



The Association of State Wetland Managers, Inc.

“Dedicated to the Protection and Restoration of the Nation’s Wetlands”

October 4, 2021

Executive Director

Marla J. Stelk
32 Tandberg Trail, Suite 2A
Windham ME 04062
(207) 892-3399

Chair

Mark Biddle
DE Dept. of Natural Resources
and Environmental Control
285 Beiser Boulevard, Suite 102
Dover, DE 19904
(302) 739-9939

Vice Chair

Jill Aspinwall
NJ Dept. of Environmental Protection
401 East State Street, 7th Floor
Trenton, NJ 08625
(609) 984-9736

Secretary

Amy Lounds
MI Dept. of Environment,
Great Lakes, and Energy
525 W. Allegan Street
Lansing, MI 48933
(517) 331-7966

Treasurer

Lauren Driscoll
WA State Dept. of Ecology
PO Box 47600
Olympia, WA 98504
(360) 407-7045

Past Chair

Collis Adams
Adams Environmental Consulting, LLC
110 Pattee Hill Road
Goffstown, NH 03045
(603) 660-9797

Members at Large

Stacia Bax
MO Dept. of Natural Resources

Denise Clearwater
MD Dept. of the Environment

Andrew Robertson
Saint Mary's Univ. of Minnesota

Bill Ryan
OR Dept. of State Lands

Mary Ann Tilton
NH Dept. of Environmental Services

Ms. Damaris Christensen
Oceans, Wetlands, and Communities Division
Office of Water (4504-T)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Ms. Stacey Jensen
Office of the Assistant Secretary of the Army for Civil Works
Department of the Army
108 Army Pentagon
Washington, DC 20310-0104

Re: Notice of Public Meetings Regarding “Waters of the United States”;
Establishment of a Public Docket; Request for Recommendations
(Docket # EPA-HQ-OW-2021- 0328)

Via: CWAwotus@epa.gov, usarmy.pentagon.hqda-asa-cw.mbx.asa-cw-reporting@mail.mil

Dear Ms. Christensen and Ms. Jensen:

The Association of State Wetland Managers (ASWM) submits the following comments in response to the request from the U.S. Environmental Protection Agency (EPA) and the Army Corps of Engineers (Corps) for written feedback as the agencies revise the definition of “waters of the United States” (WOTUS), and as part of federalism discussions.

ASWM is a national 501(c)(3) professional organization that supports the use of sound science, law, and policy in development and implementation of state and tribal wetland and aquatic resource protection programs. Since 1983, our organization and our member states and tribes have had longstanding positive and effective working relationships with federal agencies. As an association representing states and tribes as co-regulators tasked with implementation of regulations implementing the Clean Water Act (CWA), ASWM understands the complexity of the CWA and the implementation challenges the Act poses. We have worked together with federal agencies in the implementation of regulatory and non-regulatory programs designed to

protect waters of the United States, such as challenges in determining the jurisdictional status of wetlands and other waters as WOTUS, CWA section 404 permit program for dredged or fill material, state and tribal water quality standards for wetlands, and CWA section 401 water quality certification of federal licenses and permits.

The CWA regulates discharges to “navigable waters,” defining the term to mean “the waters of the United States, including the territorial seas.”¹ This single definition of jurisdictional boundaries applies to all regulatory provisions of the Act, including permit programs for discharges of dredged or fill material², and for other polluting discharges³, water quality standards⁴, and oil spill prevention and cleanup.⁵ Whether a particular waterbody is jurisdictional as a “water of the United States” is a key threshold question for determining whether a discharge into that water will require a permit or otherwise be regulated under the CWA. As such, not surprisingly the scope of “the waters of the US” has been subject to considerable litigation, including three U.S. Supreme Court decisions, and several definitional rulemakings and implementation guidance by EPA and the Corps (collectively referred to hereafter as “the Agencies”). The last regulatory definition promulgated was the 2020 Navigable Waters Protection Rule (NWPR)⁶. However, in light of the Arizona District Court vacating the NWPR in August 2021, the definition currently in effect is that promulgated in October 2019. ASWM believes that the NWPR established a definition of WOTUS that was so narrow as to be inconsistent with the goals of the Clean Water Act.⁷ ASWM strongly supports the agencies’ intention to revise the regulatory definition of WOTUS to be more environmentally protective and more reflective of peer-reviewed science. We submit this letter to assist in development of a proposed rule.

EPA and the Corps have announced they intend to define WOTUS in two sequential rulemakings: Rule 1 to serve as a “foundational rule” to restore longstanding protections, and Rule 2 to build on that regulatory foundation. Rule 1 is expected to restore the regulations defining WOTUS that were in place until 2015, with updates to be consistent with relevant U.S. Supreme Court decisions.⁸ The Arizona District Court vacated the 2020 NWPR nationwide in August 2021. When a court vacates a regulatory definition, the last valid regulatory definition automatically snaps back into effect by operation of law. In this instance, the last valid definition of WOTUS is the “Step 1” regulatory definition finalized on October 22, 2019, that “restore[d] the regulatory text that existed prior to the 2015 Rule” to be implemented “informed by applicable agency guidance documents and consistent with Supreme Court decisions ...”⁹

ASWM strongly recommends that EPA and the Corps shift its focus to defining WOTUS in Rule 2, because the result of the Arizona District Court vacatur was to put in place most of

¹ 33 U.S.C. § 362(7), CWA §502 (7).

² 33 U.S.C. § 1344, CWA § 404.

³ 33 U.S.C. § 1342, CWA § 402.

⁴ 33 U.S.C. § 1313, CWA § 303.

⁵ 33 U.S.C. § 1321, CWA § 311.

⁶ “The Navigable Waters Protection Rule: Definition of “Waters of the United States,” 85 Fed. Reg. 22250 (Apr. 21, 2020).

⁷ The primary goal of the CWA is to “restore and protect the chemical, physical, and biological integrity of the nation’s waters.” CWA §101(a), 33 U.S.C. §1251(a).

⁸ 86 Fed.Reg. 41911 (August 4, 2021)

⁹ 84 Fed.Reg. 56626 (October 22, 2019).

what Rule 1 is intended to achieve. The benefits of Rule 1, in light of the Arizona vacatur, do not seem sufficient to justify the effort and time it will take to propose and finalize. Even if the rules were staffed independently -- which seems unlikely given the considerable substantive overlap -- sequential Office of Management and Budget (OMB) interagency review time, federalism and tribal consultation, and sequential public comment periods all seem likely to slow down the Rule 2 development. In addition, public comment fatigue also could lessen the quality and helpfulness of comments received on two rule proposals. **ASWM strongly recommends that the agencies complete Rule 2 as expeditiously as possible, to ensure time for proper training and field methods development to help smooth implementation.** Both the CWR and NWPR had implementation problems, in part because the Administration changed before being able to focus on training and implementation.

The Notice of Public Meetings acknowledges the extensive interest states and tribes have in a revised definition of WOTUS and indicates EPA and the Corps want to ensure significant opportunities for input from these co-regulators as well as from stakeholders. ASWM welcomes opportunities for input into emerging definitions of WOTUS. In addition to consulting with interested parties through the public meetings discussed in the Notice, **ASWM encourages EPA and the Corps to have a series of interactive meetings with co-regulator states and tribes that involve discussions of policy options for key issues, including potential implementation challenges and opportunities. Such meetings should include discussion at the national level, as well as meetings among EPA Regions, Corps Districts, and the relevant states and tribes.** Such dialogues would be collaborative in nature and should be more helpful to EPA and the Corps than receiving monologue input in the form of short statements at a listening session or in letters from interested parties. Also, discussions among regional, district, state, and tribal representatives would help ensure implementation challenges and opportunities are explored and can be conveyed to national policymakers. In particular, such discussions would provide insights into possible opportunities to regionalize elements of the WOTUS definition in ways that are workable and consistent with science and CWA goals. ASWM would be very willing to participate in such discussions, as would many of our state and tribal members.

The Notice of Public Meetings indicates it is considering revising the 2020 Rule, and solicits input on the following key issue areas:

- 1. Implementation**
- 2. Regional, State, and Tribal Interests**
- 3. Science**
- 4. Environmental Justice**
- 5. Climate Implications**
- 6. Categories of Potentially Jurisdictional Waters**
 - a. 6(a): Jurisdictional Status **of Interstate Waters**
 - b. 6(b): Scope **of Jurisdictional Tributaries**
 - c. 6(c): Scope **of Jurisdictional Ditches**
 - d. Scope of Adjacency
 - e. 6(e): **Exclusions from Jurisdiction**

This letter addresses each issue in turn, providing both background and policy recommendations.

