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# **EPA and the Army Corps' Proposed Rule to Define "Waters of the United States"**

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## Summary

On March 25, 2014, the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) jointly announced a proposed rule defining the scope of waters protected under the Clean Water Act (CWA). The proposal would revise regulations that have been in place for more than 25 years. Revisions are proposed in light of 2001 and 2006 Supreme Court rulings that interpreted the regulatory scope of the CWA more narrowly than previously, but created uncertainty about the precise effect of the Court's decisions.

According to the agencies, the proposed rule would revise the existing administrative definition of "waters of the United States" consistent with legal rulings and science concerning the interconnectedness of tributaries, wetlands, and other waters and effects of these connections on the chemical, physical, and biological integrity of downstream waters. Waters that are "jurisdictional" are subject to the multiple regulatory requirements of the CWA. Non-jurisdictional waters are not subject to those requirements.

This report describes the proposed rule—which the agencies refer to as the Clean Water Rule—and includes a table comparing the existing regulatory language that defines "waters of the United States" with the proposed revisions. The proposal is particularly focused on clarifying the regulatory status of waters located in isolated places in a landscape. It does not modify some categories of waters that currently are jurisdictional by rule (traditional navigable waters, interstate waters and wetlands, the territorial seas, and impoundments). The proposed rule would replace EPA-Corps guidance that was issued in 2003 and 2008, which has guided agency interpretation of the Court's rulings but also has caused considerable confusion.

Beyond the categories of waters that would be categorically jurisdictional under the proposal are "other waters." The regulatory term "other waters" applies to wetlands and non-wetland waters such as prairie potholes that are not considered traditionally navigable or meet other of the proposed rule's jurisdictional definitions. Much of the controversy since the Supreme Court rulings has focused on the degree to which "other waters" are jurisdictional. According to the agencies' analyses, 17% of these "other waters" would be categorically jurisdictional under the proposal, but "other waters" that are not categorically jurisdictional would continue to need case-by-case evaluation. The rule also lists waters that would not be jurisdictional, such as prior converted cropland and certain ditches. It makes no change to existing statutory exclusions, such as CWA permit exemptions for normal farming and ranching activities.

Proposed changes would increase the *categorical* assertion of CWA jurisdiction, in part as a result of expressly declaring some types of waters jurisdictional by rule (such as all waters adjacent to a jurisdictional water), and also by application of definitions, which would give larger regulatory context than previously to some waters, such as tributaries. Nevertheless, the agencies believe that the proposal does not exceed the CWA's coverage or protect new types of waters that have not been protected historically. While it would enlarge jurisdiction beyond that under the existing EPA-Corps guidance, they believe that it would not enlarge jurisdiction beyond what is consistent with the Supreme Court's narrow reading of jurisdiction and would reduce jurisdiction over some waters, as a result of exclusions and exemptions. Others disagree. The agencies estimate that the rule would assert CWA jurisdiction over approximately 3% more U.S. waters (e.g., by including additional "other waters"), compared with current field practice, but 5% less than prior to the Supreme Court rulings (by specifically excluding some waters).

Congressional interest in the proposal rule has been strong since it was announced and is continuing in the 114<sup>th</sup> Congress. The agencies' intention has been to clarify the rules and make jurisdictional determinations more predictable, less ambiguous, and more timely. Some groups that criticized the status quo in the past now seemingly prefer it to the proposed rule, which they believe is ambiguous and overly broad, thus underscoring the challenges that the Corps and EPA face in developing a final rule.

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## Introduction

On March 25, 2014, the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) jointly announced a proposed rule defining the scope of waters protected under the Clean Water Act (CWA). The proposed rule would revise regulations that have been in place for more than 25 years.<sup>1</sup> Revisions are proposed in light of Supreme Court rulings in 2001 and 2006 that interpreted the regulatory scope of the CWA more narrowly than previously, but created uncertainty about the precise effect of the Court's decisions.<sup>2</sup>

In April 2011, EPA and the Corps proposed guidance on policies for determining CWA jurisdiction to replace guidance previously issued in 2003 and 2008; all were intended to lessen confusion over the Court's rulings for the regulated community, regulators, and the general public. The guidance documents sought to identify, in light of the Court's rulings, categories of waters that remain jurisdictional, categories not jurisdictional, and categories that require a case-specific analysis to determine if CWA jurisdiction applies. The 2011 proposed guidance identified similar categories as in the 2003 and 2008 documents, but it would have narrowed categories that require case-specific analysis in favor of asserting jurisdiction categorically for some types of waters. The 2014 proposed rule would replace the existing 2003 and 2008 guidance, which remains in effect because the 2011 proposed guidance was not finalized.<sup>3</sup>

The 2011 proposed guidance was extremely controversial, especially with groups representing property owners, land developers, and the agriculture sector, who contended that it represented a massive federal overreach beyond the agencies' statutory authority. Most state and local officials were supportive of clarifying the extent of CWA-regulated waters, but some were concerned that expanding the CWA's scope could impose costs on states and localities as their own actions (e.g., transportation projects) become subject to new requirements. Most environmental advocacy groups welcomed the proposed guidance, which would more clearly define U.S. waters that are subject to CWA protections, but some in these groups favored even a stronger document. Still, both supporters and critics of the 2011 proposed guidance urged the agencies to replace guidance with revised regulations that define "waters of the United States." Three opinions in the 2006 Supreme Court *Rapanos* ruling similarly urged the agencies to initiate a rulemaking, as they now have done.

In Congress, a number of legislative proposals were introduced to bar EPA and the Corps from implementing the 2011 proposed guidance or developing regulations based on it; none of these proposals was enacted. Similar criticism followed almost immediately after release of the proposed rule on March 25, 2014, with some Members asserting that it would result in job losses and damage economic growth. Supporters of the Administration, on the other hand, defended the agencies' efforts to protect U.S. waters and reduce frustration that has resulted from the unclear

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<sup>1</sup> Definition of "waters of the United States" is found at 33 C.F.R. §328.3 (Corps) and 40 C.F.R. §122.2 (EPA). The term is similarly defined in other EPA regulations, as is the term "navigable waters." See **Table 1**.

<sup>2</sup> *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (SWANCC)*, 531 U.S. 159 (2001), and *Rapanos v. United States*, 547 U.S. 715 (2006).

<sup>3</sup> For background on the Supreme Court rulings, subsequent guidance, and other developments, see CRS Report RL33263, *The Wetlands Coverage of the Clean Water Act (CWA): Rapanos and Beyond*, by Robert Meltz and Claudia Copeland.

jurisdiction of the act.<sup>4</sup> Support was expressed by environmental and conservation organizations, among others.<sup>5</sup>

## The CWA and the Proposed Rule

The proposed rule was published in the *Federal Register* on April 21, 2014. The public comment period closed on November 14, 2014.<sup>6</sup> **Table 1** on page 12 in this report provides a comparison of the current regulatory language that defines “waters of the United States” with language in the proposed rule.

The CWA protects “navigable waters,” a term defined in the act to mean “the waters of the United States, including the territorial seas.”<sup>7</sup> Waters need not be truly navigable to be subject to CWA jurisdiction. Both the legislative history and the case law surrounding the CWA confirm that jurisdiction is not limited to traditional navigable waters, that is, waters that are, were, or could be used in interstate or foreign commerce.<sup>8</sup> Waters that are jurisdictional are subject to the multiple regulatory requirements of the CWA: standards, discharge limitations, permits, and enforcement. Non-jurisdictional waters, in contrast, do not have the federal legal protection of those requirements. The act’s single definition of “navigable waters” applies to the entire law. In particular, it applies to federal prohibition on discharges of pollutants except in compliance with the act’s requirements (§301), requirements for point sources to obtain a permit prior to discharge (§§402 and 404), water quality standards and measures to attain them (§303), oil spill liability and oil spill prevention and control measures (§311), certification that federally permitted activities comply with state water quality standards (§401), and enforcement (§309). It impacts the Oil Pollution Act and other environmental laws, as well.<sup>9</sup> The CWA leaves it to the agencies to define the term “waters of the United States” in regulations, which EPA and the Corps have done several times, most recently in 1986.

