similar functions.

(iii) The word pocosin comes from the Algonquin Native American word for "swamp on a hill," and these evergreen shrub and tree-dominated wetlands are found from Virginia to northern Florida, but mainly in North Carolina. Typically, there is no standing water present in these peat-accumulating wetlands, but a shallow water table leaves the soil saturated for much of the year. They range in size from less than an acre to several thousand acres. The slow movement of water through the dense organic matter in pocosins removes excess nutrients deposited by rainwater. The same organic matter also acidifies the water. This water is slowly released to downstream waters and estuaries, where it helps to maintain the proper salinity, nutrients, and acidity.

Because pocosins are the topographic high areas on the regional landscape, they serve as the source of water for downstream waters. Pocosins often have seasonal connections to drainageways leading to estuaries or are adjoining other wetlands draining into perennial streams or estuaries. Other pocosins have been ditched and are directly connected to streams.

The agencies conclude that pocosins are similarly situated based on their close proximity to each other and the tributary network, their hydrologic connections to each other and the tributary network, their density on the landscape, and their similar functions.

(iv) Western vernal pools are shallow, seasonal wetlands that accumulate water during colder, wetter months and gradually dry up during warmer, drier months. Western vernal pools are seasonal wetlands from the Pacific Northwest to northern Baja California, Mexico associated with topographic depressions, soils with poor drainage, mild, wet winters and hot, dry summers. The agencies have determined that California vernal pools are "similarly situated."

Because their hydrology and ecology are so tightly coupled with the local and regional geological processes that formed them, western vernal pools in California typically occur within "vernal pool landscapes," or complexes of pools in which swales connect pools to each other and to seasonal streams. Some common findings about the hydrologic connectivity of western vernal pools include evidence for temporary or permanent outlets, frequent filling and spilling of higher pools into lower elevation swales and stream channels, and conditions supporting subsurface flows through pools without perched aquifers to nearby streams.

Non-glaciated vernal pools in western states are reservoirs of biodiversity and can be connected genetically to other locations and aquatic habitats through wind- and animal-mediated dispersal. Animals and other organisms can move between western vernal pool complexes and streams. Insects and zooplankton can be flushed from vernal pools into streams and other waters during periods of overflow, carried by animal vectors (including humans), or dispersed by wind.

The agencies conclude that western vernal pools in California are similarly situated based on their close proximity to each other and the tributary network, their interaction and arrangement as a complex of wetlands, their hydrologic connections to each other and the tributary network, their density on the landscape, and their similar functions.

(v) Along the Gulf of Mexico from western Louisiana to south Texas, freshwater wetlands occur as a mosaic of depressions, ridges, intermound flats, and mima mounds. These coastal prairie wetlands were formed thousands of years ago by ancient rivers and bayous and once occupied almost a third of the landscape around Galveston Bay, Texas. The term Texas coastal prairie wetlands is not used uniformly in the scientific literature but encompasses Texas prairie pothole (freshwater depressional wetlands) and marsh wetlands that are described in some studies that occur on the Lissie and Beaumont Geological Formations, and the Ingleside Sand.

Texas coastal prairie wetlands are locally abundant and in close proximity to other coastal prairie wetlands and function together cumulatively. Collectively as a complex, Texas coastal prairie wetlands can be geographically and hydrologically connected to each other via swales and connected to downstream waters, contributing flow to those downstream waters. Cumulatively, these wetlands can control nutrient release levels and rates to downstream waters, as they capture, store, transform, and pulse releases of nutrients to those waters.

The agencies conclude that Texas coastal prairie wetlands are similarly situated based on their close proximity to each other and the tributary network, their hydrologic connections to each other and the tributary network, their interaction and formation as a complex of wetlands, their density on the landscape, and their similar functions.

IV. Definition of "Waters of the United States"

A. Summary of the Rule

The rule revises the existing definition of "waters of the United States" consistent with the CWA, science, the agencies' technical expertise and experience, and Supreme Court decisions. The final rule establishes categories of waters that are jurisdictional and other categories of waters that are excluded, as well as categories of waters and wetlands that require a case-specific significant nexus evaluation to determine if they are "waters of the United States" and covered by the CWA. The rule also provides definitions for key terms used in the regulation. The final rule retains much of the structure of the agencies' longstanding definition of "waters of the United States," and many of the existing provisions of that definition where revisions are not required in light of Supreme Court decisions or other bases for revision. All existing exclusions from the definition of "waters of the United States" are retained, and several exclusions reflecting longstanding agencies' practice are added to the regulation for the first time.

The agencies define "waters of the United States" in paragraph (a) of the rule for all sections of the CWA to include the traditional navigable waters (a)(1), interstate waters (a)(2), the territorial seas (a)(3), impoundments of jurisdictional waters (a)(4), covered tributaries (a)(5), and covered adjacent waters (a)(6). Waters in these categories are jurisdictional "waters of the United States" by rule – no additional analysis is required. This eliminates the need to make a case-specific significant nexus determination for covered tributaries or covered adjacent waters because the agencies determined that these waters have a significant nexus to waters identified in (a)(1) through (a)(3) of the rule and thus are "waters of the United States." The agencies emphasize that the finding of jurisdiction for these covered tributaries and covered adjacent waters was not based on the mere connection of a water body to downstream waters, but rather a determination that the nexus, alone or in combination with other of these covered tributaries or covered adjacent waters in the watershed, is significant.

The agencies exclude specified waters from the definition of "waters of the United States" in paragraph (b) of the rule. The rule makes no substantive change to the existing exclusion for waste treatment systems designed consistent with the requirements of the CWA and makes no change to the existing exclusion for prior converted cropland. The rule excludes for the first time certain waters and features over which the agencies have generally not asserted CWA jurisdiction, as well as groundwater, which the agencies have never interpreted to be a "water of the United States" under the CWA. Codifying these longstanding practices supports the agencies' goals of providing greater clarity, certainty, and predictability for the regulated public and regulators, and makes rule implementation clear and practical.

This final rule provides clear exclusions for certain types of ditches. The final rule also expressly excludes stormwater control features created in dry land and certain wastewater recycling structures created in dry land. Waters and features that are excluded under paragraph (b) of the rule cannot be determined to be jurisdictional under any of the categories in the rule under paragraph (a).

In addition to waters that are categorically "waters of the United States" or categorically excluded under paragraphs (a) and (b), the rule identifies certain waters that can be "waters of the United States" only where a case-specific determination has found a significant nexus between the water and traditional navigable waters, interstate waters, or the territorial seas. First, paragraph (a)(7) of the rule specifies five types of waters (Prairie potholes, Delmarva and Carolina bays, pocosins, western vernal pools in California, and Texas coastal prairie wetlands) that the agencies have determined to be "similarly situated," and thus are to be considered in combination in a significant nexus analysis. Second, paragraph (a)(8) specifies that waters located within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas, and waters located within 4,000 feet from the high tide line or the ordinary high water mark of traditional navigable waters, interstate waters, the territorial seas, impoundments, or covered tributaries may be found to have a significant nexus on a case-specific basis, but the agencies have not made a determination that the waters are "similarly situated." As a result, a significant nexus analysis for these waters will include a case-specific assessment of whether there are any similarly situated waters, as well as whether the water, alone or in combination with any waters determined to be similarly situated, has a significant nexus to a traditional navigable water, interstate water, or territorial sea. The rule outlines at (c)(5)(i)-(ix) functions relevant to these case-specific significant nexus analyses.

Paragraph (c) of the rule provides definitions for key terms used in the regulation. Some of these are unchanged from the current regulations, including the definitions for "wetlands" at (c)(4), "ordinary high water mark" at (c)(6) and "high tide line" at (c)(7), although the latter two are existing, unchanged Corps' definitions added to EPA's regulations for the first time. 33 C.F.R. 328.3(d)-(e). The rule also defines for the first time "tributary" and "tributaries" at (c)(3), "neighboring" (an aspect of adjacency) at (c)(2), and "significant nexus" at (c)(5).

This rule is effective on [**insert date 60 days after the date of publication in the Federal Register**]. Under existing Corps' regulations and guidance, approved jurisdictional determinations generally are valid for five years. The agencies will not reopen existing approved jurisdictional determinations unless requested to do so by the applicant or, consistent with existing Corps' guidance, unless new information warrants revision of the determination before the expiration period. Similarly, consistent with existing regulations and guidance, approved jurisdictional determinations associated with issued permits and authorizations are valid until the expiration date of the permit or authorization.

As a general matter, the agencies' actions are governed by the rule in effect at the time the agency issues a jurisdictional determination or permit authorization, not by the date of a permit application, request for authorization, or request for a jurisdictional determination. However, any jurisdictional determinations issued prior to the effective date of the rule and jurisdictional determinations associated with permit applications deemed by the Corps to have been complete on the date this rule is published in the *Federal Register*, including complete pre-construction notifications, will be made consistent with the existing rule, unless the applicant requests that its approved jurisdictional determination or permit authorization be decided after the effective date of the new rule. Reliance on preliminary jurisdictional determinations is also not affected by the issuance of this rule. All other jurisdictional determinations and requests for authorization requiring an approved jurisdictional determination issued on or after the effective date of this rule will be made consistent with this rule.

It is important to emphasize that the agencies do not anticipate being able to complete new jurisdictional determinations submitted after this rule is published before it becomes effective. As a result, requesters seeking jurisdictional determinations after the rule is published should expect the determination will be made consistent with this rule. The agencies recognize there are a number of requests for permit applications and requests for jurisdictional determinations pending at any time. The agencies expect only a small portion of those pending actions will require additional information from or work by the requester. As described in the Economic Analysis, the vast majority of requests address streams and adjacent wetlands, and the agencies do not expect new information or work will be needed to complete those requests. If any additional information is needed to assess these requests, the agencies will work proactively with permit applicants to reduce potential short-term disruptions in the permit process that may be associated with the rule.

B. Traditional Navigable Waters

The existing regulations include within the definition of "waters of the United States" all waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide. *See*, *e.g.*, 33 CFR 328.3(a)(1); 40 CFR 230.3(s)(1); 40 CFR 122.2 ("waters of the U.S."). This paragraph of the regulation encompasses those waters that are often referred to as "traditional navigable waters." The rule does not make any changes to this paragraph of the regulation.

For purposes of CWA jurisdiction, waters will be considered traditional navigable waters, and jurisdictional under (a)(1) of the rule, if they:

- Are subject to section 9 or 10 of the Rivers and Harbors Appropriations Act of 1899;
- Have been determined by a Federal court to be navigable-in-fact under Federal law;
- Are waters currently being used for commercial navigation, including commercial waterborne recreation (for example, boat rentals, guided fishing trips, or water ski tournaments);
- Have historically been used for commercial navigation, including commercial waterborne recreation; or
- Are susceptible to being used in the future for commercial navigation, including commercial waterborne recreation.

See Technical Support Document; "U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook Appendix D, 'Traditional Navigable Waters,'" available at: http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/cwa_guide/app_d_traditional_navigable_waters.pdf.

The agencies received several comments on the scope of traditional navigable waters. Some commenters observed that "traditional navigable waters" as a jurisdictional category is not based in science. Several commenters thought that the final rule should specify considerations to be taken into account when determining if a water is susceptible to being used in future commercial navigation. The agencies have not revised the regulation to address susceptibility, but observe that case law has provided a number of considerations and examples that are described further in the Technical Support Document and are reflected in longstanding agencies' practice.

C. Interstate Waters

The existing regulations define "waters of the United States" to include interstate waters, including interstate wetlands. The rule does not change that provision of the regulations. Therefore, interstate waters are "waters of the United States" even if they are not navigable for purposes of Federal regulation under (a)(1) and do not connect to such waters. Moreover, the rule protects impoundments of interstate waters, tributaries to interstate waters, waters adjacent to interstate waters, and waters adjacent to covered tributaries of interstate waters because they have a significant nexus to interstate waters. Protection of these waters is thus critical to protecting interstate waters.

The language of the CWA indicates that Congress intended the term "navigable waters" to include interstate waters without imposing a requirement that they be traditional navigable waters themselves or be connected to traditional navigable waters. The precursor statutes to the CWA subjected interstate waters and their tributaries to Federal jurisdiction. The text of the CWA, specifically CWA section 303, which establishes ongoing requirements for interstate waters, in conjunction with the definition of navigable waters, provides clear indication of Congress' intent to protect interstate waters that were previously subject to Federal regulation. Other provisions of the statute provide additional textual evidence of the scope of the primary jurisdictional term of the CWA.

The agencies also have a longstanding regulatory interpretation that interstate waters fall within the scope of CWA jurisdiction. The agencies' interpretation was promulgated contemporaneously with the passage of the CWA and is consistent with the statutory and legislative history of the CWA. Furthermore, the Supreme Court has never addressed the CWA's coverage of interstate waters, and it is not reasonable to read its decisions in *SWANCC* and *Rapanos* to question the jurisdictional status of interstate waters or to impose additional jurisdictional requirements on interstate waters. The assertion of jurisdiction over interstate waters is based on the statute and under predecessor statutes where "interstate waters" were defined as all rivers, lakes, and other waters that flow across, or form a part of, state boundaries. Pub. L. No. 80-845, § 10, 62 Stat. 1155, at 1161 (1948). The agencies will continue to implement the provision consistent with the intent of Congress. For additional discussion of the agencies' interpretation of the CWA with respect to interstate waters, *see* Appendix B of the proposed rule and the Technical Support Document.

It is reasonable to assert jurisdiction over tributaries, adjacent waters, and waters that have a significant nexus to interstate waters consistent with the framework set forth in Justice Kennedy's opinion in *Rapanos* for establishing jurisdiction over waters with a significant nexus to traditional navigable waters. Waters and wetlands with a significant nexus to traditional navigable waters and interstate waters have important beneficial effects on those waters, and by recognizing that polluting or destroying waters with a significant nexus can harm downstream jurisdictional waters. Traditional navigable waters and interstate waters cannot be protected without also protecting the waters that have a significant nexus to those waters as identified in the rule. The rule thus defines "waters of the United States" to include tributaries to interstate waters, waters adjacent to interstate waters, waters adjacent to tributaries of interstate waters, and other waters that have a significant nexus to interstate waters.

The agencies received a number of comments on interstate waters. Some commenters asserted that interstate waters required a significant nexus to a traditional navigable water in order to be jurisdictional after *Rapanos*. The agencies disagree for the reasons described above, in Appendix B to the proposed rule, and in the Technical Support Document.

D. Territorial Seas

The CWA and its existing regulations include "the territorial seas" as a "water of the United States." The rule makes no changes to that provision of the regulation other than to change the ordering to earlier in the regulation. The CWA defines "navigable waters" to include "the territorial seas" at section 502(7). The CWA goes on to define the "territorial seas" in section 502(8) as "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." The territorial seas establish the seaward limit of "waters of the United States." The territorial seas are clearly covered by the CWA (they are also traditional navigable waters), and it is reasonable to protect their covered tributaries and covered adjacent waters.

Although some comments addressed the definition of "territorial seas" provided in the CWA suggesting that the distance thresholds be revised to reflect other resource statutes, the agencies do not have authority to revise statutory language.

E. Impoundments

The existing regulations provide that impoundments of "waters of the United States" remain "waters of the United States," and the rule does not make any changes to the existing regulatory language.

Impoundments are jurisdictional because an impoundment of a "water of the United States" remains a "water of the United States," and because scientific literature demonstrates that impoundments continue to significantly affect the chemical, physical, or biological integrity of downstream traditional navigable waters, interstate waters, and the territorial seas. *See* Technical Support Document. The Supreme Court has confirmed that damming or impounding a "water of the United States" does not make the water non-jurisdictional. *See S. D. Warren Co. v. Maine Bd. of Envtl. Prot.*, 547 U.S. 370, 379 n.5 (2006) ("[N]or can we agree that one can denationalize national waters by exerting private control over them."). Similarly, when presented with a tributary to the Snake River which flows only about two months per year because of an irrigation diversion structure installed upstream, the Ninth Circuit noted "it is doubtful that a mere man-made diversion would have turned what was part of the waters of the United States into something else and, thus, eliminated it from national concern." *U.S. v. Moses*, 496 F.3d 984, 988 (9th Cir. 2007), *cert. denied*, 554 U.S. 918 (2008). As a matter of policy and law, impoundments do not de-federalize a water, even where there is no longer flow below the impoundment. The agencies have analyzed stream networks, above and below impoundments, for connection to downstream traditional navigable waters, interstate waters, or the territorial seas. Scientific literature, as well as the agencies' scientific and technical expertise and experience confirm that impoundments have chemical, physical, and biological effects on downstream waters. *See* Technical Support Document.

The agencies also note that an impoundment of a water that is not a "water of the United States" can become jurisdictional if, for example, the impounded waters become navigable-in-fact and covered under paragraph (a)(1) of the rule.

By their nature, impoundments of jurisdictional waters would also often meet the definition of "adjacent waters," as they are typically bordering or contiguous. Impoundments of "waters of the United States" are *per se* jurisdictional under (a)(4) of the rule without the need to determine if they are also adjacent under (a)(6). However, as described in section IV.G below, "adjacent waters," as defined, have a significant nexus to traditional navigable waters, interstate waters, or the territorial seas, which bolsters the agencies' determination that impoundments of "waters of the United States" remain "waters of the United States."

Impoundments also may be one of the waters through which tributaries indirectly contribute flow to a traditional navigable water, interstate water, or territorial sea. As a matter of law and science, an impoundment does not cut off a connection between upstream tributaries and a downstream traditional navigable water, interstate water, or territorial sea, so covered tributaries above the impoundment are still considered a tributary to downstream traditional navigable waters, interstate waters, or the territorial seas even where the flow of water might be impeded due to the impoundment. *See* (a)(5).

The agencies received comments on impoundments, which generally explored the impacts of impoundments on connectivity to downstream waters. For the reasons described above and in the Technical Support Document, the agencies concluded that impoundments of "waters of the United States" remain "waters of the United States."

F. Tributaries

The existing definition of "waters of the United States" regulates all tributaries without qualification. The final rule protects only waters that have a significant effect on the integrity of traditional navigable waters, interstate waters, or the territorial seas. The rule establishes a definition of "tributary," and provides that a water meeting the definition of tributary, unless it is excluded under paragraph (b), is a "water of the United States" without the need for a separate case-specific significant nexus evaluation. As explained in Section III above, covered tributaries and the functions they provide, alone or in combination with other tributaries in the watershed, significantly affect the chemical, physical, and biological integrity of traditional navigable waters, interstate waters, or the territorial seas. See also Technical Support Document. This section describes the provisions of the rule addressing tributaries and changes made to the provisions in the proposed rule based on public comments.

1. What Are the Provisions in the Rule?

The rule defines "tributary" by emphasizing the physical characteristics created by sufficient volume, frequency and duration of flow, and that the water contributes flow, either directly or through another water, to a traditional navigable water, interstate water, or the territorial seas. This definition is based on the best available science, intent of the CWA, and case law, and is consistent with current practice. As mentioned above in Section III, the Science Report concludes that "[t]he scientific literature unequivocally demonstrates that streams, individually or cumulatively, exert a strong influence on the integrity of downstream waters." Science Report at ES-2.

First, to meet the rule's definition of "tributary," a water must flow directly or through another water or waters to a traditional navigable water, interstate water, or the territorial seas. Waters through which a tributary may contribute flow indirectly include, for example, impoundments, wetlands, lakes, and other tributaries. A tributary may contribute flow through any number of downstream waters, including non-jurisdictional features, such as a ditch excluded under paragraph (b) of the rule, and jurisdictional waters that are not tributaries, such as an adjacent wetland - but it must be part of a tributary system that eventually flows to a traditional navigable water, an interstate water, or the territorial seas. This limitation on what constitutes a tributary for purposes of this rule is fundamental. If a water is not part of the tributary system of a traditional navigable water, interstate water, or the territorial seas, it does not meet the definition of "tributary" and is not jurisdictional under this provision of the rule. For example, an intermittent stream that exists wholly within one state, is not itself a traditional navigable water, and whose flows eventually ends without connecting to a traditional navigable water, interstate water, or the territorial seas is not a "water of the United States" as a "tributary" for purposes of this rule. To determine whether a water meets this aspect of the definition, the connection can be traced using direct observation, U.S. Geological Survey (USGS) data, stream datasets such as the National Hydrography Dataset, aerial photography or other reliable remote sensing information, or other appropriate information.

Under the rule, flow in the tributary may be perennial, intermittent, or ephemeral. The agencies received comments suggesting that the final rule provide definitions for the terms ephemeral flow, intermittent flow, and perennial flow. The agencies considered the request and determined that there was no need to include a definition since they are commonly used scientific terms. Longstanding agencies' practice considers perennial streams as those with flowing water year-round during a typical year, with groundwater or contributions of flow from higher in the stream or river network as primary sources of water for stream flow. Intermittent streams are those that have both precipitation and groundwater providing part of the stream's flow, and flow continuously only during certain times of the year (*e.g.*, during certain seasons such as the rainy season). Ephemeral streams have flowing water only in response to precipitation events in a typical year, and are always above the water table. Precipitation can include rainfall as well as snowmelt. Science shows that tributaries regardless of flow duration are very effective at transporting pollutants downstream, such as excess nutrients and sediment, which impact the integrity and character of traditional navigable waters, interstate waters, and the territorial seas. *See* Technical Support Document.

Second, the rule requires two physical indicators of flow: there must be a bed and banks and an indicator of ordinary high water mark. This definition of "tributary" includes only those waters the agencies have concluded are the type of waters that the CWA was intended to protect and which either individually or in combination with other covered tributaries in the watershed have a significant nexus to a traditional navigable water, interstate water, or the territorial seas. Thus, the agencies are not defining "waters of the United States" to include all streams that might be considered "tributaries" in the general scientific literature. To provide additional clarity and for ease of use for the public, the agencies are including the Corps' existing definition of ordinary high water mark in EPA's regulations as well. Under that existing Corps regulation, ordinary high water mark indicators include characteristics such as shelving, scour, changes in soil characteristics, and destruction of terrestrial vegetation, among others.

A bed and banks and other indicators of ordinary high water mark are physical indicators of water flow and are only created by sufficient and regular intervals of flow. These physical indicators can be created by perennial, intermittent, and ephemeral flows. *See* Technical Support Document. For purposes of the rule, "bed and banks" means the substrate and sides of a channel between which flow is confined. The banks constitute a break in slope between the edge of the bed and the surrounding terrain, and may vary from steep to gradual. Existing Corps regulations define ordinary high water mark as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the banks, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. 33 CFR 328.3(e). That definition is not changed by the rule and is added to EPA's regulations.

Current Corps regulations and guidance identify bed and banks as indicators of the ordinary high water mark. The definition of "tributary" in this rule requires the presence of a bed and banks and an additional indicator of ordinary high water mark such as staining, debris deposits, or other indicator identified in the rule or agency guidance. In many tributaries, the bed is that part of the channel below the ordinary high water mark, and the banks often extend above the ordinary high water mark. For other tributaries, such as those that are incised, changes in vegetation, changes in sediment characteristics, staining, or other ordinary high water mark indicators may be found within the banks. In concrete-lined channels, the concrete acts as the bed and banks and can have other ordinary high water mark indicators such as staining and debris deposits. Indicators of an ordinary high water mark may vary from region to region across the country. *See* Technical Support Document.

Other evidence, besides direct field observation, may establish the presence of bed and banks and another indicator of ordinary high water mark. The agencies currently use many tools in identifying tributaries and will continue to rely on their experience and expertise in identifying the presence of a bed and banks and ordinary high water mark. For example, several reliable, well-established remote sensing sources of information or mapping can assist to establish the presence of water that contributes flow to a traditional navigable water, interstate water, or the territorial seas and provide evidence regarding the presence of a bed and banks and another indicator of ordinary high water mark. Among the types of remote sensing or mapping information that can assist in establishing the presence of water are USGS topographic data, the USGS National Hydrography Dataset (NHD), Natural Resources Conservation Service (NRCS) Soil Surveys, and State or local stream maps, as well as the analysis of aerial photographs, and light detection and ranging (also known as LIDAR) data, and desktop tools that provide for the hydrologic estimation of a discharge sufficient to create an ordinary high water mark, such as a regional regression analysis or hydrologic modeling. These sources of information can sometimes be used independently to infer the presence of a bed and banks and another indicator of ordinary high water mark, or where they correlate, can be used to reasonably conclude the presence of a bed and banks and ordinary high water mark.

Both the USGS topographic data and the NHD data assist to delineate tributaries to traditional navigable waters, interstate waters, or the territorial seas. Where one or both of these sources have indicated a "blue line stream," there is an indication that the tributary could exhibit a bed and banks and another indicator of ordinary high water mark. Where this information is combined with stream order,[11] more certainty can result. For example, a water that is a second-order stream will be more likely to exhibit a bed and banks and another indicator of ordinary high water mark as compared to a first-order stream. This information will vary in validity in different parts of the country, so care will be taken to evaluate additional information prior to reasonably concluding a bed and banks or other indicators of ordinary high water mark are associated with the stream. This will be particularly true for first-order streams and for many streams in the arid portions of the country. Supporting information that can be used to conclude the presence of a bed and banks and another indicator of ordinary high water mark would be the presence of USGS stream data on the NRCS county Soil Survey or local stream maps which are mapped independently of the USGS, aerial photography interpretation, or digital terrain depictions created from LIDAR. *See* Technical Support Document.

Tributaries are observable in aerial photography by their topographic expression, characteristic linear and curvilinear patterns, dark photographic tones, and the presence and

[11] Stream order is a method for stream classification based on relative position within a river network, when streams lacking upstream tributaries (*i.e.*, headwater streams) are first-order streams and the junction of two streams of the same order results in an increase in stream order (*i.e.*, two first-order streams join to form a second-order stream, and so on). When streams of different orders join, the order of the larger stream is retained. *See* Science Report and Technical Support Document.

pattern of riparian vegetation. The characteristic linear and curvilinear patterns and dark photographic tones observed on aerial photography can be caused by shadow cast from the banks of an incised stream or from water in the stream channel itself. In some cases stream channel morphology is visible, providing evidence of scour, materials sorting, and deposition, all characteristics of an ordinary high water mark. Visible persistent water (*e.g.*, multiple dates of aerial photography showing visible water) provides strong evidence of the sufficient frequency and duration of surface flow to create a bed and banks and other indicators of ordinary high water mark. Visible indicators of running water such as rapids, riffles, and pools all indicate the presence of a bed and banks and other indicators of ordinary high water mark. Other physical characteristics of an ordinary high water mark that may be visible on aerial photography include the destruction of terrestrial vegetation and the absence of vegetation in a channel. These indicators gleaned from aerial photography interpretation can be correlated with the presence of USGS streams data in reasonably concluding that a bed and banks and another indicator of ordinary high water mark are present. *See* Technical Support Document.

Additional desktop tools can assist in the identification of bed and banks and other indicators of ordinary high water mark. For instance, field staff use other methods for estimating ordinary high water mark, including, but not limited to, lake and stream gage data, flood predictions, historic records of water flow, and statistical evidence. Some desktop tools, such as a regional regression analysis and the Hydrologic Modeling System (HEC-HMS), provide for the hydrologic estimation of stream discharge sufficient to create an ordinary high water mark in tributaries under regional conditions. Such desktop tools are particularly useful for identifying presence of bed and banks and another indicator of ordinary high water mark when supported by additional remote sensing tools that indicate the presence of such physical features.

LIDAR is a powerful tool to analyze the characteristics of the land surface, including tributary identification and characterization. LIDAR data are becoming more and more widespread for engineering and land use planning purposes. Where LIDAR data have been processed to create a bare earth model, detailed depictions of the land surface are available. Bare earth models reveal subtle elevation changes and can clearly show a tributary's bed and banks and channel morphology. In many cases LIDAR can help delineate tributaries that would exhibit a bed and banks and another indicator of an ordinary high water mark in greater detail than aerial photography interpretation alone can. Visible linear and curvilinear incisions on a bare earth model are strong evidence that a tributary with a bed and banks and another indicator of an ordinary high water mark is present. LIDAR-indicated tributaries can be correlated with aerial photography interpretation and USGS stream data, to reasonably conclude the presence of a bed and banks and another indicator of an ordinary high water mark in the absence of a field visit. *See* Technical Support Document. The agencies have been using such remote sensing and desktop tools to delineate tributaries for many years where data from the field are unavailable or a field visit is not possible.

In addition, such desktop tools are critical in circumstances where physical characteristics of bed and banks and another indicator of ordinary high water mark are absent in the field, often due to unpermitted alteration of streams. In such cases where physical characteristics of bed and banks and another indicator of ordinary high water mark no longer exist, they may be determined by using other appropriate means that consider the characteristics of the surrounding areas. Such reliable methods that can indicate prior existence of bed and banks and other indicators of ordinary high water mark include, but are not limited to, lake and stream gage data, elevation data, spillway height, historic water flow records, flood predictions, statistical evidence, the use of reference conditions, or through the remote sensing and desktop tools described above.

The upper limit of the tributary is the point where a bed and banks and another indicator of ordinary high water mark cease to be identifiable. The ordinary high water mark establishes the lateral limits of a water, and its absence generally determines when a tributary's channel or bed and banks has ended, representing the upper limit of the tributary. However, a natural or constructed break in bed and banks or other indicator of ordinary high water mark does not constitute the upper limit of a tributary where bed and banks or other indicator ordinary high water mark can be found farther upstream. Note that waters, including wetlands, which are adjacent to a tributary at the upper limit of the channel are jurisdictional as "adjacent waters."

The definition of "tributary" includes tributaries that flow directly or indirectly through impoundments that are jurisdictional under (a)(4) of the rule. Tributaries to impoundments of "waters of the United States" are jurisdictional for the same reasons the impoundments themselves are jurisdictional. As discussed in section IV. E., under case law, an impoundment of a "water of the United States" remains a "water of the United States," and scientific literature demonstrates that impoundments continue to significantly affect the chemical, physical, or biological integrity of downstream waters traditional navigable waters, interstate waters, and the territorial seas. Therefore, tributaries to such impoundments continue to have a significant nexus, alone or in combination with other covered tributaries in the watershed, to the downstream traditional navigable water, interstate water, or the territorial seas.

Waters that meet the rule definition of tributary remain tributaries even if there is a manmade or natural break at some point along the connection to the traditional navigable water, interstate water, or the territorial seas. In many tributaries, there are often natural or constructed breaks in the presence of a bed and banks or ordinary high water mark while hydrologic connectivity remains. For example, in some regions of the country where there is a very low gradient, the banks of a tributary may be very low or may even disappear at times. Many tributaries lose their ordinary high water mark when adjacent wetlands are contiguous with the stream channel. The definition of "tributary" addresses these circumstances and states that waters that meet the definition of tributary remain tributaries even if such breaks occur, so long as bed and banks and an ordinary high water mark are present upstream of the break. Under the rule, when a covered tributary flows through a wetland into another tributary (sometimes called a "run-of-stream" wetland), the covered tributary remains jurisdictional even though it lost its ordinary high water mark through the wetland. By looking to the presence of a bed and banks and an ordinary high water mark upstream, the rule ensures that a mere break in the ordinary high water mark does not render tributaries with a significant nexus to downstream waters not jurisdictional. Other breaks that do not sever jurisdiction include constructed breaks such as bridges, culverts, pipes, dams, or waste treatment systems, or natural breaks such as debris piles, boulder fields, or a stream that flows underground so long as a bed and banks and an ordinary high water mark can be identified upstream of the break. Site specific conditions will continue to determine the distance up valley that needs to be evaluated to see if the break in bed and banks and ordinary high water mark is temporary or the start of the stream system.

The rule also clarifies that a water meets the definition of tributary if the water contributes flow through an excluded feature such as a ditch with ephemeral flow. While the water above and below the excluded feature is jurisdictional if it meets the definition of tributary, the excluded feature does not become jurisdictional. A water also continues to meet the definition of tributary if at some point the water contributes flow through a jurisdictional water that is not a tributary, such as an adjacent wetland or impoundment.

The agencies' longstanding interpretation of the CWA has included tributaries that are natural, modified, or constructed waters. While this rule at paragraph (b) excludes specific types of constructed waters from jurisdiction, it continues to interpret constructed tributaries as jurisdictional unless expressly excluded in paragraph (b). Natural, modified, and constructed tributaries provide many of the same functions, especially as conduits for the movement of water and pollutants to other tributaries or directly to traditional navigable waters, interstate waters, or the territorial seas. The discharge of a pollutant into a tributary generally has the same effect downstream whether the tributary waterway is natural, modified, or constructed. See discussion in section III.C. above and the Technical Support Document. Given the extensive human modification of watercourses and hydrologic systems throughout the country, it is often difficult to distinguish between natural watercourses and watercourses that are wholly or partly modified or constructed. For example, tributaries that have been channelized in concrete or otherwise have been modified may still meet the definition of tributaries under the rule so long as they have bed and banks and an ordinary high water mark, contribute flow to a traditional navigable water, interstate water, or the territorial seas, and are not excluded under paragraph (b). The important consideration for a modified or constructed water is whether it meets the definition of "tributary" and is not excluded under paragraph (b).

Ditches are one important example of constructed features that in many instances can meet the definition of tributary. Ditches are jurisdictional under the rule only if they both meet the definition of "tributary" and are not excluded under paragraph (b)(3) in the rule. Not all ditches meet the definition of a tributary, and others – as discussed in Section I – are expressly excluded from jurisdiction.

Ditches protected by the rule must meet the definition of tributary, having a bed and banks and ordinary high water mark, and contributing flow directly or indirectly through another water to a traditional navigable water, interstate water, or the territorial seas. Jurisdictional ditches include ditches such as the following:

- Ditches with perennial flow,
- Ditches with intermittent flow that are a relocated tributary, or are excavated in a tributary, or drain wetlands,
- Ditches, regardless of flow, that are excavated in or relocate a tributary.

The definition of tributary includes natural, undisturbed waters and those that have been man-altered or constructed, but which science shows function as a tributary. In addition, alteration or modification of natural streams and rivers for purposes such as flood control, erosion control, and other reasons does not convert the tributary to a ditch. A stream or river that has been channelized or straightened because its natural sinuosity has been altered, cutting off the meanders, is not a ditch. A stream that has banks stabilized through use of concrete or rip-rap (*e.g.*, rocks or stones) is not a ditch. The Los Angeles River, for example, is a "water of the United States" (and, indeed, a traditional navigable water) and remains a "water of the United States" and is not excluded under paragraph (b)(3) even where it has been ditched, channelized, or concreted.

A ditch that relocates a stream is not an excluded ditch under paragraph (b)(3), and a stream is relocated either when at least a portion of its original channel has been physically moved, or when the majority of its flow has been redirected. A ditch that is a relocated stream is distinguishable from a ditch that withdraws water from a stream without changing the stream's aquatic character. The latter type of ditch is excluded from jurisdiction where it meets the listed characteristics of excluded ditches under paragraph (b)(3). Agency staff can determine historical presence of tributaries using a variety of resources, such as historical maps, historic aerial photographs, local surface water management plans, street maintenance data, wetlands and conservation programs and plans, as well as functional assessments and monitoring efforts. A ditch with intermittent flow that drains a wetland and otherwise meets the definition of "tributary" is a "tributary" and is not excluded under (b)(3). See IV.I. below.

Evidence, such as current or historic photographs, prior delineations, or USGS, state and local topographic maps, may be used to determine whether a ditch is an excluded ditch. Site characteristics may also be present to inform the determination of whether the water body is a ditch, such as shape, sinuosity, flow indications, etc., as ditches are often created in a linear fashion with little sinuosity and may or may not connect to another "water of the United States."

2. What Changes Did the Agencies Make from the Proposed Rule Based on Public Comments?

The rule's definition of "tributary" retains many elements from the proposed rule, but reflects public comments in several important ways. In particular, the rule emphasizes flow. The rule defines "tributary" by emphasizing physical characteristics created by water flow and requiring that the water contributes flow, either directly or through another water, to a traditional navigable water, interstate water, or the territorial seas. The rule also is clearer regarding the jurisdictional status of certain ditches, and clarifies that wetlands and waters such as ponds and lakes that contribute flow to a traditional navigable water, interstate water, or the territorial seas but typically lack a bed and banks and ordinary high water mark are considered "adjacent" but not a "tributary."