1. Implementation

Experiences implementing the various regulatory regimes

The following section outlines ASWM's understanding of state and tribal experiences with implementing the WOTUS Rule over time, focusing primarily on the impacts of changes between pre-2015, Clean Water Rule and NWPR implementation of WOTUS. Input for the comments included in this section has been gathered through discussion with ASWM's national workgroups, through project activities, feedback during webinars, workshops and conferences, as well as individual communications. Not all state or tribal opinions are represented by the key themes shared in this section and additional considerations specific to one or a few states or tribes are not the focus of the content shared below. **Recommendation: ASWM strongly encourages the Corps and EPA to engage with individual states and tribes to gather their direct input on implementation challenges and recommendations.** Any new rule should focus as much as possible on scientifically and legally defensible policies that are not so extreme or just based on political/ goals without underlying legal/scientific support. Without that support, a resulting WOTUS definition will continue what has been a radical shift in CWA requirements as each new Administration comes in. Keeping this policy pendulum strongly swinging creates a situation where it is extremely hard for states and tribes to effectively and efficiently implement policy.

Struggles to Protect Newly Non-Federal Waters

State and tribal aquatic resource regulatory programs take a wide variety of forms across the United States. Some include strong state dredge and fill programs that regulate all Waters of the State within their borders. These may be well-staffed with significant financial resources dedicated to the protection of their waters. Others have severely limited regulatory capacity, relying on limited programs (sometimes with less than one fulltime person to manage the permitting actions for an entire state) that rely for water resource protection almost entirely on 401 water quality certification of federally-licensed or permitted projects under Section 404 of the Clean Water Act. Additional diversity exists among the types of waters found in each state, with the Northeast, Southeast, Midwest and Pacific Northwest being generally more water-rich and areas in the land between the Rockies and the Sierras/Cascades having more than 90% of waters within state boundaries meeting the scientific definition of ephemeral waters that flow only in response to wet weather events.

For states and tribes that have strong internal dredge and fill programs, the impacts of changes under the NWPR to their waters have mostly been minimal. The challenge for these states lies in the increased time and resources needed to protect non-federal waters that are now only Waters of the State, or to delay coordinated reviews while federal agencies decide on jurisdiction. For example, in Washington State, 40% of the stream network in one watershed in the eastern part of the state became non-jurisdictional under the NWPR, whereas most of the wetlands were jurisdictional under pre-2015 rules and guidance.

Many states continue to have restrictions on their ability to regulate more than federal regulations or onerous processes for making these changes.¹⁰ Many state and tribal regulations also build off or rely on references to federal regulation, so that changes made to regulatory reach and processes with the NWPR require major changes and updates to state/tribal regulations as well. These processes of updating state/tribal laws and regulations are time consuming, restricted by legislative calendars and legal process. The ability to make these changes quickly to fill gaps has created unintended gaps in protection of wetlands and waters.

For those states without state dredge and fill programs, contraction of federal jurisdiction under the NWPR has hit much harder. Those states and tribes that rely mostly or solely on CWA Section 401 certifications lost most if not all protection of these waters. This has been especially damaging for states and tribes with waters that are mostly defined as ephemeral waters (e.g., in the arid West). With a strong historical cooperative-federalism relationship on the books, these states and tribes have come to expect the federal government to protect waters that the state or tribe then condition with 401 certifications. The sudden departure from federal protections of large portions of waters that they expected to be protected have left these states and tribes especially vulnerable.

For example, in Kentucky (a state reliant on the Section 401 certification process for its state permitting role), more than 55,000 linear feet of ephemeral streams and at least 25 acres of wetland have been lost due to the rule change in just the past year. In New Mexico, under the NWPR more than 90% of waters within the state were no longer under federal jurisdiction. New Mexico has relied on its Section 401 certification program to protect these waters. The state has no state surface water regulatory program. With the NWPR in place, thousands of pounds of pollutants could be discharged into the state's waters through unregulated dumping, wastewater flows, and pollutants from mines and other sources. Alternatively, in wetter areas in the Southeast and along the Mississippi Corridor, fewer federal protections of headwater streams and wetlands are resulting in greater risk of flooding.

Additionally, in the arid West, states like New Mexico and Arizona rely largely on their ephemeral waters to seasonally deliver the waters necessary to support perennial rivers such as the Rio Grande. It is important to note that the impacts of these losses in the arid West affect far more than riverfront communities. More than 40% of New Mexico's drinking waters, which is provided to more than 900,000 people in the state, is impacted by these changes in jurisdiction over ephemeral waters. Tribes, pueblos and other traditional land-based communities rely on freshwater for ceremonial purposes and to feed their families. Hunting and medicinal plant use are also impacted by loss of protection of these waters. Water is used to support farming, acequia culture, watering of animals, orchards and fields. Impacts to recreation, which relies on clean water, are immense as well – fly fishing and whitewater rafting are among the leading recreational activities affected. The ability for states and tribes in this region to protect their aquatic resources could not be more critical and

¹⁰ See, e.g., The Environmental Law Institute, "State Constraints: States' Self-Imposed Limitations on the Authority of Agencies to Regulate Waters Beyond the Scope of the Clean Water Act, a 50-State Study," (ELI: March 2011).

yet the vast majority of these resources are not included under the NWPR and state/tribal ability to step in is severely limited. (For more comments on this issue, please refer to the environmental justice section of this letter).

Most states and tribes in the arid West do not have sufficient resources to be able to fill these major regulatory gaps. ASWM has heard anecdotally from tribes in the southwestern region of the U.S. that the NWPR eliminated from federal protection all waters on their tribal lands and reservations. These tribes depend on those ephemeral waters for clean drinking water as well as agriculture and endangered species protection, much of which is considered essential to their cultural traditions. These tribes are impacted by changes in regulation of ephemeral waters on or connected to their land but are unable to respond with new tribal programs to protect them due to a lack of resources and structural supports and an inability to address pollution problems coming across their borders from upstream. *This speaks to a major environmental justice concern, where those who most need these supports have the least capacity to respond in self-protective action.*

ASWM and others predicted that the NWPR would lead to large gaps in regulatory coverage and states and tribes would have difficulty filling these gaps, and early implementation of the NWPR on the ground has borne out this prediction. State and tribal programs struggled to fill these gaps and critical waters (especially in the arid West) remained unprotected because of state and tribal limitations to develop or expand non-federal regulatory programs.

Additionally, any new rulemaking must take into consideration the impacts of rulemaking on both those areas more reliant on ephemeral waters and those impacts in states and tribes that have minimal capacity to fill regulatory gaps. This analysis and response must also take into consideration the impacts of regulatory changes on underserved communities within those states and tribes.

Loss of Jurisdiction for Many Critical Wetlands and Waters across the Nation

States have shared that when the Clean Water Rule was enacted in 2015, few changes in jurisdictional determinations were made from those existing under the pre-2015 regulations. Jurisdiction was similar and significant nexus decisions ensured that wetlands and waters affecting downstream WOTUS were appropriately accounted. However, states report that review of jurisdiction under the NWPR shows that many wetlands and waters that would have been jurisdictional under *both* the pre-2015 regulations (as interpreted by the 2008 guidance) and the 2015 Clean Water Rule are no longer jurisdictional under the NWPR – a significant departure from historical federal protections under the Clean Water Act.

EPA itself has documented that of the 40,211 “water features” nationally reviewed by the government from June 22, 2020, to April 15, 2021, only 24% were determined to be subject to federal WOTUS regulation. While some states and tribes may have the resources and political will to develop new programs to fill these gaps, the majority are struggling in a recession and in the middle of a pandemic to meet basic governing needs, let alone create new or enhanced regulatory programs for aquatic resource protection. Losses of regulatory control are negatively impacting states and tribes and their inability to fill these gaps will result in major, undesired losses in aquatic resource protection. **Recommendation: Any new**

rule should build on sound science to address these impacts, reflecting well-documented research on the critical interconnectedness of headwaters and other ephemeral waters with intermittent and perennial waters, especially in the arid West.

Decreases in State/Tribal Engagement in Cooperative Federalism

Another concern is that in the past most states and tribes were deeply engaged in the process of implementing the WOTUS rule in collaboration with the Corps. Involvement has traditionally taken place through shared communications with project proponents and the Corps. However, in response to the unclear changes brought about by the NWPR, there has been a shift within some states and tribes to leave all decisions related to implementation of the NWPR to the Corps. In the past, states and tribes would engage in advising project proponents on the process *with* the Corps. However, unclear language and processes in the NWPR have led to states and tribes to simply refer project proponents to the Corps directly, without state engagement. States and tribes indicate that they no longer feel qualified to provide the technical assistance required, as they were not engaged in the NWPR rule development process and report not having received adequate training or guidance to accurately interpret these decisions. This is counter to the intent of cooperative federalism in the CWA, undermining the useful role that states and tribes have historically played in that relationship. **Recommendation: Any new WOTUS rule developed by the Corps and EPA should strongly encourage and build in engagement with states and tribes in the Section 404 permitting process rather than discourage it. EPA and the Corps should include states and tribes at a substantive level during the rule development process, develop clear guidance support documents and include a major focus on state and tribal training starting immediately after the rule is finalized (not just internal trainings for EPA and Corps staff).**

Conflicting Interpretations of Jurisdictional Waters

ASWM has received feedback from states reporting that they disagreed with federal jurisdictional determinations for waters that the Corps considered jurisdictional under the NWPR. Wetlands connected to navigable waters have been found to be non-jurisdictional by the Corps under the NWPR, despite definitions in the Rule that indicate they should have been jurisdictional. For example, in Washington State, some wetlands that discharge directly into navigable waters through direct surface water connections are now not considered to be federally protected under the Corps' interpretation of the NWPR. Some of this disagreement may be a result of a lack of clear understanding about how determinations are being made. Kentucky reports that determining what is an ephemeral water is the most difficult part of implementation. To date, training from the Corps has focused on preparing members of the Corps at the national and district level, with little training provided to states and tribes. **Recommendation: More research is needed to understand how often and why these alternative interpretations of federal jurisdiction are occurring. Joint training for the Corps and states/tribes should be developed to ensure all parties clearly understand what is and is not a jurisdictional water and how that determination is made. Trainings should include opportunities for state and tribal participants to ask questions and apply examples in different contexts.**

Delays as a Result of More Onerous Permitting Processes

The NWPR has led to at least two kinds of additional permitting process delays: interpretation delays and inability to use Nationwide Permits for waters that were formerly under federal jurisdiction. First, states and tribes have found that they have had issues interpreting the federal definition of WOTUS that was previously better understood. They report extensive ambiguity in the federal rule language and the addition of having to turn to the Corps for interpretation, leading to permitting delays while waiting for this engagement. The second common type of delay comes from the inability of states and tribes to utilize the efficient and highly valued Nationwide Permits for any waters that are no longer jurisdictional under the NWPR. In many states, especially water rich states, a significant percentage of waters would have used this permitting pathway both under the pre-2015 regulations and the Clean Water Rule.