According to the agencies, the proposed rule—which they now refer to as the Clean Water Rule—would revise the existing administrative definition of “waters of the United States” in regulations consistent with legal rulings—especially the recent Supreme Court cases—and science concerning the interconnectedness of tributaries, wetlands, and other waters to downstream waters and effects of these connections on the chemical, physical, and biological integrity of downstream waters. It is particularly focused on clarifying the regulatory status of waters located in isolated places in a landscape, the types of waters with ambiguous jurisdictional status following the Supreme Court’s 2001 ruling in *SWANCC*, and small streams, rivers that flow

<sup>4</sup> Anthony Adragna and Amena Saiyid, “Republicans Contend EPA Overreached on Clean Water Act Jurisdiction Proposal,” *Daily Environment Report*, vol. 58 (March 26, 2014), p. A-7.

<sup>5</sup> U.S. Environmental Protection Agency, “Here’s What They’re Saying About the Clean Water Act Proposed Rule,” press release, March 26, 2014, <http://yosemite.epa.gov/opa/admpress.nsf/3881d73f4d4aaa0b85257359003f5348/3f954c179cf0720985257ca7004920fa>.

<sup>6</sup> Department of Defense, Department of the Army, Corps of Engineers, and Environmental Protection Agency, “Definition of ‘Waters of the United States’ Under the Clean Water Act, Proposed Rule,” 79 *Federal Register* 22188-22274, April 21, 2014. The agencies extended the original 90-day comment period twice for a total of 207 days.

<sup>7</sup> CWA §502(7); 33 U.S.C. §1362(7).

<sup>8</sup> *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. §121, 133 (1985).

<sup>9</sup> For example, the reach of the Endangered Species Act (ESA) is affected, because that act’s requirement for consultation by federal agencies over impacts on threatened or endangered species is triggered through the issuance of federal permits.

for part of the year, and nearby wetlands, the types of waters affected by the Court's 2006 ruling in *Rapanos*. In developing the proposed rule, EPA and the Corps relied on a draft synthesis of more than 1,000 published and peer-reviewed scientific reports; the synthesis discusses the current scientific understanding of the connections or isolation of streams and wetlands relative to large water bodies such as rivers, lakes, estuaries, and oceans. The purpose of the scientific synthesis report is to summarize current understanding of these connections, the factors that influence them, and the mechanisms by which connected waters affect the function or condition of downstream waters. The document was reviewed by EPA's Science Advisory Board (SAB), which provides independent engineering and scientific advice to the agency and which completed its review in October. A number of EPA's critics suggested that the agencies should have deferred developing or proposing a rule until a final scientific review document was complete. Some also expressed concern that the final report would not be available during the public comment period on the rule, which has now closed. In the preamble to the proposal, the agencies stated that the rule would not be finalized until the final report, reflecting the SAB review, is complete. Based on completion of the SAB review, EPA issued a final scientific assessment report in January 2015, saying that it would assist the agencies in developing a final rule. (See the **Appendix** for discussion of the connectivity report.)

The proposed rule retains much of the structure of the agencies' existing definition of "waters of the United States." Like the 2003 and 2008 guidance, it proposes categories of waters that are and are not jurisdictional, as well as categories of waters and wetlands that require a case-specific evaluation.

Under the first section of the proposal, the following waters would be jurisdictional by rule, or, categorically jurisdictional:

- Waters susceptible to interstate commerce, known as traditional navigable waters (no change from current rules);
- All interstate waters, including interstate wetlands (no change from current rules);
- The territorial seas (no change from current rules);
- Impoundments of the above waters or a tributary, as defined in the rule (no change from current rules);
- Tributaries of the above waters (these waters are jurisdictional under current rules, but the term "tributary" is newly and broadly defined in the proposal); and
- All waters, including wetlands, that are adjacent to a water identified in the above categories (by including all *adjacent waters*—not simply *adjacent wetlands*, as is the case under current rules—the proposal is more inclusive than current rules in finding these waters categorically jurisdictional; they are considered jurisdictional under the proposed rule because the agencies conclude that they have a significant nexus to a traditional navigable water, interstate water, or the territorial seas).

The concept of significant nexus is critical because courts have ruled that, to establish CWA jurisdiction of waters, there needs to be "some measure of the significance of the connection for downstream water quality," as Justice Kennedy stated in the 2006 *Rapanos* case. He said, "Mere hydrologic connection should not suffice in all cases; the connection may be too insubstantial for the hydrologic linkage to establish the required nexus with navigable waters as traditionally

understood.”<sup>10</sup> However, as EPA and the Corps observe in the proposed rule, significant nexus is not itself a scientific term, but rather a determination of the agencies in light of the law and science. Functions that might demonstrate significant nexus include sediment trapping and retention of flood waters. In the proposed rule, the agencies note that a hydrologic connection is not necessary to demonstrate significant nexus, because the function may be demonstrated even in the absence of a connection (e.g., pollutant trapping is another such function).

## “Other Waters”

Beyond the categories of waters that would be categorically jurisdictional under the proposed rule is a category sometimes referred to as “other waters.” The regulatory term “other waters” applies to wetlands and non-wetland waters that do not fall into the category of waters susceptible to interstate commerce (traditional navigable waters), interstate waters, the territorial seas, tributaries, or waters adjacent to waters in one of these four categories. Current regulations contain a non-exclusive list of “other waters,” such as intrastate lakes, mudflats, prairie potholes, and playa lakes (see **Table 1**). Headwaters, which constitute most “other waters,” supply most of the water to downstream traditional navigable waters, interstate waters, and the territorial seas.

EPA and the Corps recognize that the Supreme Court decisions in *SWANCC* and *Rapanos* put limitations on the scope of “other waters” that may be determined to be jurisdictional under the CWA. Much of the controversy since the Court’s rulings has focused on uncertainty as to what degree “other waters” are jurisdictional, either by definition/rule, or as determined on a case-by-case basis to evaluate significant nexus to a jurisdictional water. Under the 2003 and 2008 guidance, which remain in effect today, all “other waters” require a case-by-case evaluation to determine if a significant nexus exists, thus providing a finding of CWA jurisdiction. There likewise has been uncertainty as to what degree “other waters” that are similarly situated may be aggregated or combined for a significant nexus determination.<sup>11</sup> Since issuing these guidance documents, the agencies have not found jurisdiction over any “other water” based solely on significant nexus.<sup>12</sup> In the proposed rule, “other waters,” including wetlands, that are adjacent to a jurisdictional water are categorically jurisdictional. Non-adjacent “other waters” and wetlands will continue to require a case-by-case determination of significant nexus. Also, the proposed rule allows broader aggregation of “other waters” that are similarly situated than under the existing guidance,<sup>13</sup> which could result in more “other waters” being found to be jurisdictional following a significant nexus evaluation.

Some in the regulated community have urged EPA and the Corps to provide metrics, such as quantifiable flow rates or minimum number of functions for “other waters,” to establish a significant nexus to jurisdictional waters. The agencies declined to do so in the proposed rule,

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<sup>10</sup> 547 U.S. at 784-785.

<sup>11</sup> In the *Rapanos* ruling, Justice Kennedy stated 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.

<sup>12</sup> The agencies have found some “other waters” jurisdictional because they meet another provision of the existing definition of “waters of the United States,” such as a determination that the water is a traditional navigable water. Personal communication, EPA Office of Water, May 23, 2014.

<sup>13</sup> Under the proposed rule, “other waters” may be aggregated for a significant nexus determination if they perform similar functions and are located sufficiently close together to be evaluated as a single landscape unit in the same watershed with regard to their effect on a jurisdictional downstream water.

saying that absolute standards would not allow sufficient flexibility to account for variability of conditions and the varied functions that different waters provide.