A number of commenters suggested that the agencies should exclude ephemeral streams from the definition of tributary, expressing concern that ephemeral waters that flow very rarely would be considered a jurisdictional tributary. The rule definition of "tributary" requires that flow must be of sufficient volume, frequency, and duration to create the physical characteristics of bed and banks and an ordinary high water mark. If a water lacks sufficient flow to create such characteristics, it is not considered a "tributary" under this rule. While some commenters expressed concern that a feature that flowed very rarely could meet the proposed definition of "tributary," it is the agencies' judgment that such a feature is not a tributary under the rule because it would not form the physical indicators required under the definitions of "ordinary high water mark" and "tributary."

The rule includes ephemeral streams that meet the definition of tributary as "waters of the United States" because the agencies determined that such streams provide important functions for downstream waters, and in combination with other covered tributaries in a watershed significantly affect the chemical, physical, and biological integrity of traditional navigable waters, interstate waters, and the territorial seas. As noted by the SAB, and consistent with the scientific literature, tributaries as a group exert strong influence on the chemical, physical, and biological integrity of downstream waters, even though the degree of connectivity is a function of variation in the frequency, duration, magnitude, predictability, and consequences of chemical, physical, and biological processes. *See, e.g.,* SAB 2014b. These significant effects on traditional navigable waters, interstate waters, and the territorial seas occur even when the tributary is small, intermittent, or ephemeral.

In addition, the Science Report concludes that, "[a]lthough less abundant, the available evidence for connectivity and downstream effects of ephemeral streams was strong and compelling, particularly in context with the large body of evidence supporting the physical connectivity and cumulative effects of channelized flows that form and maintain stream networks." Science Report at 6-13. For example, ephemeral headwater streams shape river channels in traditional navigable or interstate waters by accumulating and gradually or episodically releasing stored materials such as sediment and large woody debris. These materials help structure traditional navigable and interstate river channels by slowing the flow of water through channels and providing substrate and habitat for aquatic organisms.

Moreover, the agencies have historically considered ephemeral tributaries to be "waters of the United States." For example, for many years EPA has reviewed and approved state water quality standards for ephemeral waters under CWA section 303(c), several Corps' Nationwide Permits under CWA section 404 address discharges of dredged or fill material into ephemeral waters, and the agencies' definition of "waters of the United States" prior to this rule included all tributaries without reference to flow regime.

Numerous commenters asked that the final rule define "bed and banks," which are physical characteristics called for under the definition of tributary. Such commenters emphasized the importance of a definition of "bed and banks," and some suggested definitional language. To increase clarity, the preamble in IV.F.1. above includes a definition of bed and banks adapted largely from longstanding agencies' practice as well as comments. Several commenters suggested that the rule should add a definition of "ordinary high water mark." In response and to increase clarity, the rule adds the Corps' existing regulatory ordinary high water mark definition to EPA's regulations. Corps technical manuals are available to help identify ordinary high water mark, referenced above. Several commenters suggested that the agencies not require a tributary to have both bed and banks and ordinary high water mark, because bed and banks are themselves an indicator of ordinary high water mark, and because ordinary high water mark alone is an appropriate criterion for many streams in the arid west where the characteristic of bed and banks is less common. The agencies based their significant nexus determination for the covered tributaries in part on the amount of flow indicated where a tributary has both a bed banks and another indicator of ordinary high water mark, so the rule continues to require both physical indicators with the preamble at IV.F.1. above clarifying the means to conclude that those indicators exist.

Several commenters suggested that the rule exclude all constructed waters from the definition of "waters of the United States." While the rule does exclude several types of constructed waters from jurisdiction, it continues to consider constructed tributaries as jurisdictional unless expressly excluded in paragraph (b) for the reasons described in section IV.I. and the Technical Support Document.

Many comments recommended that wetlands, ponds, and lakes that contribute flow to a traditional navigable water, interstate water, or the territorial seas but lack a bed and banks and ordinary high water mark not be considered as tributaries, because of the importance of those physical characteristics to the definition. Wetlands typically lack bed and banks and ordinary high water mark, while lakes and ponds typically have an ordinary high water mark and a bed but may lack banks. The proposed rule expressly sought comment on whether such waters should be considered as tributaries or as "adjacent waters," recognizing that it might add an element of uncertainty to the definition of "tributary" to include waters that lacked the physical features called for in the definition. In addition, the SAB commented that tributaries are not typically defined to include lentic systems (still waters), and suggested that the agencies reconsider including ponds, lakes, and wetlands as covered adjacent waters instead of tributaries. SAB 2014b at 2. In response, the rule does not consider these waters to be tributaries, but defines covered adjacent waters to include wetlands, lakes, and ponds that connect segments of tributaries or are at the head of the tributary system. *See* section G for further discussion.

G. Adjacent Waters

Section III above explains the basis for the agencies' conclusion that covered adjacent waters have a significant nexus with traditionally navigable waters, interstate waters, or the territorial seas. The adjacency provision is based on the best available science, intent of the CWA, and case law, and is consistent with the experience of the agencies in making case-specific significant nexus determinations. As discussed above in Section III, the SAB concludes, "[t]he available science supports [the agencies'] proposal to include adjacent waters and wetlands as waters of the United States." SAB 2014b at 2. This section describes the provisions of the rule governing adjacent waters, changes made to the adjacent waters provision based on comments on the proposed rule, and, finally, how science and the law support the agencies' conclusions in the final rule.

1. What Are the Provisions of the Rule?

Under the rule, "adjacent" means bordering, contiguous, or neighboring, including waters separated from other "waters of the United States" by constructed dikes or barriers, natural river berms, beach dunes, and the like. Waters adjacent to a traditional navigable water, interstate water, territorial sea, impoundment, or tributary, are "waters of the United States." For purposes of adjacency, an adjacent water includes wetlands within or abutting its ordinary high water mark. Adjacency is not limited to waters located laterally to a traditional navigable water, interstate water, the territorial seas, an impoundment, or a tributary. Therefore, waters that connect segments of a traditional navigable water, interstate water, the territorial seas, an impoundment, or a tributary or are located at the head of a traditional navigable water, interstate water, the territorial seas, an impoundment, or a tributary may be determined to be bordering, contiguous, or neighboring, and thus adjacent. "Adjacent waters" include wetlands, ponds, lakes, oxbows, impoundments, and similar water features. "Adjacent waters" do not include any water excluded under paragraph (b) of the rule. Note also that a water that does not meet the definition of "adjacent waters" may be determined to be a "water of the United States" on a case-specific basis under paragraph (a)(8) of the rule.

Within the definition of "adjacent," the terms bordering and contiguous are well understood, and for continuity and clarity the agencies continue to interpret and implement those terms consistent with the current policy and practice. Waters separated by a berm or other similar feature remain "adjacent" under the definition.

Some waters included under the definition of "tributary" in the proposed rule, after consideration of public comment, are "adjacent" in the final rule. Specifically, waters that connect segments of, or are at the head of, a traditional navigable water, interstate water, the territorial seas, an impoundment, or a tributary are adjacent to that water. For example, a pond that is the source water to a tributary and borders the tributary at its uppermost reach is jurisdictional as an adjacent water. Further, the rule states that an adjacent water includes wetlands within or abutting its ordinary high water mark. This language is designed to ensure that if there is a fringe wetland abutting that pond that is the source water to a tributary, that wetland is considered part of the pond under the rule and such pond as a whole, including any abutting wetlands, is jurisdictional as an adjacent water.

For purposes of adjacency, including all three provisions of the definition of "neighboring," the entire water is adjacent if any part of the water is bordering, contiguous or neighboring. Therefore, the entire wetland is "adjacent" if any part of it is within the distance thresholds established in the definition of "neighboring." For example, if a tributary has a 1,000 foot wide 100-year floodplain, then a water that is located within 1,000 feet of the ordinary high water mark of a covered tributary and extends to 2,000 feet is jurisdictional in its entirety as "neighboring." In addition, for purposes of determining whether a water is "adjacent" artificial features (such as roads) do not divide a water; rather, the water is treated as one entire water.

The definition of "adjacent" in the rule does not include those waters in which established, normal farming, silviculture, and ranching activities occur. Wetlands and farm ponds in which normal farming activities occur, as those terms are used in Section 404(f) of the Clean Water Act and its implementing regulations, are not jurisdictional under the Act as an "adjacent" water. Waters in which normal farming, ranching, and silviculture activities occur instead will continue to be subject to case-specific review, as they are today. These waters may be determined to have a significant nexus on a case-specific basis under (a)(7) or (a)(8). Recognizing the vital role of farmers in providing the nation with food, fiber, and fuel, the Clean Water Act in Section 404(f) exempts many normal farming activities such as seeding, harvesting, cultivating, planting, soil and water conservation practices, and other activities from the Section 404 permitting requirement. "Normal" farming, ranching, and silviculture is clarified in the agencies' implementing regulations to mean established and ongoing activities to distinguish from activities needed to convert an area to farming, silviculture, or ranching and activities that convert a water to a non-water. 40 C.F.R § 232.3(c)(1). The rule reflects this framework by clarifying the waters in which the activities Congress exempted under Section 404(f) occur are not jurisdictional as "adjacent." It is important to recognize that "tributaries," including those ditches that meet the tributary definition, are not "adjacent" waters and are jurisdictional by rule.

This provision interprets the intent of Congress and reflects the intent of the agencies to minimize potential regulatory burdens on the nation's agriculture community, and recognizes the work of farmers to protect and conserve natural resources and water quality on agricultural lands. While waters in which normal farming, silviculture, or ranching practices occur may be determined to significantly affect the chemical, physical, or biological integrity of downstream navigable waters, the agencies believe that such determination should be made based on a case-specific basis instead of by rule. The agencies also recognize that waters in which normal farming, silviculture, or ranching practices occur are often associated with modifications and alterations including drainage, changes to vegetation, and other disturbances the agencies believe should be specifically considered in making a significant nexus determination.

The rule establishes a definition of "neighboring" for purposes of determining adjacency. In the rule, the agencies identify three circumstances under which waters would be "neighboring" and therefore "waters of the United States."

First, the term "neighboring" includes all waters located in whole or in part within 100 feet of the ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, an impoundment, or a covered tributary.

Second, the term "neighboring" includes all waters within the 100-year floodplain of a traditional navigable water, interstate water, the territorial seas, an impoundment, or a covered tributary that is located in whole or in part within 1,500 feet of the ordinary high water mark of that jurisdictional water. In this rule, the agencies interpret "100-year floodplain" to mean "the area that will be inundated by the flood event having a one percent chance of being equaled or exceeded in any given year." This is consistent with the Federal Emergency Management Agency's (FEMA) definition of "100-year flood." If the 100-year floodplain is greater than 1,500 feet from the ordinary high water mark, only those waters that are located in whole or in part within 1,500 feet of the ordinary high water mark are "neighboring." In addition, if the 100-year floodplain is less than 1,500 feet from the ordinary high water mark, only those waters located in whole or in part within the floodplain are "neighboring" under this provision.

Third, the rule defines "neighboring" to include all waters located in whole or in part within 1,500 feet of the high tide line of a traditional navigable water or the territorial seas, and all waters located within 1,500 feet of the ordinary high water mark of the Great Lakes. This provision defines waters that begin within 1,500 feet of a tidally-influence traditional navigable water or the territorial seas and waters within 1,500 feet of the ordinary high water mark of the Great Lakes as "waters of the United States." To provide clarity for this aspect of the definition, the agencies incorporated the Corps' existing definition of high tide line into EPA's regulations at paragraph (c)(7) in the rule.

As noted above, the rule provides that with respect to the boundaries for covered adjacent waters the entire water is jurisdictional as long as the water is at least partially located within the distance threshold, and the agencies interpret the rule to apply to any single water or wetland that may straddle a distance threshold. Low-centered polygonal tundra and patterned ground bogs (also called strangmoor, string bogs, or patterned ground fens) are considered a single water for purposes of the rule because their small, intermingled wetland and non-wetland components are physically and functionally integrated. These areas often have complex micro-topography with repeated small changes in elevation occurring over short distances. Science demonstrates that these wetlands function as a single wetland matrix having clearly hydrophytic vegetation, hydric soils, and wetland hydrology. As a result, the agencies will continue to evaluate these wetlands as a single water under the rule. Where any portion of these wetland types is bordering, contiguous or neighboring, the entire wetland is a "water of the United States." Similarly, for purposes of a case-specific determination under (a)(8), wetlands of these types constitute a single water when making a significant nexus determination. Other wetlands may also have intermingled wetland and non-wetland components that are so physically and functionally integrated they can be considered a single water for purposes of the rule. Groups of wetlands that are simply part of a complex of wetlands would not be considered a single water for purposes of the rule.

The final rule also makes some ministerial changes to the definition of "adjacent." The existing regulation defined "adjacent" to mean "bordering, contiguous, or neighboring," and had a second sentence that clarified that wetlands separated by berms and the like remain adjacent wetlands. The final rule combines those sentences without changing the scope of adjacency.

When determining the jurisdictional boundaries under the CWA for "adjacent waters," the agencies will rely on published FEMA Flood Zone Maps to identify the location and extent of the 100-year floodplain. https://msc.fema.gov/portal. These maps are publicly available and provide a readily accessible and transparent tool for the public and agencies to use in locating the 100-year floodplain. It is important to recognize, however, that much of the United States has not been mapped by FEMA and, in some cases, a particular map may be out of date and may not accurately represent existing circumstances on the ground. The agencies will determine if a particular map is no longer accurate based on factors, such as streams or rivers moving out of their channels with associated changes in the location of the floodplain. In the absence of applicable FEMA maps, or in circumstances where an existing FEMA map is deemed by the agencies to be out of date, the agencies will rely on other available tools to identify the 100-year floodplain, including other Federal, State, or local floodplain maps, Natural Resources Conservation Service (NRCS) Soil Surveys (Flooding Frequency Classes), tidal gage data, and site-specific modeling (e.g., Hydrologic Engineering Centers River System Analysis System or HEC-RAS). http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm and HEC-RAS and http://www.hec.usace.army.mil/software/hec-ras/. Additional supporting information can include historical evidence, such as photographs, prior delineations, topographic maps, and existing site characteristics. Because identifying the 100-year floodplain is an important aspect of establishing jurisdiction under the rule and the reliable and appropriate tools for identifying the 100-year floodplain may vary, the agencies will coordinate with other federal and state agencies to develop additional information for EPA and Corps field staff to further improve tools for identifying the 100-year floodplain in a consistent, predictable, and scientifically valid manner.

When determining the outer distance threshold for an "adjacent water" the line is drawn perpendicular to the ordinary high water mark or high tide line of the traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary and extended landward from that point. If there are breaks in the ordinary high water mark, the line should be extrapolated from the point where the ordinary high water mark is observed on the downstream side to the point where the ordinary high water mark is lost on the upstream side. Therefore, waters may meet the definition of neighboring even where, for example, a tributary temporarily flows underground.

The agencies emphasize that they fully support efforts by States and tribes to protect under their own laws any additional waters, including locally special waters that may not be within the Federal protections of the CWA as the agencies have interpreted its scope in this rule. In promulgating the adjacent water boundaries, the agencies have balanced protection and clarity, scientific uncertainties and regulatory experience, and established boundaries that are, in their judgment, reasonable and consistent with the statute and its goals and objectives.

If waters identified in this section are determined to be adjacent, no case-specific significant nexus evaluation is required.

2. What Changes Did the Agencies Make from the Proposed Rule Based on Public Comments?

In the proposal, the agencies sought comment on a number of ways to address and clarify jurisdiction over "adjacent waters," including establishing a floodplain interval and providing clarity on reasonable proximity as an important aspect of adjacency. In light of the comments, the science, the agencies' experience, and the Supreme Court's consistent recognition of the agencies' discretion to interpret the bounds of CWA jurisdiction, the agencies have made some revisions in the final rule designed to more clearly establish boundaries on the scope of "adjacent waters."

Under the proposal and the final rule, "adjacent waters" are jurisdictional based on the conclusion that they have a significant nexus to traditional navigable waters, interstate waters, or the territorial seas, and there is no need for additional analysis. Some commenters wanted a case-specific analysis for all "adjacent waters" as they believed that the waters would not individually have a significant nexus to an adjacent "water of the United States," while others noted that their functional relationship to the downstream traditional navigable waters, interstate waters, or the territorial seas warranted the conclusion that they were all jurisdictional. Based on a review of the science, the agencies' expertise and experience, and the law, the agencies determined that "adjacent waters," as defined, alone or in combination with other covered "adjacent waters" in a watershed have a significant nexus to a traditional navigable water, interstate water or the territorial seas and therefore are "waters of the United States" without the need for any additional analysis. However, the rule also provides for case-specific analysis of some waters that do not meet the definition of "neighboring" established by the rule. See section IV.H.

The proposal included wetlands, ponds, lakes, and impoundments that contribute flow, directly or indirectly, to the downstream traditional navigable waters, interstate waters, or the territorial seas in the definition of "tributary." Some commenters expressed concern that since such waters generally do not have both an ordinary high water mark and a bed and banks, the definition of tributary was contradictory and confusing. The agencies sought comment on whether to treat these waters as "adjacent waters" instead of tributaries, since they not only contribute flow, but they also border or are contiguous to the waters to which they contribute flow. The SAB in particular commented that the agencies "may want to consider whether flow-through lentic systems should be included as "adjacent waters" and wetlands, rather than as tributaries." SAB 2014b at 2. In light of the comments and to provide additional clarity, the agencies revised the definitions of "adjacent" and "tributary" to include these waters as "adjacent."

Under the existing rule, there is no definition for the term "neighboring," and the public commented that not having a definition created a lack of clarity and inconsistent field practices across the nation. In the proposal, "neighboring" was defined to include waters located within the riparian area or floodplain of a traditional navigable water, interstate water, territorial sea, impoundment, or tributary; waters with a shallow subsurface hydrologic connection to a jurisdictional water; and waters with a confined surface hydrologic connection to a jurisdictional water. Although the definitions were scientifically-based for the terms "riparian area" and "floodplain" to define the lateral reach of the term "neighboring," some commenters indicated that the proposed definitions to clarify neighboring were not clear. Those commenters requested that a specific floodplain interval or other limitation should be established to more clearly identify the outer limit of neighboring. Some commenters stated that the proposed definition of "neighboring" was unclear, while other commenters found the definition helped clarify CWA jurisdiction and were supportive of including a broad definition, based on ecological interconnectedness.

Some commenters stated that the proposed definitions of "riparian area" and "floodplain" were vague or ambiguous, broad or effectively limitless, beyond the agencies' authority or difficult or impossible to implement in the field. Other commenters were supportive of using the riparian area as a basis for adjacency. Some commenters asked why the agencies were proposing a new definition of "floodplain" that was inconsistent with the definition used by other Federal agencies like NRCS or FEMA. Some commenters suggested that if the agencies use floodplains as a means to define "neighboring," it should be limited to the area inundated by the 2-year, 5-year, 10-year, or 20-year flood, while other commenters supported the use of the 100-year floodplain as a component of "neighboring." Some commenters supported including all wetlands and other waters in the 100-year floodplain as categorically jurisdictional. Other commenters requested that floodplain size be based on tributary size, while others suggested that it should be based on soil and geologic features, and some suggested the use of the FEMA flood zone maps. Some commenters stated that "reasonable proximity" was neither defined nor clarified adjacency, noting that adjacency should not apply to waters separated from a "water of the United States" by great distances.

In response to comments and to provide greater clarity and consistency, in the rule the agencies establish a definition of neighboring which provides additional specificity requested by some commenters, including establishing a floodplain interval and providing specific boundaries from traditional navigable waters, interstate waters, the territorial seas, impoundments, and tributaries. In the proposal, the agencies requested comment on whether the rule should provide greater specificity with regard to how the agencies will determine if a water is located in the floodplain of a jurisdictional water. 79 FR 22209. As recommended by the public and based on science, the agencies' boundaries for "neighboring" are based largely on use of the 100-year floodplain. The agencies concluded that the use of the riparian area was unnecessarily complicated and that as a general matter, waters in the riparian area will also be in the 100-year floodplain. Further, should the riparian area on occasion extend beyond the 100-year floodplain, the agencies have the ability to perform a case-specific significant nexus analysis on a water out to 4,000 feet from the ordinary high water mark or high tide line of a traditional navigable water, interstate water, the territorial sea, impoundment, or tributary. The agencies have drawn these lines based on their technical expertise and experience in order to provide a rule that is practical to understand and implement and protects those waters that significantly affect the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, or the territorial seas. Because science indicates that connectivity is on a gradient, the agencies have also identified limited circumstances in which waters that do not meet the definition of "neighboring" may be determined on a case-specific basis to have a significant nexus. See section IV.I.

First, the rule establishes as "neighboring" waters that occur within 100 feet from traditional navigable waters, interstate waters, the territorial seas, impoundments, and tributaries.

Second, the rule utilizes a specific floodplain and also establishes maximum distances for purposes of "neighboring." Studies have found that waters within the floodplain are dynamically connected and frequently interact with the downstream traditional navigable water, interstate water, territorial sea, impoundment, or tributary. Some commenters indicated that a specific floodplain or other designation should be set to define the outer boundary of "neighboring." Further, some commenters requested that the 100-year floodplain designation be used to define the outer boundary of adjacency because the public understands this concept. Several commenters recommended that FEMA or NRCS maps be used to support the analysis as these maps are easily accessible to the public. Because FEMA maps exist for many areas of the country and the NRCS Soil Survey maps do as well, the agencies decided that defining "neighboring" based in part on a particular floodplain or recurrence interval was a reasonable means of ensuring the consistency and certainty that is important to the public and for implementation of the CWA. In drawing lines, the agencies chose the 100-year floodplain in part because FEMA and NRCS together have generally mapped large portions of the United States, and these maps are publicly available, well-known and well-understood.

Because the 100-year floodplain can be very wide in some areas of the country, particularly near large rivers, the agencies chose to provide increased clarity and certainty while ensuring that waters that provide important functions significantly affecting the chemical, physical, and biological integrity of the downstream traditional navigable waters, interstate waters, or the territorial seas are protected by establishing a 1,500 foot maximum distance for neighboring waters in the rule. Waters within the 100-year floodplain to a maximum of 1,500 feet of the ordinary high water mark are adjacent without regard to the presence of berms or other barriers. However, because the science demonstrates that floodplain waters provide important functions for downstream waters, the agencies have established a provision under (a)(8) for case-specific significant nexus evaluations of waters located in the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas beyond 1,500 feet.

The rule also establishes a separate bright line for including as jurisdictional those waters that occur within 1,500 feet of tidally-influenced traditional navigable waters or the territorial seas.

The proposal defined "neighboring" to include waters with a surface connection to jurisdictional waters and some commenters recommended eliminating surface hydrologic connectivity as a basis for adjacency. The definition of neighboring does not include a provision defining "neighboring" based on a surface hydrologic connection. However, waters with confined surface hydrologic connections are considered adjacent where they are bordering, contiguous, or neighboring a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary. For example, a water with a confined surface hydrologic connection to a traditional navigable water that is 1,200 feet from the high tide line of that water would meet the definition of neighboring and be considered an adjacent water. In circumstances where a water does not meet the definition of neighboring but is located within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas, or within 4,000 feet of a jurisdictional water, a confined surface hydrologic connection may be an important factor in evaluating a case-specific significant nexus under (a)(8). See section H. below.

The proposal defined "neighboring" to include waters connected with a shallow subsurface connection, and some commenters recommended eliminating subsurface hydrologic connectivity as a basis for adjacency. For example, some commenters asserted that, because the CWA does not apply to groundwater, the agencies do not have the authority to assert jurisdiction over waters connected to other "waters of the United States" via a shallow subsurface hydrologic connection. Some commenters were concerned that the distinction between "groundwater" and a "shallow subsurface connection" was unclear and questioned whether using a shallow subsurface connection as a basis for adjacency is contradictory to excluding groundwater—including groundwater drained through subsurface drainage systems—as a "water of the United States." Some commenters supported use of shallow subsurface connectivity for adjacency, since the significant nexus test would be employed to make the determination of jurisdiction. Several commenters suggested that the rule should protect groundwater and shallow subsurface flow, due to its connectivity to other "waters of the United States" and particularly since altering it could affect the downstream waters. A few commenters simply requested clarifications regarding issues such as how to determine whether a subsurface connection exists; the meaning of "shallow;" distinguishing between "shallow" and "deep;" whether there were any boundaries on adjacency via hydrologic connectivity; and determining whether the connection was "sufficient" to establish adjacency. In order to provide more certainty to the public, the rule does not include a provision defining neighboring based on shallow subsurface flow, though such flow may be an important factor in evaluating a water on a case-specific basis under paragraph (a)(8), as appropriate.

Some commenters expressed concern that the agencies' proposed definition of "neighboring," "riparian area," and "floodplain" would mean that all land within the floodplain or riparian area would become regulated. In fact, only waters, not land, in the floodplain or riparian area would have been considered adjacent under the proposed rule. Similarly, under the final rule, only waters, not land, are adjacent. In response, the agencies have eliminated the definitions of floodplain and riparian area and have provided a definition of neighboring which is clear that only waters in specified circumstances may be "waters of the United States."

The agencies also eliminated a parenthetical from the existing "adjacent wetlands" regulatory provision. The phrase "other than waters that are themselves wetlands" was intended to preclude asserting CWA jurisdiction over wetlands that were simply adjacent to a non-jurisdictional wetland. Such waters do not meet the definition of "adjacent" under the rule since waters must be adjacent to a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary, so the phrase is unnecessary and confusing. With this change, the agencies are protecting all waters that meet the definition of "adjacent" as "waters of the United States," and eliminating confusion caused by the parenthetical. For example, where the 100-year floodplain is greater than 1,500 feet, all wetlands within 1,500 feet of the tributary's ordinary high water mark are jurisdictional because they are "neighboring" to the tributary, regardless of the wetlands' position relative to each other.

Some commenters stated that the proposed rule was an expansion of jurisdiction because it would change the provision from "adjacent wetlands" to "adjacent waters." The agencies acknowledge that under the existing regulation, the adjacency provision applied only to wetlands adjacent to "waters of the United States." However, also under the existing regulation, "other waters" (such as intrastate rivers, lakes and wetlands that are not otherwise jurisdictional under other sections of the rule) could be determined to be jurisdictional if the use, degradation or destruction of the water could affect interstate or foreign commerce. This provision of the existing regulation reflected the agencies' interpretation at the time of the jurisdiction of the CWA to extend to the maximum extent permissible under the Commerce Clause of the

Constitution. Therefore, while the language of the specific adjacency provision in the final rule may have changed from wetlands to waters, that does not represent an expansion of jurisdiction as a whole in comparison to the existing regulation, since adjacent non-wetland waters would have been subject to jurisdiction under the "other waters" provision. The final rule does not protect all waters that were protected under the "other waters" provision of the existing regulation, and therefore the inclusion of adjacent ponds, for example, in the "adjacent waters" provision of the final rule does not reflect an overall expansion of jurisdiction when compared to the existing regulation.

3. How Do Science and Law Support the Rule?

Based on a review of the scientific literature and the agencies' expertise and experience the agencies determined that the categories of waters discussed below are integrally linked to the chemical, physical, or biological functions of waters to which they are adjacent and downstream to the traditional navigable waters, interstate waters or the territorial seas. Therefore, the agencies determined that the waters defined as adjacent have a significant nexus with traditional navigable waters, interstate waters or the territorial seas and are thus "waters of the United States." Additional information, including citations, can be found in section III of the preamble, the Science Report,and the Technical Support Document for the rule.

a. Waters that are bordering or contiguous

As discussed in section III above, wetlands, ponds, lakes, oxbows, impoundments, and similar water features that are bordering or contiguous perform a myriad of critical chemical and biological functions associated with the downstream traditional navigable waters, interstate waters, or the territorial seas. Such waters are integrally linked with the jurisdictional waters to which they are adjacent. Because of their close physical proximity to nearby jurisdictional waters, bordering or contiguous waters readily exchange their waters through the saturated soils surrounding the traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary or through surface exchange. This commingling of waters allows bordering or contiguous waters to both provide chemically transformed waters to streams and to absorb excess stream flow, which in turn can significantly affect downstream traditional navigable waters, interstate waters, or the territorial seas. The close proximity also allows for the direct exchange of biological materials, including organic matter that serves as part of the food web of downstream traditional navigable waters, interstate waters, or the territorial seas. Waters that are bordering or contiguous are often located on the floodplain or within the riparian area of the waters to which they are adjacent. Bordering or contiguous waters include those that directly abut a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary. The Science Report and the Technical Support Document demonstrate that such waters are physically, chemically, and biologically integrated with downstream traditional navigable waters, interstate waters, or the territorial seas and significantly affect their integrity.

b. Waters separated from other "waters of the United States" by constructed dikes or barriers, natural river berms, beach dunes and the like

Adjacent waters separated from a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary by constructed dikes or barriers, natural river berms, beach dunes, and the like continue to have a significant effect on downstream traditional navigable waters, interstate waters, or the territorial seas, either alone or in combination with other "adjacent waters." Such waters continue to have a hydrologic connection to downstream waters. This is because constructed dikes or barriers, natural river berms, beach dunes, and the like typically do not block all water flow. This hydrologic connection can occur via seepage, or the flow of water through the soil pores, or via over-topping, where water from the nearby traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary periodically overtops the berm or other similar feature. Berm-like landforms known as natural levees occur naturally and do not isolate adjacent wetlands from the streams that form them. Natural levees and the wetlands and waters behind them are part of the floodplain. Natural levees are discontinuous, which allows for a hydrologic connection to the stream or river via openings in the levees and thus the periodic mixing of river water and backwater. Man-made levees and similar structures also do not isolate "adjacent waters." Waters, including wetlands, separated from a jurisdictional water by a natural or man-made berm serve many of the same functions as other "adjacent waters." Furthermore, even in cases where a hydrologic connection may not exist, there are other important considerations, such as chemical and biological functions, that result in a significant nexus between the adjacent wetlands or waters and the nearby "waters of the United States," and traditional navigable waters, interstate waters, or the territorial seas. On this point, Justice Kennedy stated: "In many cases, moreover, filling in wetlands separated from another water by a berm can mean that floodwater, impurities, or runoff that would have been stored or contained in the wetlands will instead flow out to major waterways. With these concerns in mind, the Corps' definition of adjacency is a reasonable one, for it may be the absence of an interchange of waters prior to the dredge and fill activity that makes protection of the wetlands critical to the statutory scheme." *Rapanos* at 775. For instance, covered adjacent waters behind berms can still serve important water quality functions, serving to filter pollutants and sediment before they reach downstream waters. Wetlands and open waters behind berms, where the system is extensive, can help reduce the impacts of storm surges caused by hurricanes. Such "adjacent waters," including wetlands, separated from waters by berms and the like maintain ecological connection with those waters. It is not the existence of the dike, levee, and the like that makes these waters jurisdictional. Adjacent waters separated from the tributary network by constructed dikes or barriers, natural river berms, beach dunes, and the like continue to have a hydrologic connection to downstream waters. Waters behind berms and the like can significantly affect the chemical, physical, and biologic integrity of traditional navigable waters, interstate waters, or the territorial seas.

c. Waters within 100 feet

All wetlands, ponds, lakes, oxbows, impoundments, and similar water features that are located in whole or in part within 100 feet of the ordinary high water mark of a jurisdictional water perform a myriad of critical chemical, physical, and biological functions associated with the downstream traditional navigable water, interstate water or the territorial seas and therefore the agencies have determined that they are "neighboring" and thus "waters of the United States." Waters within 100 feet of a jurisdictional water are often located within the riparian area and are often connected via surface and shallow subsurface hydrology to the water to which they are adjacent. While the SAB was clear that distance is not the only factor that influences connections and their effects downstream, due to their close proximity to jurisdictional waters, waters within 100 feet are often located within a landscape position that allows for them to receive and process surface and shallow subsurface flows before they reach streams and rivers. These waters individually and collectively affect the integrity of downstream waters by acting primarily as sinks that retain floodwaters, sediments, nutrients, and contaminants that could otherwise negatively impact the condition or function of downstream waters. Wetlands and open waters within close proximity of jurisdictional waters improve water quality through assimilation, transformation, or sequestration of nutrients, sediment, and other pollutants that can affect the integrity of downstream traditional navigable waters, interstate waters, or the territorial seas. These waters, including wetlands, also provide important habitat for aquatic-associated species to forage, breed, and rest.

In order to provide greater clarity and consistency and based on a review of the science and the agencies' expertise and experience, the agencies identified a 100 foot threshold for neighboring waters to a traditional navigable water, interstate water, territorial sea, tributary, or impoundment. Further, the agencies determined that there is a significant nexus with the downstream traditional navigable waters, interstate waters, or the territorial seas, and these "adjacent waters" are "waters of the United States." With respect to provision of water quality benefits downstream, non-floodplain waters within close proximity of the stream network often are able to have more water quality benefits than those located at a distance from the stream. Many studies indicate that the primary water quality and habitat benefits will generally occur within a several hundred foot zone of a water. In addition, the scientific literature indicates that to be effective, contaminant removal needs to occur at a reasonable distance prior to entry into the downstream traditional navigable waters, interstate waters, or the territorial seas. Some studies also indicate that fish, amphibians (e.g., frogs, toads), reptiles (e.g., turtles), and small mammals (e.g., otters, beavers, etc.) will use at least a 100 foot zone for foraging, breeding, nesting, and other life cycle needs.

Based on a review of the scientific literature and the agencies' expertise and experience, there is clear evidence that the identified waters within 100 feet of the ordinary high water mark of a jurisdictional water, even when located outside the floodplain, perform critical processes and functions discussed in section III above. All waters within 100 feet of a jurisdictional water significantly affect the chemical, physical, or biological integrity of the waters to which they are adjacent, and those waters in turn significantly affect the chemical, physical, or biological integrity of the downstream traditional navigable waters, interstate waters, or the territorial seas. The agencies established a 100 foot threshold from the water's lateral limit in the definition of neighboring because, based on the agencies' expertise and experience implementing the CWA and in light of the science, the agencies concluded this was a reasonable and practical boundary within which to conclude the waters clearly significantly affected the integrity of traditional navigable waters, interstate waters, or the territorial seas, and these "adjacent waters" are "waters of the United States."

d. Floodplain waters within 1,500 feet

As discussed in section III above, wetlands and open waters that are neighboring perform a myriad of critical chemical and biological functions associated with the downstream traditional navigable waters, interstate waters, or the territorial seas. The scientific literature supports that wetlands and open waters in floodplains are chemically, physically, and biologically connected to downstream traditional navigable waters, interstate waters, or the territorial seas and significantly affect the integrity of such waters. The Science Report concludes that wetlands and open waters located in "floodplains are physically, chemically and biologically integrated with rivers via functions that improve downstream water quality, including the temporary storage and deposition of channel-forming sediment and woody debris, temporary storage of local ground water that supports baseflow in rivers, and transformation and transport of stored organic matter." Science Report at ES-2 to ES-3. Such waters act as the most effective buffer to protect downstream waters from nonpoint source pollution (such as nitrogen and phosphorus), provide habitat for breeding fish and aquatic insects that also live in streams, and retain floodwaters, sediment, nutrients, and contaminants that could otherwise negatively impact the condition or function of downstream waters.

For waters in the 100-year floodplain within 1,500 feet of the ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary, the agencies determine there is a significant nexus with the downstream traditional navigable waters, interstate waters, or the territorial seas and these waters are critical to protect the downstream waters. Based on a review of the scientific literature, the agencies' technical expertise and experience, and the implementation value of drawing clear lines, the rule establishes a boundary for floodplain waters to meet the definition of "neighboring" and be "waters of the United States" by rule. This boundary was established in order to protect vitally important waters within a watershed while at the same time providing a practical and implementable rule. The agencies are not determining that waters in the floodplain farther than 1,500 feet from the ordinary high water mark never have a significant nexus. Rather, the agencies are using their technical expertise to promulgate a practical rule that draws reasonable boundaries in order to protect the waters that most clearly have a significant nexus while minimizing uncertainty about the scope of "waters of the United States." Because waters beyond these boundaries may have a significant nexus, the rule also establishes areas in which a case-specific significant nexus determination must be made. *See* section IV.H.

e. Waters within 1,500 feet of tidally-influenced traditional navigable waters or the territorial seas or the Great Lakes

Many tidally-influenced waters do not have floodplains, so the agencies include a separate provision within the definition of "neighboring" to protect the "adjacent" waters that have a significant nexus to tidally-influenced traditional navigable waters or the territorial seas or the Great Lakes. Under *Riverside Bayview* and Justice Kennedy's opinion in *Rapanos*, waters adjacent to traditional navigable waters, including the territorial seas, are "waters of the United States." Because the connection to a tidally-influenced traditional navigable water, the territorial seas, or the Great Lakes is so close, the rule defines "neighboring" to include waters within 1,500 feet of the high tide line or the ordinary high water mark of the Great Lakes. Wetlands, ponds, lakes, oxbows, impoundments, and similar water features within 1,500 feet of these waters are physically connected to such waters by surface and shallow subsurface flow. As demonstrated in section III above, these waters perform a myriad of critical chemical and biological functions associated with these nearby waters to which they are adjacent.