In some states and tribes that have their own dredge and fill programs, what used to be pre-approved now requires a full permitting process, leading to significant delays. In states like Washington, which have protective state laws but no dredge and fill program, projects that used to be authorized under a nationwide permit now need individual permits.

How does this affect the regulated community? Remarkably, to overcome these new delays, Washington State regulators report some project proponents have actually offered to *allow their projects to be considered jurisdictional* (when they are not) in order to access the more efficient Nationwide Permit process. This indicates that for the development community, jurisdiction is less of a concern than an efficient, predictable permitting process. A primary goal of the NWPR was to streamline permitting processes to allow for more efficient projects and resulting economic development. This example indicates that the opposite is occurring in at least some areas of the country.

A clear definition of WOTUS and associated training on how to implement this definition is needed, to avoid permitting delays while achieving consistent interpretation during CWA permitting and program implementation.

Recommendation: As a new rule is crafted, ASWM recommends that substantial attention be paid to the interpretation of language in the new rule, its implementability in real-world settings, and the development of training for not only Corps and EPA staff, but also state and tribal regulatory program staff who are on the front lines of WOTUS implementation.

Increased State/Tribal Workload and Associated Resources

As mentioned above, states and tribes that manage wetlands and waters no longer under federal jurisdiction must now issue authorizations for projects that would otherwise have been handled as part of the streamlined Nationwide Permit process. This increases workload and requires limited state/tribal resources to fill gaps that were formerly a federal responsibility. In Washington State, they had to hire two additional full-time staff to manage the increase in permitting responsibilities.

Another increase in staffing and resource needs is related to jurisdictional determinations. Since the NWPR came into effect, wetland program managers across the nation have reported to ASWM a significant increase in the number of jurisdictional determinations, as well as Approved Jurisdictional Determinations (AJDs) being requested from the Corps by project proponents. Despite the COVID-19 pandemic, the number of projects being permitted has not declined in most regions of the U.S. In fact, most states reported some level of increase in project requests with associated jurisdictional determinations, with many of them also seeking concurrent AJDs from the Corps to determine if some of the areas planned for development no longer involved federally-jurisdictional waters.

States and tribes have rallied to provide jurisdictional determinations for their waters of the state that are no longer WOTUS, but at significant expense. With the NWPR vacated and the preceding definition of WOTUS now in effect, states, tribes, the Corps, or project proponents may decide to revisit old jurisdictional determinations even as new determinations must be made consistent with a new regulatory definition of WOTUS. **Recommendation: The shift in workload associated with implementation of the NWPR added significant burden on states and tribes. Either a return to the balance between federal and state/tribal responsibilities that existed prior to the NWPR or access to staffing to implement new programs resulting from federal changes are needed. Rulemaking should take these costs and program capacity needs into consideration when crafting a new rule.**

Impacts on Mitigation Banks and State/Tribes Who Rely on Them

The NWPR has also resulted in a loss of projects that can use mitigation banks that provide federal mitigation credits. States and tribes indicate that regulatory changes have had a negative impact on their own mitigation banks (with related economic ramifications). Under the NWPR, more projects did not require any mitigation because the impacts did not affect waters protected by the CWA. Perhaps even more importantly, the overall pendulum swings have created deep uncertainty for both mitigation bankers and project proponents. As the pendulum swings yet again, it creates continued uncertainty for mitigation banks that rely on regulatory programs for their market. **Recommendation: A new WOTUS rule should strive to increase regulatory stability over time and take into consideration the impacts of changes on market mechanisms.**

Feedback on significant nexus analyses (pre-2015 and 2015 CWR)

While states and tribes do not state that the significant nexus test was an excellent tool or always easy to implement, they do indicate that it was preferable than the approach required under the NWPR. Under the pre-2015 and 2015 rules, WOTUS were jurisdictional by rule, reducing the number of individual significant nexus determinations needed and shortening permit timelines and providing streamlined review. While there were some delays with the process of conducting significant nexus review, they were limited. Some states did indicate that establishing a significant nexus was the hardest part of the two prior rules. There was common understanding and agreement about what constituted a significant nexus between parties and the process allowed for efficient and uncomplicated implementation of the rule. With the NWPR, the delays were greater, in part because the Corps had to distinguish

between intermittent (jurisdictional) and ephemeral (non-jurisdictional) waters when determining whether a water is WOTUS.

One of the benefits states share around the use of the significant nexus test is that the process encouraged better engagement with the Corps. States and tribes appreciated the opportunity to meet with Corps staff in the field to look at specific decisions and jointly come to jurisdictional conclusions. The significant nexus process has been supportive of the goal of cooperative federalism, rather than the Corps working independently to make these determinations. **Recommendation: ASWM encourages the inclusion of the significant nexus test in the Biden Administration’s rulemaking process.**

Feedback on “typical year” analysis under NWPR

Many states are experiencing challenges and uncertainty as they have been working to implement the new “typical year” element of the NWPR. Many states and tribes lack the data or monitoring systems that are necessary to determine a “typical year” in all areas within their boundaries, especially for areas with intermittent or ephemeral flows. Even when they do have this information and there are no outright conflicts, the process of including this adds initial “typical year” review and analysis steps that increases the number of steps to the permitting process for both the Corps and project proponents. Implementation delays have been experienced using the typical year analysis for different types of sites¹¹.

For some states, there is the added problem of a conflict between the definitions of “typical year” with the state or tribe’s method for determining streams with perennial or intermittent flow. This leads to the need for reconciliation of practices and the possibility of states and tribes needing to move away from practices that have been successfully protecting their resources for many years.

States and tribes have also expressed concerns about the accuracy of typical year analyses. . . With a rapidly changing climate, it is tremendously difficult to define a “typical year” that works for future. Current calculations do not always properly account for the increase of both drought and flooding events. Precipitation variation may be increasingly typical/normal for a region, yet this is not currently accounted for in a typical year analysis. Given the uncertainties created by a rapidly changing climate, a typical year based on the last 10 years of data does not realistically forecast conditions for the next 10 years.

What types of assistance would be helpful to overcome these challenges?

In the above sections, ASWM provided recommendations for ways to overcome these challenges. Key themes in these recommendations include:

- The need for any future WOTUS rule to include clear, easily interpreted, scientifically supported language with associated guidance for use in on-the-ground settings. While this

¹¹ Informal communication with Maryland Department of the Environment, September 2021.

was a purported aspiration of the NWPR, the rule increased conflicting interpretations in many areas and has resulted in both confusion and delays.

- The need for extensive, coordinated training by the Corps for states and tribes. Training for states and tribes by the Corps has been limited to date, mostly consisting of key talking points around rule content, rather than focused explanation and approaches to the rule's implementation.
- A need for the Corps to communicate jurisdictional determination actions to states and tribes, with one suggested approach being for the Corps to simply copy the state/tribe on correspondence with applicants.
- When possible, maps should be developed from actual AJDs rather than resources that generally speculate if WOTUS might be present. Maps indicating waters that "may be WOTUS" can morph into users assuming there is WOTUS. Factors affecting whether a water is jurisdictional change frequently in response to water diversion, climate-related reductions in flows, permitted projects removing waters and wetlands altogether, etc. Additionally, there may also be a takings argument if government makes maps of likely WOTUS (where the landowner hasn't asked for a JD, for example) because of the potential for reduced value for land covered by regulations. A possible change shared by at least one state is that NRCS maps now have a triangle symbology to indicate that there *may* be CWA jurisdiction or some other jurisdictional consideration.