The agencies acknowledge that there may be more than one way to determine which "other waters" are jurisdictional, and they are requesting comment on alternate approaches, combination of approaches, scientific and technical data, case law, and other information that would clarify which "other waters" should be considered categorically jurisdictional or following a case-specific significant nexus determination.

In addition, EPA and the Corps are asking for public comment on whether to conclude by rule that certain types of "other waters"—prairie potholes, western vernal pools, Carolina and Delmarva bays, pocosins, Texas coastal prairie wetlands, and perhaps other categories of waters—have a significant nexus and are *per se* jurisdictional. These waters would not require a case-by-case analysis. At the same time, the agencies are asking for comment on whether to determine by rule that playa lakes and perhaps other categories of waters do not have a significant nexus and are not jurisdictional. If so determined, these waters would not be subject to a case-by-case analysis of significant nexus.

## Exclusions and Definitions

The second section of the proposed rule excludes specified waters from the definition of "waters of the United States." The listed waters and features would not be jurisdictional even if they would otherwise be included within categories that are jurisdictional. The exclusions are:

- Waste treatment systems, including treatment ponds or lagoons, that are designed to meet CWA requirements (no change from current rules);
- Prior converted cropland (no change from current rules);
- A list of features that have been excluded by long-standing practice and guidance and would now be excluded by rule, such as artificially irrigated areas that would revert to upland should application of irrigation water to the area cease (see **Table 1** for the full list); and
- Two types of ditches: ditches that are excavated wholly in uplands, drain only uplands or non-jurisdictional waters, and have less than perennial (i.e., permanent) flow; and ditches that do not contribute flow, either directly or through another water, to a traditional navigable water, interstate water, impoundment, or the territorial seas (even if the ditch has a perennial flow). Other ditches, if they meet the rule's definition of "tributary," would continue to be "waters of the United States"—a point of much controversy with some stakeholders.

The proposed rule makes no change to and does not affect existing statutory and regulatory exclusions: exemptions for normal farming, ranching, and silviculture activities such as plowing, seeding, and cultivation (CWA §404(f)); exemptions for permitting of agricultural stormwater discharges and return flows from irrigated agriculture; or exemptions for water transfers that do not introduce pollutants into a waterbody. Nor would it change permitting processes.

In the third section of the proposed rule, the agencies add definitions of several terms, including "tributary"; "significant nexus"; and "neighboring," "floodplain," and "riparian" as components

of the existing term “adjacent.” The terms “adjacent” and “wetland” are not redefined in the proposed rule. (See **Table 1**.)

EPA and the Corps believe that the proposed definitions of these terms are fully consistent with long-standing practice and historical implementation of CWA programs and that they are scientifically based.<sup>14</sup> Nevertheless, because definitions often are key to interpreting statutory law and regulations, some stakeholder groups have criticized the new definitions, suggesting that they would enable broader assertion of CWA jurisdiction than is consistent with law and science. Some critical attention has focused, for example, on the term “tributary,” previously defined in guidance but not in regulation. As noted above, tributaries are *per se* jurisdictional under the proposal, which defines the term to mean a water that is physically characterized by the presence of a bed and banks and ordinary high water mark (as currently defined at 33 C.F.R. §328.3(e)) and which contributes flow, either directly or through another water, to a jurisdictional water. In addition, under the proposal, wetlands, lakes, and ponds are tributaries—even if they lack a bed and banks or ordinary high water mark—if they contribute flow, either directly or through another water, to a jurisdictional water. Further, under the proposed definition, a water that otherwise qualifies as a tributary does not lose its status as a tributary if, for any length, there are one or more manmade breaks (e.g., dams) or natural breaks (e.g., debris piles), so long as a bed and banks and an ordinary high water mark can be identified upstream of the break.<sup>15</sup> Many stakeholders assert that several of the defined terms in the proposal are confusing, and further that the proposed rule fails to define terms such as “upland,” “gullies,” and “rills,” which they believe need to be clarified.

Finally, the proposed rule includes two appendixes. One is an abbreviated, but lengthy, version of the draft scientific assessment document, which has now been finalized based on review by EPA’s Science Advisory Board, plus additional detail of the agencies’ reasoning concerning science in support of the proposed rule. The other is an analysis of relevant case law.

## Impacts of the Proposed Rule

Overall, EPA and the Corps say that their intent in the Clean Water rule was to clarify their jurisdiction, in light of the Supreme Court’s ruling, not to expand it. Nevertheless, the agencies acknowledge that the proposed rule would increase the *categorical* assertion of CWA jurisdiction, when compared to a baseline of current practices under the existing regulations and the 2003/2008 EPA-Corps guidance. This results in part from the agencies’ expressly declaring some types of waters categorically jurisdictional and not requiring case-specific evaluation of them (such as all waters adjacent to a jurisdictional water), and also by application of definitions, which would give larger regulatory context to some types of waters, such as tributaries.

In changing the regulatory definition of “waters of the United States,” there may be instances in which the CWA applies categorically for the first time, and there also may be instances in which the CWA no longer applies (i.e., as a result of exemptions and exclusions). The agencies intend that the rule will result in less ambiguity about whether the CWA applies.

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<sup>14</sup> 79 *Federal Register* 22202, 22207.

<sup>15</sup> 79 *Federal Register* 22199.

The agencies believe that the proposed rule does not protect any new types of waters that have not been protected historically and that it does not exceed the CWA's coverage. That is, while it would enlarge categorical jurisdiction beyond that under the 2003 and 2008 EPA-Corps guidance, which the agencies believe was narrower than is justified by science and the law, they believe that it would not enlarge jurisdiction beyond what is consistent with the Supreme Court's narrow reading of jurisdiction. Others may disagree. Many stakeholders are concerned with what changes the proposed rule will make, how much additional waters will be considered categorically jurisdictional, and what additional costs will result.

The agencies' proposed categorical assertion of waters that are jurisdictional, compared to existing regulation and current practice, does not identify specific waters that will be found to be jurisdictional—that is, this or that particular stream or pond—but the proposed rule attempts to draw more of a bright line of CWA jurisdiction than in the past.

In an Economic Analysis document accompanying the proposed rule, EPA and the Corps estimate that, overall, approximately 3% more acreage of wetlands and stream miles, or roughly 1,500 acres nationwide, would additionally be subject to CWA jurisdiction as a result of the proposed rule, compared with current field practice under the 2008 guidance, and thus subject to CWA requirements. The increase is largely a result of clarifying the current confusion and difficulty of assessing "other waters," the agencies say. The estimated increase includes about 17% of "other waters" (discussed above) that were not jurisdictional under the guidance, as well as the result of assuming that all tributary streams and adjacent wetlands are jurisdictional.<sup>16</sup> Compared with the agencies' existing regulations, the proposed rule reflects a reduction in waters protected by the CWA, due to the Supreme Court's decisions, according to EPA and the Corps. The agencies estimate that 5% less wetland acreage and stream miles would be determined to be jurisdictional under the proposal than were jurisdictional prior to the Court's *SWANCC* and *Rapanos* rulings.<sup>17</sup>

According to the analysis, costs to regulated entities and governments (federal, state, and local) are likely to increase as a result of the proposal. Indirect costs would result from additional permit application expenses (for CWA Section 404 permitting, stormwater permitting for construction and development activities, and permitting of pesticide discharges and confined animal feeding operations [CAFOs] for discharges to waters that would now be determined jurisdictional) and additional requirements for oil storage and production facilities needing to develop and implement spill prevention, control and countermeasure (SPCC) plans. Federal and state governments would likely experience about \$1 million annually in additional costs to administer and process permits. Other costs would likely include compensatory mitigation requirements for permit impacts (if applicable), affecting land developers and state and local governments. In all, the agencies estimate that incremental costs associated with the rule range from \$162 million to \$279 million per year.