These waters in combination significantly affect the integrity of the connected tidally influenced traditional navigable water or the territorial seas or the Great Lakes by acting primarily as sinks that retain floodwaters, sediments, nutrients, and contaminants that could otherwise negatively impact the condition or function of those waters. Like floodplain waters, the scientific literature supports that wetlands and other similar waters within close proximity improve water quality through assimilation, transformation, or sequestration of nutrients, sediment, and other pollutants that can affect downstream water quality. These waters also provide important habitat for aquatic-associated species to forage, breed, and rest in.

For example, wetlands dominated by grass-like vegetation that occur in depressional areas between sand dunes or beach ridges along the territorial seas and the Great Lakes shoreline are dependent upon these waters for their water source. The waters, including wetlands, generally form when water levels of the territorial seas fall or the Great Lakes drop, creating swales that support a diverse mix of wetland vegetation and many endangered and threatened species. Many studies demonstrate that these waters have been shown to act in concert with the rising and lowering of the tide, and that the critical functions provided by these waters are similar and play an important role in maintaining the chemical, physical, or biological integrity of the nearby traditional navigable waters, interstate waters, or the territorial seas because of the hydrological and ecological connections to and interactions with those waters.

Science demonstrates that distance is a factor in the connectivity and the strength of connectivity of wetlands and open waters to downstream waters. Thus, waters that are more distant generally have less opportunity to be connected to downstream waters. Wetlands and open waters closer to the stream network generally will have greater hydrologic and biological connectivity than waters located farther from the same network. For instance, waters that are more closely proximate have a greater opportunity to contribute flow. Via their hydrologic connectivity, they also have chemical connectivity to and effects on these downstream waters and are more likely to impact water quality due to their close distance. Waters more closely located to these waters are also more likely to be biologically connected to such waters more frequently and by more species, including amphibians and other aquatic animals. Because tidally-influenced traditional navigable waters, the territorial seas, and the Great Lakes are generally much larger in size than other jurisdictional waters, the agencies believe that a 1,500 foot threshold is a reasonable distance to capture most wetlands and open waters that are so closely linked to these waters that they can properly be considered adjacent as neighboring waters.

Based on a review of the scientific literature and the agencies' expertise and experience, there is clear evidence waters within 1,500 feet of these waters, even when located outside the floodplain, perform critical processes and functions discussed in section III above. The agencies established a 1,500 foot threshold from the water's lateral limit, which would be either the high tide line or the ordinary high water mark, in the definition of neighboring because, based on the agencies' expertise and experience implementing the CWA and in light of the science, the agencies concluded this was a reasonable and practical boundary within which to conclude the waters most clearly significantly affected the integrity of the traditional navigable water or the territorial seas, and these covered adjacent waters are "waters of the United States." Waters located within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas, and waters located more than 1,500 feet and less than 4,000 feet from the ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, an impoundment, or a tributary, may still be determined to have a significant nexus on a case-specific basis under paragraph (a)(8) of the rule and therefore be a "water of the United States." See section IV.H.

H. Case-Specific "Waters of the United States"

The rule establishes two exclusive circumstances under which case-specific determinations will be made for whether a water has a "significant nexus" and is therefore a "water of the United States." The proposed rule included a broad provision that allowed for a case-specific determination of significant nexus for any water that was not categorically jurisdictional or excluded. Many commenters expressed concern that such a broad opportunity for case-specific "waters of the United States" determinations would lead to too much uncertainty about the jurisdictional status of waters in broad areas throughout the country. The agencies have greatly reduced the extent of waters subject to this individual review by carefully incorporating the scientific literature and by utilizing agency expertise and experience to draw boundaries. The rule provides for case-specific determinations under more narrowly targeted circumstances based on the agencies' assessment of the importance of certain specified waters to the chemical, physical, and biological integrity of traditional navigable waters, interstate waters, and the territorial seas.

First, the rule identifies at paragraph (a)(7) five subcategories of waters (Prairie potholes, Carolina and Delmarva bays, pocosins, western vernal pools in California, and Texas coastal prairie wetlands) that the agencies have determined are "similarly situated" for purposes of a significant nexus determination. Second, the rule identifies at paragraph (a)(8) specific circumstances under which waters will be subject to a case-specific significant nexus determination but for which the agencies have not made a "similarly situated" determination: waters within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas, and waters within 4,000 feet of the high tide line or the ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, impoundments, or tributaries, as defined. If any water meets the definition of "adjacent" waters it is jurisdictional under (a)(6) and no case-specific significant nexus is required. Waters that do not fall within the six categorically jurisdictional waters identified in paragraph (a)(1) through (a)(6) of the rule or within these two case-specific provisions are not "waters of the United States."

This section first discusses the five subcategories of waters that the agencies determine are "similarly situated" for purposes of a significant nexus determination; second, the 100-year floodplain and 4,000 foot boundaries under which waters will be subject to a case-specific significant nexus determination but for which the agencies have not made a "similarly situated" determination; third, the definition of "significant nexus" and how the case-specific significant nexus determinations will be made under these two provisions; and, finally, the revisions made to the rule with respect to case-specific determinations and major comments.

1. Waters Determined to Be "Similarly Situated" by Rule for which a Case-Specific Significant Nexus Determinations is Required

In the rule, paragraph (a)(7) specifies the subcategories of waters (Prairie potholes, Carolina and Delmarva bays, pocosins, western vernal pools in California, and Texas coastal prairie wetlands) that, if they are not otherwise jurisdictional under (a)(1) through (a)(6), the agencies determine to be "similarly situated" by rule. In the proposal the agencies sought comment on a number of options to address remaining waters that did not fit within the jurisdictional categories, including whether to conclude that other waters were "similarly situated" in certain areas of the country or whether to conclude that specified subcategories of waters were jurisdictional. 79 FR 22215, 22216. The agencies concluded that waters within the five subcategories were "similarly situated" in the areas of the country in which they are located. The rationale for this determination is discussed above in Section III. Under paragraph (a)(7), Prairie potholes, Carolina and Delmarva bays, pocosins, western vernal pools in California, and Texas coastal prairie wetlands are jurisdictional when they have a significant nexus to a traditional navigable water, interstate water, or the territorial seas. Waters subject to normal farming, silviculture, and ranching activities that are within these subcategories will be assessed consistent with this provision of the rule. Waters in these subcategories are not jurisdictional as a class under the rule. However, because the agencies determined that these subcategories of waters are "similarly situated," the waters within the specified subcategories that are not otherwise jurisdictional under (a)(6) of the rule must be assessed in combination with all waters of the same subcategory in the region identified by the watershed that drains to the nearest point of entry of a traditional navigable water, interstate water, or the territorial seas (hereinafter referred to as the point of entry watershed).

When performing a case-specific significant nexus evaluation for a water in the (a)(7) subcategories, the rule establishes which waters must be considered in combination. The similarly situated waters identified in the subparagraphs will be combined with other waters in the same subparagraph located in a single point of entry watershed. For example, under (a)(7) only western vernal pools can be analyzed with other western vernal pools in the same point of entry watershed. Waters identified in the subparagraphs that are otherwise jurisdictional under the rule cannot be considered in combination with (a)(7) waters for purposes of a case-specific significant nexus determination under (a)(7). Individual waters of the specified subcategories may be jurisdictional under other paragraphs of this rule (*e.g.*, a Prairie pothole that sits on a state border is an interstate water under (a)(2) or a western vernal pool that meets the definition of adjacent under (a)(6)). Where those individual waters are jurisdictional under (a)(1) through (a)(6) by rule, no case-specific significant nexus analysis is required. The rule also states that waters in (a)(7) shall not be combined with waters jurisdictional under (a)(6). Essentially, while Prairie potholes are an identified subcategory under (a)(7), that identification does not affect a Prairie pothole that borders a covered tributary and is jurisdictional as an adjacent water under (a)(6). Additionally, a Prairie pothole that is jurisdictional under (a)(6) cannot be combined with Prairie potholes that require a case-specific jurisdictional analysis under (a)(7) since "adjacent waters" have already been determined to have a significant nexus by rule. Finally, waters within the specified subcategories in (a)(7) are assessed under (a)(7) not under (a)(8); waters within the specified subcategories that are within the 100-year flood plain of a traditional navigable water, interstate water, or the territorial seas or within the 4,000 foot boundary established for case-specific determinations under (a)(8) remain "similarly situated" waters under (a)(7). These similarly situated waters are evaluated in combination for their effect on the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, or the territorial seas. Additional details about the case-specific significant nexus analysis are found in section 4 below.

2. Waters Within the 100-Year Floodplain of a Traditional Navigable Water, Interstate Water, or the Territorial Seas and Waters Within 4,000 Foot Boundary for which a Case-Specific Significant Nexus Determination is Required

Paragraph (a)(8) in the rule specifies that a water that does not otherwise meet the definition of adjacency is evaluated on a case-specific basis for significant nexus under this paragraph where it is located within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas or within 4,000 feet of the high tide line or ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary. Although these waters are not considered similarly situated by rule, waters under this paragraph can be determined on a case-specific basis to be similarly situated. This is a change from the proposal which would have allowed for a similarly situated analysis and significant nexus determination for any water, anywhere in the region. Under the rule, the waters specified in (a)(7) and waters that meet the requirements in (a)(8) are the only waters for which a case-specific significant nexus determination may be made.

Under paragraph (a)(8), only waters that are within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas or within the 4,000 foot boundary can be evaluated on a case-specific basis for significant nexus to a traditional navigable water, interstate water, or the territorial seas. If a portion of the water is located within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas or 4,000 feet of the ordinary high water mark or high tide line of a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary, the entire water will be considered to be within the boundaries for (a)(8) and will undergo a case-specific significant nexus determination. Under this provision, if the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas extends beyond 4,000 feet of the ordinary high water mark, a water, that is not otherwise jurisdictional under the rule, within that floodplain will be evaluated under the 100-year floodplain boundary of (a)(8). A water within the boundaries must be evaluated on a case-specific basis for not only a significant nexus but also for a determination of whether there are any waters with which the waters is similarly situated. Waters identified in paragraph (a)(8) may not be combined with waters identified in (a)(6) for purposes of the significant nexus analysis, but may be combined with similarly situated waters located in the same point of entry watershed. If waters identified in (a)(8) also meet the definition of adjacency under paragraph (a)(6), they are jurisdictional as "adjacent waters" and do not need a case-specific significant nexus analysis. Under (a)(8), for example, the agencies would evaluate on a case-specific basis whether a low-centered polygonal tundra and patterned ground bog in an area with a small floodplain and located beyond the 1,500 foot boundary but within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas or within the 4,000 foot boundary, or a wetland in which normal farming, ranching, or silviculture activities occur, as those terms are used in Section 404(f) Clean Water Act and its implementing regulations, has a significant nexus as defined in the rule.

Waters identified in the subcategories in (a)(7) are evaluated under (a)(7) only; the provisions of (a)(8), including the boundaries in (a)(8), do not apply to (a)(7) waters. The significant nexus analysis for waters under (a)(8) will then consider the waters individually or, if it is determined that there are similarly situated waters, as a group of waters within a point of entry watershed for their effect on the chemical, physical, or biological integrity of traditional navigable waters, interstate waters, or the territorial seas.

Some commenters asked how wetlands underlain by permafrost would be treated under this rule. Waters subject to case-specific review under (a)(8) will include areas determined to meet the technical definition of "wetlands" because they have the required hydrology, vegetation, and soils. The presence of permafrost is not itself determinative of whether a particular area satisfies the three parameter requirement needed to be wetlands under the rule. This is true under existing regulations and remains unchanged in this rule. Because the definition of wetland does not change under the rule, the agencies do not anticipate the rule will alter the current scope of CWA jurisdiction over wetlands underlain by permafrost.

a. Summary of Rationale for Case-Specific Significant Nexus Analysis Within 100-year Floodplain of a Traditional Navigable Water, Interstate Water, or the Territorial Seas

As discussed in Section III, above, the scientific literature supports that wetlands and open waters in floodplains are physically, chemically, and biologically connected to downstream traditional navigable waters, interstate waters, or the territorial seas and significantly affect the integrity of such waters. The Science Report concludes that wetlands and open waters located in "floodplains are physically, chemically and biologically integrated with rivers via functions that improve downstream water quality, including the temporary storage and deposition of channel-forming sediment and woody debris, temporary storage of local ground water that supports baseflow in rivers, and transformation and transport of stored organic matter." Science Report at ES-2 to ES-3. As described in the Science Report and the Technical Support Document, such waters act as the most effective buffer to protect downstream waters from nonpoint source pollution (such as nitrogen and phosphorus), provide habitat for breeding fish and aquatic insects that also live in streams, and retain floodwaters, sediment, nutrients, and contaminants that could otherwise negatively impact the condition or function of downstream waters. As discussed above, in defining waters as adjacent, and therefore categorically jurisdictional, the agencies established a 1,500 foot boundary for waters located within the 100-year floodplain of a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary in order to protect vitally important waters while at the same time providing a practical and implementable rule. In light of the science on the functions provided by floodplain waters and wetlands, waters and wetlands within the 100-year floodplain of traditional navigable waters, interstate waters, or the territorial seas are likely to provide those functions for traditional navigable waters, interstate waters, or the territorial seas. However, because the 100-year floodplain of a traditional navigable water can, in some case be quite large, the agencies concluded it was reasonable to subject waters and wetlands in the 100-year floodplain that are beyond 1,500 feet of the ordinary high water mark, and therefore do not meet the definition of "neighboring," to a case-specific significant nexus analysis rather than concluding that such waters are categorically jurisdictional. This inclusion of a case-specific analysis for such floodplain waters is supported by the SAB. The SAB concluded that "distance should not be the sole indicator used to evaluate the connection of 'other waters' to jurisdictional waters." SAB 2014b at 3. In allowing the case-specific evaluation of waters within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas that do not meet the definition of adjacency, the agencies are allowing for the functional relationship of those floodplain waters to be considered regardless of distance. The SAB also supported the Science Report's conclusion that "the scientific literature strongly supports the conclusions that streams and 'bidirectional' floodplain wetlands are physically, chemically, and/or biologically connected to downstream navigable waters; however, these connections should be considered in terms of a connectivity gradient." SAB 2014a at 1. In addition, the SAB noted, "the literature review does substantiate the conclusion that floodplains and waters and wetlands in floodplain settings support the physical, chemical, and biological integrity of downstream waters." *Id.* at 3.

The agencies do not anticipate that there will be numerous circumstances in which this provision will be utilized because relatively few traditional navigable waters will have floodplains larger than 4,000 feet (the other threshold in (a)(8) for waters regardless of floodplain). Further, the agencies recognize that extensive areas of the nation's floodplains have been affected by levees and dikes which reduce the scope of flooding. In these circumstances, the scope of the 100-year floodplain is also reduced and is reflected in FEMA mapping used by the agencies. In circumstances where there is little or no alteration of the floodplain and it remains relatively broad, the agencies will explicitly consider distance between the water being evaluated and traditional navigable water, interstate water, or the territorial seas when making a case-specific significant nexus determination. Based on the science concerning the important functions provided by floodplain waters and wetlands, the agencies established this provision to ensure that truly important waters may still be protected on a case-specific basis. By using the 100-year floodplain and limiting the provision to traditional navigable waters, interstate waters, or the territorial seas, the agencies are reasonably balancing the protection of waters that may have a significant nexus with the goal of providing additional certainty.

b. Summary of Rationale for Case-Specific Significant Nexus Analysis Within 4,000 Foot Boundary

The agencies establish a provision in the rule for case-specific significant nexus determinations because the agencies concluded that some waters located beyond the distance limitations established for "adjacent waters" can have significant chemical, physical, and biological connections to and effects on traditional navigable waters, interstate waters, or the territorial seas. The agencies reasonably identified the 4,000 foot boundary for these case-specific significant nexus determinations by balancing consideration of the science and the agencies' expertise and experience in making significant nexus determinations with the goal of providing clarity to the public while protecting the environment and public health. The agencies' experience has shown that the vast majority of waters where a significant nexus has been found, and which are therefore important to protect to achieve the goals of the Act, are located within the 4,000 foot boundary. Moreover, because of the unique status under the CWA of traditional navigable waters, interstate waters, and the territorial seas, the 100-year floodplain boundary for these waters provides another means of identifying on a case-specific basis those waters that significantly affect traditional navigable waters, interstate waters or the territorial seas. The agencies' balancing of these considerations is consistent with the statute and the Supreme Court opinions. The agencies decided that it is important to promulgate a rule that not only protects the most vital of our Nation's waters, but one that is practical and provides sufficient boundaries so that the public reasonably understands where CWA jurisdiction ends.

The agencies' decision to establish a provision that authorizes case-specific significant nexus analysis for waters within 4,000 feet is based on a number of factors. These waters may be located within the floodplain of a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary. Section IV.G. and the Technical Support Document discuss the importance of floodplain waters on the chemical, physical, and biological integrity of downstream traditional navigable waters, interstate waters, or the territorial seas. For purposes of clarity and to provide regulatory certainty, the agencies decided to use distance boundaries within the 100-year floodplain to define adjacency for floodplain waters. Under the rule, the only floodplain waters that are specifically identified as being jurisdictional as "adjacent" are those located in whole or in part within the 100-year floodplain and not more than 1,500 feet of the ordinary high water mark of jurisdictional waters.

Similarly, due to the many functions that waters located within 4,000 feet of the high tide line of a traditional navigable water or the territorial seas provide and their often close connections to the surrounding traditional navigable waters, science supports the agencies' determination that such waters are rightfully evaluated on a case-specific basis for significant nexus to a traditional navigable water or the territorial seas. Waters within 4,000 feet of the ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary may fall within the riparian areas of such waters. As discussed in section IV.G., in response to comments regarding the uncertainty of the term "riparian area," the agencies removed the term from the definition of "neighboring." However, the agencies continue to recognize that science is clear that wetlands and open waters in riparian areas individually and cumulatively can have a significant effect on the chemical, physical, or biological integrity of downstream waters. Thus, the rule allows for a case-specific determination of significant nexus for waters located within 4,000 feet of the high tide line or the ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary.

The agencies have always recognized that adjacency is bounded by proximity, and the rule adds additional clarity to adjacency by bounding what can be considered neighboring. The science is clear that a water's proximity to downstream waters influences its impact on those waters. The Science Report states, "[s]patial proximity is one important determinant of the magnitude, frequency and duration of connections between wetlands and streams that will ultimately influence the fluxes of water, materials and biota between wetlands and downstream waters." Science Report at ES-11. Generally, waters that are closer to a jurisdictional water are more likely to be connected to that water than waters that are farther away. A case-specific analysis for waters located within 4,000 feet of the high tide line or the ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary allows such waters to be considered jurisdictional only where they meet the significant nexus requirements. Even where not within a 100-year floodplain, waters within 4,000 feet of the high tide line or the ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary can have significant chemical, physical, and biological connections with traditional navigable waters, interstate waters, or the territorial seas.

As noted previously, in response to comments concerned that there were no bounds in the proposed rule on how far a surface hydrologic connection could be for purposes of adjacency, the agencies did not include surface hydrologic connections as its own factor for determining adjacency in the final rule. Such connections, however, are relevant in a case-specific significant nexus determination under (a)(8). For example, waters located within 4,000 feet of the high tide line or the ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary that contribute confined surface flow to a downstream water can have important hydrologic connections to and effects on that downstream water such as the attenuation and cycling of nutrients that would otherwise effect downstream water quality.

The agencies' decision to establish the case-specific provision at (a)(8), including the boundaries, was also informed by the knowledge that waters located within 4,000 feet of the high tide line or the ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary can have a confined surface or shallow subsurface connection to such a water. In order to provide the clarity and certainty that many commenters requested regarding "adjacent waters," the rule does not define "neighboring" to include all waters with confined surface or shallow subsurface connections.

However, the agencies recognize that the science demonstrates that waters with a confined surface or shallow subsurface connection to jurisdictional waters can have important effects on downstream waters. For purposes of a case-specific significant nexus analysis under the rule, a shallow subsurface hydrologic connection is lateral water flow over a restricting layer in the top soil horizons, or a shallow water table which fluctuates within the soil profile, sometimes rising to or near the ground surface. In addition, water can move within confined man-made subsurface conveyance systems such as drain tiles and storm sewers, and in karst topography. Confined subsurface systems can move water, and potential contaminants, directly to surface waters and rapidly without the opportunity for nutrient or sediment reduction along the pathway.

Shallow subsurface connections move quickly through the soil and impact surface water directly within hours or days rather than the years it may take long pathways to reach surface waters. *See* Technical Support Document. Tools to assess shallow subsurface flow include reviewing the soils information from the NRCS Soil Survey, which is available for nearly every county in the United States. When assessing whether a water within the 4,000 foot boundary performs any of the functions identified in the rule's definition of significant nexus, the significant nexus determination can consider whether shallow subsurface connections contribute to the type and strength of functions provided by a water or similarly situated waters. However, neither shallow subsurface connections nor any type of groundwater, shallow or deep, are themselves "waters of the United States."

The proposed rule did not set a distance threshold for case-specific waters to be evaluated for a significant nexus. Some commenters argued that there should be a limitation on areas subject to case-specific analysis while others contended that the agencies lack discretion to set regulatory limits that would exclude from jurisdiction *any* water meeting the significant nexus test. The agencies disagree that the agencies lack the authority to establish reasonable boundaries to determine what areas are subject to case-specific significant nexus analysis. Nothing in the CWA or case law mandates that the agencies require every water feature in the nation be subject to analysis for significant nexus. The Supreme Court has made clear that the agencies have the authority and responsibility to determine the limits of CWA jurisdiction, and establishing boundaries based on agency judgment, expertise and experience in administering the statute is at the core of the agencies authority and discretion.

After weighing the scientific information about these waters' connectivity and importance to protecting downstream waters, the agencies' considerable experience making jurisdictional determinations, the objective of enhancing regulatory clarity and consistent with the statute and the caselaw, the agencies decided to set a boundary of 4,000 feet for case-specific significant nexus analysis for waters that do not otherwise meet the requirements of (a)(1) through (a)(7). Tying this provision for case-specific significant nexus analysis to distance informed by the science, and the agencies' experience and expertise, as spatial proximity is a key contributor to connectivity among waters. Science Report at ES-11. Distance is by no means the sole factor, and aquatic functions will play a prominent role in determining whether specific waters covered under this aspect of paragraph (a)(8) have a significant nexus. In light of the role spatial proximity plays in connectivity and the objective of enhancing regulatory clarity, predictability and consistency, the agencies conclude that establishing a boundary for this aspect of waters subject to case-specific significant nexus analysis based on distance is reasonable.

While, for purposes of this national rule, distance is a reasonable and appropriate measure for identifying where this case-specific significant nexus analysis will be conducted, the science does not point to any particular bright line delineating waters that have a significant nexus from those that do not. The Science Report concluded that connectivity of streams and wetlands to downstream waters occurs along a gradient. The evidence unequivocally demonstrates that the stream channels and floodplain wetlands or open waters that together form river networks are clearly connected to downstream waters in ways that profoundly influence downstream water integrity. The connectivity and effects of non-floodplain wetlands and open waters are more variable and thus more difficult to address solely from evidence available in peer-reviewed studies. Science Report at ES-5. Because of this variability, with respect to waters that are not covered by (a)(1) through (a)(7) of the rule, the science does not provide a precise point along the continuum at which waters provide only speculative or insubstantial functions to downstream waters.

Like connectivity itself, there is also a continuum of outcomes associated with picking a distance threshold. A smaller threshold increases the likelihood that waters that could have a significant nexus will not be analyzed and therefore not subject to the Act; a larger threshold reduces that possibility, but also means that agency and the public's resources are expended conducting significant nexus analyses on waters that have a lower likelihood of meriting the Act's protection.

Recognizing that there is no optimal line, in selecting both the 100-year floodplain for and the 4,000 foot boundaries the agencies looked principally to the extensive experience the Corps has gained in making significant nexus determinations since the *Rapanos* decision. As noted in Section III above, since the *Rapanos* decision, the agencies have developed extensive experience making significant nexus determinations, and that experience and expertise informed the judgment of the agencies in establishing both the 100-year floodplain boundary and the 4,000 foot boundary. The agencies have made determinations in every state in the country, for a wide range of waters in a wide range of conditions. The vast majority of the waters that the Corps has determined have a significant nexus are located within 4,000 feet of a jurisdictional tributary, traditional navigable or interstate water, or the territorial seas. Therefore, the agencies conclude that the 100-year floodplain and 4,000 foot boundaries in the rule will sufficiently capture for analysis those waters that are important to protect to achieve the goals of the Clean Water Act.

The agencies acknowledge that, as with any meaningful boundary, some waters that could be found jurisdictional lie beyond the boundary and will not be analyzed for significant nexus. The agencies minimize that risk by also establishing a provision in (a)(8) for case-specific significant nexus analysis of waters located within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas. While in the agencies' experience the vast majority of wetlands with a significant nexus are located within the 4,000 foot boundary, it is the agencies' experience that there are a few waters that have been determined to be jurisdictional that are located beyond this boundary, typically due to a surface or shallow subsurface hydrologic connections. Nonetheless, the agencies have weighed these considerations and concluded that the value of enhancing regulatory clarity, predictability and consistency through a distance limit outweigh the likelihood that a distinct minority of waters that might be shown to meet the significant nexus test will not be subject to analysis. In the agencies' experience, requiring an evaluation of significant nexus for waters covered by paragraph (a)(8) should capture the vast majority of waters having a significant nexus to the downstream waters. The agencies therefore conclude that that adoption of the 4,000 foot boundary is reasonable.

The rule's requirements for these waters, coupled with those for "adjacent waters," create an integrated approach that tailors the regulatory regime based on the science and the agencies' policy objectives. Determining by rule that covered adjacent waters have a significant nexus follows the science, achieves regulatory clarity and predictability, and avoids expenditure of agency and public resources on case-specific significant nexus analysis. Similarly, providing for case-specific significant nexus analysis for waters that are not adjacent but within the 4,000 foot distance limit, as well as those within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas, is consistent with science and agency experience, will ensure protection of the important waters whose protection will advance the goals of the Clean Water Act, and will greatly enhance regulatory clarity for agency staff, regulated parties, and the public.

For these reasons, the agencies decided to allow case-specific determinations of significant nexus for waters located within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas and for waters located within 4,000 feet of the high tide line or the ordinary high water mark of a traditional navigable water, an interstate water, the territorial seas, an impoundment, or a covered tributary. Under the rule, these waters are jurisdictional only where they individually or cumulatively (if it is determined that there are other similarly situated waters) have a significant nexus to traditional navigable waters, interstate waters, or the territorial seas. Additional scientific and policy rationale for including such waters as waters that can be evaluated on a case-specific basis can be find in the Technical Support Document.

The agencies emphasize that they fully support efforts by States and tribes to protect under their own laws any additional waters, including locally special waters that may not be within the jurisdiction of the CWA as the agencies have interpreted its scope in this rule. Indeed, the promulgation of the 100-year floodplain and 4000 foot boundaries for purposes of a case-specific analysis of significant nexus does not foreclose states from acting consistent with their state authorities to establish protection for waters that fall outside of the protection of the CWA. In promulgating the 4,000 foot boundary, the agencies have balanced protection and clarity, scientific uncertainties and regulatory experience, and established a line that is, in their judgment, reasonable and consistent with the statute and its goals and objectives.

3. Case-Specific Significant Nexus Determinations

Only waters identified in paragraphs (a)(7) or (a)(8) of the rule require a case-specific determination of significant nexus. This section discusses the definition of significant nexus in the rule and how the agencies will make case-specific significant nexus determinations under the rule.

a. Definition of Significant Nexus

Paragraph (c)(5) of the rule defines the term "significant nexus" to mean a significant effect (more than speculative or insubstantial) on the chemical, physical, or biological integrity of a traditional navigable water, interstate water, or the territorial seas. Waters, including wetlands, are evaluated either alone, or in combination with other similarly situated waters in the region, based on the functions the evaluated waters perform. Functions to be considered for the purposes of determining significant nexus are sediment trapping, nutrient recycling, pollutant trapping, transformation, filtering and transport, retention and attenuation of floodwaters, runoff storage, contribution of flow, export of organic matter, export of food resources, and provision of life-cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in traditional navigable waters, interstate waters, or the territorial seas.

The agencies' definition of significant nexus is based upon the language in *SWANCC* and *Rapanos*. The definition is also consistent with current practice, where field staff evaluate the functions of the waters in question and the effects of these functions on downstream waters. In order to add clarity and transparency to the definition of significant nexus, the agencies have listed in the definition the functions that will be considered in a significant nexus analysis. These functions are consistent with the agencies' scientific understanding of the functioning of aquatic ecosystems. A water does not need to perform all of the functions listed in paragraph (c)(5) in order to have a significant nexus. Depending upon the particular water and the functions it provides, if a water, either alone or in combination with similarly situated waters, performs just one function, and that function has a significant impact on the integrity of a traditional navigable water, interstate water, or the territorial seas, that water would have a significant nexus.

Case-specific determinations of significant nexus require (a)(7) or (a)(8) waters to be evaluated either alone, or in combination with other similarly situated waters in the region. In the rule, the agencies interpret the phrase "in the region" to mean the watershed that drains to the nearest traditional navigable water, interstate water, or the territorial seas through a single point of entry. See Section III. In circumstances where the single point of entry watershed includes waters that are identified under (a)(7) and waters that are subject to analysis under (a)(8), those waters will be analyzed separately under the provisions of those paragraphs.

In a case-specific analysis of significant nexus, the agencies determine whether the water they are evaluating, in combination with other similarly situated waters in the region, has a significant effect on the chemical, physical, or biological integrity of the nearest traditional navigable water, interstate water, or the territorial seas. As noted previously, the agencies evaluate the listed functions in paragraph (c)(5) as part of that evaluation to determine if the water has an impact that is more than speculative or insubstantial.

b. Conducting Case-Specific Significant Nexus Determinations Under (a)(7) and (a)(8)

The significant nexus analysis for waters assessed under (a)(7) and (a)(8) is a three-step process: first, the region for the significant nexus analysis must be identified – under the rule, it is the watershed which drains to the nearest traditional navigable water, interstate water or territorial sea; second, any similarly situated waters must be identified – under the rule, that is waters that function alike and are sufficiently close to function together in affecting downstream waters; and third, the waters are evaluated individually or in combination with any identified similarly situated waters in the single point of entry watershed to determine if they significantly impact the chemical, physical or biological integrity of the traditional navigable water, interstate water or the territorial seas.

i. "In the region" – the point of entry watershed

As discussed in Section III of the preamble and established in the definition of "significant nexus," the region for purposes of a significant nexus analysis is the watershed that drains to the nearest traditional navigable water, interstate water, or the territorial seas. The first step of the analysis is to identify the point of entry watershed that the water being evaluated under (a)(7) or (a)(8) drains to. This point of entry approach identifies the nearest traditional navigable water, interstate water, or the territorial seas that the water being evaluated and any similarly situated waters flow to and delineates the watershed of that nearest traditional navigable water, interstate water, or the territorial seas. The point of entry watershed is the area drained by the nearest traditional navigable water, interstate water, or the territorial seas and is typically defined by the topographic divides between one traditional navigable water, interstate water, or the territorial seas and another.

Available mapping tools, such as those that are based on the NHD, topographic maps, and elevation data, can be used to demarcate boundaries of the single point of entry watershed.

As discussed in Section III and in the Technical Support Document, the single point of entry watershed represents the scientifically appropriate sized area for conducting a case-specific significant nexus evaluation in most cases.

In the arid West, the agencies recognize there may be situations where the single point of entry watershed is very large, and it may be reasonable to evaluate all similarly situated waters in a smaller watershed. Under those circumstances, the agencies may demarcate adjoining catchments surrounding the water to be evaluated that, together, are generally no smaller than a typical 10-digit hydrologic unit code (HUC-10) watershed in the same area. The area identified by this combination of catchments would be the "region" used for conducting a significant nexus evaluation under (a)(7) or (a)(8) under those situations. The basis for such an approach in very large single point of entry watersheds in the arid West should be documented in the jurisdictional determination.

ii. "Similarly situated"

Second, the agencies determine if the water or waters to be evaluated are similarly situated. The waters identified in (a)(7) are similarly situated by rule and shall be combined with other waters of the same category located in the same watershed that drains to the nearest traditional navigable water, interstate water, or the territorial seas with no need for a case-specific similarly situated finding. Under (a)(7), only waters of the same subparagraph in the point of entry watershed can be considered as similarly situated. For example, only pocosins may be evaluated with other pocosins in the same point of entry watershed. Pocosins in different point of entry watersheds cannot be combined, and pocosins cannot be combined with Carolina bays under (a)(7), even where they occur in the same point of entry watershed.

Unlike waters evaluated under (a)(7), the waters specified at (a)(8) require a determination whether they are similarly situated. Under this step, the agencies apply factors in the determination of when waters evaluated under (a)(8) should be considered either individually or in combination for purposes of a significant nexus analysis. A determination of "similarly situated" requires an evaluation of whether a group of waters in the region that meet the distance thresholds set out under (a)(8) can reasonably be expected to function together in their effect on the chemical, physical, or biological integrity of downstream traditional navigable waters, interstate waters, or the territorial seas.

Similarly situated waters can be identified as sufficiently close together for purposes of this paragraph of the regulation when they are within a contiguous area of land with relatively homogeneous soils, vegetation, and landform (e.g., plain, mountain, valley, etc.). In general, it would be inappropriate, for example, to consider waters as "similarly situated" under (a)(8) if these waters are located in different landforms, have different elevation profiles, or have different soil and vegetation characteristics, unless the waters perform similar functions and are located sufficiently close to a "water of the United States" to allow them to consistently and collectively function together to affect a traditional navigable water, interstate water, or the territorial seas. In determining whether waters under (a)(8) are sufficiently close to each other the agencies will also consider hydrologic connectivity to each other or a jurisdictional water.

In determining whether groups of waters under (a)(8) perform "similar functions" the agencies will consider functions such as habitat, water storage, sediment retention, and pollution sequestration. In addition, consideration of wetland/water type and landscape location are relevant for determining if the waters are similarly situated. For example, Texas coastal sand sheet wetlands that form a complex of wetlands with other wetlands of the same type on the landscape and are densely located may very well be similarly situated and considered in combination with other Texas coastal sand sheet wetlands in the same single point of entry watershed. However, under (a)(8), waters do not need to be of the same type (as they do in (a)(7)) to be considered similarly situated. As described above, waters are similarly situated under (a)(8) where they perform similar functions or are located sufficiently close to each other, regardless of type. The agencies will consider the hydrologic, geomorphic, and ecological characteristics and circumstances of the waters under consideration. Examples include: documentation of chemical, physical, or biological interactions of the similarly situated waters; aerial photography; USGS and state and local topographical or terrain maps and information; NRCS soil survey maps and data; other available geographic information systems (GIS) data; National Wetlands Inventory maps where wetlands meet the CWA definition; and state and local information. The evaluation will use any available site information and pertinent field observations where available, relevant scientific studies or data, or other relevant jurisdictional determinations that have been completed in the region.