Tools to Assist in Determining Jurisdiction

While the NWPR has been vacated and the Corps is no longer implementing the rule, states and tribes have been clear about the challenges in implementing the NWPR. The NWPR was crafted with the stated aspiration to simplify jurisdictional determinations and on-the-ground implementation. Most states that shared information with ASWM expressed major challenges around definitions, interpretation of language and specifically the use of tools, such as the Antecedent Precipitation Tool, Regional Streamflow Duration Assessment Methods, and conducting typical year assessments. There were also concerns about the number and quality of AJDs that were being completed following the NWPR coming into effect. States and tribes are seeking reliable, easy-to-implement tools and procedures for determining jurisdiction. While the NWPR aspired to achieve greater simplicity, states and tribes found the opposite once implementation was underway. While ASWM has not been able to speak with all states and tribes (and as a result this list is incomplete), some of the suggestions shared to date include the need for:

- Region-specific field guidance and procedures, developed in consultation with state/tribal agencies. A definition must be interpreted for field use to determine that the characteristics are present in an area to meet the definition. An example of a national definition interpreted at the field level while remaining consistent with the national definition are the Regional Supplements to the Corps' Wetlands Delineation Manual.
- Field guidance that accommodates changes in seasonal conditions.
- Federal training for states and tribes on how to determine significant nexus, with the hope that significant nexus tests will be restored in a future rule.

- Tools that take into consideration how climate change affects any time-based elements of jurisdictional determinations (in NWPR the “typical year” measure worked counter to adaptation for climate change).
- A review of the StreamStats tool by the US Geological Survey to determine if it works better than the “typical year” determination in the NWPR. The tool measures stream flow and estimated flow parameters at streams that are not gauged. Some states consider StreamStats a more appropriate estimate of streamflow than the NWPR’s “typical year” measure.

It should be noted that even with the use of these or other tools, ground verification should be part of a determination where online data does not provide adequate information.

2. Regional, State, and Tribal Interests

How and whether states and tribes have taken actions in response to changes in the jurisdictional scope of WOTUS

Some states have attempted to respond to the changes in federal jurisdiction with changes to their state regulatory program, with only some being successful. For example:

- Arizona created a new Surface Water Protection Program¹². The Arizona Department of Environmental Quality is planning to develop a Protected Surface Waters List and will conduct rulemaking to develop a permitting program.
- Indiana adjusted their wetland regulations following NWPR (Indiana’s State Regulated Wetland Law went into effect on 7/1/21) which reduced state protections.
- Kentucky – Although Kentucky wanted to conduct a new rulemaking to increase state protections, the extensive rulemaking requirements for the state made this effort unachievable.
- Maryland – While most waters remain regulated under existing state programs, the state is concerned about discharges from interstate waters entering Maryland, if an upstream state lacks comparable authorities.
- Nevada started work to strengthen their construction stormwater permits for ephemeral waters that are not federally jurisdictional and therefore not subject to Corps permitting. This effort is being designed to transcend any future definition of WOTUS. While the state had previously restricted these permits to WOTUS only, under the NWPR the regulated community went from resisting to promoting the idea of state-only stormwater permits.
- New Mexico has been struggling to garner support for a state regulatory program in response to the NWPR’s removal of federal protections for most of the state’s waters but is not in the position to resource such a program. As a result, nearly 90% of the states’ water resources were unprotected until the NWPR was vacated.

¹² Created by HB 2691; signed into law 5/5/21; effective 91 days after legislative session ends.

- Washington State has worked to fill permitting gaps by hiring two additional FTE staff to manage a major increase in state-only authorizations for development activities in waters that were previously under federal jurisdiction.

Several states have also indicated that they were reconsidering their decisions to either assume or wait to pursue assumption of the Section 404 program as the quantity and types of resources their assumed program would regulate changed in response to changes in federal jurisdiction. Little information is currently available about what changes were under consideration at the federal agency level between when the NWPR came into effect and the recent court decision to vacate the Rule. States and tribes have expressed deep concern that various federal grant programs and funds relied upon to protect waters within state boundaries could potentially no longer be available for the protection of non-WOTUS waters. This would have disproportionately negative impacts on many resource-poor states (including most states that rely solely on 401 certifications as their resource protection tool), as well as the EJ communities within them.

While some states and tribes have been scrambling to fill these gaps or respond in other ways to the NWPR, others have not had the legal capacity to regulate more than federal and/or needed more time and resources to respond. States have been unable to create a level playing field across states through federal minimums and consistency for waters no longer under federal jurisdiction. The inability to address these concerns has led to states without regulatory programs to lose or have the potential to lose valuable aquatic resources. Shifting responsibility from federal to state and tribal governments has not ensured that CWA goals have been met, and in some circumstances seems inconsistent with those goals.

Without formal implementation guidance or effective training on implementation tools, any new definition of WOTUS will continue to lead to multiple interpretations, legal disagreements, and additional costs.

Are there certain waters that could be addressed by regionalized approaches?

Regionalization should be addressed in at least two ways: 1) regionalized permitting such as regional general permits (RGPs) and through interpretation within the national definition of WOTUS as it applies to the protection of regionally important waters. Jurisdictional rules should reflect the fact that, although the waters of the nation provide similar functions and benefits which should be protected in every state, there are vast differences in regional hydrologic patterns, interconnectivity, primary land uses, and geologic structures. Regionalized permitting processes can support the identification and protection of regionally exceptional ecosystems, threatened and endangered species, and resources such as drinking water source protection areas, chronically flood prone areas, historic sites, and similar resources. These areas can be adversely impacted by the degradation of wetlands, streams, and other aquatic resources. Likewise, in some regions certain types of waters may be less significant nationally, and thus may be more suitable to fall under regional general permits.

As a matter of law, there needs to be one definition of WOTUS nationwide. A new rule should recognize regional issues and be customized through clear definitions of specific types of water, such as ephemeral waters. Identification of resources that science suggests have a significant

nexus, individually or in combination with similarly situated waters in the region should be taken into special consideration and be jurisdictional by rule. The wetlands categorically protected under the 2015 Rule – prairie potholes, Carolina and Delmarva bays, pocosins, western vernal pools, and Texas coastal prairie wetlands - serve as an excellent starting point for the new rulemaking because the agencies have already identified that they are similarly situated. Streamlined permitting through categorical inclusions can increase permitting predictability, efficiency, and protection for these regional waters.

ASWM suggests that the concerns expressed by many stakeholders can be addressed through programmatic steps and regional approaches, rather than by significantly continuing to exclude longstanding protections of many of the nation’s critical water resources under the CWA (e.g., ephemeral waters). Development of regional procedures would be expected to take place over time as the need arises and would not delay the completion of a jurisdictional rule.

Regionalized interpretation of the national definition could facilitate authorization of activities that are regional in nature, e.g., provision of irrigation systems in the arid West, or establishment of systems to protect against sea-level rise along the coasts, while maintaining overall protection of the impacted waters from other actions.

Recommendation: ASWM recommends careful incorporation of science-based regional considerations into a new WOTUS rule. These include recognition of regional issues (for example, how to define tributary to accommodate regional differences), careful application of definitions, identification of special resources within a region that could be made jurisdictional by rule, and the opportunity for considerations around activities that are regional in nature.

3. Science

We applaud the Administration’s commitment to making evidence-based decisions and policy guided by the best available science and data. Application of sound science to policy is a key tenet of ASWM’s mission. A massive volume of research exists that explicitly highlights and explains the chemical, physical and biological connections among the nation’s waters. Therefore, ASWM’s comments will only skim the surface of this topic.

The overall framework of the CWA as written by Congress references the need for a scientific approach throughout the stated goals of the Act. Congress acknowledged in the CWA the complexity and integrated nature of waters in addressing groundwater, watersheds, nonpoint source pollution, hydrologic cycles, and related considerations. In order to maintain the future integrity of the Nation’s waters—especially given our changing climate—it is imperative that a durable WOTUS definition be grounded in sound science.

The 2015 Clean Water Rule (CWR) was extensively informed by science and incorporated methods for establishing connectivity that were substantiated by robust scientific literature. Notes from the Science Advisory Board (SAB) in the preamble to the CWR acknowledge scientific justification to protect additional waters based on connectivity and yet these were not

included in the jurisdictional definition in order to remain within the authorities granted by the CWA.

In stark contrast to the CWR, the Navigable Waters Protection Rule (NWPR) lacked an adequate scientific basis resulting in a possibility of serious environmental harm.¹³ EPA Assistant Administrator Fox acknowledged, “substantial and legitimate concerns regarding the adequacy of consideration of the CWA’s water quality goals in the development of the NWPR... For example, the agencies are concerned that the NWPR did not look closely enough at the effect ephemeral waters have on traditional navigable waters when the agencies decided to categorically exclude all ephemeral waters.”¹⁴

EPA has already synthesized more than 1,200 peer-reviewed publications on the effects that streams, nontidal wetlands and open waters have on larger downstream waters. Prepared by the Office of Research and Development (ORD), the *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence*¹⁵ (herein the “Connectivity Report”) is a comprehensive report and served as the technical basis for the 2015 CWR. We encourage continued and heavy reliance on the scientific expertise of members of the ORD, SAB, and similar entities in developing a rule consistent with the CWA and based firmly in science.