The Section 404 program would see the greatest impact as a result of revised assertion of CWA jurisdiction. Most of the projected costs are likely to affect landowners and development

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<sup>16</sup> U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, *Economic Analysis of Proposed Revised Definition of Waters of the United States*, March 2014, <http://www2.epa.gov/uswaters/economic-analysis-proposed-revised-definition-waters-united-states>, p. 12. Hereinafter, Economic Analysis.

<sup>17</sup> Remarks of Jo-Ellen Darcy, Assistant Secretary of the Army (Civil Works), before the House Transportation and Infrastructure Committee, Subcommittee on Water Resources and Environment, June 11, 2014.

companies, state and local governments investing in infrastructure, and industries involved in resource extraction.<sup>18</sup>

The agencies believe that indirect benefits accruing from the proposed rule include the value of ecosystem services provided by the waters and wetlands protected as a result of CWA requirements, such as habitat for aquatic and other species, support for recreational fishing and hunting, and flood protection. Other benefits would include government savings on enforcement expenses, because the rule is intended to provide greater regulatory certainty, thus reducing the need for government enforcement. Business and government may also achieve savings from reduced uncertainty concerning where CWA jurisdiction applies, they believe. In all, the agencies estimate that benefits of the proposed rule range from \$318 million to \$514 million per year. However, they note that “there is uncertainty and limitations associated with the results,” due to data and information gaps, as well as analytic challenges. The analysis does not quantify all possible costs and benefits, and values are meant to be illustrative, not definitive.<sup>19</sup> Overall, they conclude that benefits would exceed costs.

Unclear for now is a question of the extent to which case law construing the existing administrative definition of “waters of the United States” will continue to apply. Some of that case law has been in place for more than 35 years. The preamble to the proposed rule does not address this issue.

## **Concerns of Agriculture and Local Governments**

The agriculture sector has been vigorous in criticizing and challenging EPA regulatory actions that may affect the sector’s operations, making potential impacts of the proposed rule on agriculture a likely focus of controversy. One of the sector’s concerns about a new “waters of the United States” rule has been whether it would modify existing statutory provisions that exempt “normal farming and ranching” practices from dredge and fill permitting or others that exclude certain agricultural discharges, such as irrigation return flow and stormwater runoff, from all CWA permitting. As described above, the proposed rule makes no change and does not affect these exemptions, which are self-implementing. An EPA fact sheet discusses the continued exclusions and exemptions.<sup>20</sup>

In addition, simultaneous with proposing the Clean Water Rule, EPA and the Corps issued an interpretive rule that identified 56 conservation practices approved by the U.S. Department of Agriculture’s Natural Resources Conservation Service (NRCS) that qualify for exemption under the CWA Section 404(f)(1)(A) exclusion of “normal farming and ranching” activities from Section 404 permit requirements and do not require determination whether the discharge involves a “water of the United States.” Essentially, the interpretive rule provided guidance to determine activities that qualify for 404(f)(1)(A) exemptions. The 56 practices, which are a subset of all NRCS conservation practices, are practices such as stream crossings and wetland restoration that take place in aquatic, riparian, or wetland environments. Through this interpretive rule, the agencies intended to resolve uncertainties about “normal farming” activities that are exempt from

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<sup>18</sup> Economic Analysis, p. 32.

<sup>19</sup> *Ibid.*, pp. 21-22, 32.

<sup>20</sup> See [http://www2.epa.gov/sites/production/files/2014-03/documents/cwa\\_ag\\_exclusions\\_exemptions.pdf](http://www2.epa.gov/sites/production/files/2014-03/documents/cwa_ag_exclusions_exemptions.pdf). Comments submitted to the docket for the interpretive rule (Docket ID No. EPA-HQ-OW-2013-0820) are available at <http://www.regulations.gov>.

permitting when these conservation practices are used. In other words, effective immediately, producers who utilize any of the 56 identified practices according to NRCS technical standards would not need to seek a determination of CWA jurisdiction nor seek a CWA permit. The three agencies also signed a Memorandum of Understanding detailing implementation of the interpretive rule and identifying a process for reviewing and updating the list of qualifying NRCS conservation practices. Although the interpretive rule became effective immediately, EPA and the Corps accepted public comment until July 7, 2014.<sup>21</sup>

The interpretive rule was intended to clarify agricultural practices that are exempt from CWA Section 404 permitting. Nevertheless, there was confusion about many issues, including NRCS's role in providing technical assistance to farmers with respect to 404 permitting. Public comments submitted on the interpretive rule were uniformly critical—including comments submitted by agriculture stakeholder groups, environmental groups, and some state environmental agencies. Agriculture groups argued that it was procedurally flawed, because it would have substantive impact on farmers, and thus should have been subject to notice-and-comment rulemaking procedures under the Administrative Procedure Act. Many also argued that the interpretive rule narrowed the CWA 404(f)(1)(A) statutory exemptions, because the practices listed in the rule already were excluded from Section 404. Under the interpretive rule, farmers would have to comply with NRCS standards in order to qualify for exemption, resulting in a disincentive to conservation, they said. On the other hand, environmental groups and some state environmental agencies were critical of the interpretive rule for different reasons. They contended that it would exempt activities from permitting that are not truly associated with ongoing farming and that the rule was thus too broad. Some of the listed practices, such as stream crossings, can have significant harmful impacts on water quality and result in violations of state water quality standards, they said.

EPA and Corps officials acknowledged that the interpretive rule did not appear to have had the intended benefits of clarifying agricultural exemptions and exempting, not contracting, the number of exempted activities, and they said that the agencies and U.S. Department of Agriculture (USDA) were weighing alternatives to the rule. However, before the agencies proposed or took action on the interpretive rule, in the FY2015 omnibus appropriations act, passed in December (H.R. 83/P.L. 113-235), Congress included a provision directing EPA and the Corps to withdraw it (see "Conclusion" below). On January 29, 2015, the agencies signed a memorandum withdrawing the interpretive rule, effective immediately.<sup>22</sup> Following Congress's action in December, the EPA Administrator indicated that the agency would work with USDA to provide certainty to the regulated community, in a way that provides value both to the government and the agriculture community. No further actions have been announced.

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<sup>21</sup> Department of Defense, Department of the Army, Corps of Engineers, and Environmental Protection Agency, "Notice of Availability Regarding the Exemption From Permitting Under Section 404(f)(1)(A) of the Clean Water Act to Certain Agricultural Conservation Practices," 79 *Federal Register* 22276, April 21, 2014. The list of practices, the Memorandum of Understanding, and the interpretive rule are available at <http://water.epa.gov/lawsregs/guidance/wetlands/agriculture.cfm>. USDA had no formal role in developing the Corps-EPA proposed rule, but it was among the federal agencies commenting on it during interagency review.

<sup>22</sup> Environmental Protection Agency and Department of Defense, "Notice of Withdrawal," 80 *Federal Register* 6705, February 6, 2015.

## Local Government Concerns

Some local governments have also criticized the proposed “waters of the United States” rule. In particular, the National Association of Counties (NACo) argues that counties and other local governments would be affected by the proposed rule in the arena of ditches. NACo points out that local governments own and maintain public infrastructure including roadside ditches, flood control channels, and stormwater management structures. Because the proposed rule would define some ditches as “waters of the United States” if they meet certain conditions (i.e., if they are defined as tributaries), NACo contends that the proposal potentially increases the number of county-owned ditches under federal jurisdiction. Permit requirements are not an issue, NACo says, but permitting can be time-consuming and expensive. EPA and Corps officials believe that the proposed exclusion of most ditches (see “Exclusions and Definitions”) actually decreases federal jurisdiction over ditches, but the issue remains controversial.