Only those waters that do not meet the requirements in (a)(1) through (a)(6) are to be considered in case-specific significant nexus determinations; subcategory waters that meet the provisions in (a)(1) through (a)(6) are *per se* jurisdictional without the need for a significant nexus determination. For example, waters that are identified under paragraph (a)(6) are adjacent and are not subject to a case-specific significant nexus evaluation under (a)(7) or (a)(8). Waters evaluated under (a)(7) cannot be combined with waters identified in paragraph (a)(6) or (a)(8), and waters evaluated under (a)(8) cannot be combined with waters identified in (a)(6) or (a)(7). For example, Prairie potholes being evaluated under (a)(7) may not be combined with Prairie potholes that are per se jurisdictional under (a)(6) that meet the definition of adjacent. When a water meets the specifications at both (a)(7) and (a)(8), it can only be evaluated under (a)(7). That is, for example, if a wetland is a Western vernal pool and is also within 4,000 feet of the ordinary high water mark of a covered tributary, it can only be assessed for significant nexus under (a)(7) in combination with other Western vernal pools in the point of entry watershed. Unlike (a)(8), there is no distance threshold for waters evaluated under (a)(7) – that is, waters in the (a)(7) subcategories that are more than 4,000 feet from the high tide line or the ordinary high water mark of a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary or are beyond the 100-year floodplain of an traditional navigable water, interstate water, or the territorial seas are to be included in combination in a significant nexus analysis.

iii. Significant nexus analysis for (a)(7) and (a)(8) waters

Third, the agencies evaluate waters individually or in combination with any identified similarly situated waters in the single point of entry watershed to determine if they significantly impact the chemical, physical, or biological integrity of the traditional navigable water, interstate water, or the territorial seas. For purposes of determining significant nexus under (a)(7), all waters of the specified subcategory are to be considered in combination in the point of entry watershed, as those waters are similarly situated. For purposes of determining significant nexus under (a)(8), depending on the results of step two, a water within the boundaries in paragraph (a)(8) is evaluated either alone or in combination with other similarly situated waters in the region. For example, in the case where the agencies have determined that a particular water under (a)(8) is not similarly situated, it is evaluated individually for significant nexus; the water cannot be aggregated if it is not similarly situated with other such waters.

The analysis will include an evaluation of the functions listed in paragraph (c)(5) of the rule, which defines significant nexus. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest traditional navigable water, interstate water, or the territorial seas. A water may be determined to have a significant nexus based on performing any of the following functions:

sediment trapping, nutrient recycling, pollutant trapping, transformation, filtering, and transport, retention and attenuation of floodwaters, runoff storage, contribution of flow, export of organic matter, export of food resources, or provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a traditional navigable water, interstate water, the territorial seas.,

For purposes of paragraph (c)(5)(I), a species is located in a traditional navigable water, interstate water, or the territorial seas if such a water is a typical type of habitat for at least part of the life cycle of the species. For example, amphibians and many reptiles can use a traditional navigable water, interstate water, or the territorial seas for part of their life cycle needs.

When evaluating a water individually or in combination with other similarly situated waters for the presence of a significant nexus to a traditional navigable water, interstate water, or the territorial seas, a variety of factors will influence the chemical, physical, or biological connections the water has with the downstream traditional navigable water, interstate water, or the territorial seas, including distance from a jurisdictional water, the presence of surface or shallow subsurface hydrologic connections, and density of waters of the same type (if it has been concluded that such waters can be evaluated in combination). The likelihood of a significant connection is greater with increasing size and decreasing distance from the identified traditional navigable water, interstate water, or the territorial seas, as well as with increased density of the waters for such waters that can be considered in combination as similarly situated waters. In addition, the presence of a surface or shallow subsurface hydrologic connection can influence the impact that a water has with downstream waters.

In many cases, the presence of a hydrologic connection increases the strength of the impact of the downstream traditional navigable water, interstate water, or the territorial seas. However, a hydrologic connection is not necessary to establish a significant nexus, because, as Justice Kennedy stated, in some cases the lack of a hydrologic connection would be a sign of the water's function in relationship to the traditional navigable water, interstate water, or the territorial seas. These functional relationships include retention of floodwaters or pollutants that would otherwise flow downstream to the traditional navigable water, interstate water, or the territorial seas. *See* 547 U.S. at 775 (citations omitted) (J. Kennedy) ("it may be the absence of an interchange of waters prior to the dredge and fill activity that makes protection of the wetlands critical to the statutory scheme"). The Science Report concludes, "[s]ome effects of non-floodplain wetlands on downstream waters are due to their isolation, rather than their connectivity. Wetland 'sink' functions that trap materials and prevent their export to downstream waters (*e.g.*, sediment and entrained pollutant removal, water storage) result because of the wetland's ability to isolate material fluxes." Science Report at ES-4. For example, a report that reviewed the results of multiple scientific studies concluded that depressional wetlands lacking a surface outlet functioned together to significantly reduce or attenuate flooding. *See* Science Report and Technical Support Document. Even when they lack a surface hydrologic connection to downstream traditional navigable waters, interstate waters, or the territorial seas, Prairie potholes, for instance, cumulatively can store large volumes of water, impacting streamflow and reducing flooding downstream, and several studies have quantified the large storage capacity of Prairie pothole complexes. This water storage function is estimated to hold tens of millions of cubic meters of water, including for example Prairie potholes located in the watersheds of Devils Lake and the Red River of the North, which have both had a long history of flooding. Where Prairie potholes lack a surface hydrologic connection, this water storage capacity is particularly effective in reducing downstream flooding and can have a significant effect on downstream traditional navigable waters, interstate waters, or the territorial seas. Thus, even when lacking a surface hydrologic connection, a water can still have a significant effect on the chemical or the biological integrity of downstream traditional navigable waters, interstate waters, or the territorial seas.

The rule recognizes that not all waters have the requisite connection to traditional navigable waters, interstate waters, or the territorial seas sufficient to be determined jurisdictional. Waters with a significant nexus must significantly affect the chemical, physical, or biological integrity of a downstream traditional navigable water, interstate water, or the territorial seas, and the requisite nexus must be more than "speculative or insubstantial." *Rapanos* at 780.

Evidence of chemical connectivity and the effect on waters can be found by identifying the properties of the water in comparison to the identified traditional navigable water, interstate water, or the territorial seas; signs of retention, release, or transformation of nutrients or pollutants; and the effect of landscape position on the strength of the connection to the nearest "water of the United States," and through it to a traditional navigable water, interstate water, or the territorial seas. In addition, relevant factors influencing chemical connectivity include hydrologic connectivity (see physical factors, below), surrounding land use and land cover, the landscape setting, and deposition of chemical constituents (e.g., acidic deposition).

Evidence of physical connectivity and the effect on traditional navigable waters, interstate waters, or the territorial seas can be found by identifying evidence of physical connections, such as flood water or sediment retention (flood prevention). Presence of indicators of hydrologic connections between the other water and jurisdictional water are also indicators of a physical connection. Factors influencing physical connectivity include rain intensity, duration of rain events or wet season, soil permeability, and distance of hydrologic connection between the (a)(7) or (a)(8) water and the traditional navigable water, interstate water, or the territorial seas, depth from surface to water table, and any preferential flowpaths.

Evidence of biological connectivity and the effect on waters can be found by identifying: resident aquatic or semi-aquatic species present in the case-specific water and the tributary system (e.g., amphibians, aquatic and semi-aquatic reptiles, aquatic birds); whether those species show life-cycle dependency on the identified aquatic resources (foraging, feeding, nesting, breeding, spawning, use as a nursery area, etc.); and whether there is reason to expect presence or dispersal around the case-specific water, and if so whether such dispersal extends to the tributary system or beyond or from the tributary system to the case-specific water. Factors influencing biological connectivity include species' life history traits, species' behavioral traits, dispersal range, population size, timing of dispersal, distance between the case-specific water and a traditional navigable water, interstate water, or the territorial seas, the presence of habitat corridors or barriers, and the number, area, and spatial distribution of habitats. Non-aquatic species or species such as non-resident migratory birds do not demonstrate a life cycle dependency on the identified aquatic resources and are not evidence of biological connectivity for purposes of this rule.

For practical administrative purposes, the rule does not require evaluation of all similarly situated waters under (a)(7) or (a)(8) when concluding that those waters have a significant nexus to a traditional navigable water, interstate water, or territorial sea. When a subset of similarly situated waters provides a sufficient science-based justification to conclude presence of a significant nexus, for efficiency purposes a significant nexus analysis need not unnecessarily require time and resources to locate and analyze all similarly situated waters in the entire point of entry watershed. For example, if a single Carolina bay or a group of Carolina bays in a portion of the point of entry watershed is determined to significantly affect the chemical, physical, or biological integrity of a traditional navigable water, interstate water, or the territorial seas, the analysis does not have to document all of the similarly situated Carolina bays in the watershed in order to conduct the significant nexus analysis. A conclusion that significant nexus is lacking may not be based on consideration of a subset of similarly situated waters because under the significant nexus standard the inquiry is how the similarly situated waters in combination affect the integrity of the downstream water.

While the rule is clear that waters that are jurisdictional by rule cannot be combined with waters subject to a case-specific significant nexus analysis, the analysis may appropriately include the evaluation of functions of (a)(8) waters that reach covered waters through (a)(6) waters without consideration of the functions contributed by those (a)(6) waters. The hydrologic connections between (a)(8) waters and a covered tributary and eventually to a traditional navigable water, interstate water, or the territorial seas, can often occur through an adjacent water. This hydrologic connection is an appropriate part of the case-specific analysis as to whether the (a)(8) waters, alone or in combination with any similarly situated (a)(8) waters in the point of entry watershed, provide those functions downstream such that they significantly affect the chemical, physical or biological integrity of the traditional navigable water, interstate water, or the territorial seas. For example, when evaluating a wetland that is 2,500 feet from the ordinary high water mark of an (a)(5) water and that has surface or shallow subsurface connections to downstream traditional navigable waters, interstate waters, or the territorial seas via a wetland that is adjacent to an (a)(4) water, the existence of those connections is not ignored. However, while a water's connections to the traditional navigable water, interstate water, or the territorial seas through (a)(5) through (a)(7) waters can be considered in the significant nexus analysis in order to determine whether the functions of the (a)(8) waters are provided downstream, only the functions of the water, along with any similarly situated waters, being evaluated under (a)(8) on downstream water integrity can be included in the significant nexus analysis.

The administrative record for a jurisdictional determination for a water under (a)(7) or (a)(8) will include available information supporting the determination. In addition to location and other descriptive information regarding the water at issue, the record will include an explanation of the rationale for the jurisdictional conclusion and a description of the information used. Relevant information can come from many sources, and need not always be specific to the water whose jurisdictional status is being evaluated. Studies of the same type of water or similarly situated waters can help to inform a significant nexus analysis as long as they are applicable to the water being evaluated. In the case of (a)(8) waters, the administrative record will include the rationale behind the similarly situated analysis, including an explanation of the data or information examined.

The agencies expect that where waters are determined to be similarly situated in a single point of entry watershed, such similarly situated waters will often be found jurisdictional through the case-specific analysis of significant nexus. However, case-specific factors such as distance to the traditional navigable water, interstate water, or the territorial seas; density or number of similarly situated waters; individual and cumulative size of the similarly situated waters; soil permeability; climate; etc., may be considered in the determination, and there could be cases where even considering these waters in combination with similarly situated waters will not be sufficient for waters to have a significant nexus.

Within a single point of entry watershed, over a period of time there will likely be multiple jurisdictional determinations. For (a)(7) waters, if a case-specific significant nexus determination has been made in the point of entry watershed, all waters in the subcategory in the point of entry watershed are jurisdictional. For (a)(8) waters, the case-specific significant nexus analyses must use information used in previous jurisdictional determinations, and if a significant nexus has been established for one water in the watershed, then other similarly situated waters in the watershed would also be found to have a significant nexus. This is because under Justice Kennedy's test, similarly situated waters in the region should be evaluated together. A positive significant nexus determination would then apply to all similarly situated waters within the point of the watershed. A negative case-specific significant nexus evaluation under (a)(7) or (a)(8) of all similarly situated waters in the point of entry watershed applies to all similarly situated waters in that watershed. However, as noted above, a conclusion that significant nexus is lacking may not be based on consideration of a subset of similarly situated waters, because under the significant nexus standard the inquiry is how the similarly situated waters in combination affect the integrity of the downstream water. The documentation for each case should be complete enough to support the specific jurisdictional determination, including an explanation of which waters were considered together as similarly situated and in the same region.

4. Summary of Revisions to Case-Specific Determinations of "Waters of the United States" and Major Comments

a. Significant nexus

Some commenters stated concerns over the potential for inconsistent application of the significant nexus analysis in a jurisdictional determination. To address this concern within the regulatory framework, the agencies provide more detail regarding the definition of significant nexus in the rule and list the specific functions that will be considered in the analysis. This approach provides individual regulators who conduct the analysis clear and consistent parameters that they will consider during their review in making jurisdictional determinations and provides transparency to the regulated public over which factors will be considered.

Overall, there was support for the concept of the single point of entry watershed as the interpretation of "in the region." Several commenters supported the approach that the single point of entry watershed was an appropriate scale to use to measure effect on traditional navigable waters, interstate waters, or the territorial seas. Other commenters felt the single point of entry watershed was too small to capture all the benefits that waters that do not meet the definition of adjacency contribute. Some of the SAB panel members thought that because surface and ground-watershed units may not align, watersheds might be problematic for defining "in the region." These panel members suggested that a more scientifically justified approach would include surface and subsurface waters in a watershed delineation. The agencies have retained the single point of entry watershed from the proposed rule as the appropriate unit of analysis for significant nexus in the final rule as these watersheds are more easily understood and easier to delineate than those that map subsurface waters as the SAB suggested.

With respect to the agencies' approach to "similarly situated waters," commenters offered support for assessing waters in combination based on their type and function, particularly waters such as Prairie potholes. Conversely, several commenters found that the ability to aggregate waters that do not meet the definition of adjacency is over-reaching and causes uncertainty to the regulated public. Some commenters also attributed uncertainty in which waters were regulated to subjectivity in review by Federal regulator(s). Similarly, some commenters were concerned that waters eligible for protection were based on an individual analyst's interpretation and wanted to know how the agencies would address consistency and potential bias. In response, the rule lists in paragraph (a)(7) a limited number of subcategories of waters where waters of the specified types have been determined by rule to be similarly situated for a significant nexus analysis. This will add consistency, predictability, and clarity, as the rule explicitly states that such waters are similarly situated for purposes of the significant nexus analysis. For waters identified under paragraph (a)(8), the agencies have established two limitations: waters within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas, and waters within 4,000 foot feet of a traditional navigable water, interstate water, the territorial seas, impoundment, or covered tributary. The agencies also have established within the definition of significant nexus at (c)(5) criteria for determining whether waters are similarly situated and should therefore be analyzed in combination. Waters identified under (a)(8) are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. The agencies have not determined that such waters are categorically similarly situated, so the agencies will base their case-specific determinations of whether a particular water has any similarly situated waters on the available information and science. The rule also clarifies that (a)(8) waters cannot be considered similarly situated with "adjacent waters," which are jurisdictional by rule, and (a)(7) waters, which have been determined to be similarly situated by rule. These parameters will reduce inconsistency in reviews and add clarity.

Similarly, several commenters expressed concern that landowners would not know which water bodies on their property are subject to CWA jurisdiction due to aggregation, as waters on their property may be considered similarly situated with waters located off-site. While the rule does not eliminate the use of case-specific significant nexus analyses, and the concern arises from Justice Kennedy's phrase "similarly situated," the parameters placed on waters requiring a case-specific determination and the clearer definition of significant nexus address the concerns about uncertainty and inconsistencies in reviews. In particular, waters that are not either one of the five identified subcategories in (a)(7) or within the thresholds in (a)(8) cannot be subject to a case-specific significant nexus analysis under the rule. Generally, jurisdictional determinations are conducted at the request of an applicant or landowner for specific waters. While the agencies cannot arbitrarily depart from a determination that waters are "similarly situated," landowners may provide new information to inform subsequent jurisdictional determinations. In addition, owners with questions regarding jurisdiction of waters on their property may always consult their local Corps District or EPA Regional Office, which is not a change from longstanding practice.

b. Case-specific determinations

The rule provides more regulatory certainty by narrowing the scope of waters that can be assessed under a case-specific significant nexus evaluation as compared to the proposal. These changes still allow the scientific value of specific waters not covered in (a)(1) through (a)(6) to be evaluated on a case-specific basis.

In the proposal, the agencies solicited comment regarding a variety of approaches to the category of waters subject to a case-specific significant nexus analysis. In addition, the agencies solicited comment on additional scientific research and data that might further inform decisions about these waters. In particular the agencies solicited information about whether current scientific research and data regarding particular types of waters are sufficient to support the inclusion of subcategories of types of waters, either alone or in combination with similarly situated waters, that can appropriately be identified as always lacking or always having a significant nexus. One of these alternate approaches in the preamble to the proposed rule was to determine by rule that certain additional subcategories of waters would be jurisdictional rather than addressed with a case-specific basis for determining significant nexus.

Many commenters expressed support for the agencies' proposed approach to case-specific waters, included additional references to support these waters being protected by rule, and supported the treatment of certain categories of waters as similarly situated (that is, evaluating them in combination with similarly situated waters for the purposes of the significant nexus analysis). Some suggested the agencies establish jurisdiction over case-specific waters by rule and provided detailed information in support of their position. Other commenters suggested additional subcategories of waters be considered as jurisdictional or as similarly situated by rule, such as playa lakes, kettle lakes, and woodland vernal pools.

However, there was a concern raised by other commenters about what was termed regulatory overreach and uncertainty created by the "other waters" category in the proposal. Some commenters stated that the "other waters" category in the proposal would allow the agencies to regulate virtually any water. To address this concern, the rule places limits on which waters could be subject to a case-specific significant nexus determination, in recognition that case-specific analysis of significant nexus is resource-intensive and based on the body of science that exists. As noted above, the agencies also establish by rule subcategories of waters that are "similarly situated" for the purposes of a significant nexus analysis because science supports that the subcategory waters fall within a higher gradient of connectivity. By not determining that any one of the waters available for case-specific analysis is jurisdictional by rule, the agencies are recognizing the gradient of connectivity that exists and will assert jurisdiction only when that connection and the downstream effects are significant and more than speculative and insubstantial.

Waters are covered under the rule only where they are identified as jurisdictional in paragraphs (a)(1) through (a)(6), where they are not excluded under paragraph (b), or where they are within the limited number of subcategories listed in paragraphs (a)(7) and (a)(8) and have a case-specific significant nexus to a traditional navigable water, interstate water, or the territorial seas. These limits on jurisdiction reflect the case law and are in response to comments requesting greater regulatory certainty. Although some commenters suggested additional subcategories of waters for consideration, such as playa lakes and kettle lakes, the agencies at this time are not able to determine that the available science supports that the suggested additional subcategories of waters as a class have a significant nexus to traditional navigable waters, interstate waters, or the territorial seas. However, to be clear, under the rule, individual waters of the suggested additional subcategories are jurisdictional where they meet the requirements of (a)(1) through (a)(6) or (a)(8) (e.g., a playa lake that is an interstate water, a kettle lake that is an adjacent water, or a woodland vernal pool that is less than 4,000 feet from a jurisdictional tributary and is determined on a case-specific basis to have a significant nexus to a traditional navigable water, interstate water, or the territorial seas).

In consideration of the variety of views of the commenters, the Science Report, the input from the SAB, and the developing state of the science, the agencies reasonably decided not to establish jurisdiction over all waters that do not meet the requirements of (a)(1) through (a)(6) by rule. Instead, the agencies established case-specific provisions for some specified waters at (a)(7) and waters within the boundaries at (a)(8). This approach strikes a balance between requests for clear boundaries and limited case-specific reviews with scientific support.

I. Waters and Features that Are Not "Waters of the United States"

In the rule, the agencies identify a variety of waters and features that are not "waters of the United States." Prior converted cropland and waste treatment systems have been excluded from this definition since 1992 and 1979, respectively, and they remain substantively and operationally unchanged. Only ministerial changes to delete an outdated cross reference are made to the exclusion for waste treatment systems. The agencies add exclusions for all waters and features identified as generally exempt in preamble language from *Federal Register* documents by the Corps on November 13, 1986, and by EPA on June 6, 1988. This is the first time these exclusions have been established by rule. In addition, under prior preamble language, the agencies retained the authority to determine that a particular feature generally considered non-jurisdictional was in fact a "water of the United States." The agencies do not retain that authority for features excluded under the rule. The agencies for the first time also establish by rule that certain ditches are excluded from jurisdiction. The agencies add exclusions for groundwater and erosional features, as well as exclusions for some waters that were identified in public comments as possibly being found jurisdictional under proposed rule language where this was never the agencies' intent. These exclusions are reflective of current agencies' practice, and their inclusion in the rule furthers the agencies' goal of providing greater clarity over what waters are and are not protected under the CWA. Importantly, under the rule all waters and features identified in paragraph (b) as excluded will not be "waters of the United States," even if they otherwise fall within one of the categories in paragraphs (a)(4) through (a)(8). For example, a ditch that is excluded under paragraph (b)(3)(i) or (b)(3)(ii) is not jurisdictional even when the ditch connects directly or through another water to a traditional navigable water, interstate water, or the territorial seas. The proposed rule referenced paragraphs (a)(1) through (a)(8), but the agencies did not intend to exclude any traditional navigable waters, for example, and the revision clarifies that. Finally, nothing in the rule is intended to change the way in which the Corps applies individual or nationwide permits.

The exclusions reflect the agencies' long-standing practice and technical judgment that certain waters and features are not subject to the CWA. The exclusions are also guided by Supreme Court cases. The significant nexus standard arises from the case law and is used to interpret the terms of the CWA. Thus, a significant nexus determination is not a purely scientific inquiry, but rather is a determination by the agencies in light of the statutory language, the statute's goals, objectives and policies, the case law, the relevant science, and the agencies' technical expertise and experience. The plurality opinion in *Rapanos* also noted that there were certain features that were not primarily the focus of the CWA. See 547 U.S. at 734. In this section of the proposed rule, the agencies are drawing lines and concluding that certain waters and features are not subject to the jurisdiction of the Clean Water Act. The Supreme Court has recognized that clarifying the lines of jurisdiction is a difficult task: "Our common experience tells us that this is often no easy task: the transition from water to solid ground is not necessarily or even typically an abrupt one. Rather, between open waters and dry land may lie shallows, marshes, mudflats, swamps, bogs — in short, a huge array of areas that are not wholly aquatic but nevertheless fall far short of being dry land. Where on this continuum to find the limit of 'waters' is far from obvious." *Riverside Bayview* at 132-33. The exclusions are an important aspect of the agencies' policy goal of providing clarity and certainty. Just as the categorical assertions of jurisdiction over covered tributaries and covered adjacent waters simplify the jurisdiction issue, the categorical exclusions will likewise simplify the process, and they reflect the agencies' determinations of the lines of jurisdiction based on science, the case law and the agencies' experience and expertise.

The existing exclusion for waste treatment systems moves to paragraph (b)(1) with no substantive changes. One ministerial change is the deletion of a cross-reference in the current language to an EPA regulation that no longer exists. Because the agencies are not addressing the substance of the exclusion, the agencies do not make conforming changes to ensure that each of the existing definitions of the "waters of the United States" for the various CWA programs have the exact same language with respect to the waste treatment system exclusion, with the exception of deleting the cross-reference.

Many commenters expressed concern about whether the agencies' insertion of a comma following this ministerial change unintentionally narrowed the exclusion such that all excluded waste treatment systems must be designed to meet the requirements of the Clean Water Act. The commenters indicated concerns that waste treatment systems built before the Clean Water Act or primarily for purposes of other environmental laws could not be exempt. The agencies do not intend to change how the waste treatment exclusion is implemented and have deleted this proposed comma. Continuing current practice, any waste treatment system built in a "water of the United States" would need a section 404 permit to be constructed and a section 402 permit for discharges from the waste treatment system into "waters of United States."

A number of commenters suggested the agencies clarify how the waste treatment system exclusion is currently implemented. Many comments raised questions about stormwater systems and wastewater reuse and whether such facilities qualified under the waste treatment system exclusion as part of a complete waste treatment system. For clarity, the agencies have identified related exclusions in paragraphs (b)(6) and (b)(7). Many commenters also suggested making substantive changes to the existing exclusion for waste treatment systems. Because the agencies are not making any substantive changes to the waste treatment system exclusion and these comments are outside the scope of the proposed rule, the final rule does not reflect changes suggested in public comments.

The existing exclusion for prior converted cropland moves to paragraph (b)(2) of the rule and is unchanged. A number of commenters suggested changes to the existing exclusion for prior converted cropland. As with waste treatment systems, the preamble to the proposed rule stated this rulemaking was not making changes to the exclusion for prior converted cropland. As a result, comments requesting changes to the prior converted cropland exclusion or seeking clarification of how the exclusion is implemented in the field are outside the scope of this rulemaking, and the rule does not reflect changes or respond to issues raised in public comments. The agencies will continue to implement this exclusion consistent with current policy and practice.

The agencies identify excluded ditches in paragraph (b)(3). Jurisdictional ditches are discussed at more detail in section IV.F. The rule excludes all ditches with ephemeral flow that are not excavated in or relocate a tributary. The rule also excludes ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands, regardless of whether or not the wetland is a jurisdictional water. Finally, ditches that do not connect to a traditional navigable water, interstate water, or territorial sea either directly or through another water are excluded, regardless of whether the flow is ephemeral, intermittent, or perennial. These ditch exclusions are clearer for the regulated public to identify and more straightforward for agency staff to implement than the proposed rule or current policies. The ditch exclusions do not affect the possible status of a ditch as a point source.

Many comments addressed ditches, and many of these comments are reflected in the approach to ditches articulated in the rule. The majority of commenters requested that the agencies' ditch exclusion be clarified or broadened. Many commenters were confused by the term "uplands" and did not feel the term had a common understanding. For example, some commenters felt the term referred only to areas at higher elevations in the landscape. Many expressed concerns that all ditches would be jurisdictional under the proposed rule. Many groups especially called for exclusions of roadside ditches.

The revised exclusions reflect the agencies' careful consideration of these comments. First, the agencies have eliminated the term "uplands" in response to the questions the term created. Second, the agencies have instead provided a clearer statement of the types of ditches that are subject to exclusion – ditches that are not excavated in or relocate a tributary and ditches that do not drain a wetland. Eliminating the term "uplands" with this more straightforward description should improve clarity. Finally, the agencies have more clearly stated the flow regimes in ditches that are subject to the exclusions; these flow regimes are described earlier and have been used by the agencies consistently and are readily understood by field staff and the public.

As noted, the agencies received many comments asking that roadside ditches be addressed, and more specifically excluded, in the final rule. Like the proposed rule, the final rule does not include an explicit exclusion for roadside ditches, but the agencies believe the exclusions included in the final rule will address the vast majority of roadside and other transportation ditches. Moreover, since the agencies have focused in the final rule on the physical characteristics of excluded ditches, the exclusions will address all ditches that the agencies have concluded should not be subject to jurisdiction, including certain ditches on agricultural lands and ditches associated with modes of transportation, such as roadways, airports, and rail lines.

As discussed in Section IV.F.1., the definition of tributary includes natural, undisturbed waters and those that have been man-altered or constructed, but which science shows function as a tributary. In addition, natural streams and rivers that are altered or modified for purposes as flood control, erosion control, and other reasons does not convert the tributary to a ditch. A stream or river that has been channelized or straightened because its natural sinuosity has been altered, cutting off the meanders, is not a ditch. A stream that has banks stabilized through use of concrete or rip-rap (*e.g.,* rocks or stones) is not a ditch. The Los Angeles River, for example, is a "water of the United States" (and, indeed, a traditional navigable water) and remains a "water of the United States" and is not a excluded under paragraph (b)(3), even where it has been ditched, channelized, or concreted.

The rule excludes ditches with ephemeral flow except where a ditch is excavated in or relocates a covered tributary. Under the rule, that portion of a ditch with ephemeral flow actually excavated in or relocating the covered tributary would be considered jurisdictional. The jurisdictional status of upstream and downstream portions of the same ditch would have to be assessed based on the specific facts and under the terms of the rule to determine flow characteristics and whether or not the ditch is excavated in or relocates a tributary. This approach reasonably balances the exclusion with the need to ensure that covered tributaries, and the significant functions they provide, are preserved. A ditch that relocates a stream is not an excluded ditch under paragraph (b)(3), and a stream is relocated either when at least a portion of its original channel has been physically moved, or when the majority of its flow has been redirected. A ditch that is a relocated stream is distinguishable from a ditch that withdraws water from a stream without changing the stream's aquatic character. The latter type of ditch is excluded from jurisdiction where it meets the listed characteristics of excluded ditches under paragraph (b)(3). The agencies will determine historical presence of tributaries using a variety of resources, such as USGS and state and local maps, historic aerial photographs, local surface water management plans, street maintenance data, wetlands and conservation programs and plans, as well as functional assessments and monitoring efforts.

The rule also excludes ditches with intermittent flow except where a ditch is excavated in or relocates a covered tributary, or drains wetlands. Where an excluded ditch drains a wetland, the segment of the ditch that physically intersects the wetland would be considered jurisdictional. The jurisdictional status of upstream and downstream portions of the same ditch would have to be assessed based on the specific facts and under the terms of the rule to determine flow characteristics and whether or not the ditch drains a wetland. The provision of paragraph (b)(3) addressing draining of wetlands is specific to ditches with intermittent flow. As discussed previously, features that are ephemeral will flow only in response to precipitation events, such as rainfall or snowmelt. Ditches with ephemeral flow, therefore, do not typically have the flow characteristics characteristic of ditches that drain wetlands. The agencies have accordingly focused on intermittent ditches that drain wetlands.

In addition, the agencies clarify that a ditch drains a wetland when it physically intersects the wetland. If the ditch has been cut to carry only ephemeral flows, such as those following a storm event, the effect of the ditch is minimal as it carries only that flow that overtops the wetland during and immediately following the rain event. However, if the ditch has been cut to carry intermittent or perennial flows from the wetland, the ditch is serving as a conduit for transferring flow from the wetland to a downstream tributary. As a result of the cut ditch, the wetland's hydrologic regime is modified and can generally affect the natural functions performed by the wetland. When the ditch has been cut to carry intermittent or perennial flow from the wetland to the downstream tributary, the wetland soils and vegetation can shift into a community that supports less hydric soils and a mix of riparian or upland vegetation. Consequently, the ditch is draining the wetland and the wetland quality degrades and may cease to exist over time. Therefore, a ditch that carries intermittent flow and physically intersects with a wetland is not excluded under this provision.

A number of commenters expressed concern that a ditch could be viewed as both a point source and a "water of the United States." However, the approach that ditches can be considered both reflects the CWA itself as well as longstanding agency policy.

Paragraph (b)(4) of the rule identifies features and waters that the agencies have identified as generally not "waters of the United States" in previous preambles or guidance documents. Codifying these longstanding practices supports the agencies' goals of providing greater clarity, certainty, and predictability for the regulated public and the regulators. The agencies' 1986 and 1988 preambles indicated that these waters could be determined on a case-specific basis to be "waters of the United States." This rule does not allow for this case-specific analysis to be used to establish jurisdiction - these waters are categorically excluded from jurisdiction. Some of the exclusions have been modified slightly to address public comments and improve clarity. The following features are not "waters of the United States":

- Artificially irrigated areas that would revert to dry land should application of irrigation water to that area cease
- Artificial, constructed lakes or ponds created by excavating and/or diking dry land such as farm and stock watering ponds, irrigation ponds, settling basins, log cleaning ponds, cooling ponds, or fields flooded for rice growing
- Artificial reflecting pools or swimming pools created by excavating and/or diking dry land
- Small ornamental waters created by excavating and/or diking dry land for primarily aesthetic reasons
- Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand or gravel that fill with water
- Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways
- Puddles

Several of these exclusions use the phrase "dry land." This phrase appears in the 1986 and 1988 preambles, and the agencies believe the term is well understood based on the more than 30 years of practice and implementation. But in keeping with the goal of providing greater clarity, the agencies state that "dry land" refers to areas of the geographic landscape that are not water features such as streams, rivers, wetlands, lakes, ponds and the like. However, it is important to note that a "water of the United States" is not considered "dry land" just because it lacks water at a given time. Similarly, an area remains "dry land" even if it is wet after a rainfall event. The agencies received comments suggesting that the final rule provide a definition of "dry land" as it relates to the exclusion for stormwater control features. The agencies considered the request and determined that there was no agreed upon definition given geographic and regional variability. The agencies concluded that further clarity on this issue can be provided during implementation.

In the exclusion for artificial lakes or ponds, the agencies have removed language regarding "use" of the ponds, including the term "exclusively." In most cases, the "use" of the pond is captured in its name. More importantly, the agencies recognize that artificial lakes and ponds are often used for more than one purpose and can have other beneficial purposes, such as animal habitat, water retention or recreation. For example, rice growing is typically facilitated by land leveling and inundation that floods vast areas. The fields are flooded for the purpose of weed control and to facilitate rice cultivation, but these rice fields are often extensively used by waterfowl and other wildlife. The agencies agree with commenters who raised concern that rice fields "used" both for rice growing and waterfowl habitat should continue to be excluded even where they are not used "exclusively" for a single purpose. The change to the exclusion reflects the agencies' practice and ensures that waters the agencies have historically not treated as jurisdictional do not become so because of another incidental beneficial use.

The agencies have also added farm ponds, log cleaning ponds, and cooling ponds to the list of excluded ponds in the rule based on public comments. The list of ponds has always been illustrative rather than exhaustive, and the additions respond to requests to clarify that farm ponds, and log cleaning ponds[12] created in dry land are excluded. The agencies have also added cooling ponds created in dry land to the list of excluded waters. The agencies also note that cooling ponds that are created under section 404 in jurisdictional waters and that have NPDES permits are subject to the waste treatment system exclusion, which is not changing. Cooling ponds created to serve as part of a cooling water system with a valid state permit constructed in waters of the United States prior to enactment of the Clean Water Act and currently excluded from jurisdiction remain excluded under the new rule. Additional ponds will also likely fall under the exclusion based on site specific evaluation, including, for example, fire control ponds and fishing ponds excavated from dry land. Artificial lakes and ponds created in dry land that do not connect to jurisdictional waters are covered by this exclusion. Where these ponds do connect and discharge to jurisdictional waters, the agencies will evaluate factors such as the potential for introduction of pollutants and coverage under an issued NPDES permit. As a general matter, ponds created in dry land that discharge to "waters of the United States" are covered by the exclusion where such discharge is regulated under a NPDES permit. Conveyances created in dry land that are physically connected to and are a part of the excluded feature are also excluded. These artificial features are working together as a system, and it is appropriate to treat them as

[12] Log cleaning ponds are used to float logs for removal of twigs, branches, and large knots.

one functional unit. The agencies emphasize that ponds excluded from "waters of the United States" can, in some circumstances, be point sources of pollution subject to section 301 of the Act.

The rule includes several refinements to the exclusion for water-filled depressions created as a result of certain activities. In addition to construction activity, the agencies have also excluded water-filled depressions created in dry land incidental to mining activity. This change is consistent with the agencies' 1986 and 1988 preambles, which generally excluded pits excavated for obtaining fill, sand or gravel, and there is no need to distinguish between features based on whether they are created by construction or mining activity.

The agencies also here clarify their longstanding view that only the specific land being directly irrigated that would revert to dry land should irrigation cease is exempt; it is not the case that all waters within watersheds where irrigation occurs are exempt.

The rule identifies all erosional features, including gullies and rills, as non-jurisdictional features. While the proposed rule specifically identified gullies and rills, the agencies intended that all erosional features would be excluded. The final rule makes this clear. Erosional features are not jurisdictional under the terms of paragraph (a) and the definitions in paragraph (c), especially the definition of tributary. These features are specifically excluded in the rule to avoid confusion, because preceding guidance identified them as non-jurisdictional and many commenters stated these exclusions were important to maintain in the rule.

Tributaries can be distinguished from erosional features by the presence of bed and banks and an ordinary high water mark. Concentrated surface runoff can occur within erosional features without creating the permanent physical characteristics associated with bed and banks and ordinary high water mark. *See* Technical Support Document. It should be noted that some ephemeral streams are colloquially called "gullies" or the like even when they exhibit a bed and banks and an ordinary high water mark; regardless of the name they are given locally, waters that meet the definition of tributary are not excluded erosional features.

The rule also excludes lawfully constructed grassed waterways. Grassed waterways are lawfully constructed for purposes of this rule either where they are on dry land and replace non-jurisdictional erosional features or, more commonly, where they have been lawfully converted from an intermittent or ephemeral stream under a CWA permit. Once converted to grassed waterways, these former streams segments no longer exhibit a bed and banks or ordinary high water mark and are excluded because they do not meet the definition of "tributary." However, such conversion does not sever jurisdiction over the entire length of the tributary above and below the grassed waterway. Instead, the grassed waterway is considered a constructed break in the bed and banks and ordinary high water mark. This is reflected in the definition of tributary, which specifically addresses natural or man-made breaks in bed and banks and ordinary high water mark.

The final rule adds an exclusion for puddles. The proposed rule did not explicitly exclude puddles because the agencies have never considered puddles to meet the minimum standard for being a "water of the United States," and it is an inexact term. A puddle is commonly considered a very small, shallow, and highly transitory pool of water that forms on pavement or uplands during or immediately after a rainstorm or similar precipitation event. However, numerous commenters asked that the agencies expressly exclude them in a rule. The final rule does so.