While the Connectivity Report detailed multiple forms of connectivity and function, the NWPR recognized only a subset of these, relying on hydrologic surface connections and physical abutment as the measures for protection, while ignoring other physical indicators such as beds, banks, and high-water marks, as well as elements of chemical and biological connectivity. The Connectivity Report Fact Sheet succinctly summarizes the overwhelming and indisputable link streams and wetlands have to downstream waters:

- 1) streams, regardless of their size or frequency of flow, are connected to downstream waters and strongly influence their function;
- 2) wetlands and open waters in riparian areas and floodplains are physically, chemically, and biologically integrated with rivers via functions that improve downstream water quality;
- 3) many wetlands and open waters located outside of riparian areas and floodplains, even when lacking surface water connections, provide physical, chemical, and biological functions that could affect the integrity of downstream waters.

Wetlands and ephemeral waters provide enormous ecosystem benefits and important hydrologic, water-quality, and habitat functions that affect downstream waters. Looking more specifically at

¹³ *Pasqua Yaqui Tribe, et al. v. U.S. EPA, et al.* Order of the U.S. District Court for the District of Arizona (August 30, 2021) No. CV-20-00266-TUC-RM.

¹⁴ Declaration of Radhika Fox, *Conservation Law Found. v. U.S. Env'tl. Prot. Agency*, No. 20-cv-10820-DPW, p. 4-5 (June 9, 2021). https://www.epa.gov/sites/default/files/2021-06/documents/conservation_law_found._d._mass._-radhika_fox_declaration_signed.pdf

¹⁵ U.S. EPA, *Connectivity of Streams & Wetlands to Downstream Waters: A Review & Synthesis of the Scientific Evidence* (Jan. 2015), pp. 4-43,4-44.

just one type of water -- non-floodplain wetlands -- the list below highlights a few of the numerous identified connections and functions to downstream waters supported by the scientific literature, as summarized in the Connectivity Report.

- *Physical:* Even when wetlands lack a hydrologic connection to other water bodies, they can influence downstream water through water and material storage and mitigation of peak flows (flood reduction and flood attenuation). Wetland sink functions are likely to be greatest when the wetland is located downgradient from pollutant sources and upgradient from a stream or river.
- *Chemical:* Non-floodplain wetlands affect nutrient delivery and water quality; they are a principal source for dissolved organic carbon and are sinks for sediment, nutrients, metals and pesticides.
- *Biological:* Non-floodplain wetlands provide unique and important habitats for many species, both common and rare. They promote biological interactions that can be critical to the life-history requirements of some stream species.
- The cumulative influence of many individual wetlands within watersheds can strongly affect the spatial scale, magnitude, frequency, and duration of hydrologic, biological and chemical fluxes or transfers of water and materials to downstream waters.

The science demonstrates that waters fall along a gradient of chemical, physical, and biological connection where the integrity of downstream waters results from the accumulative contribution of upstream waters across entire watersheds over time.

The Connectivity Report continues to serve as a vital synthesis of the science on connectivity. Since its completion, more recent peer-reviewed scientific studies have strengthened the body of knowledge. To aid the Agencies in gathering this literature, ASWM has compiled a bibliography that is publicly available on our [website](#) and as Appendix A in this letter. ASWM's list is by no means exhaustive, and additional sources will be added as they are identified. Other organizations who have similarly compiled scientific literature, such as the Natural Resources Defense Council and Southern Environmental Law Center, point to additional studies in their collected references. We additionally note that many states have prepared their own relevant findings and reports and - although typically not peer-reviewed and published in a scientific journal - these warrant consultation and consideration. We encourage the Agencies to review all available, relevant resources spanning our nation's diverse hydrologic landscape.

The wealth of scientific literature available provides a strong understanding of the relationship and downstream effects of waters. **Recommendation: ASWM strongly urges the Agencies to apply the best available science as the technical basis for determining which waters receive federal protection under the CWA.**

4. Environmental Justice

Underserved communities (including low-income and minority communities) stand to lose the most with a drawback in federal protections for WOTUS. Some states, tribes, territories, and local communities may be able to fill the gap with new regulations of their own to protect aquatic resources left behind by the federal government. However, many cannot or will not adopt their own regulations either due to existing state or local regulations that prohibit them from going above and beyond the floor of protection offered by the CWA or because they lack the technical and/or financial capacity to take on the added responsibility. Even if they can increase protections, developing new regulations can take years, leaving many critical resources unprotected and at risk.

All wetlands perform critical biological, hydrological, and chemical functions that provide multiple benefits and co-benefits for the communities located in their watersheds such as stormwater attenuation, storm surge protection, water storage, water purification, habitat, flood protection, and more. Underserved communities in both rural and urban areas were disproportionately impacted by the NWPR's reduction in federal protections for these resources as they have the least capacity to respond by instituting or expanding their own wetland protections. Economically disadvantaged communities that are already overburdened with environmental pollution would have also seen an increase in impacts from uncontrolled upstream pollution under the NWPR. As waters become more polluted, engineered water cleaning systems need to be constructed placing an economic burden on those communities least equipped to deal with the expense. Disadvantaged communities located in flood prone areas experience more damages from extreme storm events as greater in-fill and development occurs in areas that are not protected as a Water of the U.S. Increases in development activity as a result of the NWPR, even in the short amount of time that it was in effect, will have increased the overall area of impervious surfaces and thereby increased stormwater run-off, polluting nearby water bodies and increasing flood risk. In many instances, high flood risk areas are found to correlate with low-income communities who often lack flood insurance and/or the capacity to develop flood protection measures. Many victims of increased flooding events never fully recover from flood losses due to their already limited economic capacity. Wetlands, including ephemeral wetlands (which were categorically eliminated from federal protections under the NWPR), have been found to alleviate flooding and reduce stormwater pollution.¹⁶ As these wetlands and their associated functions are lost, we will see greater flooding and pollution of downstream waters.

In many rural underserved communities, residents rely on wells for their drinking water. Wetlands, including ephemeral wetlands, can provide valuable sources of water during drought due to their ability to absorb a significant amount of water and temporarily store it during precipitation and snow melt events. Ephemeral wetlands were protected by federal jurisdiction under the CWR but were removed from federal jurisdiction under the NWPR. With extreme heat and drought events increasing due to climate change, these communities are at risk for not only running out of clean drinking water, but they are at risk of high, unhealthy levels of arsenic in

¹⁶ Wetlands (2013) 33:773–786. DOI 10.1007/s13157-013-0473-2. Also <https://www.iisd.org/articles/wetlands-protecting-us-floods-and-saving-us-money>.

their well water, caused by drought conditions. A new U.S. Geological Survey study showed that drought may lead to elevated levels of naturally occurring arsenic and that the longer a drought lasts, the higher the probability of arsenic concentrations exceeding U.S. Environmental Protection Agency's standard for drinking water.¹⁷

For example, along the Washington coast, interdunal wetlands that were protected under the CWR but not under the NWPR provide protection from saltwater intrusion into the freshwater aquifer. Coastal communities rely on this source of freshwater and loss of interdunal wetlands threatens the quality and availability of fresh drinking water to some of Washington's most economically depressed communities. These communities are least equipped financially and technically to deal with adding water purification equipment to address increased salinity in their drinking water.

When communities have to spend money to build water treatment systems, the cost is often born by the community through higher utilities bills. This is a regressive form of financing that hits poorer residents harder by taking a larger percentage of their household income. These increased costs will result from losses of wetlands that provide water quality functions under the NWPR.

Tribal communities that rely on subsistence fishing are also disproportionately affected by increased pollution and flooding. Salmon are an integral part of Northwestern tribal cultures. The loss of headwater wetlands and ephemeral streams under the NWPR reduces the suitable habitat for salmonids and in many stream systems the loss of these resources has resulted in diminished salmon stocks thereby reducing the fish available for tribal use.

Engagement with these underserved communities is critical if EPA and the Corps are to truly understand what the needs, risks and concerns are for these communities. Engagement can be challenging though, as low-income individuals often work multiple jobs, while also taking care of multiple generations of family members. They also often have minimal capacity to purchase the virtual technology needed for online engagement, particularly during this time of COVID-19. Successful engagement will not only entail reaching out to groups like the NAACP, Center for Diversity and the Environment, Historically Black Colleges and Universities (HBCUs) and the National Tribal Water Council, but also ensuring that public meetings are offered in either a free and easily accessible virtual format and/or in locations that provide easy access via public transportation or other multi-modal options and provide childcare, food, and refreshments. Identifying and locating meetings where these communities already gather in great numbers will greatly increase the level of participation by and engagement with these disadvantaged communities.

Engagement with tribal nations will require a cultural shift in how EPA and the Corps provide information, but also in how it gathers information. Greater understanding of the history of the mistreatment of tribes in the U.S. is imperative to understanding their needs and priorities. Every tribe is different – they have different cultures, languages, values and beliefs. Tribal leaders and elders should be given the ultimate level of respect as they are the leaders of their own

¹⁷ Environ. Sci. Technol. 2021, 55, 3, 1822–1831. Publication Date: January 13, 2021.
<https://doi.org/10.1021/acs.est.9b05835>.

governments. The 1831 Supreme Court decision *Cherokee Nation v. Georgia* introduced the concept that while Indian tribes could not be considered to have the same status as foreign nations because they were located within the boundaries of the United States, they still retained their status as nations. A subsistence lifestyle is still practiced by many tribal members. This may involve utilizing natural resources for subsistence fishing, farming, ranching, hunting and gathering, and for the maintenance of spiritual and physical health. Wetlands are often important areas for cultural uses and subsistence farming or fishing. Loss of these systems significantly affects tribal communities. When planning or implementing federal programs, impacts on natural resources are critical to consider. Active listening skills are also critical in working with tribes and developing an understanding of how tribes use stories to communicate.