## Conclusion

The Corps and EPA accepted public comment on the proposed rule until November 14, 2014. As noted above, the agencies pledged that a final rule would not be promulgated before completion of EPA’s scientific assessment report, which occurred in January 2015, based on the SAB’s review. Both agencies are now reviewing the more than one million comments that were submitted on the proposal in order to develop a final rule.

The EPA Administrator stated at a congressional hearing in 2014 that it generally takes about one year to finalize a rule. Complex and controversial rules can take much longer from proposal to promulgation. In recent testimony at congressional hearings, EPA and Corps officials have said that they expect to issue a final rule sometime this spring, which could mean May or June 2015, and that they will implement the new rule beginning in FY2016. A final rule could differ significantly from the proposal in addressing critiques and commenters’ calls for clarification and substantive change.

Once a rule is finalized, legal challenges are likely, possibly delaying implementation of any rule for years. New regulations may clarify many current questions, but they are unlikely to please all of the competing interests, as one environmental advocate observed.

However, a rulemaking would only benefit wetlands if it did not reduce the jurisdiction offered by current regulations and if the Administration remained faithful to sound science. If politics were to trump science in the rulemaking process, the likelihood of such a protective rule would not be promising. Also, rules are subject to legal challenge and can be tied up in court for years before they are implemented.<sup>23</sup>

Congressional interest in the proposed rule has been strong since the agencies’ announcement in March 2014. Hearings were held during the 113<sup>th</sup> Congress and are continuing in the 114<sup>th</sup> Congress; bills to bar the agencies from finalizing the proposed rule or otherwise alter the agencies’ course regarding the rule have been introduced. (For information, see CRS Report

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<sup>23</sup> James Murphy, “*Rapanos v. United States: Wading Through Murky Waters*,” *National Wetlands Newsletter*, vol. 28, no. 5, September-October 2006, p. 19.

R43943, *EPA and the Army Corps' Proposed "Waters of the United States" Rule: Congressional Response and Options*, by Claudia Copeland.)

Many critics in Congress and elsewhere have urged that the proposed Clean Water Rule be withdrawn, or that the agencies propose a supplemental rule, subject to another round of public comments. EPA and Corps officials point out that doing so would leave in place the status quo—with determinations of CWA jurisdiction being made by 38 Corps districts pursuant to existing regulations, coupled with non-binding agency guidance, and many of these determinations involving time-consuming case-specific evaluation. The agencies' intention has been to clarify the rules and make jurisdictional determinations more predictable, less ambiguous, and more timely. Some industry and agriculture groups that criticized the status quo in the past now seemingly prefer it to the proposed rule, which they believe is ambiguous and overly broad, thus underscoring the challenges that the Corps and EPA face in developing a final rule.

**Table I. Comparison of “Definition of Waters of the United States” Regulatory Language**

Current Regulatory Language and Proposed Rule Published in the *Federal Register* April 21, 2014

Current Regulatory Language <sup>a</sup>	Proposed Regulatory Language	Comments <sup>b</sup>
(a) The term <i>waters of the United States</i> means	(a) For purposes of all sections of the Clean Water Act, 33 U.S.C. 1251 <i>et seq.</i> and its implementing regulations, subject to the exclusions in subsection (b) of this section, the term “waters of the United States” means:	
(1) All waters which 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;	(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;	These waters are often referred to as “traditional navigable waters” (TNWs), which include but are not limited to the “navigable waters of the United States” within the meaning of Section 10 of the Rivers and Harbors Act of 1899. No change from the existing rule.
(2) All interstate waters including interstate wetlands;	(2) All interstate waters, including interstate wetlands;	These waters 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. No change from the existing rule. Interstate waters would continue to be “waters of the United States” even if they are not navigable in fact and do not connect to such waters.
(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:	(7) On a case-specific basis, other waters, including wetlands, provided that those waters alone, or in combination with other similarly situated waters, including wetlands, located in the same region, have a significant nexus to a water identified in paragraphs (a)(1) through (3) of this section.	In the existing rule, there is a non-exclusive list of the types of “other waters” which may be found to be “waters of the U.S.” The existing description is omitted under the proposal as unnecessary and confusing because it includes some waters that would be jurisdictional under one of the categories of waters that are jurisdictional by rule under the proposal (for example, an intermittent stream that meets the definition of tributary). Under the proposed rule, “other waters” are not jurisdictional as a single category but require a case-specific analysis of a significant nexus to a traditional navigable water, an interstate water, or the territorial seas. They may be evaluated either individually, or as a group of waters where they are determined to be similarly situated in a region. “In the region” means the watershed that drains to the nearest traditional navigable water, interstate

Current Regulatory Language <sup>a</sup>	Proposed Regulatory Language	Comments <sup>b</sup>
<p>(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or</p> <p>(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or</p> <p>(iii) Which are used or could be used for industrial purpose by industries in interstate commerce;</p>		<p>water, or the territorial seas through a single point of entry. How other waters are aggregated for a case-specific significant nexus analysis depends on the functions they perform and their spatial arrangement within the region or watershed. It is the landscape position within the watershed that is the determinative factor for the analysis, which will focus on the degree to which the functions provided by the other waters affect the chemical, physical, or biological integrity of (a)(1) through (a)(3) waters.</p> <p>Current rule asserts jurisdiction more broadly than what is proposed; the proposal deletes language requiring that an “other water” be one “the use, degradation or destruction of which could affect interstate commerce” and replaces it with requirement that the “other water” meet the significant nexus standard. The agencies consider this a substantial change from the current rule.</p> <p>Specific examples are omitted in the proposed rule as unnecessary. The agencies say that the listing has led to confusion where it has been incorrectly read as an exclusive list.</p>
<p>(4) All impoundments of waters otherwise defined as waters of the United States under the definition;</p>	<p>(4) All impoundments of waters identified in paragraphs (a)(1) through (3) and (5) of this section;</p>	<p>Impoundments of a traditional navigable water, interstate water, the territorial seas, or a tributary are jurisdictional by rule.</p> <p>As a matter of policy and law, impoundments do not de-federalize a water, even where there is no longer flow below the impoundment. That is, damming or impounding a water of the United States does not make the water non-jurisdictional.</p>
<p>(5) Tributaries of waters identified in paragraphs (a)(1)</p>	<p>(5) All tributaries of waters identified in paragraphs</p>	<p>Tributaries, as defined in the proposed rule, of a</p>

Current Regulatory Language <sup>a</sup>	Proposed Regulatory Language	Comments <sup>b</sup>
through (4) of this section;	(a)(1) through (4) of this section;	<p>traditional navigable water, interstate water, the territorial seas, or an impoundment would be jurisdictional by rule.</p> <p>Unless excluded under subsection (b) of the proposed rule, any water that meets the proposed definition of tributary is a water of the United States, whether it is perennial, intermittent, or ephemeral. The water may contribute flow directly or may contribute flow to another water or waters that eventually flow into a jurisdictional water. The tributary must drain, or be part of a network of tributaries that drain, into an (a)(1) through (a)(4) water.</p>
(6) The territorial seas;	(3) The territorial seas;	<p>“Tributary” is defined below.</p> <p>Jurisdictional by rule; no change from the existing rule. The term generally refers to the part of the ocean immediately adjacent to shoreline and extending seaward up to 12 miles.</p>
(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1) through (6) of this section.	(6) All waters, including wetlands, adjacent to a water identified in paragraphs (a)(1) through (5) of this section; and	<p>All waters, including wetlands, adjacent to a traditional navigable water, interstate water, the territorial seas, impoundment, or tributary would be jurisdictional by rule. Under the proposed rule, wetlands, ponds, lakes, and similar waterbodies that are adjacent to traditional navigable waters, interstate waters, and the territorial seas, as well as waters and wetlands adjacent to other jurisdictional waters such as tributaries and impoundments, would be jurisdictional by rule.</p>
(8) Waters of the United States do not include prior converted cropland. <sup>c</sup> 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.	<p><b>(b) The following are not “waters of the United States”</b></p> <p>(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.</p>	No change proposed.