The agencies include an exclusion for groundwater, including groundwater drained through subsurface drainage systems. As discussed in the preamble to the proposed rule, the agencies have never interpreted "waters of the United States" to include groundwater. The exclusion does not apply to surface expressions of groundwater, as some commenters requested, such as where groundwater emerges on the surface and becomes baseflow in streams or spring fed ponds.

The final rule includes a new exclusion in paragraph (b)(6) for stormwater control features constructed to convey, treat, or store stormwater that are created in dry land. The agencies stated in the proposed rule that the exclusions were guided by decisions of the Supreme Court and were intended to further the agencies' goal of providing clarity and certainty. The agencies in the proposed rule sought to provide a "full description" of the waters that will not be "waters of the United States." 79 FR at 22218. In response to the agencies' proposal, several commenters indicated additional clarity was needed, particularly with respect to stormwater control features and wastewater recycling facilities. This exclusion responds to numerous commenters who raised concerns that the proposed rule would adversely affect municipalities' ability to operate and maintain their stormwater systems, and also to address confusion about the state of practice regarding jurisdiction of these features at the time the rule was proposed.

The agencies' longstanding practice is to view stormwater control measures that are not built in "waters of the United States" as non-jurisdictional. Conversely, the agencies view some waters, such as channelized or piped streams, as jurisdictional currently even where used as part of a stormwater management system. Nothing in the proposed rule was intended to change that practice. Nonetheless, the agencies recognize that the proposed rule brought to light confusion about which stormwater control features are jurisdictional waters and which are not, and agree that it is appropriate to address this confusion by creating a specific exclusion in the final rule for stormwater controls features that are created in dry land.

Many commenters, particularly municipalities and other public entities that operate storm sewer systems and stormwater management programs, expressed concern that various stormwater control measures—such as stormwater treatment systems, rain gardens, low impact development/green infrastructure, and flood control systems—could be considered "waters of the United States" under the proposed rule, either as part of a tributary system, an adjacent water, or as a result of a case-specific significant nexus analysis. This exclusion should clarify the appropriate limits of jurisdiction relating to these systems. A key element of the exclusion is whether the feature or control system was built in dry land and whether it conveys, treats, or stores stormwater. Certain features, such as curbs and gutters, may be features of stormwater collection systems, but have never been considered "waters of the United States."

Stormwater control features have evolved considerably over the past several years, and their nomenclature is not consistent, so in order to avoid unintentionally limiting the exclusion, the agencies have not included a list of excluded features in the rule. The rule is intended to exclude the diverse range of control features that are currently in place and may be developed in the future.

Traditionally, stormwater controls were designed to direct runoff away from people and property as quickly as possible. Cities built systems to collect, convey, or store stormwater, using structures such as curbs, gutters, and sewers. Often, cities used existing stream networks as part of the stormwater drainage network. Retention and detention stormwater ponds were built to store excess stormwater until it could be more safely released.

Recently, treatment of stormwater has become more prevalent to remove harmful pollutants before the stormwater is discharged. Even more recently, cities have turned to green infrastructure, using existing natural features or creating new features that mimic natural hydrological processes that work to infiltrate or evapo-transpirate precipitation, to manage stormwater at its source and keep it out of the conveyance system. These engineered components of stormwater management systems can address both water quantity and quality concerns, as well as provide other benefits to communities. This rule is designed to avoid disincentives to this environmentally beneficial trend in stormwater management practices. This exclusion does not cover transportation ditches; those ditches are addressed under paragraph (b)(3) of the rule. As discussed above, the exclusion in paragraph (b)(6) is intended to address engineered stormwater control structures in municipal or urban environments. Stormwater control features are designed to address runoff that occurs during and shortly after precipitation events; as a result, stormwater features that convey runoff are expected to only carry ephemeral or intermittent flow. For ease of implementation, the agencies want water features to be dealt with under only one provision of the rule. However, the agencies do not expect the scope of ditches excluded to be different under (b)(3) and (b)(6), so there should be little practical need to distinguish between the two.

Paragraph (b)(7) of the rule clarifies that wastewater recycling structures constructed in dry land are excluded. This new exclusion clarifies the agencies' current practice that such waters and water features used for water reuse and recycling are not jurisdictional when constructed in dry land. The agencies recognize the importance of water reuse and recycling, particularly in areas like California and the Southwest where water supplies can be limited and droughts can exacerbate supply issues. This exclusion responds to numerous commenters and encourages water reuse and conservation while still appropriately protecting the chemical, physical, and biological integrity of the nation's water under CWA.

The agencies specifically exclude constructed detention and retention basins created in dry land used for wastewater recycling as well as groundwater recharge basins and percolation ponds built for wastewater recycling. Many commenters noted the growing interest in and commitment to water recycling and reuse projects. Detention and retention basins can play an important role in capturing and storing water prior to beneficial reuse. Similarly, groundwater recharge basins and percolation ponds are becoming more prevalent tools for water reuse and recycling. These features are used to collect and store water, which then infiltrates into groundwater via permeable soils. Though these features are often created in dry land, they are also often located in close proximity to tributaries or other larger bodies of water. The exclusion also covers water distributary structures that are built in dry land for water recycling. These features often connect or carry flow to other water recycling structures, for example a channel or canal that carries water to a percolation pond. The agencies have not considered these water distributary systems jurisdictional where they do not have surface connections back into, and contribute flow to, "waters of the United States." In contrast, the agencies have consistently regulated aqueducts and canals as "waters of the United States" where they serve as tributaries, removing water from one part of the tributary network and moving it to another. The exclusion in paragraph (b)(7) codifies long-standing agency practice and encourages water management practices that the agencies agree are important and beneficial.

The agencies also received other suggestions for new exclusions that were not adopted in the final rule. The agencies determined that it was not appropriate or necessary to add certain requested exclusions for one or more reasons, including: (1) the requested exclusion was so broadly characterized as to introduce significant confusion and potentially have the effect of excluding waters that the agencies have consistently determined should be covered as "waters of the U.S.," (2) the requested exclusion was so site-specific or activity-based as to lack illustrative value, or (3) the requested exclusion was likely covered by another exclusion in the final rule.

It is important to note that while the waters listed in the exclusions are not "waters of the United States," they can serve as a hydrologic connection that the agencies would consider under a case-specific significant nexus under paragraphs (a)(7) and (a)(8). For example, a wetland may be directly hydrologically connected to a covered tributary via flow through an excluded non-wetland swale. While the swale itself is excluded from jurisdiction, the connection of the wetland to the tributary is relevant for determining whether the wetland has a significant nexus to downstream traditional navigable waters, interstate waters, or the territorial seas. In addition, these geographic features may function as "point sources" under CWA section 502(14), such that discharges of pollutants to waters through these features would be subject to other CWA regulations (e.g., CWA section 402).

V. Economic Impacts

This rule establishing the definition of "waters of the United States," by itself, imposes no direct costs. The potential costs and benefits incurred as a result of this rule are considered indirect, because the rule involves a definitional change to a term that is used in the implementation of CWA programs (i.e., sections 303, 305, 311, 401, 402, and 404). Entities currently are, and will continue to be, regulated under these programs that protect "waters of the United States" from pollution and destruction. Each of these programs may subsequently impose direct or indirect costs as a result of implementation of their specific regulations.

While the rule imposes no direct costs, the agencies prepared an economic analysis for informational purposes. In preparing the economic analysis to accompany the final rule, the agencies considered what should be the appropriate baseline for comparison. Existing regulations and historic practice in implementing them represent one appropriate baseline for comparison, and because the final rule is narrower in jurisdictional scope than the existing regulations, there would be no additional costs in comparison to this baseline. A comparison to recent field practice following the 2008 guidance is also an appropriate baseline, and the agencies prepared illustrative estimates of how the costs and benefits of various CWA programs may change with an increase in positive jurisdictional determinations relative to that baseline.

To estimate changes in potential costs and benefits of different CWA programs, the economic analysis utilizes available program data to estimate the extent to which assertion of jurisdiction might change under the associated final policies. The proposed rule analysis utilized CWA Section 404 jurisdictional determination and permit data from fiscal years 2009-2010 (post *SWANCC* and *Rapanos*), following issuance of program guidance in 2008 by the EPA and the Corps. The analysis for the final rule has been updated using data from fiscal years 2013-2014, providing a comparison to a more recent year of data, which responds to public comments. An estimate of how assertion of jurisdiction may change compared to the recent practice baseline, developed using updated data from fiscal years 2013-2014 jurisdictional determinations, is then applied to cost and benefit information for affected CWA programs. Additional updates to the economic analysis include a refined approach to calculating benefits from section 404 compensatory mitigation, differentiating between emergent and forested wetlands, as well as presenting results in ranges to reflect uncertainty. The agencies' economic analysis yielded the following key conclusions:

- Compared to the current regulations and historic practice of making jurisdictional determinations, the scope of jurisdictional waters will decrease, as would the costs and benefits of CWA programs.

- Compared to a baseline of recent practice, the agencies assessed two scenarios. Those scenarios result in an estimated increase of between 2.84 and 4.65 percent in positive jurisdictional determinations annually.
- The agencies' analysis indicates that for both scenarios, the change in benefits of CWA programs exceed the costs by a ratio of greater than 1:1.
- The economic analysis estimates that incremental annual costs for scenario 1 will range from $158M - $307M and incremental annual benefits will range from $339M - $350M and, for scenario 2, costs will range from $237M – $465M and benefits will range from $555M - $572M.

The agencies conducted this economic analysis to provide the public with information on the potential changes to the costs and benefits of various CWA programs that may result from a change in the number of positive jurisdictional determinations. The economic analysis was done for informational purposes only, and the final decisions on the scope of "waters of the United States" in this rulemaking are not based on consideration of the information in the economic analysis. The economic analysis fulfills the requirements of Executive Orders 13563 and 12866. An explanation of the data, methods, and assumptions used to estimate indirect costs and benefits can be found in the *Economic Analysis for the Clean Water Rule; Definition of "Waters of the United States" Under the Clean Water Act (Final Rule)* in the accompanying docket.

VI. Related Acts of Congress, Executive Orders, and Agency Initiatives

A. Executive Order 12866: Regulatory Planning and Review and Executive Order

13563: Improving Regulation and Regulatory Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is a "significant regulatory action." Accordingly, EPA and the Army submitted this action to the Office of Management and Budget (OMB) for review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011) and any changes made in response to OMB recommendations have been documented in the docket for this action.

In addition, EPA and the Army prepared an analysis of the potential costs and benefits associated with this action. This analysis is contained in *Economic Analysis of the EPA-Army Clean Water Rule*. A copy of the analysis is available in the docket for this action.

B. Paperwork Reduction Act

This action does not impose any information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. Burden is defined at 5 CFR 1320.3(b). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the CWA section 402 program may be found at 40 CFR 9.1. (OMB Control No. 2040-0004, EPA ICR No. 0229.19). For the CWA section 404 regulatory program, the current OMB approval number for information requirements is maintained by the Corps of Engineers (OMB approval number 0710–0003). However, there are no new approval or application processes required as a result of this rulemaking that necessitate a new Information Collection Request (ICR).

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice-and-comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this final action on small entities, "small entity" is defined as: (1) a small business that is a small industrial entity as defined in the U.S. Small Business Administration's size standards (see 13 CFR 121.201); (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; or (3) a small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this rule on small entities, we certify that this final rule will not have a significant economic impact on a substantial number of small entities. See, e.g., *Cement Kiln Recycling Coalition* v. *EPA*, 255 F.3d 855 (D.C. Cir. 2001); *Michigan* v. *EPA*, 213 F.3d 663 (D.C. Cir. 2000); *Am. Trucking Ass'n* v. *EPA*, 175 F.3d 1027 (D.C. Cir. 1999); *Mid-Tex Elec. Co-op, Inc.* v. *FERC*, 773 F.2d 327 (D.C. Cir. 1985).

Under the RFA, the impact of concern is any significant adverse economic impact on small entities, because the primary purpose of the initial regulatory flexibility analysis is to identify and address regulatory alternatives "which minimize any significant economic impact of the proposed rule on small entities." 5 U.S.C. 603. The scope of jurisdiction in this rule is narrower than that under the existing regulations. *See* 40 CFR 122.2 (defining "waters of the United States"). Because fewer waters will be subject to the CWA under the rule than are subject to regulation under the existing regulations, this action will not affect small entities to a greater degree than the existing regulations. As a consequence, this action will not have a significant adverse economic impact on a substantial number of small entities, and therefore no regulatory flexibility analysis is required.

Today's rule is not designed to "subject" any entities of any size to any specific regulatory burden. Rather, it is designed to clarify the statutory scope of "the waters of the United States, including the territorial seas," section 502(7), consistent with Supreme Court precedent. This question of CWA jurisdiction is informed by the tools of statutory construction and the geographical and hydrological factors identified in *Rapanos* v. *United States,* 547 U.S. 715 (2006), which are not factors readily informed by the RFA.

Nevertheless, the scope of the term "waters of the United States" is a question that has continued to generate substantial interest, particularly within the small business community, because permits must be obtained for many discharges of pollutants into those waters. In light of this interest, the EPA and the Army determined to seek wide input from representatives of small entities while formulating the proposed and final definition of this term that reflects the intent of Congress consistent with the mandate of the Supreme Court's decisions. Such outreach, although voluntary, is also consistent with the President's January 18, 2011 Memorandum on Regulatory Flexibility, Small Business, and Job Creation, which emphasizes the important role small businesses play in the American economy. This process has enabled the agencies to hear directly from these representatives, throughout the rule development, about how they should approach this complex question of statutory interpretation, together with related issues that such representatives of small entities may identify for possible consideration in separate proceedings. The agencies have prepared a report summarizing their small entity outreach, the results of this outreach, and how these results have informed the development of this rule. This report, *Report of the Discretionary Small Entity Outreach for the Revised Definition of Waters of the United States* (Docket Id. No. EPA-HQ-OW-2011-0880-1927), is available in the docket.

D. Unfunded Mandates Reform Act

This action does not contain any unfunded mandate under the regulatory provisions of Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) (2 U.S.C. 1531-1538), and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local, or tribal governments, or the private sector, and does not contain regulatory requirements that might significantly or uniquely affect small governments. The definition of "waters of the United States" applies broadly to CWA programs.

E. Executive Order 13132: Federalism

This rule does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

Keeping with the spirit of Executive Order 13132 and consistent with the agencies' policy to promote communications with state and local governments, the agencies consulted with state and local officials throughout the process and solicited their comments on the proposed action and on the development of the rule.

For this rule state and local governments were consulted at the onset of rule development in 2011, and following the publication of the proposed rule in 2014. In addition to engaging key organizations under federalism, the agencies sought feedback on this rule from a broad audience of stakeholders through extensive outreach to numerous state and local government organizations.

Early in the rulemaking process, EPA held two in-person meetings and two phone calls in the fall and winter of 2011. Organizations involved include the National Governors Association, the National Conference of State Legislatures, the Council of State Governments, the National Association of Counties, the National League of Cities, the U.S. Conference of Mayors, the County Executives of America, the National Associations of Towns and Townships, the International City/County Management Association, and the Environmental Council of the States. Additionally, the National Association of Clean Water Agencies and the Association of Clean Water Administrators were invited to participate. The agencies held many additional calls and meetings with state and local governments and their associations, in preparation for the development of a proposed rule.

Similarly to the outreach conducted prior to the development of the rule, the agencies committed themselves to providing a transparent, comprehensive, and effective process for taking public comment on the proposed rule. As part of this consultation, EPA held a meeting on May 13, 2014 to seek technical input on the proposed rule from the largest national representative organizations for State and local governments. During this process the agencies also extended its focused outreach to include a series of meetings with the Local Government Advisory Committee, and the Environmental Council of the States in conjunction with the Association of Clean Water Administrators and the Association of State Wetland Managers. In addition to engaging these key organizations, the agencies sought additional feedback on the proposed rule through broader public outreach to state and local government organizations during the public comment period.

During the consultation process, some participants expressed concern that the proposed changes may impose a resource burden on state and local governments. Some participants urged EPA to ensure that states are not unduly burdened by the regulatory revisions.

The agencies have prepared a report summarizing their voluntary consultation and extensive outreach to State, local, and county governments, the results of this outreach, and how these results have informed the development of today's rule. This report, *Report on the Discretionary Consultation and Outreach to State, Local, and County Governments on the Clean Water Rule: Definition of "Waters of the United States;" Final Rule* (Docket Id. No. EPA-HQ-OW-2011-0880) is available in the docket for this rule.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Subject to the Executive Order (E.O.) 13175 (65 FR 67249, November 9, 2000), agencies generally may not issue a regulation that has tribal implications, (1) that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by tribal governments, or the agencies consult with tribal officials early in the process of developing the proposed regulation and develop a tribal summary impact statement, or (2) that preempts tribal law unless the agencies consult with tribal officials early in the process of developing the proposed regulation and develops a tribal summary impact statement.

This action does not have tribal implications as specified in E.O. 13175. In compliance with the EPA Policy on Consultation and Coordination with Indian Tribes (May 4, 2011), the agencies consulted with tribal officials throughout the rulemaking process to gain an understanding of tribal views and solicited their comments on the proposed action and on the development of today's rule. In the course of this consultation, EPA and the Corps jointly participated in aspects of the process.

The agencies began consultation with federally-recognized Indian tribes on the Clean Water Rule defining "waters of the United States" in October 2011. The consultation and coordination process, including providing information on the development of an accompanying science report on the connectivity of streams and wetlands, continued, in stages, over a four year period, until the close of the public comment period on November 14, 2014. EPA invited tribes to provide written input on the rulemaking throughout both the tribal consultation process and public comment period.

EPA specifically consulted with tribal officials to gain an understanding of, and to address, the tribal views on the proposed rule. In 2011, close to 200 tribal representatives and more than 40 tribes participated in the consultation process, which included multiple webinars and national teleconferences and face-to-face meetings. In addition, EPA received written comments from three tribes during the initial consultation period.

EPA continued to provide status updates to the National Tribal Water Council and the National Tribal Caucus during 2012 through 2014. The final consultation event was completed on October 23, 2014 as a national teleconference with the Office of Water's Deputy Assistant Administrator. Ultimately, EPA received an additional 23 letters from tribes/tribal organizations by the completion of the consultation period. The comments indicated that Tribes, overall, support increased clarity of waters protected by the Clean Water Act, but some expressed concern with the consultation process and the burden of any expanded jurisdiction. The agencies considered the feedback received through consultation and written comments in developing today's rule.

The agencies have prepared a report summarizing their consultation with tribal nations, and how these results have informed the development of this rule. This report, *Final Summary of Tribal Consultation for the Clean Water Rule: Definition of "Waters of the United States" Under the Clean Water Act; Final Rule* (Docket Id. No. EPA-HQ-OW-2011-0880), is available in the docket for this rule.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

This action is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because the environmental health or safety risks addressed by this action do not present a disproportionate risk to children.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not a "significant energy action" as defined in Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law No. 104-113, 12(d) (15 U.S.C. 272 note) directs federal agencies to use voluntary consensus standards in regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs federal agencies to provide Congress, through OMB, explanations when the agency decides not to use available and applicable voluntary consensus standards.

This rule does not involve technical standards. Therefore, the agencies are not considering the use of any voluntary consensus standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order (E.O.) 12898 (59 FR 7629, Feb. 16, 1994) establishes Federal executive policy on environmental justice. Its main provision directs Federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

The agencies have determined that the rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations, because it does not adversely affect the level of protection provided to human health or the environment.

The rule defines the scope of waters protected under the CWA. The increased clarity regarding the definition of "waters of the United States" is intended to benefit all regulators, stakeholders, and interested parties. In addition, this rule is national in scope and, therefore, is not specific to a particular geographic area.

In the spirit of E.O. 12898, input from environmental justice stakeholders was requested during the rule development process, through a series of stakeholder meetings between April and November 2014. On May 12, 2014, EPA held a focused teleconference with non-traditional stakeholders, including environmental justice and faith-based stakeholders, to solicit their individual input on the proposed rule. The agencies have used the feedback from public outreach as the source of early guidance and recommendations for refining the proposed rule. Stakeholder input received during public outreach events in combination with the written comments received during the public comment period have reshaped each of the definitions included in today's rule, and incorporate increased clarity for regulators, stakeholders, and the regulated public to assist them in identifying waters as "waters of the United States."

The agencies prepared a report summarizing their outreach to the environmental justice community, analysis of potential impacts, and how these results informed the development of the rule. This report, *Environmental Justice Report for the Clean Water Rule: Definition of "Waters of the United States" Under the Clean Water Act; Final Rule* (Docket Id. No. EPA-HQ-OW-2011-0880), is available in the docket for this rule.

K. Congressional Review Act

This action is subject to the Congressional Review Act (CRA), and the agencies will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is a "major rule" as defined by 5 U.S.C. 804(2) based on potential indirect costs.

L. Environmental Documentation

In this joint rulemaking, the agencies establish a definitional rule that clarifies the scope of the Clean Water Act. The definition will apply to all provisions of the Act, and this regulation specifically amends EPA regulations implementing sections 301, 304, 306, 311, 402 and 404, while the Army is making substantively identical revisions to its regulations under section 404 of the CWA. Section 511(c) of the Clean Water Act provides that, except for certain actions not relevant here, no action by EPA constitutes 'a major federal action significantly affecting the quality of the human environment within the meaning of [NEPA]".

The Army has prepared a final environmental assessment and Findings of No Significant Impact consistent with the National Environmental Policy Act (NEPA). The Army has determined that the rule is not a major federal action significantly affecting the quality of the human environment that would require the preparation of an environmental impact statement. The assessment is contained in the record for this rulemaking. Furthermore, appropriate environmental documentation, including an EIS when required, is prepared by the Corps for general permits and specifically for each and every standard individual permit application before making final permit decisions.

M. Judicial Review

Section 509(b)(1) of the CWA provides for judicial review in the courts of appeals of specifically enumerated actions of the Administrator. The Supreme Court and lower courts have reached different conclusions on the types of actions that fall within section 509. *Compare, E.I. du Pont de Nemours and Co. v. Train,* 430 U.S. 112 (1977); *NRDC v. EPA*, 673 F.2d 400 (D.C. Cir. 1982); *National Cotton Council of Amer. v. EPA*, 553 F.3d 927(6th Cir. 2009) *cert denied* 559 U.S. 936 (2010) *with, Northwest Environmental Advocates v. EPA*, 537 F.3d 1006 (9th Cir. 2008); *Friends of the Everglades v. EPA*, 699 F.3d 1280 (11th Cir. 2012) *cert denied* 559 U.S. 936 (2010).

See DATES section for information regarding the timing for seeking judicial review of this rule.

Clean Water Rule: Definition of "Waters of the United States"

List of Subjects

33 CFR Part 328

Environmental protection, Administrative practice and procedure, Intergovernmental relations, Navigation, Water pollution control, Waterways.

40 CFR Part 110

Environmental protection, Water pollution control.

40 CFR Part 112

Environmental protection, Water pollution control.

40 CFR Part 116

Environmental protection, Water pollution control.

40 CFR Part 117

Environmental protection, Water pollution control.

40 CFR Part 122

Environmental protection, Water pollution control.

40 CFR Part 230

Environmental protection, Water pollution control.

40 CFR Part 232

Environmental protection, Water pollution control.

40 CFR Part 300

Environmental protection, Water pollution control.

40 CFR Part 302

Environmental protection, Water pollution control.

40 CFR Part 401

Environmental protection, Water pollution control.

Dated:

Gina McCarthy,

Administrator,

Environmental Protection Agency.

Dated:

Jo Ellen Darcy,

Assistant Secretary of the Army

(Civil Works)

Department of the Army.

Title 33—Navigation and Navigable Waters

For the reasons set out in the preamble, title 33, chapter I of the Code of Federal Regulations is amended as follows:

PART 328—DEFINITION OF WATERS OF THE UNITED STATES

1. The authority citation for part 328 is revised to read as follows:

Authority: The Clean Water Act, 33 U.S.C. 1251 *et.seq.*

2. Section 328.3 is amended by revising paragraphs (a) through (c), deleting paragraphs (d) and (e), and redesignating paragraph (f) as paragraph (d) to read as follows:

§328.3 Definitions.

(a) For purposes of the Clean Water Act, 33 U.S.C. 1251 *et. seq.* and its implementing regulations, subject to the exclusions in paragraph (b) of this section, the term ''waters of the United States'' means:

(1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(2) All interstate waters, including interstate wetlands;

(3) The territorial seas;

(4) All impoundments of waters otherwise identified as waters of the United States under this section;

(5) All tributaries, as defined in paragraph (c)(3) of this section, of waters identified in paragraphs (a)(1) through (3) of this section;

(6) All waters adjacent to a water identified in paragraphs (a)(1) through (5) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;

(7) All waters in paragraphs (i) through (v) of this paragraph where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (a)(1) through (3) of this section. The waters identified in each of paragraphs (i) through (v) of this paragraph are similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (a)(1) through (3) of this section. Waters identified in this paragraph shall not be combined with waters identified in paragraph (a)(6) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (a)(6), they are an adjacent water and no case-specific significant nexus analysis is required.

(i) *Prairie potholes*. Prairie potholes are a complex of glacially formed wetlands, usually occurring in depressions that lack permanent natural outlets, located in the upper Midwest.

(ii) *Carolina bays and Delmarva bays*. Carolina bays and Delmarva bays are ponded, depressional wetlands that occur along the Atlantic coastal plain.

(iii) *Pocosins*. Pocosins are evergreen shrub and tree dominated wetlands found predominantly along the Central Atlantic coastal plain.

(iv) *Western vernal pools*. Western vernal pools are seasonal wetlands located in parts of California and associated with topographic depression, soils with poor drainage, mild, wet winters and hot, dry summers.

(v) *Texas coastal prairie wetlands*. Texas coastal prairie wetlands are freshwater wetlands that occur as a mosaic of depressions, ridges, intermound flats, and mima mound wetlands located along the Texas Gulf Coast.

(8) All waters located within the 100-year floodplain of a water identified in (a)(1) through (3) of this section and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (a)(1) through (5) of this section where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (a)(1) through (3) of this section. For waters determined to have a significant nexus, the entire water is a water of the United States if a portion is located within the 100-year floodplain of a water identified in (a)(1) through (3) of this section or within 4,000 feet of the high tide line or ordinary high water mark. Waters identified in this paragraph shall not be combined with waters identified in paragraph

(a)(6) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (a)(6), they are an adjacent water and no case-specific significant nexus analysis is required.

(b) The following are not "waters of the United States" even where they otherwise meet the terms of paragraphs (a)(4) through (8) of this section.

(1) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.

(2) Prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

(3) The following ditches:

(i) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

(ii) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

(iii) Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (a)(1) through (3) of this section.

(4) The following features:

(i) Artificially irrigated areas that would revert to dry land should application of water to that area cease;

(ii) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

(iii) Artificial reflecting pools or swimming pools created in dry land;

(iv) Small ornamental waters created in dry land;

(v) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;

(vi) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways; and

(vii) Puddles.

(5) Groundwater, including groundwater drained through subsurface drainage systems.

(6) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(7) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

(c) Definitions—In this section, the following definitions apply:

(1) *Adjacent.* The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (a)(1) through (5) of this section, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like. For purposes of

adjacency, an open water such as a pond or lake includes any wetlands within or abutting its ordinary high water mark. Adjacency is not limited to waters located laterally to a water identified in paragraphs (a)(1) through (5) of this section. Adjacent waters also include all waters that connect segments of a water identified in paragraphs (a)(1) through (5) or are located at the head of a water identified in paragraphs (a)(1) through (5) of this section and are bordering, contiguous, or neighboring such water. Waters being used for established normal farming, ranching, and silviculture activities (33 U.S.C. 1344(f)) are not adjacent.

(2) *Neighboring.* The term *neighboring* means:

(i) All waters located within 100 feet of the ordinary high water mark of a water identified in paragraphs (a)(1) through (5) of this section. The entire water is neighboring if a portion is located within 100 feet of the ordinary high water mark;

(ii) All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1) through (5) of this section and not more than 1,500 feet from the ordinary high water mark of such water. The entire water is neighboring if a portion is located within 1,500 feet of the ordinary high water mark and within the 100-year floodplain;

(iii) All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (a)(1) or (a)(3) of this section, and all waters within 1,500 feet of the ordinary high water mark of the Great Lakes. The entire water is neighboring if a portion is located within 1,500 feet of the high tide line or within 1,500 feet of the ordinary high water mark of the Great Lakes.

(3) *Tributary* and *tributaries.* The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (a)(4) of this section), to a water identified in paragraphs (a)(1)

through (3) of this section that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark, and thus to qualify as a tributary. A tributary can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, canals, and ditches not excluded under paragraph (b) of this section. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if, for any length, there are one or more constructed breaks (such as bridges, culverts, pipes, or dams), or one or more natural breaks (such as wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and an ordinary high water mark can be identified upstream of the break. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if it contributes flow through a water of the United States that does not meet the definition of tributary or through a non-jurisdictional water to a water identified in paragraphs (a)(1) through (3) of this section.

(4) *Wetlands.* The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(5) *Significant nexus*. The term *significant nexus* means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (a)(1) through (3) of this section. The term "in the region" means the watershed that drains to the nearest water identified in paragraphs (a)(1) through (3) of this section. For an effect to

be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water's effect on downstream (a)(1) through (3) waters shall be assessed by evaluating the aquatic functions identified in paragraphs (i) through (ix) of this paragraph. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in paragraphs (a)(1) through (3) of this section. Functions relevant to the significant nexus evaluation are the following:

(i) Sediment trapping,

(ii) Nutrient recycling,

(iii) Pollutant trapping, transformation, filtering, and transport,

(iv) Retention and attenuation of flood waters,

(v) Runoff storage,

(vi) Contribution of flow,

(vii) Export of organic matter,

(viii) Export of food resources, and

(ix) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in paragraphs (a)(1) through (3) of this section.

(6) O*rdinary high water mark.* The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

*(*7) *High tide line.* The term *high tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

* * * * *

Title 40—Protection of the Environment

For reasons set out in the preamble, title 40, chapter I of the Code of Federal Regulations is amended as follows:

PART 110—DISCHARGE OF OIL

3. The authority citation for part 110 is revised to read as follows:

Authority: The Clean Water Act, 33 U.S.C. 1251 *et.seq.*, 33 U.S.C. 1321(b)(3) and (b)(4) and 1361(a); E.O. 11735, 38 FR 21243, 3 CFR Parts 1971–1975 Comp., p. 793.

4. Section 110.1 is amended by revising the definition of "navigable waters" to read as follows:

§110.1 Definitions.

*** * * * ***

Navigable waters means waters of the United States, including the territorial seas.

(a) For purposes of the Clean Water Act, 33 U.S.C. 1251 *et. seq.* and its implementing regulations, subject to the exclusions in paragraph (b) of this section, the term ''waters of the United States'' means:

(1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(2) All interstate waters, including interstate wetlands;

(3) The territorial seas;

(4) All impoundments of waters otherwise identified as waters of the United States under this section;

(5) All tributaries, as defined in paragraph (c)(3) of this section, of waters identified in paragraphs (a)(1) through (3) of this section;

(6) All waters adjacent to a water identified in paragraphs (a)(1) through (5) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;

(7) All waters in paragraphs (A) through (E) of this paragraph where they are determined, on a case-specific basis, to have a significant nexus to a water identified in

paragraphs (a)(1) through (3) of this section. The waters identified in each of paragraphs (A) through (E) of this paragraph are similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (a)(1) through (3) of this section. Waters identified in this paragraph shall not be combined with waters identified in paragraph (a)(6) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (a)(6), they are an adjacent water and no case-specific significant nexus analysis is required.

(A) Prairie potholes. Prairie potholes are a complex of glacially formed wetlands, usually occurring in depressions that lack permanent natural outlets, located in the upper Midwest.

(B) Carolina bays and Delmarva bays. Carolina bays and Delmarva bays are ponded, depressional wetlands that occur along the Atlantic coastal plain.

(C) Pocosins. Pocosins are evergreen shrub and tree dominated wetlands found predominantly along the Central Atlantic coastal plain.

(D) Western vernal pools. Western vernal pools are seasonal wetlands located in parts of California and associated with topographic depression, soils with poor drainage, mild, wet winters and hot, dry summers.

(E) Texas coastal prairie wetlands. Texas coastal prairie wetlands are freshwater wetlands that occur as a mosaic of depressions, ridges, intermound flats, and mima mound wetlands located along the Texas Gulf Coast.

(8) All waters located within the 100-year floodplain of a water identified in (a)(1) through (3) of this section and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (a)(1) through (5) of this section where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (a)(1) through (3) of this section. For waters determined to have a significant nexus, the entire water is a water of the United States if a portion is located within the 100-year floodplain of a water identified in (a)(1) through (3) of this section or within 4,000 feet of the high tide line or ordinary high water mark. Waters identified in this paragraph shall not be combined with waters identified in paragraph (a)(6) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (a)(6), they are an adjacent water and no case-specific significant nexus analysis is required.

(b) The following are not "waters of the United States" even where they otherwise meet the terms of paragraphs (a)(4) through (8) of this section.

(1) Prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

(2) The following ditches:

(A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

(B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

(C) Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (1)(i) through (iii) of this section.

(3) The following features:

(A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;

(B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

(C) Artificial reflecting pools or swimming pools created in dry land;

(D) Small ornamental waters created in dry land;

(E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;

(F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways; and

(G) Puddles.

(5) Groundwater, including groundwater drained through subsurface drainage systems.

(6) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(7) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds

built for wastewater recycling; and water distributary structures built for wastewater recycling.

(c) Definitions—In this section, the following definitions apply:

(1) *Adjacent.* The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (a)(1) through (5) of this section, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like. For purposes of adjacency, an open water such as a pond or lake includes any wetlands within or abutting its ordinary high water mark. Adjacency is not limited to waters located laterally to a water identified in paragraphs (a)(1) through (5) of this section. Adjacent waters also include all waters that connect segments of a water identified in paragraphs (a)(1) through (5) or are located at the head of a water identified in paragraphs (a)(1) through (5) of this section and are bordering, contiguous, or neighboring such water. Waters being used for established normal farming, ranching, and silviculture activities (33 U.S.C. 1344(f)) are not adjacent.

(2) *Neighboring.* The term *neighboring* means:

(3) All waters located within 100 feet of the ordinary high water mark of a water identified in paragraphs (a)(1) through (5) of this section. The entire water is neighboring if a portion is located within 100 feet of the ordinary high water mark;

(4) All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1) through (5) of this section and not more than 1,500 feet from the ordinary high water mark of such water. The entire water is neighboring if a portion is located within 1,500 feet of the ordinary high water mark and within the 100-year floodplain;

(5) All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (a)(1) or (a)(3) of this section, and all waters within 1,500 feet of the ordinary

high water mark of the Great Lakes. The entire water is neighboring if a portion is located within 1,500 feet of the high tide line or within 1,500 feet of the ordinary high water mark of the Great Lakes.

(6) *Tributary* and *tributaries.* The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (a)(4) of this section), to a water identified in paragraphs (a)(1) through (3) of this section that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark, and thus to qualify as a tributary. A tributary can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, canals, and ditches not excluded under paragraph (b) of this section. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if, for any length, there are one or more constructed breaks (such as bridges, culverts, pipes, or dams), or one or more natural breaks (such as wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and an ordinary high water mark can be identified upstream of the break. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if it contributes flow through a water of the United States that does not meet the definition of tributary or through a non-jurisdictional water to a water identified in paragraphs (a)(1) through (3) of this section.

(7) *Wetlands.* The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal

circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(8) *Significant nexus*. The term *significant nexus* means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (a)(1) through (3) of this section. The term "in the region" means the watershed that drains to the nearest water identified in paragraphs (a)(1) through (3) of this section. For an effect to be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water's effect on downstream (a)(1) through (3) waters shall be assessed by evaluating the aquatic functions identified in paragraphs (A) through (I) of this paragraph. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in paragraphs (a)(1) through (3) of this section. Functions relevant to the significant nexus evaluation are the following:

(i) Sediment trapping,

(ii) Nutrient recycling,

(iii) Pollutant trapping, transformation, filtering, and transport,

(iv) Retention and attenuation of flood waters,

(v) Runoff storage,

(vi) Contribution of flow,

(vii) Export of organic matter,

(viii) Export of food resources, and

(ix) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in paragraphs (a)(1) through (3) of this section.