5. Climate Implications

A massive volume of research exists that explicitly highlights and explains the multitude and magnitude of ways in which climate change affects the chemical, physical and biological integrity of the nation's waters. Therefore, ASWM's comments will only skim the surface of this topic but will endeavor to highlight key points. **For informing a new WOTUS definition, ASWM strongly recommends that the Agencies review the scientific literature that is available, including the resources that ASWM has compiled in a bibliography for purposes informing the definition of WOTUS. The bibliography is available as Appendix A to this letter, along with our internal publications on the topic of wetlands and climate change available on our website [here](#).**¹⁸

Wetlands will be substantially affected by even small changes in climate, including changes in hydrologic regimes due to sea level rise and decreased surface and ground water levels, air temperature changes, and soil temperature changes. Temperature, atmospheric carbon levels, and precipitation rates are strongly linked to wetland type, condition, and function. Reduced precipitation levels are likely to decrease surface water levels and flow, which will impact the adjacency parameters for their neighboring wetlands, resulting in an increase in isolated wetlands (e.g., ephemeral wetlands). The NWPR or another limited definition, in tandem with a warming climate, may result in an even greater number of wetlands without federal protections. The drawdown of water tables caused by a drying climate will also likely reduce the number of some types of wetlands that are groundwater dependent, such as riverine wetlands in arid climates.¹⁹

The dynamic interplay between wetlands and climate is extremely complicated and often confusing or misunderstood by non-scientists. The way in which the chemical, biological and physical attributes of wetlands intersect with each other is analogous to a spider web as even minor changes in any of the three attributes can have significant impacts on how the remaining attributes perform their functions. As noted by Moomaw, et al, "Wetlands sequester some of the largest stores of carbon on the planet, but when disturbed or warmed, they release the three major heat-trapping greenhouse gases (GHGs), carbon dioxide (CO₂),

¹⁸ <https://www.aswm.org/publications/aswm-publications/7681-climate-change>

¹⁹ Alyson C. Flourney & Allison Fischman. Wetlands Regulation in an Era of Climate Change: Can Section 404 Meet the Challenge?, *Geo.Wash. J. Energy & Envtl. L.*, Summer 2013, at 67, available at <http://scholarship.law.ufl.edu/facultypub/368>.

methane (CH₄) and nitrous oxide (N₂O).” Thus, a primary recommendation by scientists across the globe for addressing climate change is to avoid disturbing wetlands.²⁰ The NWPR significantly reduced the federal jurisdictional scope of protections for wetlands nationwide, resulting in an alarming rate of wetland impacts since its effective date which is undoubtedly limiting our ability to mitigate or adapt to climate change.

Sea level rise will likely destroy at least some coastal wetlands, either by inundation or erosion. Saltwater intrusion in the coastal zone may extend to brackish and freshwater wetlands. This hydrological change will alter the composition of wetland flora and fauna species. Temperature and precipitation changes will significantly impact inland wetlands, including freshwater marshes, peatlands, prairie pothole wetlands, and permafrost and alpine wetlands. Peatlands, which store a significant amount of carbon, are particularly sensitive to changes in groundwater levels. Droughts, accompanied by increased frequency and intensity of wildfires, will also result in the destruction and degradation of peatlands. Prairie pothole wetlands in the northern U.S., as well as wetlands with similar features such as playas and basins, are also at risk for significant degradation and destruction due to climate change induced drought conditions. These types of wetlands are composed of isolated wet depressions – also known as isolated, or ephemeral, wetlands. These wetlands provide incredibly important waterfowl habitat and water quality functions to downstream traditionally navigable waters.²¹

Increases in precipitation in some areas of the nation could potentially result in the natural creation of new wetlands, but that does not necessarily mean that more water will lead to an increase in wetland acreage. As noted by Moomaw, et al, impervious surfaces and private landowners’ preemptive actions may hinder wetland formation, and wetlands need time to become fully established. The magnitude of the loss of other wetlands, and their associated ecosystem services, will likely greatly outpace any natural development of new wetlands. Additionally, the types of wetlands lost will not necessarily be the same types of wetlands that are potentially created, and thus the functions of the wetlands that will be lost will not match the functions, or the level of function, that are created by any potential new wetlands developed as a result of increased precipitation rates. Nor will those functions be replaced in the same location or region, resulting in not only a temporal loss of functions, but also loss of function type and a change in the location of benefits provided by those functions.²²

Increases in CO₂ will increase the primary productivity of most wetland plants except where sunlight, precipitation or temperature is a limiting factor. Studies show that this increase in CO₂ and primary productivity will likely also result in increased methane emissions. Some animal populations will react directly to changes in the plant community, while others may be affected by temperature changes, resulting in a shift in home range or the loss of populations where migration is not possible. As changes in plant and animal communities occur, there may be desynchronization of events that support migration or reproduction, e.g., the availability of a particular food supply at a particular time. Wetlands support a high

²⁰ Moomaw, W.R., et al. (2018). Wetlands In a Changing Climate: Science, Policy and Management. Wetlands, available at <https://doi.org/10.1007/s13157-018-1023-8>.

²¹ Flourney, A., & Fischman, A. (2013).

²² Ibid.

percentage of rare plant and animal species and communities. Because of their sensitivity to ecosystem structure and conditions, these species may be especially vulnerable to climate change impacts. Changes in an ecosystem, in particular the loss of dominant populations of plants or animals, may also lead to an increase in invasive species which tend to take advantage of unstable and degraded conditions.²³

How should agencies account for the effects of a changing climate in identifying jurisdictional waters? A 2013 faculty publication by Alyson Flournoy at the University of Florida Levin College of Law has multiple recommendations of ways in which CWA Section 404 can address climate change. In particular, she points out the following:

Section 404(b) mandates that the Corps issue permits pursuant to “guidelines developed by the Administrator, in conjunction with the Secretary, which guidelines shall be based upon criteria comparable to the criteria applicable to the territorial seas, the contiguous zone, and the ocean under section [403(c)].” And under section 403(c), the guidelines must specify criteria for the effects of proposed discharges on a variety of values and services provided by a wetland, including human health and welfare, marine life, and esthetic, recreation, and economic values, among other criteria.

In addition, the EPA veto provision in section 404(c), which authorizes the EPA Administrator to veto a permit upon a determination that “the discharge . . . will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas,” reflects a concern for the protection of the values and functions of jurisdictional waters, including wetlands. Thus, the guiding principles and policies of the CWA and section 404 seem to permit, if not require, that the Corps and EPA consider how to protect the values and services associated with wetlands notwithstanding climate change.²⁴

Title 33, section 320.4 of the Code of Federal Regulations requires the Corps to consider cumulative effects when evaluating section 404 permit applications. The section 404(b)(1) guidelines include a requirement for consideration of cumulative effects and create a presumption against granting a permit unless it can be proven that there will not be an unacceptable adverse impact. In fact, Section 404(b)(1) guidelines explicitly require denial of a permit for a discharge that will result in significant degradation of the aquatic ecosystem. Further, Section 403(c)(2) provides that where insufficient information exists on a proposed discharge, no permit shall be issued.²⁵ Climate change has progressed so far that we are now in a situation where the condition of an aquatic ecosystem could suddenly be significantly altered by extreme climatic events. Seemingly minor cumulative effects over time could become much more significant as the landscape’s ability to absorb and/or recover from

²³ Association of State Wetland Managers. (2015). Wetlands and Climate Change: Considerations for Wetland Program Managers. Available at https://www.aswm.org/pdf/lib/wetlands_and_climate_change_consideratons_for_wetland_program_managers_071_5.pdf.

²⁴ Flournoy, A., & Fischman, A. (2013).

²⁵ Ibid.

impacts could be substantially altered.²⁶ Thus, under the Clean Water Act's water quality guidelines, it seems clear that the Corps should consider the likelihood of losses of key values and ecosystem services based on the cumulative impact of discharges, taking account of climate change impacts on those affected aquatic ecosystems.²⁷

- **ASWM agrees with the following recommendations from Flourney and Fischmann:** Gather and summarize research information and potential options to minimize impacts of climate change on wetlands. Make information available to a wide range of interest groups, including local land use planners as well as resource managers.
- Support development of detailed data on wetlands values and functions such as carbon sequestration, floodwater attenuation, clean water provision, etc., as well as an analysis of the threat posed by climate change. In particular, additional investigation of carbon sequestration in wetland systems and analysis of the scope of carbon release potentially associated with loss or degradation of wetlands will be critical. The discretion that regulators possess to permit draining and filling activities in wetlands under section 404 can be better informed and ensure that we do not inadvertently allow these key wetlands to be lost.
- Identify and encourage regulatory and non-regulatory measures as appropriate to protect priority wetland systems. Special protection may be needed for wetlands with a defined essential role in climate management (e.g., that provide a high level of carbon sequestration) or where protection is needed for other reasons (e.g., new wetlands established to allow migration during sea level rise).
- The relationship between climate change concerns and existing regulatory guidelines – including the Corps of Engineers public interest review and the EPA 404(b)(1) guidelines, along with parallel state and tribal regulations – needs additional exploration. Development of additional climate adaptation best management practices is needed.
- Investigate the legal relationship between COE public interest review, 404 (b)(1) guidelines and the need for carbon sequestration in considering regulatory guidelines. Assist states and tribes in overcoming resistance to new considerations in regulatory decision making.
- Determine with greater specificity how much methane is produced by wetlands. Continue to investigate the relationship between wetland conditions and loss of methane to the atmosphere, and to identify management measures that minimize methane release.²⁸

²⁶ IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press. In Press.