Current Regulatory Language <sup>a</sup>	Proposed Regulatory Language	Comments <sup>b</sup>
Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 C.F.R. 423.11(m) which also meet the criteria of this definition) are not waters of the United States. <sup>d</sup>	(1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act.	The agencies do not believe that omitting the parenthetical reference to 40 C.F.R. 423.11(m) is a change in substance to the waste treatment exclusion or how it is applied.
	(3) Ditches that are excavated wholly in uplands, drain only uplands or non-jurisdictional waters, and have less than perennial flow.	Proposed rule would codify long-standing practice and guidance (including 1986 and 1988 preamble language), which has been to exclude these waters from jurisdiction.  Excluded ditches must be dug only in uplands, drain only uplands, and have ephemeral or intermittent flow. Ditches in uplands would need to have perennial flow to be jurisdictional, even if they connect to downstream waters. Water that only stands or pools in a ditch is not considered perennial flow and, therefore, any such upland ditch would not be subject to regulation.
	(4) Ditches that do not contribute flow, either directly or through another water, to a water identified in paragraphs (a)(1) through (4) of this section.	Proposed rule would codify long-standing practice and guidance (including 1986 and 1988 preamble language), which has been to exclude these waters from jurisdiction. These waters would not be jurisdictional by rule.  Ditches that do not contribute flow, directly or indirectly, to the tributary system of a traditional navigable water, interstate water, impoundment, or the territorial seas are not “waters of the United States,” even if the ditch has a perennial flow.  Other ditches, if they meet the new proposed definition of “tributary” and contribute flow, directly or indirectly, to a jurisdictional water (see “tributary” definition below) would continue to be waters of the United States.  Ditches may function as point sources that discharge pollutants, thus subject to CWA Section 402.
	(5) The following features: (i) Artificially irrigated areas that would revert to upland should application of	Proposed rule would codify long-standing practice and guidance (including 1986 and 1988 preamble language),

Current Regulatory Language <sup>a</sup>	Proposed Regulatory Language	Comments <sup>b</sup>
<p>(b) The term <i>wetlands</i> means those areas that are inundated or saturated by surface or ground water 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.</p> <p>(c) The term <i>adjacent</i> means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes and the like are “adjacent wetlands.”</p>	<p>irrigation water to that area cease; (ii) artificial lakes or ponds created by excavating and/or diking dry land and used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing; (iii) artificial reflecting pools or swimming pools created by excavating and/or diking dry land; (iv) small ornamental waters created by excavating and/or diking dry land for primarily aesthetic reasons; (v) water-filled depressions created incidental to construction activity; (vi) groundwater, including groundwater drained through subsurface drainage systems; and (vii) gullies and rills and non-wetland swales.</p> <p><b>(c) Definitions—</b></p> <p>(6) <b>Wetlands:</b> The term <i>wetlands</i> means those areas that are inundated or saturated by surface or ground water 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.</p> <p>(1) <b>Adjacent:</b> The term <i>adjacent</i> means bordering, contiguous or neighboring. Waters, including wetlands, separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes and the like are “adjacent waters.”</p>	<p>which has been to exclude these waters from jurisdiction. These waters would not be jurisdictional by rule.</p> <p>No change proposed.</p> <p>Wetlands are ecosystems that often occur at the edge of aquatic (water, fresh or salty) or terrestrial (upland) systems. Wetlands typically represent transitional zones between aquatic and upland systems.</p> <p>Current rule limits consideration of adjacency to wetlands. Proposed rule would change “adjacent wetlands” to “adjacent waters” so that waterbodies such as ponds and oxbow lakes [a U-shaped body of water formed when a wide meander from a river is cut off to form a lake] as well as wetlands that are adjacent to jurisdictional waters are “waters of the U.S.” by regulation. The rule would include wetlands and other waterbodies that meet the proposed definition of adjacent, including “neighboring,” which is defined separately. Adjacent waters are those that provide similar functions which, <i>together with functions provided by tributaries to which they are adjacent</i>, have a significant nexus to traditional navigable waters (TNWs), interstate waters, and the territorial seas. “In the aggregate, all adjacent waters have a significant nexus with their downstream TNWs or interstate waters.”</p>

Current Regulatory Language <sup>a</sup>	Proposed Regulatory Language	Comments <sup>b</sup>
<p>(d) The term <i>high tide line</i> 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.</p>	No change proposed	<p>The lateral limits of an adjacent water, other than wetlands or tributaries, are determined by the presence of an ordinary high water mark (OHWM) without the need for a bed and banks. Deletion of parenthetical phrase in the existing rule is intended to ensure that all waters that meet the proposed definitions of "adjacent" are "waters of the U.S." regardless of whether or not another adjacent water is located between those waters and the tributary.</p>
<p>(e) The term <i>ordinary high water mark</i> means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as 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 area.</p>	No change proposed	
<p>(f) The term <i>tidal waters</i> means those waters that rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface</p>	No change proposed	

Current Regulatory Language <sup>a</sup>	Proposed Regulatory Language	Comments <sup>b</sup>
<p>can no longer be practically measured in a predictable rhythm due to masking by hydrologic, wind, or other effects.</p>	<p>(2) <b>Neighboring:</b> The term <i>neighboring</i>, for purposes of the term “adjacent” in this section, includes waters located within the riparian area or floodplain of a water identified in paragraphs (a)(1) through (a)(5) of this section, or waters with a surface or shallow subsurface hydrologic connection to such a jurisdictional water.</p> <p>(3) <b>Riparian area:</b> The term <i>riparian area</i> means an area bordering a water where surface or subsurface hydrology influence the ecological processes and plant and animal community structure in that area. Riparian areas are transitional areas between aquatic and terrestrial ecosystems that influence the exchange of energy and materials between those ecosystems.</p> <p>(4) <b>Floodplain:</b> The term <i>floodplain</i> means an area bordering inland or coastal waters that was formed by sediment deposition from such water under present climatic conditions and is inundated during periods of moderate to high water flows.</p> <p>(5) <b>Tributary:</b> The term <i>tributary</i> means a waterbody physically characterized by the presence of a bed and banks and ordinary high water mark, as defined at 33 C.F.R. §328.3(e), which contributes flow, either directly or through another water, to a water identified in paragraphs (a)(1) through (4) of this section. In addition, wetlands, lakes, and ponds are tributaries (even if they lack a bed and banks or ordinary high water mark) if they contribute flow, either directly or through another water to a water identified in paragraphs (a)(1) through (3) 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 man-made breaks (such as bridges, culverts, pipes, or dams) or one or more natural breaks (such as wetlands at the head of or along the run of a stream, debris piles,</p>	<p>Waters, including wetlands, that are located within the riparian area or floodplain of an (a)(1) through (a)(5) water would be jurisdictional without a case-specific significant nexus analysis. Even if separated from such a water by natural or man-made features (e.g., a berm), the water would be adjacent and thus jurisdictional.</p> <p>The term “riparian area” is used to help identify waters, including wetlands, that may be “adjacent” and would, therefore, be “waters of the United States” under the proposed rule. No uplands located in “riparian areas” can ever be “waters of the United States.”</p> <p>The term “floodplain” is used to help identify waters, including wetlands, that may be “adjacent” and would, therefore, be “waters of the United States” under the proposed rule. No uplands located in “floodplains” can ever be “waters of the United States.”</p> <p>This term has not previously been defined in any regulation or preamble.</p> <p>Bed and banks and ordinary high water mark (OHWM) are features that generally are physical indicators of flow. OHWM generally defines the lateral limits of a water. In many tributaries, the bed is that part of the channel below the OHWM, and the banks often extend above the OHWM.</p> <p>Wetland tributaries are wetlands that are located within the stream channel itself or that form the start of the stream channel.</p> <p>Man-altered and man-made tributaries perform many of the same functions as natural tributaries and provide connectivity between streams and downstream rivers.</p>