(6) O*rdinary high water mark.* The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

(7) *High tide line.* The term *high tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

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PART 112 –OIL POLLUTION PREVENTION

5. The authority citation for part 112 is revised to read as follows:

Authority: The Clean Water Act, 33 U.S.C. 1321 *et.seq.*

6. Section 112.2 is amended by revising the definition of "navigable waters" to read as follows:

§112.2 Definitions.

*** * * * ***

Navigable waters means waters of the United States, including the territorial seas.

(1) For purposes of the Clean Water Act, 33 U.S.C. 1251 *et. seq.* and its implementing regulations, subject to the exclusions in paragraph (2) of this section, the term "waters of the United States" means:

(i) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(ii) All interstate waters, including interstate wetlands;

(iii) The territorial seas;

(iv) All impoundments of waters otherwise identified as waters of the United States under this section;

(v) All tributaries, as defined in paragraph (3)(iii) of this section, of waters identified in paragraphs (1)(i) through (iii) of this section;

(vi) All waters adjacent to a water identified in paragraphs (1)(i) through (v) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;

(vii) All waters in paragraphs (A) through (E) of this paragraph where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. The waters identified in each of paragraphs (A) through (E) of this paragraph are similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(A) Prairie potholes. Prairie potholes are a complex of glacially formed wetlands, usually occurring in depressions that lack permanent natural outlets, located in the upper Midwest.

(B) Carolina bays and Delmarva bays. Carolina bays and Delmarva bays are ponded, depressional wetlands that occur along the Atlantic coastal plain.

(C) Pocosins. Pocosins are evergreen shrub and tree dominated wetlands found predominantly along the Central Atlantic coastal plain.

(D) Western vernal pools. Western vernal pools are seasonal wetlands located in parts of California and associated with topographic depression, soils with poor drainage, mild, wet winters and hot, dry summers.

(E) Texas coastal prairie wetlands. Texas coastal prairie wetlands are freshwater wetlands that occur as a mosaic of depressions, ridges, intermound flats, and mima mound wetlands located along the Texas Gulf Coast.

(viii) All waters located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this section and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. For waters determined to have a significant nexus, the entire water is a water of the United States if a portion is located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this section or within 4,000 feet of the high tide line or ordinary high water mark. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(2) The following are not "waters of the United States" even where they otherwise meet the terms of paragraphs (1)(iv) through (viii) of this section.

(i) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.

(ii) Prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

(iii) The following ditches:

(A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

(B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

(C) Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (1)(i) through (iii) of this section.

(iv) The following features:

(A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;

(B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

(C) Artificial reflecting pools or swimming pools created in dry land;

(D) Small ornamental waters created in dry land;

(E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;

(F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways; and

(G) Puddles.

(v) Groundwater, including groundwater drained through subsurface drainage systems.

(vi) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(vii) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

(3) Definitions—In this section, the following definitions apply:

(i) *Adjacent.* The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (1)(i) through (v) of this section, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like. For purposes of adjacency, an open water such as a pond or lake includes any wetlands within or abutting its ordinary high water mark. Adjacency is not limited to waters located laterally to a water identified in paragraphs (1)(i) through (v) of this section. Adjacent waters also include all waters that connect segments of a water identified in paragraphs (1)(i) through (v) or are located at the head of a water identified in paragraphs (1)(i) through (v) of this section and are bordering, contiguous, or neighboring such water. Waters being used for established normal farming, ranching, and silviculture activities (33 USC § 1344(f)) are not adjacent.

(ii) *Neighboring.* The term *neighboring* means:

(A) all waters located within 100 feet of the ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section. The entire water is neighboring if a portion is located within 100 feet of the ordinary high water mark;

(B) all waters located within the 100-year floodplain of a water identified in paragraphs (1)(i) through (v) of this section and not more than 1,500 feet from the ordinary high water mark of such water. The entire water is neighboring if a portion is located within 1,500 feet of the ordinary high water mark and within the 100-year floodplain;

(C) all waters located within 1,500 feet of the high tide line of a water identified in paragraphs (1)(i) or (1)(iii) of this section, and all waters within 1,500 feet of the ordinary high water mark of the Great Lakes. The entire water is neighboring if a portion is located within 1,500 feet of the high tide line or within 1,500 feet of the ordinary high water mark of the Great Lakes.

(iii) *Tributary* and *tributaries.* The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (1)(iv) of this section), to a water identified in paragraphs (1)(i) through (iii) of this section that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark, and thus to qualify as a tributary. A tributary can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, canals, and ditches not excluded under paragraph (2) of this section. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if, for any length, there are one or more constructed breaks (such as bridges, culverts, pipes, or dams), or one or more natural breaks (such as wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and an ordinary high water mark can be identified upstream of the break. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if it contributes flow through a water of the United States that does not meet the definition of tributary or through a non-jurisdictional water to a water identified in paragraphs (1)(i1) through (iii) of this section.

(iv) *Wetlands.* The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(v) *Significant nexus*. The term *significant nexus* means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (1)(i) through (iii) of this section. The term "in the region" means the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. For an effect to be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water's effect on downstream (1)(i) through (iii) waters shall be assessed by evaluating the aquatic functions identified in paragraphs (A) through (I) of this paragraph. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in paragraphs (1)(i) through (iii) of this section. Functions relevant to the significant nexus evaluation are the following:

(A) Sediment trapping,

(B) Nutrient recycling,

(C) Pollutant trapping, transformation, filtering, and transport,

(D) Retention and attenuation of flood waters,

(E) Runoff storage,

(F) Contribution of flow,

(G) Export of organic matter,

(H) Export of food resources, and

(I) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in paragraphs (a)(1) through (3) of this section.

(vi) O*rdinary high water mark.* The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

*(*vii) *High tide line.* The term *high tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that

delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

*** * * * ***

PART 116—DESIGNATION OF HAZARDOUS SUBSTANCE

7. The authority citation for part 116 is revised to read as follows:

Authority: The Clean Water Act, 33 U.S.C. 1321 *et.seq.*

8. Section 116.3 is amended by revising the definition of "navigable waters" to read as follows:

§116.3 Definitions.

*** * * * ***

Navigable waters is defined in section 502(7) of the Act to mean "waters of the United States, including the territorial seas."

(1) For purposes of the Clean Water Act, 33 U.S.C. 1251 *et. seq.* and its implementing regulations, subject to the exclusions in paragraph (2) of this section, the term ''waters of the United States'' means:

(i) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(ii) All interstate waters, including interstate wetlands;

(iii) The territorial seas;

(iv) All impoundments of waters otherwise identified as waters of the United States under this section;

(v) All tributaries, as defined in paragraph (3)(iii) of this section, of waters identified in paragraphs (1)(i) through (iii) of this section;

(vi) All waters adjacent to a water identified in paragraphs (1)(i) through (v) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;

(vii) All waters in paragraphs (A) through (E) of this paragraph where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. The waters identified in each of paragraphs (A) through (E) of this paragraph are similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(A) *Prairie potholes*. Prairie potholes are a complex of glacially formed wetlands, usually occurring in depressions that lack permanent natural outlets, located in the upper Midwest.

(B) *Carolina bays and Delmarva bays*. Carolina bays and Delmarva bays are ponded, depressional wetlands that occur along the Atlantic coastal plain.

(C) *Pocosins*. Pocosins are evergreen shrub and tree dominated wetlands found predominantly along the Central Atlantic coastal plain.

(D) *Western vernal pools*. Western vernal pools are seasonal wetlands located in parts of California and associated with topographic depression, soils with poor drainage, mild, wet winters and hot, dry summers.

(E) *Texas coastal prairie wetlands*. Texas coastal prairie wetlands are freshwater wetlands that occur as a mosaic of depressions, ridges, intermound flats, and mima mound wetlands located along the Texas Gulf Coast.

(viii) All waters located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this section and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. For waters determined to have a significant nexus, the entire water is a water of the United States if a portion is located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this section or within 4,000 feet of the high tide line or ordinary high water mark. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(2) The following are not "waters of the United States" even where they otherwise meet the terms of paragraphs (1)(iv) through (viii) of this section.

(i) Prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

(ii) The following ditches:

(A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

(B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

(C) Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (1)(i) through (iii) of this section.

(iii) The following features:

(A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;

(B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

(C) Artificial reflecting pools or swimming pools created in dry land;

(D) Small ornamental waters created in dry land;

(E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;

(F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways; and

(G) Puddles.

(iv) Groundwater, including groundwater drained through subsurface drainage systems.

(v) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(vi) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

(3) Definitions—In this section, the following definitions apply:

(i) *Adjacent.* The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (1)(i) through (v) of this section, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like. For purposes of adjacency, an open water such as a pond or lake includes any wetlands within or abutting its ordinary high water mark. Adjacency is not limited to waters located laterally to a water identified in paragraphs (1)(i) through (v) of this section. Adjacent waters also include all waters that connect segments of a water identified in paragraphs (1)(i) through (v) or are located at the head of a water identified in paragraphs (1)(i) through (v) of this section and are bordering, contiguous, or neighboring such water. Waters being used for established normal farming, ranching, and silviculture activities (33 U.S.C. 1344(f)) are not adjacent.

(ii) *Neighboring.* The term *neighboring* means:

(A) all waters located within 100 feet of the ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section. The entire water is neighboring if a portion is located within 100 feet of the ordinary high water mark;

(B) all waters located within the 100-year floodplain of a water identified in paragraphs (1)(i) through (v) of this section and not more than 1,500 feet from the ordinary high water mark of such water. The entire water is neighboring if a portion is located within 1,500 feet of the ordinary high water mark and within the 100-year floodplain;

(C) all waters located within 1,500 feet of the high tide line of a water identified in paragraphs (1)(i) or (1)(iii) of this section, and all waters within 1,500 feet of the ordinary high water mark of the Great Lakes. The entire water is neighboring if a portion is located within 1,500 feet of the high tide line or within 1,500 feet of the ordinary high water mark of the Great Lakes.

(iii) *Tributary* and *tributaries.* The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (1)(iv) of this section), to a water identified in paragraphs (1)(i) through (iii) of this section that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark, and thus to qualify as a tributary. A tributary can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, canals, and ditches not excluded under paragraph (2) of this section. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if, for any length, there are one or more constructed breaks (such as bridges, culverts, pipes, or dams), or one or more natural breaks (such as wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and an ordinary high water mark can be identified upstream of the break. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if it contributes flow through a water of the United States that does not meet the definition of tributary or through a non-jurisdictional water to a water identified in paragraphs (1)(i1) through (iii) of this section.

(iv) *Wetlands.* The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(v) *Significant nexus*. The term *significant nexus* means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (1)(i) through (iii) of this section. The term "in the region" means the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. For an effect to be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water's effect on downstream (1)(i) through (iii) waters shall be assessed by evaluating the aquatic functions identified in paragraphs (A) through (I) of this paragraph. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in paragraphs (1)(i) through (iii) of this section. Functions relevant to the significant nexus evaluation are the following:

(A) Sediment trapping,

(B) Nutrient recycling,

(C) Pollutant trapping, transformation, filtering, and transport,

(D) Retention and attenuation of flood waters,

(E) Runoff storage,

(F) Contribution of flow,

(G) Export of organic matter,

(H) Export of food resources, and

(I) provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in paragraphs (a)(1) through (3) of this section.

(vi) O*rdinary high water mark.* The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

(vii) *High tide line.* The term *high tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

*** * * * ***

PART 117—DETERMINATION OF REPORTABLE QUANTITIES FOR HAZARDOUS SUBSTANCES

- 9. The authority citation for part 119 is revised to read as follows:

Authority: The Clean Water Act, 33 U.S.C. 1321 *et.seq.* and Executive Order 11735, superseded by Executive Order 12777, 56 FR 54757.

- 10. Section 117.1 is amended by revising the definition of "navigable waters" to read as follows:

§117.1 Definitions.

*** * * * ***

(i) *Navigable waters* is defined in section 502(7) of the Act to mean "waters of the United States, including the territorial seas."

(1) For purposes of the Clean Water Act, 33 U.S.C. 1251 *et. seq.* and its implementing regulations, subject to the exclusions in paragraph (2) of this section, the term ''waters of the United States'' means:

(i) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(ii) All interstate waters, including interstate wetlands;

(iii) The territorial seas;

(iv) All impoundments of waters otherwise identified as waters of the United States under this section;

(v) All tributaries, as defined in paragraph (3)(iii) of this section, of waters identified in paragraphs (1)(i) through (iii) of this section;

(vi) All waters adjacent to a water identified in paragraphs (1)(i) through (v) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;

(vii) All waters in paragraphs (A) through (E) of this paragraph where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. The waters identified in each of paragraphs (A) through (E) of this paragraph are similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(A) *Prairie potholes*. Prairie potholes are a complex of glacially formed wetlands, usually occurring in depressions that lack permanent natural outlets, located in the upper Midwest.

(B) *Carolina bays and Delmarva bays*. Carolina bays and Delmarva bays are ponded, depressional wetlands that occur along the Atlantic coastal plain.

(C) *Pocosins*. Pocosins are evergreen shrub and tree dominated wetlands found predominantly along the Central Atlantic coastal plain.

(D) *Western vernal pools*. Western vernal pools are seasonal wetlands located in parts of California and associated with topographic depression, soils with poor drainage, mild, wet winters and hot, dry summers.

(E) *Texas coastal prairie wetlands*. Texas coastal prairie wetlands are freshwater wetlands that occur as a mosaic of depressions, ridges, intermound flats, and mima mound wetlands located along the Texas Gulf Coast.

(viii) All waters located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this section and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. For waters determined to have a significant nexus, the entire water is a water of the United States if a portion is located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this section or within 4,000 feet of the high tide line or ordinary high water mark. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(2) The following are not "waters of the United States" even where they otherwise meet the terms of paragraphs (1)(iv) through (viii) of this section.

(i) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.

(ii) Prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

(iii) The following ditches:

(A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

(B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

(C) Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (1)(i) through (iii) of this section.

(iv) The following features:

(A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;

(B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

(C) Artificial reflecting pools or swimming pools created in dry land;

(D) Small ornamental waters created in dry land;

(E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;

(F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways; and

(G) Puddles.

(v) Groundwater, including groundwater drained through subsurface drainage systems.

(vi) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(vii) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

(3) Definitions—In this section, the following definitions apply:

(i) *Adjacent.* The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (1)(i) through (v) of this section, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like. For purposes of adjacency, an open water such as a pond or lake includes any wetlands within or abutting its ordinary high water mark. Adjacency is not limited to waters located laterally to a water identified in paragraphs (1)(i) through (v) of this section. Adjacent waters also include all waters that connect segments of a water identified in paragraphs (1)(i) through (v) or are located at the head of a water identified in paragraphs (1)(i) through (v) of this section and are bordering, contiguous, or neighboring such water. Waters being used for established normal farming, ranching, and silviculture activities (33 U.S.C. 1344(f)) are not adjacent.

(ii) *Neighboring.* The term *neighboring* means:

(A) All waters located within 100 feet of the ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section. The entire water is neighboring if a portion is located within 100 feet of the ordinary high water mark;

(B) All waters located within the 100-year floodplain of a water identified in paragraphs (1)(i) through (v) of this section and not more than 1,500 feet from the ordinary high water mark of such water. The entire water is neighboring if a portion is located within 1,500 feet of the ordinary high water mark and within the 100-year floodplain;

(C) All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (1)(i) or (1)(iii) of this section, and all waters within 1,500 feet of the ordinary high water mark of the Great Lakes. The entire water is neighboring if a portion is located within 1,500 feet of the high tide line or within 1,500 feet of the ordinary high water mark of the Great Lakes.

(iii) *Tributary* and *tributaries.* The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (1)(iv) of this section), to a water identified in paragraphs (1)(i) through (iii) of this section that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark, and thus to qualify as a tributary. A tributary can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, canals, and ditches not excluded under paragraph (2) of this section. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if, for any length, there are one or more constructed breaks (such as bridges, culverts, pipes, or dams), or one or more natural breaks (such as wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and an ordinary high water mark can be identified upstream of the break. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if it contributes flow through a water of the United States that does not meet the definition of tributary or through a non-jurisdictional water to a water identified in paragraphs (1)(i1) through (iii) of this section.

(iv) *Wetlands.* The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(v) *Significant nexus*. The term *significant nexus* means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (1)(i) through (iii) of this section. The term "in the region" means the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. For an effect to be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water's effect on downstream (1)(i) through (iii) waters shall be assessed by evaluating the aquatic functions identified in paragraphs (A) through (I) of this paragraph. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in paragraphs (1)(i) through (iii) of this section. Functions relevant to the significant nexus evaluation are the following:

(A) Sediment trapping,

(B) Nutrient recycling,

(C) Pollutant trapping, transformation, filtering, and transport,

(D) Retention and attenuation of flood waters,

(E) Runoff storage,

(F) Contribution of flow,

(G) Export of organic matter,

(H) Export of food resources, and

(I) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in paragraphs (a)(1) through (3) of this section.

(vi) O*rdinary high water mark.* The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

*(*vii) *High tide line.* The term *high tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

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PART 122—EPA ADMINISTERED PERMIT PROGRAMS: THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

- 11. The authority citation for part 122 continues to read as follows:

Authority: The Clean Water Act, 33 U.S.C. 1251 *et.seq.*

- 12. Section 122.2 is amended by revising the definition of "Waters of the United States" to read as follows:

§122.2 Definitions.

*** * * * ***

Waters of the United States or waters of the U.S. means:

(a) For purposes of the Clean Water Act, 33 U.S.C. 1251 *et. seq.* and its implementing regulations, subject to the exclusions in paragraph (b) of this section, the term ''waters of the United States'' means:

(1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(2) All interstate waters, including interstate wetlands;

(3) The territorial seas;

(4) All impoundments of waters otherwise identified as waters of the United States under this section;

(5) All tributaries, as defined in paragraph (c)(3) of this section, of waters identified in paragraphs (a)(1) through (3) of this section;

(6) All waters adjacent to a water identified in paragraphs (a)(1) through (5) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;

(7) All waters in paragraphs (i) through (v) of this paragraph where they are determined, on a case-specific basis, to have a significant nexus to a water identified in

paragraphs (a)(1) through (3) of this section. The waters identified in each of paragraphs (i) through (v) of this paragraph are similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (a)(1) through (3) of this section. Waters identified in this paragraph shall not be combined with waters identified in paragraph (a)(6) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (a)(6), they are an adjacent water and no case-specific significant nexus analysis is required.

(i) *Prairie potholes*. Prairie potholes are a complex of glacially formed wetlands, usually occurring in depressions that lack permanent natural outlets, located in the upper Midwest.

(ii) *Carolina bays and Delmarva bays*. Carolina bays and Delmarva bays are ponded, depressional wetlands that occur along the Atlantic coastal plain.

(iii) *Pocosins*. Pocosins are evergreen shrub and tree dominated wetlands found predominantly along the Central Atlantic coastal plain.

(iv) *Western vernal pools*. Western vernal pools are seasonal wetlands located in parts of California and associated with topographic depression, soils with poor drainage, mild, wet winters and hot, dry summers.

(v) *Texas coastal prairie wetlands*. Texas coastal prairie wetlands are freshwater wetlands that occur as a mosaic of depressions, ridges, intermound flats, and mima mound wetlands located along the Texas Gulf Coast.

(8) All waters located within the 100-year floodplain of a water identified in (a)(1) through (3) of this section and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (a)(1) through (5) of this section where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (a)(1) through (3) of this section. For waters determined to have a significant nexus, the entire water is a water of the United States if a portion is located within the 100-year floodplain of a water identified in (a)(1) through (3) of this section or within 4,000 feet of the high tide line or ordinary high water mark. Waters identified in this paragraph shall not be combined with waters identified in paragraph (a)(6) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (a)(6), they are an adjacent water and no case-specific significant nexus analysis is required.

(b) The following are not "waters of the United States" even where they otherwise meet the terms of paragraphs (a)(4) through (8) of this section.

(1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States.[13]

[13] At 45 FR 48620, July 21, 1980, the Environmental Protection Agency suspended until further notice in §122.2, the last sentence, beginning "This exclusion applies…" in the definition of "Waters of the United States." This revision (48 FR 14153, Apr. 1, 1983) continues that suspension.

(2) Prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

(3) The following ditches:

(i) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

(ii) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

(iii) Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (a)(1) through (3) of this section.

(4) The following features:

(i) Artificially irrigated areas that would revert to dry land should application of water to that area cease;

(ii) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

(iii) Artificial reflecting pools or swimming pools created in dry land;

(iv) Small ornamental waters created in dry land;

(v) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;

(vi) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways; and

(vii) Puddles.

(5) Groundwater, including groundwater drained through subsurface drainage systems.

(6) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(7) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

(c) Definitions—In this section, the following definitions apply:

(1) *Adjacent.* The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (a)(1) through (5) of this section, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like. For purposes of adjacency, an open water such as a pond or lake includes any wetlands within or abutting its ordinary high water mark. Adjacency is not limited to waters located laterally to a water identified in paragraphs (a)(1) through (5) of this section. Adjacent waters also include all waters that connect segments of a water identified in paragraphs (a)(1) through (5) or are located at the head of a water identified in paragraphs (a)(1) through (5) of this section and are bordering, contiguous, or neighboring such water. Waters being used for established normal farming, ranching, and silviculture activities (33 U.S.C. 1344(f)) are not adjacent.

(2) *Neighboring.* The term *neighboring* means:

(i) All waters located within 100 feet of the ordinary high water mark of a water identified in paragraphs (a)(1) through (5) of this section. The entire water is neighboring if a portion is located within 100 feet of the ordinary high water mark;

(ii) All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1) through (5) of this section and not more than 1,500 feet from the ordinary high water mark of such water. The entire water is neighboring if a portion is located within 1,500 feet of the ordinary high water mark and within the 100-year floodplain;

(iii) All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (a)(1) or (a)(3) of this section, and all waters within 1,500 feet of the ordinary high water mark of the Great Lakes. The entire water is neighboring if a portion is located within 1,500 feet of the high tide line or within 1,500 feet of the ordinary high water mark of the Great Lakes.

(3) *Tributary* and *tributaries.* The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (a)(4) of this section), to a water identified in paragraphs (a)(1) through (3) of this section that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark, and thus to qualify as a tributary. A tributary can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, canals, and ditches not excluded under paragraph (b) of this section. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if, for any length, there

are one or more constructed breaks (such as bridges, culverts, pipes, or dams), or one or more natural breaks (such as wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and an ordinary high water mark can be identified upstream of the break. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if it contributes flow through a water of the United States that does not meet the definition of tributary or through a non-jurisdictional water to a water identified in paragraphs (a)(1) through (3) of this section.

(4) *Wetlands.* The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(5) *Significant nexus*. The term *significant nexus* means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (a)(1) through (3) of this section. The term "in the region" means the watershed that drains to the nearest water identified in paragraphs (a)(1) through (3) of this section. For an effect to be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water's effect on downstream (a)(1) through (3) waters shall be assessed by evaluating the aquatic functions identified in paragraphs (A) through (I) of this paragraph. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region,

contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in paragraphs (a)(1) through (3) of this section. Functions relevant to the significant nexus evaluation are the following:

(i) Sediment trapping,

(ii) Nutrient recycling,

(iii) Pollutant trapping, transformation, filtering, and transport,

(iv) Retention and attenuation of flood waters,

(v) Runoff storage,

(vi) Contribution of flow,

(vii) Export of organic matter,

(viii) Export of food resources, and

(ix) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in paragraphs (a)(1) through (3) of this section.

(6) O*rdinary high water mark.* The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

*(*7) *High tide line.* The term *high tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be

determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

* * * * *

PART 230—SECTION 404(b)(1) GUIDELINES FOR SPECIFICATION OF DISPOSAL SITES FOR DREDGED OR FILL MATERIAL.

13. The authority citation for part 230 is revised to read as follows:

Authority: The Clean Water Act, 33 U.S.C. 1251 *et.seq.*

14. Section 230.3 is amended by revising paragraphs (s) and deleting paragraph (t):

§230.3 Definitions.

*** * * * ***

(s) The term *waters of the United States* means

(1) For purposes of the Clean Water Act, 33 U.S.C. 1251 *et. seq.* and its implementing regulations, subject to the exclusions in paragraph (2) of this section, the term ''waters of the United States'' means:

(i) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(ii) All interstate waters, including interstate wetlands;

(iii) The territorial seas;

(iv) All impoundments of waters otherwise identified as waters of the United States under this section;

(v) All tributaries, as defined in paragraph (3)(iii) of this section, of waters identified in paragraphs (1)(i) through (iii) of this section;

(vi) All waters adjacent to a water identified in paragraphs (1)(i) through (v) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;

(vii) All waters in paragraphs (A) through (E) of this paragraph where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. The waters identified in each of paragraphs (A) through (E) of this paragraph are similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(A) *Prairie potholes*. Prairie potholes are a complex of glacially formed wetlands, usually occurring in depressions that lack permanent natural outlets, located in the upper Midwest.

(B) *Carolina bays and Delmarva bays*. Carolina bays and Delmarva bays are ponded, depressional wetlands that occur along the Atlantic coastal plain.

(C) *Pocosins*. Pocosins are evergreen shrub and tree dominated wetlands found predominantly along the Central Atlantic coastal plain.

(D) *Western vernal pools*. Western vernal pools are seasonal wetlands located in parts of California and associated with topographic depression, soils with poor drainage, mild, wet winters and hot, dry summers.

(E) *Texas coastal prairie wetlands*. Texas coastal prairie wetlands are freshwater wetlands that occur as a mosaic of depressions, ridges, intermound flats, and mima mound wetlands located along the Texas Gulf Coast.

(viii) All waters located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this section and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. For waters determined to have a significant nexus, the entire water is a water of the United States if a portion is located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this section or within 4,000 feet of the high tide line or ordinary high water mark. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(2) The following are not "waters of the United States" even where they otherwise meet the terms of paragraphs (1)(iv) through (viii) of this section.

(i) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.

(ii) Prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

(iii) The following ditches:

(A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

(B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

(C) Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (1)(i) through (iii) of this section.

(iv) The following features:

(A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;

(B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

(C) Artificial reflecting pools or swimming pools created in dry land;

(D) Small ornamental waters created in dry land;

(E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;

(F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways; and

(G) Puddles.

(v) Groundwater, including groundwater drained through subsurface drainage systems.

(vi) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(vii) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

(3) Definitions—In this section, the following definitions apply:

(i) *Adjacent.* The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (1)(i) through (v) of this section, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like. For purposes of adjacency, an open water such as a pond or lake includes any wetlands within or abutting its ordinary high water mark. Adjacency is not limited to waters located laterally to a water identified in paragraphs (1)(i) through (v) of this section. Adjacent waters also include all waters that connect segments of a water identified in paragraphs (1)(i) through (v) or are located at the head of a water identified in paragraphs (1)(i) through (v) of this section and are bordering, contiguous, or neighboring such water. Waters being used for established normal farming, ranching, and silviculture activities (33 U.S.C. 1344(f)) are not adjacent.

(ii) *Neighboring.* The term *neighboring* means:

(A) All waters located within 100 feet of the ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section. The entire water is neighboring if a portion is located within 100 feet of the ordinary high water mark;

(B) All waters located within the 100-year floodplain of a water identified in paragraphs (1)(i) through (v) of this section and not more than 1,500 feet from the ordinary high water mark of such water. The entire water is neighboring if a portion is located within 1,500 feet of the ordinary high water mark and within the 100-year floodplain;

(C) All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (1)(i) or (1)(iii) of this section, and all waters within 1,500 feet of the ordinary high water mark of the Great Lakes. The entire water is neighboring if a portion is located within 1,500 feet of the high tide line or within 1,500 feet of the ordinary high water mark of the Great Lakes.

(iii) *Tributary* and *tributaries.* The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (1)(iv) of this section), to a water identified in paragraphs (1)(i) through (iii) of this section that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark, and thus to qualify as a tributary. A tributary can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, canals, and ditches not excluded under paragraph (2) of this section. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if, for any length, there are one or more constructed breaks (such as bridges, culverts, pipes, or dams), or one or more natural breaks (such as wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and an ordinary high water mark can be identified upstream of the break. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if it contributes flow through a water of the United States that does not meet the definition of tributary or through a non-jurisdictional water to a water identified in paragraphs (1)(i1) through (iii) of this section.

(iv) *Wetlands.* The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(v) *Significant nexus*. The term *significant nexus* means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (1)(i) through (iii) of this section. The term "in the region" means the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. For an effect to be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water's effect on downstream (1)(i) through (iii) waters shall be assessed by evaluating the aquatic functions identified in paragraphs (A) through (I) of this paragraph. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in paragraphs (1)(i) through (iii) of this section. Functions relevant to the significant nexus evaluation are the following:

(A) Sediment trapping,

(B) Nutrient recycling,

(C) Pollutant trapping, transformation, filtering, and transport,

(D) Retention and attenuation of flood waters,

(E) Runoff storage,

(F) Contribution of flow,

(G) Export of organic matter,

(H) Export of food resources, and

(I) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in paragraphs (a)(1) through (3) of this section.

(vi) O*rdinary high water mark.* The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

(vii) *High tide line.* The term *high tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

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PART 232—404 PROGRAMS DEFINITIONS; EXEMPT ACTIVITIES NOT REQUIRING 404 PERMITS

15. The authority citation for part 230 is revised to read as follows:

Authority: The Clean Water Act, 33 U.S.C. 1251 *et.seq.*

16. Section 232.2 is amended by revising the definition of "Waters of the United States" to read as follows:

§ 232.2 Definitions.

* * * * *

(a) *Waters of the United States or waters* means:

(1) For purposes of the Clean Water Act, 33 U.S.C. 1251 *et. seq.* and its implementing regulations, subject to the exclusions in paragraph (2) of this section, the term ''waters of the United States'' means:

(i) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(ii) All interstate waters, including interstate wetlands;

(iii) The territorial seas;

(iv) All impoundments of waters otherwise identified as waters of the United States under this section;

(v) All tributaries, as defined in paragraph (3)(iii) of this section, of waters identified in paragraphs (1)(i) through (iii) of this section;

(vi) All waters adjacent to a water identified in paragraphs (1)(i) through (v) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;

(vii) All waters in paragraphs (A) through (E) of this paragraph where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. The waters identified in each of paragraphs (A) through (E) of this paragraph are similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(A) Prairie potholes. Prairie potholes are a complex of glacially formed wetlands, usually occurring in depressions that lack permanent natural outlets, located in the upper Midwest.

(B) Carolina bays and Delmarva bays. Carolina bays and Delmarva bays are ponded, depressional wetlands that occur along the Atlantic coastal plain.

(C) Pocosins. Pocosins are evergreen shrub and tree dominated wetlands found predominantly along the Central Atlantic coastal plain.

(D) Western vernal pools. Western vernal pools are seasonal wetlands located in parts of California and associated with topographic depression, soils with poor drainage, mild, wet winters and hot, dry summers.

(E) Texas coastal prairie wetlands. Texas coastal prairie wetlands are freshwater wetlands that occur as a mosaic of depressions, ridges, intermound flats, and mima mound wetlands located along the Texas Gulf Coast.

(viii) All waters located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this section and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. For waters determined to have a significant nexus, the entire water is a water of the United States if a portion is located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this section or within 4,000 feet of the high tide line or ordinary high water mark. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(2) The following are not "waters of the United States" even where they otherwise meet the terms of paragraphs (1)(iv) through (viii) of this section.

(i) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.

(ii) Prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

(iii) The following ditches:

(A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

(B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

(C) Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (1)(i) through (iii) of this section.

(iv) The following features:

(A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;

(B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

(C) Artificial reflecting pools or swimming pools created in dry land;

(D) Small ornamental waters created in dry land;

(E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;

(F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways; and

(G) Puddles.

(v) Groundwater, including groundwater drained through subsurface drainage systems.

(vi) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(vii) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

(3) Definitions—In this section, the following definitions apply:

(i) *Adjacent.* The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (1)(i) through (v) of this section, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like. For purposes of adjacency, an open water such as a pond or lake includes any wetlands within or abutting its ordinary high water mark. Adjacency is not limited to waters located laterally to a water identified in paragraphs (1)(i) through (v) of this section. Adjacent waters also include all waters that connect segments of a water identified in paragraphs (1)(i) through (v) or are located at the head of a water identified in paragraphs (1)(i) through (v) of this section and are bordering, contiguous, or neighboring such water. Waters being used for established normal farming, ranching, and silviculture activities (33 U.S.C. 1344(f)) are not adjacent.

(ii) *Neighboring.* The term *neighboring* means:

(A) All waters located within 100 feet of the ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section. The entire water is neighboring if a portion is located within 100 feet of the ordinary high water mark;

(B) All waters located within the 100-year floodplain of a water identified in paragraphs (1)(i) through (v) of this section and not more than 1,500 feet from the ordinary high water mark of such water. The entire water is neighboring if a portion is located within 1,500 feet of the ordinary high water mark and within the 100-year floodplain;

(C) All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (1)(i) or (1)(iii) of this section, and all waters within 1,500 feet of the ordinary high water mark of the Great Lakes. The entire water is neighboring if a portion is located within 1,500 feet of the high tide line or within 1,500 feet of the ordinary high water mark of the Great Lakes.

(iii) *Tributary* and *tributaries.* The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (1)(iv) of this section), to a water identified in paragraphs (1)(i) through (iii) of this section that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark, and thus to qualify as a tributary. A tributary can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, canals, and ditches not excluded under paragraph (2) of this section. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if, for any length, there are one or more constructed breaks (such as bridges, culverts, pipes, or dams), or one or more natural breaks (such as wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and an ordinary high water mark can be identified upstream of the break. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if it contributes flow through a water of the United States that does not meet the definition of tributary or through a non-jurisdictional water to a water identified in paragraphs (1)(i1) through (iii) of this section.

(iv) *Wetlands.* The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(v) *Significant nexus*. The term *significant nexus* means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (1)(i) through (iii) of this section. The term “in the region” means the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. For an effect to be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water's effect on downstream (1)(i) through (iii) waters shall be assessed by evaluating the aquatic functions identified in paragraphs (A) through (I) of this paragraph. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in paragraphs (1)(i) through (iii) of this section. Functions relevant to the significant nexus evaluation are the following:

(A) Sediment trapping,

(B) Nutrient recycling,

(C) Pollutant trapping, transformation, filtering, and transport,

(D) Retention and attenuation of flood waters,

(E) Runoff storage,

(F) Contribution of flow,

(G) Export of organic matter,

(H) Export of food resources, and

(I) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in paragraphs (a)(1) through (3) of this section.

(vi) O*rdinary high water mark.* The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

*(*vii) *High tide line.* The term *high tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

* * * * *

PART 300—NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINTENCY PLAN

17. The authority citation for part 300 is revised to read as follows:

Authority: The Clean Water Act, 33 U.S.C. 1251 *et.seq.*

18. Section 300.5 is amended by revising the definition of "navigable waters" to read as follows:

§ 300.5 Definitions.

* * * * *

Navigable waters as defined by 40 CFR 110.1, means the waters of the United States, including the territorial seas.

(1) For purposes of the Clean Water Act, 33 U.S.C. 1251 *et. seq.* and its implementing regulations, subject to the exclusions in paragraph (2) of this section, the term ''waters of the United States'' means:

(i) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(ii) All interstate waters, including interstate wetlands;

(iii) The territorial seas;

(iv) All impoundments of waters otherwise identified as waters of the United States under this section;

(v) All tributaries, as defined in paragraph (3)(iii) of this section, of waters identified in paragraphs (1)(i) through (iii) of this section;

(vi) All waters adjacent to a water identified in paragraphs (1)(i) through (v) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;

(vii) All waters in paragraphs (A) through (E) of this paragraph where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. The waters identified in each of paragraphs

(A) through (E) of this paragraph are similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(A) *Prairie potholes*. Prairie potholes are a complex of glacially formed wetlands, usually occurring in depressions that lack permanent natural outlets, located in the upper Midwest.

(B) *Carolina bays and Delmarva bays*. Carolina bays and Delmarva bays are ponded, depressional wetlands that occur along the Atlantic coastal plain.

(C) *Pocosins*. Pocosins are evergreen shrub and tree dominated wetlands found predominantly along the Central Atlantic coastal plain.

(D) *Western vernal pools*. Western vernal pools are seasonal wetlands located in parts of California and associated with topographic depression, soils with poor drainage, mild, wet winters and hot, dry summers.

(E) *Texas coastal prairie wetlands*. Texas coastal prairie wetlands are freshwater wetlands that occur as a mosaic of depressions, ridges, intermound flats, and mima mound wetlands located along the Texas Gulf Coast.