²⁷ Flourney, A., & Fischman, A. (2013).

²⁸ Ibid.

6. Categories of Potentially Jurisdictional Waters

The “Notice of Public Hearings Regarding ‘Waters of the United States’” poses a number of questions regarding specific categories of WOTUS. This letter addresses each of those potentially jurisdictional categories of waters in turn.

6(a): Jurisdictional Status of Interstate Waters

The 2015 Clean Water Rule (CWR) defined WOTUS as including (among other categories) interstate waters, tributaries to interstate waters, and waters adjacent to interstate waters.²⁹ The preamble to the CWR cited legislative history indicating that when enacting the 1972 CWA Congress intended to protect “interstate waters without imposing a requirement that they be traditional navigable waters themselves or connected to traditional navigable waters.”³⁰ In sharp contrast to the CWR, the 2020 Navigable Waters Protection Rule (NWPR) removes interstate waters as a separate category of WOTUS, and protects interstate waters only if they fall into another category within the WOTUS definition.³¹ The NWPR noted that interstate waters without any surface water connection to traditional navigable waters are not considered WOTUS “and are more appropriately regulated by the States and Tribes under their sovereign authorities.”³²

The CWA’s legislative history, statutory provisions, policy goals, the history of federal jurisdiction over interstate waters prior to the 1972 CWA, and CWA regulatory history all provide strong support for including interstate waters and their tributaries and adjacent waters within the scope of WOTUS.

Legislative and Regulatory History: When Congress passed the Clean Water Act (CWA) in 1972, it was not starting from scratch but instead was amending the Federal Water Pollution Control Act of 1948 (FWPCA). The legislative history of the 1972 CWA, the Act’s overall structure³³, and the caselaw interpreting it³⁴ universally support the position that the 1972 Act was intended to broaden regulatory jurisdiction in almost every respect. Therefore, when analyzing what is the authorized scope of WOTUS under the 1972 Act with respect to interstate waters, it is useful to analyze the FWPCA as it existed at the time.

In 1948, Congress enacted the FWPCA “in connection with the exercise of jurisdiction over

²⁹ 33 C.F.R. 328.3(a); 80 Fed.Reg. 37054, 37074 (June 29, 2015)(“[I]nterstate 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 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.”)

³⁰ 80 Fed.Reg. 37054, 37074 (June 29, 2015).

³¹ 85 Fed.Reg. 22250, 22283 (April 21, 2020).

³² 85 Fed. Reg. 22250, 22284 (April 21, 2020).

³³ See, e.g., CWA §303(a)(1), where Congress indicated the CWA’s ongoing independent protection for interstate waters by providing that pre-existing water quality standards for interstate waters remain in effect.

³⁴ See, e.g., *Int’l Paper Co. v. Ouellette*, 479 U.S. 481, 492 (“Congressional views on the comprehensive nature of the legislation were practically universal.”) (internal cites omitted).

the waterways of the Nation and in the consequence of the benefits to public health and welfare by the abatement of stream pollution."³⁵ The FWPCA defined "interstate waters" as "all rivers, lakes, and other waters that flow across, or form a part of, State boundaries."³⁶ The Act authorized technical assistance and financial aid to states for stream pollution abatement programs, and made discharges of pollutants *into interstate waters and their tributaries* a nuisance subject to abatement and prosecution by the United States.³⁷ Other FWPCA provisions similarly emphasized interstate waters. For example, the planning provisions required comprehensive programs for *interstate waters and tributaries thereof*,³⁸ and the FWPCA authorized loans for sewage treatment to abate discharges into "*interstate waters or into a tributary of such waters*."³⁹

Subsequent changes to the FWPCA continued to include protection of interstate waters. Congress amended the FWPCA in 1961 to substitute the term "interstate or navigable waters" for "interstate waters." As a result, from 1961, the provisions of the FWPCA applied to all *interstate and navigable waters and the tributaries of each*.⁴⁰ Congress did not define the term "navigable waters" until 1972 when enacting the CWA. In 1965, Congress amended the FWPCA to require each state to develop water quality standards for *interstate waters* within its boundaries by 1967,⁴¹ with the federal government establishing such standards if states failed to do so.⁴²

When enacting the 1972 CWA, Congress did not merely define "navigable waters" as "waters of the United States including the territorial seas" but also indicated the scope of protected waters in programmatic provisions in the Act. The text and legislative history of the CWA shows 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.⁴³ Programmatic provisions in the 1972 CWA provide additional textual evidence that its geographic scope included interstate waters. For example, the CWA provided that any previous water quality standard applicable to interstate waters was to remain in effect unless inconsistent with the CWA, at which time states or

³⁵ See Pub. L. No. 80-845, 62 Stat. 1155 (June 30, 1948).

³⁶ FWPCA § 10, 62 Stat. 1161.

³⁷ FWPCA §2(d)(1),(4), 62 Stat. at 1156-1157 (declaring the pollution of interstate waters, "whether the matter causing or contributing to such pollution is discharge directly into such waters or reaches such waters after discharge into a tributary of such waters," which endangers the health or welfare of persons to be a public nuisance, subject to abatement provided by the Act, including suit by the United States).(emphasis added).

³⁸ FWPCA §2(a), 62 Stat. 1155 (requiring comprehensive programs for "interstate waters and tributaries thereof")(emphasis added).

³⁹ FWPCA §5, 62 Stat. 1158 (authorizing loans for sewage treatment to abate discharges into "interstate waters or into a tributary of such waters")(emphasis added).

⁴⁰ See 33 U.S.C. §§466a, 466g(a) (1964)(emphasis added).

⁴¹ Pub. L. No. 89-234, 79 Stat. 908 (1965).

⁴² *Id.* at 908.

⁴³ The Conference Committee for the 1972 CWA deleted the word "navigable" and expressed the intent to reject prior geographic limits on the scope of federal water-protection measures. Compare S. Conf. Rep. No. 1236, 92d Cong., 2d Sess. 144 (1972), with H.R. Rep. No. 911, 92 Cong., 2d Sess. 356 (1972) (bill reported by the House Committee provided that "[t]he term 'navigable waters' means the navigable waters of the United States, including the territorial seas"); see also S. Rep. No. 414, 92d Cong., 1st Sess. 77 ("Through a narrow interpretation of the definition of interstate waters the implementation of the 1965 Act was severely limited. . . . Therefore, reference to the control requirements must be made to the navigable waters, portions thereof, and their tributaries.").

EPA were to modify the standard.⁴⁴

Legislative history of the CWA indicates an intent to expand the FWPCA's definition of regulated waters, not shrink protections. For example, the Senate report for the CWA stated:

“The control strategy of the Act extends to navigable waters. . . . Through a narrow interpretation of the definition of interstate waters the implementation of the 1965 Act was severely limited. Water moves in hydrologic cycles and it is essential that discharge of pollutants be controlled at the source. Therefore, reference to the control requirements must be made the navigable waters, portions thereof, and their tributaries.”⁴⁵

The House of Representatives similarly viewed the 1972 CWA as establishing broad protections. The House Report noted:

“The Committee fully intends that the term "navigable waters" be given the broadest possible constitutional interpretation unencumbered by agency determinations which have been made or may be made for administrative purposes.”⁴⁶

In summary, legislative history and CWA text strongly indicate Congress intended to expand federal protection of waters when enacting the CWA. No evidence exists that Congress intended to exclude interstate waters which were not themselves traditional navigable waters or connected to traditional navigable waters. Excluding interstate waters when enacting the 1972 CWA would have contradicted the goals of the statute.

EPA and the Corps have long included interstate waters in the regulatory definition of WOTUS. Prior to the 2020 Navigable Waters Protection Rule, EPA had always interpreted the 1972 CWA as covering interstate waters,⁴⁷ and the Corps similarly included interstate waters when defining its CWA programmatic scope.⁴⁸ When finalizing its 1977 definition of navigable waters, the Corps provided an explanation for the inclusion of interstate waters:

“The affects [sic] of water pollution in one state can adversely affect the quality of the waters in another, particularly if the waters are interstate. Prior to the FWPCA amendments of 1972, most federal statutes pertaining to water quality were limited to interstate waters. We have, therefore, included [interstate waters] consistent with the Federal government's traditional role to protect these waters from the standpoint of water quality and the obvious effects on interstate commerce that will occur through pollution of interstate waters and their tributaries.”⁴⁹

The same rationale regarding protection of interstate waters applies today.