Current Regulatory Language <sup>a</sup>	Proposed Regulatory Language	Comments <sup>b</sup>
<p>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 tributary, including wetlands, can be a natural, man-altered, or man-made waterbody and includes waters such as rivers, streams, lakes, ponds, impoundments, canals, and ditches not excluded in paragraph (b)(3) or (4) of this section.</p>	<p>(7) <b>Significant nexus:</b> The term <i>significant nexus</i> means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region (i.e., the watershed that drains to a water identified in paragraphs (a)(1) through (3) of this section), significantly affects the chemical, physical or biological integrity of a 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. Other waters, including wetlands, are similarly situated when they perform similar functions and are located sufficiently close together or close to a “water of the U.S.” so that they can be evaluated as a single landscape unit with regard to their effect on the chemical, physical, or biological integrity of a water identified in paragraphs (a)(1) through (3) of this section.</p>	<p>A significant nexus analysis may be based on a particular water alone or on the effect that the water has in combination with other similarly situated waters in the region. “Region” means the watershed that drains to a water identified in (a)(1) through (a)(3) through a single point of entry.</p> <p>Proposed rule adopts the concept of aggregating certain waters to determine whether they meet the “alone or in combination with similarly situated waters” test of Justice Kennedy. Waters must perform similar functions and be located sufficiently close together or close to a traditional navigable water, interstate water, or the territorial seas so that they can be evaluated as a single landscape unit with regard to their effects. Examining both functionality and proximity limits the “other waters” that can be aggregated for purposes of determining jurisdiction.</p> <p>Functions that might demonstrate significant nexus include sediment trapping and retention of flood waters. A hydrologic connection is not necessary, because the function may be demonstrated even in the absence of a connection (e.g., pollutant trapping).</p>

**Source:** Prepared by CRS.

**Notes:** The proposed rule that was announced on March 25, 2014, was published in the *Federal Register* on April 21, 2014 (79 *Federal Register* 22188-22274).

- a. 33 C.F.R. 328.3, 40 C.F.R. 122.2, 40 C.F.R. 230.3, and 40 C.F.R. 232.2 (definition of “waters of the United States”). The term “navigable waters” is defined at 40 C.F.R. 110.1 (Discharge of Oil); 40 C.F.R. 112.2 (Oil Pollution Prevention); 40 C.F.R. 116.3 (Designation of Hazardous Substance); 40 C.F.R. 117.1(i) (Determination

of Reportable Quantities for Hazardous Substances); 40 C.F.R. 300.5 and Appendix E 1.5 to Part 300 (National Oil and Hazardous Substances Pollution Contingency Plan); and 40 C.F.R. 302.3 (Designation, Reportable Quantities, and Notification).

- b. Comments in this table are drawn in large part from the preamble to the proposed rule.
- c. The term “prior converted cropland” is included in the U.S. Department of Agriculture’s administrative definition of the term “wetland” (see 7 C.F.R. 12.2).
- d. A definition of “waste treatment system” is found in EPA regulations (35 C.F.R. 35.905): “Complete waste treatment system. A complete waste treatment system consists of all of the treatment works necessary to meet the requirements of title III of the Act, involved in (a) The transport of waste waters from individual homes or buildings to a plant or facility where treatment of the waste water is accomplished; (b) the treatment of the waste waters to remove pollutants; and (c) the ultimate disposal, including recycling or reuse, of the treated waste waters and residues which result from the treatment process. One complete waste treatment system would, normally, include one treatment plant or facility, but also includes two or more connected or integrated treatment plants or facilities.”

## Appendix. EPA's Connectivity Report and Review by the Science Advisory Board

In September 2013, EPA released a draft report that reviews and synthesizes the peer-reviewed scientific literature on the connectivity or isolation of streams and wetlands relative to large water bodies such as rivers, lakes, estuaries, and oceans. The purpose of the review, according to EPA, is to summarize current understanding about these connections, the factors that influence them, and mechanisms by which connected waters affect the function or condition of downstream waters. The focus of the draft report, which was prepared by EPA's Office of Research and Development, was on small or temporary non-tidal streams, wetlands, and open waters. Based on the reviewed literature, it made certain findings.

- All tributary streams, including perennial, intermittent, and ephemeral streams, are physically, chemically, and biologically connected to downstream rivers.
- Wetlands and open waters in riparian areas and floodplains also are physically, chemically, and biologically connected with rivers and serve an important role in the integrity of downstream waters. In these types of wetlands, water-borne materials can be transported from the wetland to the river network and vice versa (e.g., water from a stream flows into and affects the wetland).
- Wetlands and open waters where water only flows from the wetland or water to a river network, (i.e., non-floodplain waters and wetlands that lack surface water inlets) such as many prairie potholes, vernal pools, and playa lakes, provide numerous functions that can benefit downstream water quality and integrity. However, because such wetlands occur on a gradient of connectivity, it is difficult to generalize, from the literature alone, about their effects on downstream waters or to generalize about the degree of connectivity (absolute or relative).

EPA asked its Science Advisory Board (SAB) to review the draft report and to comment on whether its conclusions and findings are supported by the available science.<sup>24</sup> The EPA draft report is not intended as a policy document—it does not reference either the Scalia plurality or Kennedy tests in *Rapanos*, nor does it address legal standards for CWA jurisdiction. Nevertheless, the report is important to EPA and the Corps because, when finalized, it will provide a scientific basis needed to clarify CWA jurisdiction and, thus, to inform the “waters of the United States” rulemaking.<sup>25</sup> The SAB convened a special panel of scientists to review the draft synthesis document. This ad hoc panel held meetings and teleconferences from late 2013 through mid-2014 and prepared a report with recommendations.

In its report,<sup>26</sup> the SAB ad hoc panel found strong support for the first two of EPA's major conclusions in the synthesis document and concluded that it is a thorough and technically

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<sup>24</sup> The SAB was established pursuant to the Environmental Research, Development, and Demonstration Authorization Act (42 U.S.C. 4365) to provide independent scientific and technical advice to the EPA Administrator on the technical basis for agency positions and regulations.

<sup>25</sup> See U.S. Environmental Protection Agency, “Clean Water Act Definition of ‘Waters of the United States,’” <http://water.epa.gov/lawsregs/guidance/wetlands/CWAwaters.cfm>.

<sup>26</sup> Science Advisory Board, “SAB Review of the Draft EPA Report *Connectivity of Streams and Wetlands to* (continued...) ”

accurate review of the literature on the connectivity of streams and wetlands to downstream waters. In particular, the panel agreed with EPA's conclusions that ephemeral, intermittent, and perennial streams exert a strong influence on the character and functioning of downstream waters and that tributary streams are connected to downstream waters. Further, the panel agreed with EPA that streams and wetlands in floodplain settings are physically, chemically, and/or biologically connected to downstream navigable waters.

The ad hoc panel found that the peer-reviewed literature supports EPA's conclusions in the synthesis report that connectivity occurs along a gradient or continuum between fully connected and completely isolated, with a transition in between that varies case-by-case. However, the panel concluded that the EPA report often refers to connectivity as though it is a binary property (connected versus not connected). Instead, the panel found that there are four dimensions to connectivity (longitudinal, lateral, vertical, and temporal). It is technically more accurate to state that the consequences to downstream waters are determined by variation in the frequency, duration, predictability, and magnitude of connections and that relatively low levels of connectivity can be meaningful in terms of impacts.