(viii) All waters located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this section and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. For waters determined to have a significant nexus, the entire water is a water of the United States if a portion is located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this section or within 4,000 feet of the high tide line or ordinary high water mark. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(2) The following are not "waters of the United States" even where they otherwise meet the terms of paragraphs (1)(iv) through (viii) of this section.

(i) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.

(ii) Prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

(iii) The following ditches:

(A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

(B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

(C) Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (1)(i) through (iii) of this section.

(iv) The following features:

(A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;

(B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

(C) Artificial reflecting pools or swimming pools created in dry land;

(D) Small ornamental waters created in dry land;

(E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;

(F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways; and

(G) Puddles.

(v) Groundwater, including groundwater drained through subsurface drainage systems.

(vi) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(vii) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

(3) Definitions—In this section, the following definitions apply:

(i) *Adjacent.* The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (1)(i) through (v) of this section, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like. For purposes of adjacency, an open water such as a pond or lake includes any wetlands within or abutting its ordinary high water mark. Adjacency is not limited to waters located laterally to a water identified in paragraphs (1)(i) through (v) of this section. Adjacent waters also include all waters that connect segments of a water identified in paragraphs (1)(i) through (v) or are located at the head of a water identified in paragraphs (1)(i) through (v) of this section and are bordering, contiguous, or neighboring such water. Waters being used for established normal farming, ranching, and silviculture activities (33 U.S.C. 1344(f)) are not adjacent.

(ii) *Neighboring.* The term *neighboring* means:

(A) All waters located within 100 feet of the ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section. The entire water is neighboring if a portion is located within 100 feet of the ordinary high water mark;

(B) All waters located within the 100-year floodplain of a water identified in paragraphs (1)(i) through (v) of this section and not more than 1,500 feet from the ordinary high water mark of such water. The entire water is neighboring if a portion is located within 1,500 feet of the ordinary high water mark and within the 100-year floodplain;

(C) All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (1)(i) or (1)(iii) of this section, and all waters within 1,500 feet of the ordinary high water mark of the Great Lakes. The entire water is neighboring if a portion is located within 1,500 feet of the high tide line or within 1,500 feet of the ordinary high water mark of the Great Lakes.

(iii) *Tributary* and *tributaries.* The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (1)(iv) of this section), to a water identified in paragraphs (1)(i) through (iii) of this section that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark, and thus to qualify as a tributary. A tributary can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, canals, and ditches not excluded under paragraph (2) of this section. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if, for any length, there are one or more constructed breaks (such as bridges, culverts, pipes, or dams), or one or more natural breaks (such as wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and an ordinary high water mark can be identified upstream of the break. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if it contributes flow through a water of the United States that does not meet the definition of tributary or through a non-jurisdictional water to a water identified in paragraphs (1)(i1) through (iii) of this section.

(iv) *Wetlands.* The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(v) *Significant nexus*. The term *significant nexus* means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (1)(i) through (iii) of this section. The term "in the region" means the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. For an effect to be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water's effect on downstream (1)(i) through (iii) waters shall be assessed by evaluating the aquatic functions identified in paragraphs (A) through (I) of this paragraph. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in paragraphs (1)(i) through (iii) of this section. Functions relevant to the significant nexus evaluation are the following:

(A) Sediment trapping,

(B) Nutrient recycling,

(C) Pollutant trapping, transformation, filtering, and transport,

(D) Retention and attenuation of flood waters,

(E) Runoff storage,

(F) Contribution of flow,

(G) Export of organic matter,

(H) Export of food resources, and

(I) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in paragraphs (a)(1) through (3) of this section.

(vi) O*rdinary high water mark.* The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

*(*vii) *High tide line.* The term *high tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

* * * * *

19. In appendix E to part 300, section 1.5 Definitions is amended by revising the definition of "navigable waters" to read as follows:

Appendix E to Part 300—Oil Spill Response

1.5 Definitions. * * *

* * * * *

Navigable waters as defined by 40 CFR 110.1, means the waters of the United States, including the territorial seas.

(1) For purposes of the Clean Water Act, 33 U.S.C. 1251 *et. seq.* and its implementing regulations, subject to the exclusions in paragraph (2) of this section, the term ''waters of the United States'' means:

(i) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(ii) All interstate waters, including interstate wetlands;

(iii) The territorial seas;

(iv) All impoundments of waters otherwise identified as waters of the United States under this section;

(v) All tributaries, as defined in paragraph (3)(iii) of this section, of waters identified in paragraphs (1)(i) through (iii) of this section;

(vi) All waters adjacent to a water identified in paragraphs (1)(i) through (v) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;

(vii) All waters in paragraphs (A) through (E) of this paragraph where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. The waters identified in each of paragraphs (A) through (E) of this paragraph are similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(A) *Prairie potholes*. Prairie potholes are a complex of glacially formed wetlands, usually occurring in depressions that lack permanent natural outlets, located in the upper Midwest.

(B) *Carolina bays and Delmarva bays*. Carolina bays and Delmarva bays are ponded, depressional wetlands that occur along the Atlantic coastal plain.

(C) *Pocosins*. Pocosins are evergreen shrub and tree dominated wetlands found predominantly along the Central Atlantic coastal plain.

(D) *Western vernal pools*. Western vernal pools are seasonal wetlands located in parts of California and associated with topographic depression, soils with poor drainage, mild, wet winters and hot, dry summers.

(E) *Texas coastal prairie wetlands*. Texas coastal prairie wetlands are freshwater wetlands that occur as a mosaic of depressions, ridges, intermound flats, and mima mound wetlands located along the Texas Gulf Coast.

(viii) All waters located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this section and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. For waters determined to have a significant nexus, the entire water is a water of the United States if a portion is located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this section or within 4,000 feet of the high tide line or ordinary high water mark. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(2) The following are not "waters of the United States" even where they otherwise meet the terms of paragraphs (1)(iv) through (viii) of this section.

(i) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.

(ii) Prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

(iii) The following ditches:

(A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

(B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

(C) Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (1)(i) through (iii) of this section.

(iv) The following features:

(A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;

(B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

(C) Artificial reflecting pools or swimming pools created in dry land;

(D) Small ornamental waters created in dry land;

(E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;

(F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways; and

(G) Puddles.

(v) Groundwater, including groundwater drained through subsurface drainage systems.

(vi) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(vii) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

(3) Definitions—In this section, the following definitions apply:

(i) *Adjacent.* The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (1)(i) through (v) of this section, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like. For purposes of adjacency, an open water such as a pond or lake includes any wetlands within or abutting its ordinary high water mark. Adjacency is not limited to waters located laterally to a water identified in paragraphs (1)(i) through (v) of this section. Adjacent waters also include all waters that connect segments of a water identified in paragraphs (1)(i) through (v) or are located at the head of a water identified in paragraphs (1)(i) through (v) of this section and are bordering, contiguous, or neighboring such water. Waters being used for established normal farming, ranching, and silviculture activities (33 U.S.C. 1344(f)) are not adjacent.

(ii) *Neighboring.* The term *neighboring* means:

(A) All waters located within 100 feet of the ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section. The entire water is neighboring if a portion is located within 100 feet of the ordinary high water mark;

(B) All waters located within the 100-year floodplain of a water identified in paragraphs (1)(i) through (v) of this section and not more than 1,500 feet from the ordinary high water mark of such water. The entire water is neighboring if a portion is located within 1,500 feet of the ordinary high water mark and within the 100-year floodplain;

(C) All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (1)(i) or (1)(iii) of this section, and all waters within 1,500 feet of the ordinary high water mark of the Great Lakes. The entire water is neighboring if a portion is located within 1,500 feet of the high tide line or within 1,500 feet of the ordinary high water mark of the Great Lakes.

(iii) *Tributary* and *tributaries.* The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (1)(iv) of this section), to a water identified in paragraphs (1)(i) through (iii) of this section that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark, and thus to qualify as a tributary. A tributary can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, canals, and ditches not excluded under paragraph (2) of this section. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if, for any length, there are one or more constructed breaks (such as bridges, culverts, pipes, or dams), or one or more natural breaks (such as wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and an ordinary high water mark can be identified upstream of the break. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if it contributes flow through a water of the United States that does not meet the definition of tributary or through a non-jurisdictional water to a water identified in paragraphs (1)(i1) through (iii) of this section.

(iv) *Wetlands.* The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(v) *Significant nexus*. The term *significant nexus* means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (1)(i) through (iii) of this section. The term "in the region" means the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. For an effect to be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water's effect on downstream (1)(i) through (iii) waters shall be assessed by evaluating the aquatic functions identified in paragraphs (A) through (I) of this paragraph. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in paragraphs (1)(i) through (iii) of this section. Functions relevant to the significant nexus evaluation are the following:

(A) Sediment trapping,

(B) Nutrient recycling,

(C) Pollutant trapping, transformation, filtering, and transport,

(D) Retention and attenuation of flood waters,

(E) Runoff storage,

(F) Contribution of flow,

(G) Export of organic matter,

(H) Export of food resources, and

(I) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in paragraphs (a)(1) through (3) of this section.

(vi) O*rdinary high water mark.* The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

(vii) *High tide line.* The term *high tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that

delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

* * * * *

PART 302—DESIGNATION, REPORTABLE QUANTITIES, AND NOTIFICATION

20. The authority citation for part 302 is revised to read as follows:

Authority: The Clean Water Act, 33 U.S.C. 1251 *et.seq.*

21. Section 302.3 is amended by revising the definition of "navigable waters" to read as follows:

§302.3 Definitions.

* * * * *

Navigable waters as defined by 40 CFR 110.1, means the waters of the United States, including the territorial seas.

(1) For purposes of the Clean Water Act, 33 U.S.C. 1251 *et. seq.* and its implementing regulations, subject to the exclusions in paragraph (2) of this section, the term ''waters of the United States'' means:

(i) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(ii) All interstate waters, including interstate wetlands;

(iii) The territorial seas;

(iv) All impoundments of waters otherwise identified as waters of the United States under this section;

(v) All tributaries, as defined in paragraph (3)(iii) of this section, of waters identified in paragraphs (1)(i) through (iii) of this section;

(vi) All waters adjacent to a water identified in paragraphs (1)(i) through (v) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;

(vii) All waters in paragraphs (A) through (E) of this paragraph where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. The waters identified in each of paragraphs (A) through (E) of this paragraph are similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(A) *Prairie potholes*. Prairie potholes are a complex of glacially formed wetlands, usually occurring in depressions that lack permanent natural outlets, located in the upper Midwest.

(B) *Carolina bays and Delmarva bays*. Carolina bays and Delmarva bays are ponded, depressional wetlands that occur along the Atlantic coastal plain.

(C) *Pocosins*. Pocosins are evergreen shrub and tree dominated wetlands found predominantly along the Central Atlantic coastal plain.

(D) *Western vernal pools*. Western vernal pools are seasonal wetlands located in parts of California and associated with topographic depression, soils with poor drainage, mild, wet winters and hot, dry summers.

(E) *Texas coastal prairie wetlands*. Texas coastal prairie wetlands are freshwater wetlands that occur as a mosaic of depressions, ridges, intermound flats, and mima mound wetlands located along the Texas Gulf Coast.

(viii) All waters located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this section and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. For waters determined to have a significant nexus, the entire water is a water of the United States if a portion is located within the 100-year floodplain of a water identified in (1)(i) through (iii) of this section or within 4,000 feet of the high tide line or ordinary high water mark. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(2) The following are not "waters of the United States" even where they otherwise meet the terms of paragraphs (1)(iv) through (viii) of this section.

(i) The following ditches:

(A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

(B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

(C) Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (1)(i) through (iii) of this section.

(ii) The following features:

(A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;

(B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

(C) Artificial reflecting pools or swimming pools created in dry land;

(D) Small ornamental waters created in dry land;

(E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;

(F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways; and

(G) Puddles.

(iii) Groundwater, including groundwater drained through subsurface drainage systems.

(iv) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(v) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

(3) Definitions—In this section, the following definitions apply:

(i) *Adjacent.* The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (1)(i) through (v) of this section, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like. For purposes of adjacency, an open water such as a pond or lake includes any wetlands within or abutting its ordinary high water mark. Adjacency is not limited to waters located laterally to a water identified in paragraphs (1)(i) through (v) of this section. Adjacent waters also include all waters that connect segments of a water identified in paragraphs (1)(i) through (v) or are located at the head of a water identified in paragraphs (1)(i) through (v) of this section and are bordering, contiguous, or neighboring such water. Waters being used for established normal farming, ranching, and silviculture activities (33 U.S.C. 1344(f)) are not adjacent.

(ii) *Neighboring.* The term *neighboring* means:

(A) All waters located within 100 feet of the ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section. The entire water is neighboring if a portion is located within 100 feet of the ordinary high water mark;

(B) All waters located within the 100-year floodplain of a water identified in paragraphs (1)(i) through (v) of this section and not more than 1,500 feet from the ordinary high water mark of such water. The entire water is neighboring if a portion is located within 1,500 feet of the ordinary high water mark and within the 100-year floodplain;

(C) All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (1)(i) or (1)(iii) of this section, and all waters within 1,500 feet of the ordinary high water mark of the Great Lakes. The entire water is neighboring if a portion is located within 1,500 feet of the high tide line or within 1,500 feet of the ordinary high water mark of the Great Lakes.

(iii) *Tributary* and *tributaries.* The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (1)(iv) of this section), to a water identified in paragraphs (1)(i) through (iii) of this section that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark, and thus to qualify as a tributary. A tributary can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, canals, and ditches not excluded under paragraph (2) of this section. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if, for any length, there are one or more constructed breaks (such as bridges, culverts, pipes, or dams), or one or more natural breaks (such as wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and an ordinary high water mark can be identified upstream of the break. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if it contributes flow through a water of the United States that does not meet the definition of tributary or through a non-jurisdictional water to a water identified in paragraphs (1)(i1) through (iii) of this section.

(iv) *Wetlands.* The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(v) *Significant nexus*. The term *significant nexus* means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (1)(i) through (iii) of this section. The term "in the region" means the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. For an effect to be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water's effect on downstream (1)(i) through (iii) waters shall be assessed by evaluating the aquatic functions identified in paragraphs (A) through (I) of this paragraph. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in paragraphs (1)(i) through (iii) of this section. Functions relevant to the significant nexus evaluation are the following:

(A) Sediment trapping,

(B) Nutrient recycling,

(C) Pollutant trapping, transformation, filtering, and transport,

(D) Retention and attenuation of flood waters,

(E) Runoff storage,

(F) Contribution of flow,

(G) Export of organic matter,

(H) Export of food resources, and

(I) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in paragraphs (a)(1) through (3) of this section.

(vi) O*rdinary high water mark.* The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

(vii) *High tide line.* The term *high tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that

delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

* * * * *

PART 401—GENERAL PROVISIONS

22. The authority citation for part 401 is revised to read as follows:

Authority: The Clean Water Act, 33 U.S.C. 1251 *et.seq.*

23. Section 401.11 is amended by revising paragraph (l) to read as follows:

§401.11 General definitions.

* * * * *

(l) The term *navigable waters* as defined by 40 CFR 110.1, means the waters of the United States, including the territorial seas.

(1) For purposes of the Clean Water Act, 33 U.S.C. 1251 *et. seq.* and its implementing regulations, subject to the exclusions in paragraph (2) of this section, the term ''waters of the United States'' means:

(i) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(ii) All interstate waters, including interstate wetlands;

(iii) The territorial seas;

(iv) All impoundments of waters otherwise identified as waters of the United States under this section;

(v) All tributaries, as defined in paragraph (3)(iii) of this section, of waters identified in paragraphs (1)(i) through (iii) of this section;

(vi) All waters adjacent to a water identified in paragraphs (1)(i) through (v) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;

(vii) All waters in paragraphs (A) through (E) of this paragraph where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (1)(i) through (iii) of this section. The waters identified in each of paragraphs (A) through (E) of this paragraph are similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. Waters identified in this paragraph shall not be combined with waters identified in paragraph (1)(vi) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (1)(vi), they are an adjacent water and no case-specific significant nexus analysis is required.

(A) *Prairie potholes*. Prairie potholes are a complex of glacially formed wetlands, usually occurring in depressions that lack permanent natural outlets, located in the upper Midwest.

(B) *Carolina bays and Delmarva bays*. Carolina bays and Delmarva bays are ponded, depressional wetlands that occur along the Atlantic coastal plain.

(C) *Pocosins*. Pocosins are evergreen shrub and tree dominated wetlands found predominantly along the Central Atlantic coastal plain.

(D) *Western vernal pools*. Western vernal pools are seasonal wetlands located in parts of California and associated with topographic depression, soils with poor drainage, mild, wet winters and hot, dry summers.

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(2) The following are not "waters of the United States" even where they otherwise meet the terms of paragraphs (1)(iv) through (viii) of this section..

(i) Prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

(ii) The following ditches:

(A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

(B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

(C) Ditches that do not flow, either directly or through another water, into a water identified in paragraphs (1)(i) through (iii) of this section.

(iii) The following features:

(A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;

(B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

(C) Artificial reflecting pools or swimming pools created in dry land;

(D) Small ornamental waters created in dry land;

(E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;

(F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways; and

(G) Puddles.

(iv) Groundwater, including groundwater drained through subsurface drainage systems.

(v) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(vi) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

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(ii) *Neighboring.* The term *neighboring* means:

(A) All waters located within 100 feet of the ordinary high water mark of a water identified in paragraphs (1)(i) through (v) of this section. The entire water is neighboring if a portion is located within 100 feet of the ordinary high water mark;

(B) All waters located within the 100-year floodplain of a water identified in paragraphs (1)(i) through (v) of this section and not more than 1,500 feet from the ordinary high water mark of such water. The entire water is neighboring if a portion is located within 1,500 feet of the ordinary high water mark and within the 100-year floodplain;

(C) All waters located within 1,500 feet of the high tide line of a water identified in paragraphs (1)(i) or (1)(iii) of this section, and all waters within 1,500 feet of the ordinary high water mark of the Great Lakes. The entire water is neighboring if a portion is located within 1,500 feet of the high tide line or within 1,500 feet of the ordinary high water mark of the Great Lakes.

(iii) *Tributary* and *tributaries.* The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (1)(iv) of this section), to a water identified in paragraphs (1)(i) through (iii) of this section that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark, and thus to qualify as a tributary. A tributary can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, canals, and ditches not excluded under paragraph (2) of this section. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if, for any length, there are one or more constructed breaks (such as bridges, culverts, pipes, or dams), or one or more natural breaks (such as wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and an ordinary high water mark can be identified upstream of the break. A water that otherwise qualifies as a tributary under this definition does not lose its status as a tributary if it contributes flow through a water of the United States that does not meet the definition of tributary or through a non-jurisdictional water to a water identified in paragraphs (1)(i) through (iii) of this section.

(iv) *Wetlands.* The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(v) *Significant nexus*. The term *significant nexus* means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (1)(i) through (iii) of this section. The term "in the region" means the watershed that drains to the nearest water identified in paragraphs (1)(i) through (iii) of this section. For an effect to be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water's effect on downstream (1)(i) through (iii) waters shall be assessed by evaluating the aquatic functions identified in paragraphs (A) through (I) of this paragraph. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in paragraphs (1)(i) through (iii) of this section. Functions relevant to the significant nexus evaluation are the following:

(A) Sediment trapping,

(B) Nutrient recycling,

(C) Pollutant trapping, transformation, filtering, and transport,

(D) Retention and attenuation of flood waters,

(E) Runoff storage,

(F) Contribution of flow,

(G) Export of organic matter,

(H) Export of food resources, and

(I) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in paragraphs (a)(1) through (3) of this section.

(vi) O*rdinary high water mark.* The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

*(*vii) *High tide line.* The term *high tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

* * * * *

REPORTED

IN THE COURT OF SPECIAL APPEALS

OF MARYLAND

No. 2199

September Term, 2013

MARYLAND DEPARTMENT
OF THE ENVIRONMENT, ET AL.

v.

ANACOSTIA RIVERKEEPER, ET AL.

Nazarian,
Leahy,
Friedman,

JJ.

Opinion by Nazarian, J.

Filed: April 2, 2015

TABLE OF CONTENTS

This case arises out of protracted litigation over the terms of the stormwater management permit (the "Permit") that the Maryland Department of the Environment ("the Department") issued to Montgomery County (the "County") in 2010. The County and Department appeal the decision of the Circuit Court for Montgomery County remanding the Permit to the Department "for further proceedings to allow the agency to comply with Maryland law, the Clean Water Act, and federal regulations consistent with" the court's interpretation of the governing law and regulations. We agree that the Permit must be revised, and so we affirm the circuit court's decision to remand. Importantly, though, we hold that the Department and the County had the law right: the Permit falls short not for failing to hold the County to State water quality standards, as the challengers urge,[1] but because it did not afford an appropriate opportunity for public notice and comment and because it lacks crucial details that would explain the County's stormwater management obligations.

I. BACKGROUND

Stormwater is what the word suggests: water from rain- or other storm events that, as it (over)flows into streams and rivers, picks up and carries large quantities of pollutants that evade Mother Nature's filtration process. The pollutants can include anything from

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[1] The challengers include Anacostia Riverkeeper and other self-described "local and regional environmental groups dedicated to restoring and protecting waters that flow through Montgomery County," who challenged the Permit based on a number of concerns including those we will describe below.

road detritus—trash, road salts, grease, and other materials from cars—to pesticides, to natural materials, such as fecal bacteria from animal waste.

The County collects stormwater through a municipal separate storm sewer system (the County's is big enough to qualify as an "MS4," a term we will define later) that covers a nearly-500-square-mile area. After it falls from the sky, stormwater flows, in higher volumes and at higher speeds, through natural outfalls or through the County's sewer pipes and wastewater treatment facilities, then into the Middle Potomac and Patuxent River basins. Everyone agrees that this is bad for the rivers: in its comments during the Permit application process, the Department recognized that interested parties saw stormwater as "the '. . . biggest form of pollution affecting the Anacostia River. . .' carrying trash and accumulated pollutants and causing flooding in low-lying areas of various watersheds throughout the County. . . . It becomes fairly easy for all organizations, individuals, and government agencies to agree that urban stormwater is a problem that must be addressed." And just as everything else in life flows downhill, the pollution (and corresponding degradation of water quality) flows downstream into the waters of the District of Columbia and Prince George's County, and eventually into the Chesapeake Bay.

The Clean Water Act (the "Act"), along with its Maryland counterpart and overlapping layers of regulations,[2] regulates and seeks to limit water pollution from

[2] Despite our best efforts to avoid jargon and acronyms, the Act, its state law counterpart, and the various regulations rely on them in abundance. Fortunately, the law, the parties, and the record all seem to use terms consistently, and we will follow suit.

stormwater runoff into municipal sewer systems that discharge into rivers. This case involves a successful challenge to the terms of the stormwater permit the Department issued to the County in 2010. We begin by discussing the statutory requirements, then walk through the process the County went through with the Department to obtain the Permit, then summarize the proceedings that culminated in this appeal.

A. Statutory Background.

1. The Clean Water Act and federal permit requirements.

The Act was passed in 1972 to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters," 33 U.S.C. § 1251(a). The Act presumptively prohibits the discharge of pollutants, *id.* § 1251(a)(1), and renders any discharge unlawful, *id.* § 1311(a), unless the discharging party obtains a permit under the "National Pollutant Discharge Elimination System" ("NPDES"). *Id.* § 1342(a)(1).

As initially drafted, § 1311 limited the amount of pollutants that could enter the water from a particular source. The Act imposes "effluent limitations" on discharges from any "point source" (a term we will get to momentarily) by requiring the source to use "the best practicable control technology ["BPT"] currently available." 33 U.S.C. § 1311(b)(1)(A)(i). When first enacted, the Act required effluent limitations to be in place by July 1, 1977. *Id.* § 1311(b)(1)(A). Section 1311 also required compliance with any "*more stringent limitation*, including those necessary to meet water quality standards . . . established pursuant to any State law or regulations." *Id.* § 1311(b)(1)(C) (emphasis added); *see also Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1163 (9th Cir. 1999) (noting too that "although the BPT requirement takes into account issues of practicability," the EPA nonetheless requires the level of controls necessary to "implement existing water quality standards" (quoting *Rybachek v. EPA*, 905 F.2d 1276, 1289 (9th Cir. 1990))).

At its inception, the Act directed its efforts primarily at the most obvious "point source" pollution. The term "point source" was defined within the Act in a technical way that aimed to capture a broad universe of potential pollution sources:

> 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.

33 U.S.C.A. § 1362(14); *see also* 40 C.F.R. § 122.2. The parties don't dispute that a sewage system like the County's qualifies as a network of point sources, but that point has not been altogether obvious since the Act came about. The Act did not purport initially to regulate stormwater discharge, and in fact exempted stormwater separate from industrial or commercial activity. *See Natural Resources Defense Council, Inc. v. Costle*, 568 F.2d 1369, 1372 n.5 (D.C. Cir. 1977) (citing 40 C.F.R. § 125.4 (1975)); *see also* Jeffrey G. Miller, *The Supreme Court's Water Pollution Jurisprudence: Is the Court All Wet?,* 24 Va. Envtl. L.J. 125, 131-32 (2005); *The Clean Water Act Handbook* at 167 (Mark A. Ryan ed. 2011) ("Stormwater runoff in the early days of the NPDES program was treated as a diffuse source of *nonpoint source pollution*. This may have seemed logical because most runoff cannot efficiently be controlled using the strict end-of-pipe effluent limitations that are

effective in regulating traditional industrial and municipal discharges." (emphasis added)). But in 1987, Congress amended the Act to bring stormwater discharge specifically within its reach, and since then storm sewer discharge has been treated as a point source and covered by the NPDES permit requirements. *Natural Res. Def. Council v. EPA*, 966 F.2d 1292, 1296 & n.5 (9th Cir. 1992).[3] *See* 33 U.S.C. § 1342(p)(3)(B); *see also Browner*, 191 F.3d 1159. The amendments applied discharge limitations to MS4 systems that serve a population of 100,000 or more,[4] 33 U.S.C. § 1342(p)(2)(C), (D):

> *Permits* for discharges from municipal storm sewers . . . (iii) *shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices*, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.

33 U.S.C. §1342(p)(3)(B) (emphasis added).

The Act also raises standards for permits where the "effluent limitations [imposed by § 1311] are not stringent enough to implement any water quality standard applicable to

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[3] The amendments came about in part because of a 1977 court decision that held that the EPA lacked the authority to exempt *any* particular category of point source (such as MS4s) from the Act's reach. *See Natural Res. Def. Council v. Costle*, 568 F.2d 1369, 1379 (D.C. Cir. 1977) ("[T]he existence of uniform national effluent limitations is not a necessary precondition for incorporating into the NPDES program pollution from . . . storm water runoff point sources. The technological or administrative infeasibility of such limitations may result in adjustments in the permit programs, . . . but it does not authorize the Administrator to exclude the relevant point source from the NPDES program.").

[4] The County's system here falls within that description.

such waters." *Id.* § 1313(d). A state must establish a total maximum daily load ("TMDL") for those pollutants that keep it from meeting water quality standards; the TMDL "is the sum of pollutants a body of water can absorb from all point and non-point sources, plus a margin of safety, and still meet water quality standards for its designated uses." *Assateague Coastkeeper v. Maryland Dep't of the Env.*, 200 Md. App. 665, 675 n.8 (2011). So, for example, the EPA has issued a TMDL for the Chesapeake Bay that applies expressly to this Permit, in addition to other local TMDLs. As the Chesapeake Bay Foundation explains it,[5] "Maryland's ability to comply with the Bay TMDL pollution reduction requirements relies heavily on reducing pollutants from urban stormwater," and "*the ability to track and confirm progress*" on that reduction "through public participation, monitoring, and setting and using interim benchmarks *is of the utmost importance*" (emphasis added).

The "maximum extent practicable" language in § 1342 leaves altogether unclear, though, who *deems* a measure maximally practicable. And although that concept differs from the prior standard, and relieves municipal systems of the burden to meet specific water quality standards (a burden that still applies to private sources), it leaves open whether MS4s also must comply with the "effluent limitations" (and concomitant BPT standard) in § 1311. Add to this mix the state environmental regulations we discuss next, and the picture (like the water) becomes murkier.

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[5] The Foundation sought permission to file an *amicus curiae* brief and we granted its request on August 15, 2014.

2. The role of the States and Maryland's permit requirements.

The Act recognizes the "responsibilities and rights" of the various states to respond to System requirements, *id.* § 1251(b), and the EPA has delegated to Maryland the right to issue permits, *see Assateague Coastkeeper*, 200 Md. App. at 677-78 n.10, a task that it in turn has delegated to the Department. The Environment Article to the Maryland Code declares pollution to be "a menace to public health and welfare," and declares the State's policies regarding water pollution and water quality:

> (1) To improve, conserve, and manage the quality of the waters of this State;
>
> (2) To protect, maintain, and improve the quality of water for public supplies, propagation of wildlife, fish, and aquatic life, and domestic, agricultural, industrial, recreational, and other legitimate beneficial uses;
>
> (3) To provide that no waste is discharged into any waters of this State without first receiving necessary treatment or other corrective action to protect the legitimate beneficial uses of the waters of this State;
>
> (4) Through innovative and alternative methods of waste and wastewater treatment, to provide and promote prevention, abatement, and control of new or existing water pollution; and
>
> (5) To promote and encourage the use of reclaimed water in order to conserve water supplies, facilitate the indirect recharge of groundwater, and develop an alternative to discharging wastewater effluent to surface waters, thus pursuing the goal of the Clean Water Act to end the discharge of pollutants and meet the nutrient reduction goals of the Chesapeake Bay Agreement.

Md. Code (1996, 2007 Repl. Vol.), § 9-302(b) of the Environment Article ("Envir."). Like the Act, Maryland law prohibits discharges generally (providing that "a person may not discharge any pollutant into the waters of this State," *id.* § 9-322), but allows for a discharge permit to issue from the Department, *id.* § 9-323, and specifies both what a permit must contain and how it must be obtained:

> (a) Subject to the provisions of this section, the Department may issue a discharge permit if the Department finds that the discharge meets:
>
> (1) *All applicable State and federal water quality standards and effluent limitations*; and
>
> (2) All other requirements of this subtitle.
>
> * * *
>
> (d) The Department shall give public notice of each application for a discharge permit as required by Title 1, Subtitle 6 of this article, and *by making available to the public appropriate documents, permit applications, supporting material, plans, and other relevant information*.

Id. § 9-324 (emphasis added).

The statute also allows the Department to "adopt rules and regulations that set, for the waters of this State, water quality standards and effluent standards":

> (a) These standards shall be designed to protect:
>
> (1) The public health, safety, and welfare;
>
> (2) Present and future use of the waters of this State for public water supply;
>
> (3) The propagation of aquatic life and wildlife;

> (4) Recreational use of the waters of this State; and
>
> (5) Agricultural, industrial, and other legitimate uses of the waters of this State.
>
> (b) *The rules and regulations adopted under this section shall include at least the following*:
>
> (1) *Water quality standards* that specify the maximum permissible short term and long term concentrations of pollutants in the water, the minimum permissible concentrations of dissolved oxygen and other desirable matter in the water, and the temperature range for the water.
>
> (2) *Effluent standards* that specify the maximum loading or concentrations and the physical, thermal, chemical, biological, and radioactive properties of wastes that may be discharged into the waters of this State.
>
> * * *
>
> (c) *Effluent standards set under this section shall be at least as stringent as those specified by the National Pollutant Discharge Elimination System.*

Id. § 9-314 (emphasis added).

This background establishes the simple premise that federal and state laws and regulations limit a county or other governmental entity from letting stormwater runoff go unchecked into our waters, and give that entity the flexibility to devise maximally practicable measures to deal with the problem. Turning that seemingly straightforward anti-pollution premise into real-life permits, however, is a challenging task.

B. The Permit.

In 1996, the Department issued the County its first municipal separate storm sewerage system ("MS4") permit, for a five-year term. The permit reissued in 2001 and at least once after.[6] In 2009, after the renewal application process for the most recent permit was underway, the Department recognized the need for strict monitoring of stormwater discharge. In its response to comments to the proposed permit, the Department stated that the new Permit would require the County to intensify its efforts, that it would

> force [the County] to make major strides toward controlling urban runoff better than ever before. New conditions such as . . . requiring an additional twenty percent of the County's impervious area to be restored are major additions. Additionally, a firm commitment for TMDL implementation according to the plan that the County is required to develop within one year of permit issuance is the strongest evidence yet of what MDE believes will move these programs forward toward the ultimate goal of meeting water quality standards.

This response came after public comment on a "tentative determination to issue permit" that the Department had issued in September 2008. The appellees filed timely comments on December 1, 2008, and complained (among other arguments) that the draft permit did not include enforceable language or deadlines, did not link in a meaningful way to water quality standards or TMDLs, did not allow for meaningful public participation or

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[6] The Department states in its brief that the Permit was reissued in 2006 as well. Anacostia disagrees, although it claims (without citing any authority) that the renewal took place in 2010, "more than three years *after* it was scheduled to expire." (Emphasis added.) This dispute doesn't matter to our analysis.

review of the County Stormwater Management Program, and lacked adequate monitoring and reporting requirements. After receiving additional comments from other interested parties, the Department issued a notice of final determination to issue the Permit (the "Notice") on March 4, 2009 without substantial changes, and it issued the Permit itself on February 16, 2010, for a five-year period that expired on February 15, 2015.[7]

The final Permit specifically required the County to "implement or install best management practices on twenty percent of the impervious surfaces within the County in an effort to restore the pollution reduction functions performed by undeveloped land," which in turn required the County to submit "a long-term schedule for the completion of detailed assessments of each watershed in the County." (This requirement comes into play below, we will refer to it from here as the "twenty percent requirement"). The Permit calls for pollution controls that include implementation of "management programs . . . designed to control stormwater discharges to the maximum extent practicable." And the stormwater

[7] We asked at oral argument whether this appeal would be moot if this litigation weren't resolved by the Permit's then-impending (and now past) expiration date. The Department responded, and we are comfortable, that the disputes remain live after February 15 for two reasons. *First*, as we discuss in detail below, the Permit requires that "the County must *submit* an implementation plan for complying with the requirement for [twenty] percent restoration within the 5-year term of the [P]ermit" (emphasis added), but does not seem expressly to require that the plan be *executed* fully by then, so it is still subject to revision after it nominally expires. *Second*, the Department advised us that the application for the succeeding permit had not yet begun at the time of argument, that the process (including notice and comment periods) for a new permit could not be completed before this one expired, and that the terms of the existing Permit would remain in place until superseded.

management program requires that the County, at a minimum, "[c]onduct preventative maintenance" by inspecting "all stormwater management facilities at least on a triennial basis"; "[i]mplement the stormwater management design policies, principles, methods, and practices found in the *2000 Maryland Stormwater Design Manual*" (the "Manual"); and "[m]aintain programmatic and implementation information according to the requirements established as part of [the Department's] triennial stormwater program review."

C. The Proceedings.

This case began not with the current appeal, but an earlier one. After the Department filed the Notice, Anacostia requested a contested case hearing on March 18, 2009. (At the time, Envir. § 1-605(a) allowed for a contested case proceeding.) An administrative law judge ("ALJ") concluded that Anacostia lacked standing to challenge the Permit because it had no special interest to protect beyond that of the general public. Anacostia sought judicial review in July 2009 in the Circuit Court for Baltimore County, which later transferred the case to the Circuit Court for Montgomery County. That court upheld the ALJ's decision, but we reversed, holding that Anacostia did in fact have standing, and we remanded for consideration of the underlying substantive issues. *Anacostia Riverkeeper v. Md. Dep't of the Envir.,* Sept. Term 2011, No. 2107 (filed January 7, 2013) ("*Anacostia I*"), slip op. at 22.

Round Two took a slightly different path because in 2009, the General Assembly changed the procedures for challenging a permit. Section 1-601 of the Environment Article now allows direct judicial review of agency permitting decisions. (It also broadens the class of people who can bring such a challenge, and formed part of our basis for reversing the ALJ's decision in *Anacostia I*. *See Anacostia I*, slip op. at 20.) So once we remanded *Anacostia I*, the circuit court took the case directly and held a hearing on the merits on November 20, 2013 (the "Hearing"). Anacostia argued there that the Permit failed to require compliance with Maryland's water quality standards or applicable TMDLs, and that by allowing for the specific development of so many implementation plans outside the four corners of the Permit, the Department allowed the Permit to escape meaningful public participation or judicial review.