The ad hoc panel disagreed with EPA's third major conclusion, that it is difficult to generalize from currently available literature the degree of connectivity or the downstream effects of non-floodplain waters and wetlands that are not connected to a river network through surface or shallow subsurface water. The SAB panel found that "the scientific literature supports a more definitive statement that reflects how numerous functions of non-floodplain wetlands sustain the physical, chemical, and/or biological integrity of downstream waters, although the degree of connectivity can vary widely."<sup>27</sup> The report would be strengthened, the ad hoc panel said, if it framed the discussion of connectivity gradients and their consequences as a function of the magnitude, duration, and frequency of connectivity pathways among wetlands and downstream waters and if it quantified each connection, to the degree possible, while identifying research and data gaps. The panel found that at sufficiently large spatial and temporal scales, all waters and wetlands are connected. More important are the degree of connection (e.g., frequency, duration) and the extent to which those connections affect the chemical, physical, and biological integrity of downstream waters. Within non-floodplain wetlands, the degree of connectivity and implications for integrity of downstream waters vary considerably.

The EPA Report suggests that determining the connectedness of each non-floodplain wetland must be done on a case-by-case basis. The SAB suggests that the vast majority of non-floodplain wetlands can be classified with respect to some degree of hydrologic, chemical or biological connections to downstream waters; however, some hydrologically and spatially disconnected wetlands may need to be considered on a case-by-case basis. The challenge for the EPA is to describe the hierarchy of decisions and the tools necessary to assess the degree of connection necessary to warrant case-by-case analysis.<sup>28</sup>

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(...continued)

*Downstream Waters: A Review and Synthesis of the Scientific Evidence*, Draft Report," August 11, 2014, 105 pp., [http://yosemite.epa.gov/sab/SABPRODUCT.NSF/81e39f4c09954fcb85256ead006be86e/212BB1480331835285257D350041A1C0/\\$File/SAB+Connectivity+Panel+Draft+Report\\_8\\_11\\_14\\_%28quality+review+draft%29.pdf](http://yosemite.epa.gov/sab/SABPRODUCT.NSF/81e39f4c09954fcb85256ead006be86e/212BB1480331835285257D350041A1C0/$File/SAB+Connectivity+Panel+Draft+Report_8_11_14_%28quality+review+draft%29.pdf).

<sup>27</sup> Ibid., pp. 1, 6.

<sup>28</sup> Ibid., p. 56.

The full, chartered SAB reviewed the ad hoc panel's report in September 2014. SAB members said that the panel's review of the draft EPA study was technically accurate and clear and that it accurately established linkages between streams, wetlands, and downstream waters. The SAB members asked for several minor revisions to the ad hoc panel's report, which were reflected in an October 17, 2014, letter to the EPA Administrator with its findings and recommendations regarding the synthesis document.<sup>29</sup>

Based on the SAB review, EPA's scientists revised the draft scientific assessment report and released a final report.<sup>30</sup> As revised, the report endorses the SAB recommendation in full by interpreting the literature on connectivity of streams to downstream waters as reflecting a gradient approach that recognizes variation in the frequency, duration, magnitude, predictability, and consequences of those connections. In the final report, EPA says that connectivity of streams and wetlands to downstream waters occurs along a continuum, and that variation in the degree of connectivity influences the range of functions provided by streams and wetlands. The final report no longer concludes that there is insufficient science to find that there are connections between non-floodplain wetlands and downstream waters, suggesting that case-specific analysis may not be needed for all such waters to determine that CWA jurisdiction applies. What remains to be seen is how EPA and the Corps will implement the gradient approach recommended by the SAB in a final "waters of the United States" rule.

## **SAB Review of the Proposed "Waters of the U.S." Rule**

In addition to advising the EPA Administrator on the "connectivity" report, the chartered SAB agreed to review the adequacy of the scientific and technical basis of the proposed "waters of the United States" rule. As input to the SAB, members of the ad hoc panel that reviewed the "connectivity" report subsequently reviewed the proposed rule. (Unlike their formal review of the "connectivity" report, the panel did not seek consensus on their views of the scientific basis of the proposed CWA rule.) The ad hoc panel sought to bring their scientific expertise to questions of law and policy in the proposed rule, but at the same time, members' comments highlighted some difficulties in doing so.

Members of the ad hoc panel found general agreement that, based on available science, tributaries and adjacent waters and wetlands are appropriately jurisdictional under the proposed rule. They generally agreed that from a scientist's perspective, key terms in the proposed rule need clarification and better definition, including "significant," "similarly situated," "floodplain," and "adjacent." The definition of "adjacent" is important, for example, because where "adjacent" is determined then determines the beginning of "other waters" that require case-by-case evaluation of jurisdiction. Several said that the proposed definition of "tributary" should be broader, that is, that it should specify a bed and bank (as proposed) and *in some cases* an ordinary high water mark (but not in all cases, as proposed in the rule). Several referred to the panel's review of the "connectivity" report and said that the rule should equally reflect the importance of chemical and biological connections between waters, as well as hydrological connections, in determining

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<sup>29</sup> The October 17, 2014, letter and SAB final peer review of the draft "connectivity" report is available at [http://yosemite.epa.gov/sab/sabproduct.nsf/WebReportsLastFiveBOARD/AF1A28537854F8AB85257D74005003D2/\\$File/EPA-SAB-15-001+unsigned.pdf](http://yosemite.epa.gov/sab/sabproduct.nsf/WebReportsLastFiveBOARD/AF1A28537854F8AB85257D74005003D2/$File/EPA-SAB-15-001+unsigned.pdf).

<sup>30</sup> Environmental Protection Agency, Office of Research and Development, *Connectivity of Streams & Wetlands to Downstream Waters: A Review & Synthesis of the Scientific Evidence*, EPA/600/R-14-475F, January 2015, <http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=296414>.

significant nexus, as the panel's report did. Similarly, several noted the emphasis in the panel's report on connections resulting from groundwater pathways—shallow subsurface, shallow or deep groundwater—in questioning the categorical exclusion of federal jurisdiction over groundwater in the proposed rule.<sup>31</sup> Likewise, some on the panel said that the distinction between ditches that would and would not be jurisdictional under the proposed rule is unclear and may not be adequately supported by the science, although they recognized that the agencies may have policy reasons for including some ditches as jurisdictional and excluding others.

EPA and the Corps face the challenge of assessing how the rule as proposed, or possible revisions to it, fully reflect science, law, and the statutory authority of the Clean Water Act.

The full chartered SAB also considered the ad hoc panel's review of the proposed "waters of the United States" rule in September, and it approved an advisory letter to be sent to the EPA Administrator.<sup>32</sup> The letter also supports case-by-case consideration of most "other waters" as "waters of the United States," but it finds that there is adequate scientific evidence to support a determination that certain types of waters in particular U.S. regions (e.g., prairie potholes, Texas coastal prairie wetlands) could be categorically considered waters of the United States, thus not requiring case-specific analysis. In the letter, the SAB urged EPA to reconsider the definition of tributaries, which the proposed rule defines as having a bed, a bank, and an ordinary high water mark, because in the SAB's judgment, not all tributaries have ordinary high water marks. Finally, the letter disagrees with certain categorical exclusions in the proposed rule, saying that science does not justify excluding waters such as groundwater, ditches with only intermittent or ephemeral flow, gullies, rills, and non-wetland swales, because in many cases they can be connected to jurisdictional waters or can be conduits for moving water between jurisdictional waters.

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<sup>31</sup> In addition to uncertainty over the scope of CWA jurisdiction in general, courts are split on the question of whether EPA and the Corps may assert jurisdiction over groundwater connected to navigable waters. The statutory language is ambiguous when discussing groundwater. See Anna Makowski, "Beneath the Surface of the Clean Water Act: Exploring the Depth of the Act's Jurisdictional Scope of Groundwater Pollution," *Oregon Law Review*, vol. 91 (2012), pp. 495-526.

<sup>32</sup> The text of the SAB letter concerning the proposed rule is available at [http://yosemite.epa.gov/sab/sabproduct.nsf/518D4909D94CB6E585257D6300767DD6/\\$File/EPA-SAB-14-007+unsigned.pdf](http://yosemite.epa.gov/sab/sabproduct.nsf/518D4909D94CB6E585257D6300767DD6/$File/EPA-SAB-14-007+unsigned.pdf).