The Department responded that the Permit contained all that it needed in requiring the County "to install best management practices" to restore twenty percent of impervious surfaces and meet certain wasteload allocations. It also argued that the policies and provisions of the Manual and the Maryland Stormwater Management Act of 2007 were properly referenced in the Permit.

The trial judge expressed frustration with the Department's position at the Hearing, both as to the vagueness of the term "best management practices" and the Permit's references to so many outside sources. The court ultimately held, both in a ruling from the bench and in a written order two weeks later, that the Permit had to comply with sections 1311 *and* 1342 of the Act, along with state law requirements under Envir. § 9-324, and that the Permit fell short of these standards (we omit the paragraph numbering):

> After reviewing the permit and the administrative record, the Court is unable to understand why [the Department] adopted the terms in the permit, or how those terms meet the

> requirements of the law. The permit does not state with clarity what the permittees will do, how they are to do it, what standards apply, or how one will measure compliance or noncompliance. The permit lacks ascertainable metrics for meeting water quality standards that can either be met or not met.
>
> The Court finds that it is not sufficient for the permit to require that permittees engage in best management practices and file annual reports on their activities. Manuals and policies that exist outside of the permit change frequently, and do not inform the public or the Court of what the permit specifically requires. While it is allowable for the permit to require best management practices, specific requirements for meeting water quality standards must be stated in the permit.
>
> The Court finds that the permit's requirement to restore 20% of impervious surface is simply too general to show how the permittees will meet water quality standards. It does not explain what the permittee is to do or how its performance is to be measured.
>
> Federal regulations require that the permit include a monitoring program for representative data collection for the term of the permit, including a program to monitor and control pollutants in storm water discharges from sites that are contributing a substantial pollutant loading. 40 C.F.R. § 122.26(d). The permit requires monitoring in one tributary, and requires the permittees to submit an annual report to MDE regarding all activities under the permit. The Court finds that these requirements are not sufficient to meet the applicable requirements for monitoring.

This timely appeal followed.

II. DISCUSSION

This appeal presents one overarching question with numerous sub-questions that make it more complex: is the Permit legal? To answer the broader question, we analyze the

Permit's near-twenty-year history against the statutory and regulatory lattice. And perhaps counterintuitively, we find that the Department's expertise (which on review of agency decisions so often gives us reason to defer to an agency) and intimacy with the process and available technology may well be the Permit's undoing. There may be rational reasons for requiring the County to prepare plans after approval and incorporate outside materials into the Permit by reference. But those reasons are difficult to discern for anyone who did not live deeply in the weeds of negotiating and preparing it, and because many of the Permit's terms are structured as obligations to develop plans, they are insulated from effective review.

We hold *first* that Congress, by adding § 1342 the 1987 amendments to the Act, intended to treat MS4s differently and regulate them separately from, or in conjunction with, the existing requirements of § 1311. *Second,* we analyze what exactly the § 1342 "maximum extent practicable" and "best management practices" language requires of a state attempting to enforce environmental laws, and how state environmental regulations pick up on that language. That hardly ends the story, though: although we agree with the Department that Congress relieved it of the more stringent requirement of § 1311, we conclude *third* that this Permit effectively cuts off public commentary on important components by glossing important requirements and deadlines and incorporating outside sources in a manner that leaves the Permit's operative terms too difficult to find and know.

A. Standard of Review.

Our review of an agency decision is highly deferential. We look through the decision of the circuit court and use the same standard of review that the circuit court did. *Kim v. Maryland State Bd. of Physicians*, 423 Md. 523 (2011) (citing *People's Counsel for Baltimore County v. Surina*, 400 Md. 662, 681 (2007)). In a case like this, we review the agency decision at two levels: *first*, to determine whether the record contains substantial evidence to support the agency decision and *second*, to determine whether the decision is legally correct. *Najafi v. Motor Vehicle Admin.*, 418 Md. 164, 173 (2011) (citation omitted).

For reasons we will explain in Part II.B, we start with the second step—whether the Department was legally correct in its decision to issue the Permit. We are "under no constraints in reversing an administrative decision which is premised solely on an erroneous conclusion of law." *People's Counsel for Baltimore Cnty. v. Maryland Marine Mfg. Co.*, 316 Md. 491, 497 (1989); *see also HNS Dev., LLC v. People's Counsel for Baltimore Cnty.*, 425 Md. 436, 449 (2012). A reviewing court should respect "the expertise of an agency in its own field," *Board of Phys. Quality Assur. v. Banks*, 354 Md. 59, 69 (1999) (citations omitted), and the Department correctly points out that an agency's authority "may include a broad power to promulgate legislative-type rules or regulations" to assist in implementing applicable statutes. *Christ v. Dep't of Natural Res.*, 335 Md. 427, 445 (1994). Agencies "'are created in order to perform activities which the Legislature deems desirable and necessary to further the public health, safety, welfare, and morals,'" and "'[t]he powers vested in the courts, by statute or inherence, to review administrative decisions does not carry with it the right to substitute its fact-finding process for that of an agency.'" *Northwest Land Corp. v. Maryland Dep't of Env.*, 104 Md. App. 471, 488 (1995) (quoting *Sec'y of Health & Mental Hygiene v. Crowder*, 43 Md. App. 276, 281 (1979)).

As to the substantial evidence component of our review, *Najafi* directs a generous level of deference:

> In applying the substantial evidence test, a reviewing court decides "whether a reasoning mind reasonably could have reached the factual conclusion the agency reached." A reviewing court should defer to the agency's fact-finding and drawing of inferences if they are supported by the record. A reviewing court "must review the agency's decision in the light most favorable to it; . . . the agency's decision is prima facie correct and presumed valid, and . . . it is the agency's province to resolve conflicting evidence" and to draw inferences from that evidence.

Id. at 173 (quoting *Maryland Aviation Admin v. Noland*, 386 Md. 556, 571-72 (2005)). And where an agency is acting within its discretion, we will overturn its decision only where we find that its action is arbitrary and capricious. *Md. Board of Phys. v. Elliott*, 170 Md. App. 369, 406 (2006); *see also* Md. Code (1984, 2009 Repl. Vol.), § 10-222(h)(3)(vi) of the State Government Article ("S.G."). But we owe no deference to an agency whose conclusions have gone unsupported "by competent and substantial evidence, or where the agency draws impermissible or unreasonable inferences and conclusions from undisputed evidence." *Stansbury v. Jones*, 372 Md. 172, 184 (2002); *see also Mayor and Aldermen of City of Annapolis v. Annapolis Waterfront Co.*, 284 Md. 383, 395 (1979) ("When reviewing an administrative decision for arbitrariness or capriciousness, a court must first determine whether the question before the agency was fairly debatable," and if not it is not arbitrary and capricious.). For an issue to be "fairly debatable," "'the administrative agency overseeing the . . . decision must have "substantial evidence" on the record supporting its decision.'" *Mills v. Godlove*, 200 Md. App. 213, 224 (2011) (quoting *White v. North*, 356 Md. 31, 44 (1999)).

B. The Permit Is Subject To § 1342, Not § 1311.

At the threshold, the parties dispute which of the various federal and state laws drive the requirements the Permit must fulfill. The Department argues that the Act does not require an MS4 to comply with the water quality standards articulated in § 1311 because the 1987 amendments replaced those standards "with the maximum-extent-practicable standard, and replaced numerical effluent limitations with 'management practices,' 'control techniques,' 'systems, design and engineering methods,' and other provisions that the State 'determines appropriate.'" Anacostia argues that the Permit continues to be subject to the technology-based limitations of § 1311 *in addition to* "any more stringent limitation necessary to assure compliance with water quality standards for the receiving waters." We disagree, and hold that the Permit is *not* subject to the technology-based discharge limitations ("TBDLs") of § 1311(a), but rather to § 1342(p)(3)(B), which in turn requires the County to adhere to the TMDL limits imposed by state law via § 1313(d)(1)(c).

When first passed in 1972, the Act regulated big municipal stormwater systems. With the benefit of hindsight, it appears that that approach was not practical for MS4s. We agree with the Department that the 1987 amendments, and § 1342 in particular, imposed different and *alternative* standards on MS4s, standards that state broader principles rather than prescriptive requirements.

But although § 1342(p)(3)(B) imposed new requirements for MS4s that differed from the technology-based requirements of § 1311, the amendments did not state whether MS4 permits *also* had to comply with water quality standards under § 1311(b)(1)(C). In 1991, the EPA's General Counsel interpreted the "MEP" standard to modify the technology-based requirements of § 1311, but he did not believe that the MEP language displaced the general water quality standards imposed by § 1311. *See* Memorandum from E. Donald Elliott, Ass't Admin'or & General Counsel, EPA, to Nancy Marvel, Regional Counsel, January 9, 1991, "Compliance with Water Quality Standards in NPDES Permits Issued to Municipal Separate Storm Sewer Systems," 1991 W.L. 326640 (the "Elliott Memorandum") at *2.[8] Then, in 1996, the EPA issued a Notice outlining an "Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water

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[8] It doesn't matter for our purposes whether the broader question raised by and answered in the Elliott Memorandum—whether the term "water quality standards" (which can be, but is not always, used as a term of art to describe specific standards) still applies with equal force to MS4s. Anacostia argued that the distinction between state and federal water quality standards is not material here, and we are inclined to agree. The Department is not arguing that the Permit need not attempt to *meet* TMDL requirements as part of broader water quality standards, but that the Permit adequately spells out how the County must do so, and by when.

Permits," 61 Fed. Reg. 43761-01 (Aug. 26, 1996), in which it likewise approved use of BMPs while leaving room for improvement:

> The interim permitting approach uses best management practices (BMPs) in first-round storm water permits, and expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards. In cases where adequate information exists to develop more specific conditions or limitations to meet water quality standards, these conditions or limitations are to be incorporated into storm water permits, as necessary and appropriate. *This interim permitting approach is not intended to affect those storm water permits that already include appropriately derived numeric water quality-based effluent limitations.*

Id. (emphasis added).

Several years later, the United States Court of Appeals for the Ninth Circuit held in *Browner* that Congress intended § 1342(p)(3)(B) to treat MS4s *differently*—no longer to require strict compliance with state water-quality standards (as industrial discharges had to comply with under § 1311), but instead to impose the maximum-extent-practicable standard. 191 F.3d at 1165. After reviewing the legislative history that culminated in the 1987 amendments, the Ninth Circuit held that § 1342(p)(3) specifically treats industrial discharges differently from municipal discharges, and held the former to the more stringent § 1311 requirements. 191 F.3d at 1165 ("[I]ndustrial discharges must comply strictly with state water quality standards."). Municipal discharges, on the other hand, lacked any such requirement, and Congress instead imposed the MEP requirement in § 1342(p)(3)(B)(iii).

As such, the Ninth Circuit held, Congress intended in § 1342 to *not* require municipal stormwater discharges to comply with § 1311. 191 F.3d at 1165 ("'Where Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.'" (quoting *Russello v. United States*, 464 U.S. 16, 23 (1983) (citation and internal quotation marks omitted))). The Court also noted that interpreting § 1342 to include the requirements of § 1311 would render § 1342 superfluous: because the latter is less strict, reading it to include § 1311's requirements would really just fold it into § 1311, "a result that we prefer to avoid so as to give effect to all provisions that Congress has enacted." 191 F.3d at 1165; *see also Koste v. Town of Oxford*, 431 Md. 14, 25-26 (2013) ("The primary goal of statutory construction is 'to discern the legislative purpose, the ends to be accomplished, or the evils to be remedied by a particular provision[.]' In so doing, we look first to the 'normal, plain meaning of the language of the statute,' read as a whole so that '*no word, clause, sentence or phrase is rendered surplusage, superfluous, meaningless or nugatory*[.]" (citations omitted) (emphasis added)). Other courts have followed suit. *See, e.g.*, *Divers' Env'tal Cons. Org. v. State Water Resources Central Bd.*, 51 Cal. Rptr. 3d 497, 504 (2006) ("In regulating storm water permits the EPA has repeatedly expressed a preference for doing so by way of BMPs, rather than by way of imposing either technology-based or water quality-based numeric limitations"[9]); *NRDC v. New York State Dep't of Env'tal Cons.*, 120 A.D.3d 1235 (2d App. Div. 2014) (assessing MEP standard as the appropriate one for municipal discharges); *Tualatin Riverkeepers v. Oregon Dep't of Env'tal Quality*, 230 P.3d 559, 564 n.10 (Ore. App. 2010) (citing *Defenders of Wildlife* with approval and noting the lesser MEP standard in § 1342 that applies to municipal stormwater discharges); *but see Building Indus. Ass'n of San Diego Cnty. v. State Water Resources Control Bd.*, 22 Cal Rptr. 3d 128, 141 (reading § 1342 not specifically to replace or not replace § 1311 as it related to municipal discharge, but seeing the significance of Congress adding the MEP language "to strengthen the [Act] by making its mandate correspond to the practical realities of municipal storm sewer regulation").

It falls to the Department, then, to translate these concepts into real-life permits. Over a decade ago, the EPA issued a memorandum (included here in the Department's record extract) designed to harmonize the BMP concept and the "maximum extent practicable" language. *See* November 22, 2002, Memorandum from Robert H. Wayland, III, Director, Office of Wetlands, Oceans and Watersheds, EPA, to Water Division Directors, Regions 1-10. This memorandum counseled in favor of "an iterative approach to control pollutants in storm water discharges," and recognized that "storm water discharges are due to storm events that are highly variable in frequency and duration and

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[9] *Divers* also pointed to the relevant federal regulations as giving wiggle room to the states to apply BMPs when other approaches aren't feasible. *See id.* at 506-07 (quoting 40 C.F.R. § 122.44(k)).

are not easily characterized," therefore making it difficult to establish hard, numeric limits. In turn, it viewed BMPs as "an appropriate form of effluent limits" to control pollutants, *see* 40 CFR § 122.44(k)(2), (3). But the EPA did not leave it at that—it stated its express expectation that agencies granting permits will ensure that BMPs are appropriately tailored:

> EPA expects that the NPDES permitting authority will review the information provided by the TMDL, *see* 40 C.F.R. § 122.44(d)(1)(vii)(B), and determine whether the effluent limit is appropriately expressed using a BMP approach (including an iterative BMP approach) or a numeric limit. Where BMPs are used, EPA recommends that the permit provide a mechanism to require use of expanded or better-tailored BMPs when monitoring demonstrates they are necessary to implement the WLA and protect water quality.

This guidance frames the issue here. Although our analysis relieves the Department and the County of their obligations to comply with § 1311, the Permit cannot satisfy the alternative standard simply by parroting broad principles of best practices, especially given that State law applies as well.

C. The Permit Does Not Comply With State Law Regarding The Permitting Process.

Even under the standards imposed by § 1342, the Permit fails at two separate levels. *First*, it does not comply with the statutory procedural requirements of notice and public comment. To be clear, the Permit might have complied from a *technical* point of view (by, for example, posting the required notice at the required time), but it failed to comply from a *practical* point of view because it omits or obscures important elements, leaving anyone not an expert unable to decipher it. The Permit contains aspirational goals rather than particularized objectives, and it refers to and relies on too much information that falls wholly outside of its terms (which makes it impossible to figure out what the Permit requires without hunting for the underlying information in a way that requires far more expertise than one could reasonably expect). We also find it impossible to discern from the Permit when the County would have to complete critical tasks. *Second*, the Permit fails as a *substantive* matter because it does not contain ascertainable metrics that define how the County must comply, or whether at some point it has complied, with what all agree are two of the Permit's most important terms: regulation of TMDLs and the twenty percent requirement. We recognize the tension between the desire for specificity (both in tactics and in metrics) and the reality of achieving that granularity across a system as large as the County's, and so we acknowledge that these competing objectives must be balanced. That said, they need to be balanced in a way that allows meaningful public comment and participation and meaningful review of the Permit's compliance with the law.

1. The Permit does not give meaningful opportunity for notice and comment, and eludes judicial review.

a. The Environment Article requires that the public have an opportunity for notice and comment.

Section 9-324 of the Environmental Article requires explicitly that "[t]he Department shall give public notice of each application for a discharge permit as required by Title 1, Subtitle 6." Subtitle 6, in turn, requires that the public have a full opportunity to participate in the permitting process. Envir. § 1-601(a)(3). The notice of an application for a permit, for example, must include certain basic information:

(i) The name and address of the applicant;

> *(ii)* *A description of the location and the nature of the activity for which the permit has been sought;*
>
> (iii) A reference to the applicable statutes or regulations governing the application process;
>
> (iv) The time and place of any scheduled informational meeting or public hearing, or a description of where this information can be found;
>
> (v) A description of where further information about the permit application can be found; and
>
> (vi) Any other information that the Department determines is necessary.

Id. § 1-602(b)(2) (emphasis added). The statute no longer provides for a contested case hearing, *id.* § 1-601(b), but does authorize judicial review on behalf of a party that, as Anacostia has, "[p]articipated in a public participation process through the submission of written or oral comments." *Id.* § 1-601(c)(ii). And although the subtitle limits judicial review to the administrative record and objections raised before the Department, it permits review when:

> (i) The objections were not reasonably ascertainable during the comment period; or
>
> (ii) Grounds for the objections arose after the comment period.

Id. § 1-601(d)(1).

Transparency is essential to effectuating the goals of the Act. "Public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the [EPA] or any State . . . shall be provided for, encouraged, and assisted by the [EPA] and the States." 33 U.S.C. § 1251(e). The Supreme Court has acknowledged that NPDES permits "defin[e], and facilitat[e] compliance with, and enforcement of, a preponderance of a discharger's obligations under the [Act]." *EPA v. State Water Res. Control Bd.,* 426 U.S. 200, 205 (1976). A permit should translate big-picture environmental goals into specific obligations and measurable objectives for each applicant, and provide a way to hold permit-holders accountable—at least theoretically. This permit does not.

b. Specific shortcomings of the Permit.

i. The public can't comment about decisions that have yet to be made.

To be sure, the process leading up to the Permit ostensibly allowed for several "public participation" opportunities. But the Permit deferred the process of defining important substantive provisions (TMDL implementation plans, SWMP plans, etc.) until well *after* approval. This creates an obvious flaw: the public can't comment on a program that doesn't yet exist, and by the time the program *did* exist, the time for comment on it had passed.[10]

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[10] This also means that we can't tell from the Permit's terms whether it should be reviewed under § 1-601(d)(1)(ii), which allows for judicial review, even if objections weren't raised during a comment period, where the "[g]rounds for the objections arose after the comment period." *Id.* This Permit could well qualify because so many of its substantive terms weren't defined until after the comment period had passed.

Under the terms of the Permit, the Department effectively can approve new requirements and management projects without public comment because the County was not required to develop impervious surface restoration plans and TMDL implementation plans until after the Permit was approved. The Permit itself does not include the substantive contents of each program, nor does it require that the programs even be made available to the public for review after the fact. Part E of the Permit, for example, states broad requirements that the County must satisfy in developing, implementing, and maintaining its programs. But that approach is inconsistent with the emphasis on public participation in the Act, which requires permits to include effluent limitations so that citizens can enforce their terms, requirements, and restrictions. 33 U.S.C. § 1365(a).

In order to be measurable, a permit must articulate what the County must do, how much of each task the County must do, where the County needs to perform those tasks, and by when the County must complete them.[11] For each Permit requirement, the "what" is usually the BMP or activity required, the "how much" is the performance standard the County is expected to meet, the "when" is the specific time (or frequency) the BMP or activity should be complete, and the "where" is the location where the activity must be performed. Unless discernible requirements are contained in the permit itself, the public

[11] For the EPA's guidance in this regard, *see* Laura Gentile and John Tinger, U.S. E.P.A. Region IX, Stormwater Phase I MS4 Permitting: Writing More Effective, Measurable Permits, 135 (February 2003), http://water.epa.gov/polwaste/nps/stormwater/upload/2003_03_26_NPS_natlstormwater 03_13Gentile.pdf (last viewed February 19, 2015).

will have no way to know its terms or to assist the Department in the enforcement of the Permit, nor will the County know exactly what the Permit requires of it. And although there may be value in deferring the definition of certain terms until later, that deferral cannot deprive the public of notice and an opportunity to comment—that opportunity must somehow be replicated as those plans are developed and approved, at whatever point in time.

ii. The Permit is not specific enough.

The Permit eludes notice and comment because there is not enough *in* it for the public fairly to comment *on* it. The Act requires that a state permit specify the "type, intervals, and frequency sufficient to yield data which are representative of the monitored activity." 40 C.F.R. § 122.48(b), 122.44(i)(1). Under § 1342, a permit such as this is also subject to EPA regulations governing permit applications, 33 U.S.C. § 1342(p)(4)(A), which require a "proposed monitoring program for representative data collection for the term of the permit," 40 C.F.R. § 122.26(d)(2)(iii)(D), and which describe the necessary data. This Permit, however, requires monitoring only in the Lower Paint Branch watershed, one of many affected by the County's system.[12] And although, as the Department argues in its brief, the Permit "requires the County to *assess* all of its watersheds" (emphasis added), the Permit itself requires the County only to "provide a

[12] We do not mean to suggest that a single watershed cannot qualify as a representative sample, but the Department hasn't made or supported that argument here, either in general or for the Lower Paint Branch watershed in particular.

long-term schedule for the completion of detailed assessments of each watershed in Montgomery County." That "long-term schedule" is not due until a year into the Permit's five-year lifespan, though, and the Permit says nothing about whether that schedule must require assessments before the Permit expires. And, again, the process defined in the Permit leaves no opportunity for public comment or judicial review of the schedule once the County proposes it.

The Department argues that *prior* iterations of the Permit required broader monitoring, and it may be that the Permit could satisfy its monitoring obligations by building on and incorporating monitoring work done previously. But if that is what the Department intended, the terms of the Permit need to reflect that so that the Permit's overall compliance with the Act's monitoring obligations can be understood and tested.

The Permit is similarly quiet about the County's reporting requirements. In the absence of specifics, the Department points to the BMPs in the Manual, which "are *designed* to be flexible so that regulatory agencies may adapt them to the highly variable nature of stormwater discharges." (Emphasis in original.) That may be so, but the Department must demonstrate in the Permit *which* of these BMPs it is choosing—otherwise, we are left with a Permit that is simply a now-fifteen-year-old (and very long) Manual.[13] We understand the need for flexibility, but someone seeking to understand the

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[13] Counsel for the Department pointed out in response to the court's questioning at the Hearing that stormwater management facilities have to "install BMPs" as specifically required by the Permit, and she referred to the provision in the "Management Programs"

Permit's terms, or a reviewing body seeking to review it, is left at a total loss to understand how the County will proceed, either at the inception of the Permit period or during the five years (or more) it remains in effect.

iii. The Permit overrelies on incorporation by reference.

The Permit's generality is compounded by the way it incorporates outside sources by reference. There is nothing wrong *per se* with that approach, but the result here is that someone outside the negotiations can't tell where to look to understand the Permit or how to challenge its terms. This is particularly true with regard to the Manual, a 589-page list of "best management practices." Chapter 1 of the Manual states that "[o]ver the last 14 years, tens of thousands of [BMPs] have been constructed in an attempt to meet program mandates." After the County selects appropriate BMPs, the Manual is meant to help in the process of actually implementing the practices, by

> provid[ing] design guidance on the most effective planning techniques, and nonstructural and structural BMPs for development sites, and to improve the quality of BMPs that are constructed in the [s]tate, specifically with regard to performance, longevity, safety, ease of maintenance, community acceptance and environmental benefit.

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section under the Permit that requires the County at a minimum to "implement the stormwater management design policies, principles, methods, and practices found in the [Manual] and the provisions of Maryland's Stormwater Management Act of 2007." As counsel put it, these would be the "only BMPs allowed or acceptable."

Chapter 3 of the Manual identifies five groups of structural water quality Stormwater BMPs: (1) ponds, (2) wetlands, (3) infiltration practices, (4) filtering systems, and (5) open channels. The chapter goes on to discuss "sets of BMP performance criteria" for each BMP listed above. Of course, if the County opts to implement a new BMP, it must submit monitoring data to demonstrate that it meets these performance criteria. The Manual might provide some understanding, for example, of why the County would choose "ponds" for a given location, and why that strategy may or may not be successful in reducing pollution to the maximum extent practicable. But in the context of this Permit, there is no way of knowing which BMPs the County will select.[14] And that leaves no way to know what the County will be required to do until after the County does it, and no way to apply even an appropriately deferential level of review to the Department's substantive directions to the County.

We see compelling similarities to the permit in *Waterkeeper Alliance, Inc. v. EPA*, 399 F.3d 486 (2d Cir. 2005), in which the United States Court of Appeals for the Second Circuit held that NPDES permits for concentrated animal feeding operations ("CAFOs") lacked "any meaningful review of the nutrient management plans" developed by the

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[14] Like the chapter preceding it, Chapter 4, "Guide to BMP Selection and Location in Maryland" may well be useful to those charged with designing the various management plans. The Chapter outlines the "process for selecting the best BMP or group of BMPs for a development site and provides guidance on facts to consider when deciding where to locate them." Again, had the Permit identified the BMPs to be used in each program, the Manual would explain the details in a useful way; without that information, it is academically interesting but not helpful to understanding this Permit.

applicants, and also "fail[ed] to require that the terms of the nutrient management plans be included in the NPDES permits." *Id.* at 498. The court held that regulation of the CAFO nutrient plans (which strike us as analogous to the MS4 regulatory program here) had to be incorporated into a facility's NPDES permit because a permit that omitted specific waste application rates did "nothing to *ensure* that each Large CAFO has, in fact, developed a nutrient management plan that satisfies [applicable federal regulations]." *Id.* at 499 (emphasis in original).

> There is no doubt that under the CAFO Rule, the only restrictions actually imposed on land application discharges are those restrictions imposed by the various terms of the nutrient management plan, including the waste application rates developed by the Large CAFOs pursuant to their nutrient management plans. Indeed, the requirement to develop a nutrient management plan constitutes a restriction on land application discharges only to the extent that the nutrient management plan actually *imposes* restrictions on land application discharges.

Id. at 502 (emphasis added).

Like the nutritional plans discussed in *Waterkeeper Alliance*, the Management Plans the Permit requires the County to develop represent the only restrictions on stormwater pollutants flowing into and from this MS4. For that reason, it is not enough for the Permit simply to require the County to develop plans consistent with the Manual and leave it at that. The Permit must at least allow the County and the public to understand how the County plans to restrict stormwater discharges and, subject to the appropriately deferential standard, to challenge the Department's ultimate directions.

iv. The Permit contains no meaningful deadlines or ways to measure compliance.

The Permit purports to require, within a year of its effective date, implementation plans that include "the actions and deadlines by which those actions must be taken to meet the required pollutant load reduction benchmarks and [wasteload allocations] within the specified time frame." Determining the means to the ends, including TMDLs and SWMPs, has been left to the County, which gets one year out of the five-year lifespan of the Permit simply to *devise* implementation plans. In layman's terms, the Permit seems to say that the County has a deadline of a year to set its deadlines. But as a practical matter, that open-ended, goal-oriented statement articulates no specific method within the Permit (like setting out those benchmarks, for example) for achieving those goals or measuring progress. Put another way, the County seemingly could be in compliance if, within a year of the Permit's issuance, it laid out a plan with deadlines of twenty years from now. The Permit imposes no timeframe for executing the plans, and there are not clear requirements for what the aspirational plans must include.

Without measurable commitments, anything could be deemed "in compliance" with the Permit. And without deadlines for compliance and implementation, the County could plan while postponing implementation, an outcome that effectively would circumvent the NDPES permitting program. This is not to say that the Permit must list and measure minute details or water quality standards, only that it must contain some discernible and meaningful milestones of planning, implementation, or achievement that can be understood and measured and, to our earlier point, that the public can review and comment upon.

The description of "Management Programs" in the Permit is also insufficient to allow meaningful evaluation of any monitoring. These programs appear to be an important aspect of the Permit, but are not incorporated as enforceable conditions. The Permit connects no specific or measurable BMPs to the various management programs. It requires no justification for why a given BMP or strategy was selected, and how that program or strategy will reduce discharges to the maximum extent practicable. The Permit contains no information about how the County must select, implement, maintain, and monitor BMPs, and most importantly, it contains no deadlines by which the County must actually implement the programs it designs.

This lack of meaningful deadlines was illustrated well at oral argument, when we asked counsel for Montgomery County whether the County had actually approved a plan that the Department then approved. Counsel first responded that yes, a plan "would have been" submitted. When pressed, counsel responded with continued hedging: "I will say that they would have approved it." The fact that counsel for the *County* couldn't even tell us the status of the Permit's progress highlights the toothlessness of the Permit's terms and the difficulty for anyone to know (or ask) whether the County is complying with them.

2. The agency decision to issue the Permit was unsupported by substantial evidence with respect to TMDLs and the twenty percent requirement.

Once the County reworks the Permit in a way that allows for meaningful notice and comment, it still must address the absence of objective metrics for what the parties agree are two of its most important elements: the twenty percent requirement and setting TMDLs.[15]

a. The twenty percent requirement.

The Department argues that the Permit appropriately "requires the County to install controls on twenty percent of impervious surfaces and to regularly review and refine its [BMPs] to achieve steady and measured reductions in pollutants." But we see nothing in the Permit that explains how we or anyone can define the universe of impervious surfaces. Only one of the three sources the Department cites sends us to the Permit itself; the pages cited to govern "Watershed Restoration" (Part III.G), "Assessment of Controls" (Part III.H), "Program Funding," (Part III.I), and "TMDLs" (Part III.J). None of these gives any guidance as to exactly what constitutes "impervious surfaces." The Department claims

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[15] This failing can be viewed in one of three ways: (1) the Department's decision to issue the Permit was legally incorrect because the Permit fails to require compliance with 33 U.S.C. § 1342(p)(3)(B) and Envir. § 9-324; (2) the Department's decision to issue the Permit was unsupported by substantial evidence that it complied with these statutory requirements; and (3) the Department's decision to issue the Permit was arbitrary and capricious because it was made without any factual support based on the record before it. Whichever the analytical path (and any is legally correct), the fact remains that neither the TMDL requirement nor the twenty percent requirement are laid out with sufficient clarity in the Permit.

that the twenty percent requirement is "specific, measurable, and enforceable," and it purports to lay out how the twenty percent is calculated, based on using the acreage designations from the *prior* permit's designation of ten percent of impervious surfaces in the County (in turn citing not even to the outdated permit, but to the "Annual Report for 2006 NPDES Municipal Separate Storm Sewer System Permit" that is included in the record extract):

> The permit requires the County to implement controls on 20 percent of its previously uncontrolled impervious areas. Because the prior permit required the County to install best management practices on 10 percent of its impervious areas, the County already has in place a mechanism for calculating the total acreage of land that does not have stormwater controls. That acreage comes to 21,458 acres - which excludes the 10 percent already controlled under the prior permit - and 20 percent of that amount comes to 4,292.

It cannot be that the universe of impervious surfaces has remained constant since 2006; by 2009, when this permitting process began, this information was already three years old. So the Department's calculation is grounded in outdated calculations and, therefore, unsupported by substantial evidence.[16]

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[16] This failing also goes to the problems with public notice and comment. Although the Department has advanced this numerical calculation, we see no evidence that it was made apparent to anyone in the course of the permitting process. That means that, even if the Department could demonstrate to us now that the calculation is supported by substantial evidence, the public never had a meaningful opportunity to comment on that calculation at the appropriate time.

Anacostia is also correct that the Permit does not actually impose restoration of twenty per cent of *all* impervious surfaces within the County, but only mandates restoration of twenty percent of "impervious surface area *that is not restored to the MEP [maximum extent practicable.]*" As with so many other parts of the Permit, this definition requires another subjective calculation—where someone will need to determine what has not been restored to the maximum extent practicable—that is completely unreviewable.

The Department also contends broadly that the standards it applies for BMPs must be flexible "so that regulatory agencies may adapt them to the highly variable nature of stormwater discharges." We don't disagree with this proposition, and we are keenly aware that the Department has the expertise (far beyond the ken of this or any court) to determine these standards. But even those flexible standards have to be expressed in a way that gives meaning to the Permit, and that allows non-expert reviewing bodies to do their jobs.

The Department claims that the Permit articulates sufficiently specific BMPs for impervious surfaces by incorporating the Manual and other documents, and it argues that the BMPs in the Manual "have measurable outcome[s];" it points in particular to "general performance standards for stormwater management in Maryland" that appear in two pages of the Manual. The Manual is one of the three "scientific texts developed by the Department" that it claims encapsulates twenty-seven years of research. The others are a "BMP Assessment" (a March 21, 2009 report whose full title is "Developing Nitrogen, Phosphorus and Sediment Reduction Efficiencies for Tributary Strategies, BMP Assessment: Final Report, 3/31/2009"), and a manual entitled "Accounting for Stormwater

Wasteload Allocations and Impervious Acres Treated" (with the ambiguous date of "June *(Draft)* 2011" (emphasis added), which we will short-form as the "2011 Manual"). The Department says that it standardized best management practices in the Manual, and has technical guidelines "in place" based on the BMP Assessment and the 2011 Manual. But the Department's arguments are indecipherable. The "general performance standards" to which it cites don't appear, to us at least, to articulate useful or enforceable numbers, and a broad citation to three manuals (dated four, six, and fifteen years ago) leave the contours of the twenty percent requirement unclear.

b. The TMDL requirement.

Anacostia argues that the Permit lacks the necessary clarity for attaining TMDL requirements, and that its provisions are not supported by facts or explanations. We agree. Part III.J requires the County to design a TMDL implementation plan that "includes estimates of pollutant loading reductions (benchmarks) to be achieved by specific deadlines and describe those actions necessary to meet the storm drain system's share of WLAs and EPA approved TMDLs." But the County is left to design these implementation programs *after* the final Permit is approved, and the TMDL plans do not become an enforceable condition of the Permit. Putting aside the notice problem, there are no enforceable minimum requirements for these plans, and they generally require no particular outcome from the measures that the County identifies in its TDML implementation plans. The only hard-and-fast requirement is that the County submit a *proposed plan* to the Department for review within one year (and as we explained above, that proposed plan need contain no deadlines of its own).

The Permit incorporates, by reference, pollutant-loading limits (called Waste Load Allocations, or "WLAs") in approved TMDLs. It does not require the County to demonstrate that its TMDL implementation plans will meet the required pollution reductions or defend them against challenge, and it doesn't specify any interim or final deadlines for meeting those reductions. The County is left to set its own deadlines, without any outside limits. In the event that "WLAs are not being met according to the benchmarks and deadlines contained in the County's TMDL implementation plans, an iterative approach shall be used where additional or alternative Stormwater controls are proposed and implemented in order to achieve WLAs." It is hard to know what this means (and it is the language that was the source of palpable frustration on the part of the trial judge), but we know that there are no specific guidelines for implementing these "adaptive management activities," and no elaboration on what they might entail.

Perhaps inadvertently, the Department identified the problem best at oral argument: when the Court criticized the TMDL plan because it can't be challenged by the public, counsel answered that TMDLs are "on the MDE website," and that "there's a separate TMDL process." But that advice leads to a thicket: a search of the term "TMDL" on the MDE website yielded 771 results, the first of which purports to explain "TMDL Implementation in Maryland" from a 2006 issue of an "e-MDE" publication. *See* http://mde.maryland.gov/programs/ResearchCenter/ReportsandPublications/Pages/Resear chCenter/publications/general/emde/vol1no9/tmdl.aspx (last viewed February 19, 2015). And although there may be a "TMDL process," that process leaves anyone seeking to know what TMDLs are at issue in this Permit completely in the dark.

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It may be that the actions and standards that the Department and County have in mind under this Permit satisfies the requirements that the Act imposes on both, and we agree with the Department about what the law generally requires. But there is no way for the public or for us to know from the Permit itself whether they do or not, and we agree with the circuit court that the Permit must be revised accordingly. We recognize the Department's expertise in this area, and we know that it is not our role to dictate precisely how the Department must balance the complex realities of managing pollution in a large stormwater system against the important public policies of transparency, public participation, and meaningful judicial review. It seems, though, that the more details are framed as future obligations to plan or propose plans, the harder it will be for the public to participate and for courts to review the Permit, even deferentially.

JUDGMENT OF THE CIRCUIT COURT FOR MONTGOMERY COUNTY AFFIRMED AND CASE REMANDED TO THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR PROCEEDINGS NOT INCONSISTENT WITH THIS OPINION. COSTS TO BE PAID BY APPELLANTS.