⁴⁴ CWA §303(a), 33 U.S.C. §1313(a).

⁴⁵ S. Rep. 414, 92d Cong., 1st Sess. 77 (1971).

⁴⁶ H.R. Rep. No. 911, 92d Cong., 2d Sess. 131 (1972).

⁴⁷ *See, e.g.*, 38 Fed.Reg. 13538 (May 22, 1973)(the term “waters of the United States” includes “interstate waters and their tributaries, including adjacent wetlands.”).

⁴⁸ In 1975, Corps regulations defined navigable waters to include “[i]nterstate waters landward to their ordinary high water mark and up to their headwaters.” 40 Fed.Reg. 31320, 31324 (July 25, 1975). In a revised regulatory definition finalized in 1977, the Corps adopted EPA's definition and included within the definition of WOTUS “interstate waters and their tributaries, including adjacent wetlands.” 42 Fed.Reg. 37122 (July 19, 1977).

⁴⁹ 42 Fed.Reg. 37122 (July 19, 1977).

Policy Considerations. The primary goal of the 1972 CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters.⁵⁰ This goal cannot be met unless interstate waters are regulated at the federal level. One of the primary CWA obligations of the federal agencies is to protect states and tribes from actions of upstream or neighboring states or tribes that harm downstream interstate waters. That obligation is not met if interstate waters are not a WOTUS.

The NWPR preamble indicates “interstate waters without any connection to traditional navigable waters would be more appropriately regulated by the states...”⁵¹ The preamble also indicates the 2020 definition of WOTUS “preserves the traditional sovereignty of States over their own land and water resources.”⁵² Yet removing jurisdiction from interstate waters serves only to place the financial and administrative burden of preventing the degradation of these waters on multiple state governments and ultimately the Supreme Court. A state or tribe has no mechanism -- short of a series of legal water wars fought in the Supreme Court -- to compel an upstream state to control pollution of waters flowing downstream if not regulated by the CWA. The result is a need for federal authority reflected in a regulatory definition of WOTUS. The CWA framework was intended to avoid precisely this type of litigation. Justice Scalia noted the importance of the federal agencies in regulating interstate waters in his *Rapanos* opinion: “...the Act protects downstream States from out-of-state pollution that they cannot themselves regulate.”⁵³ In short, federal jurisdiction over interstate waters rather than threatening state sovereignty, protects it.

If EPA and the Corps define WOTUS to include interstate waters, it will be important to precisely define the term. The FWPCA defined “interstate waters” as “all rivers, lakes, and other waters that flow across, or form a part of, State boundaries.”⁵⁴ However, issues arise not addressed by the FWPCA or similar definition. For example, does a lengthy interstate water remain an “interstate water” regardless of the distance from the border, and if it does not what is a clear demarcation of when the water stops being interstate? One possible demarcation might be a prescribed distance, which may or may not vary regionally. Another approach might be the water remains “interstate” until its stream order changes. Whatever approach the agencies select, it should be clear and readily discernible in the field.

Another issue associated with the definition of “interstate” is that of tribal boundaries, and whether a water crossing or forming a tribal boundary is an interstate water for WOTUS definitional purposes. During consultation on the definition of WOTUS, tribes have raised this issue and many recommended that “interstate waters” include waters associated with tribal boundaries.⁵⁵ Previous definitions of WOTUS avoided speaking to the status of waters associated with tribal boundaries despite requests from tribes to do so. To consider such waters as “interstate” would be fully consistent with the longstanding approach to interstate

⁵⁰ CWA §101(a), 33 U.S.C. §1251(a).

⁵¹ 84 Fed.Reg. 4154, 4172 (February 14, 2019). *See also* 85 Fed.Reg. 22250, 22282-22286 (April 21, 2020).

⁵² 85 Fed.Reg. 22250, 22252 (April 21, 2020).

⁵³ *Rapanos v United States*, 547 U.S. 715, 776 (2006).

⁵⁴ FWPCA § 10, 62 Stat. 1161.

⁵⁵ *See, e.g.*, EPA and Department of the Army, “Final Summary of Tribal Consultation for the Clean Water Rule: Definition of ‘Waters of the United States’ Under the Clean Water Act; Final Rule at 7 (May 2015).

waters, particularly in circumstances where a water crosses between state and tribal lands, thereby crossing or forming a state boundary as well as a tribal one.⁵⁶ Explicitly recognizing waters associated with tribal boundaries as “interstate” would be clearer than any prior WOTUS definition and be fully consistent with Executive Orders and Memoranda signed by President Biden pledging to recognize and respect tribal sovereignty.⁵⁷

A new definition including interstate waters as WOTUS should clarify whether tributaries to interstate waters and waters⁵⁸ adjacent to an interstate water also are WOTUS. The 2015 CWR included these waters as WOTUS, in effect treating relationships with interstate waters as the equivalent of relationships with traditional navigable waters.⁵⁹ This CWR approach is well-supported by legislative history; note that the legislative history discussed above always refers to interstate waters and their tributaries. As a result, the argument for tributaries to interstate waters and waters adjacent to interstate waters is the same: that tributaries to interstate waters and wetlands adjacent to such waters are categorically WOTUS.

ASWM notes that the NWPR and its associated reports provided no data or statistics to support its assertion that interstate waters that would have been jurisdictional under the 1986 regulations likely would fall into another jurisdictional category such as a traditional navigable water or tributary. Indeed, the preambles to the proposal and final NWPR indicate the agencies have identified no such data.⁶⁰ If EPA and the Corps decide to exclude such waters, to be defensible the policy should be on the basis of credible data and statistics about the extent to which previously jurisdictional interstate waters would be non-jurisdictional.

ASWM recommends that a revised definition of WOTUS include a category for interstate waters. As discussed above, interstate waters may be the water that is most clearly WOTUS because they are the waters of the several states and, therefore, the United States. Such a policy would be consistent with the CWA’s text and legislative history, reflect prior regulatory approaches, and help protect the quality of downstream waters. **ASWM also recommends that tributaries to interstate waters be identified as WOTUS, as well as waters adjacent to such tributaries.** If tributaries to interstate waters are not within the scope of CWA protections as WOTUS it will be difficult to ensure the chemical, physical, and biological integrity of interstate waters are restored and maintained. Finally, **ASWM recommends that a revised definition of WOTUS define “interstate waters” as including waters that cross or form tribal boundaries.** To do so would be responsive to past requests during tribal consultation, be clearer than previous definitions, and be consistent with President Biden’s call for recognition and respect for tribal sovereignty.

⁵⁶ Note that the same argument could apply to the “interstate” status of U.S. international boundaries. As a result, this interpretation would be consistent with tribal lands’ status as sovereign nations.

⁵⁷ See, e.g., “Tribal Consultation and Strengthening Nation-to-Nation Relationships,” Memoranda signed by President Biden signed on January 26, 2021.

⁵⁸ As discussed below, ASWM is recommending that a revised definition of WOTUS consider both wetlands and open waters as potentially “adjacent.” Such an approach was incorporated into the 2015 rule and made waters such as oxbow lakes potentially jurisdictional.

⁵⁹ 80 Fed.Reg. 37054, 37074 (June 29, 2015).

⁶⁰ 85 Fed.Reg. 22250, 22283-22286 (April 21, 2020); 84 Fed.Reg. 4154, 4171-3 (February 14, 2019).

6(b): Scope of Jurisdictional Tributaries

The Clean Water Rule (CWR) and the Navigable Waters Protection Rule (NWPR) take very different approaches to jurisdictional tributaries, and as a result provide very different levels of water quality protection. Neither protect waters as broadly as scientific literature suggests may be appropriate to achieve the goals of the CWA.

The 2015 CWR defines “tributary” and provides that a water meeting that definition is a categorical WOTUS without the need for a separate case-specific significant nexus evaluation.⁶¹ Under the CWR, a water is considered a jurisdictional tributary where it meets two requirements. First, it must flow directly or through other waters to a traditional navigable water, interstate water, or the territorial seas, and it does not matter if the water is perennial, intermittent, or ephemeral. The preamble to the CWR observes that peer-reviewed science shows that tributaries regardless of flow duration are very effective at transporting pollutants downstream.⁶² The second requirement is that the water have both a bed and bank and an indicator of ordinary high water mark, as indicators of channelization.⁶³ The CWR preamble notes that this two-part definition of “tributary” that is categorically a WOTUS does not include all streams that might be considered to be a tributary in the general scientific literature.⁶⁴

The 2020 NWPR also defines “tributary” considered to be WOTUS, indicating the term includes rivers, streams, or similar naturally occurring surface water channels that contribute surface water flow either directly or indirectly to the territorial seas or traditional navigable waters in a typical year.⁶⁵ A tributary must have perennial or intermittent flow in a typical year, and the NWPR expressly excludes ephemeral waters from jurisdiction.⁶⁶ The preamble to the NWPR asserts that limiting jurisdictional tributaries to perennial or intermittent waters “balances the regulation of the Federal government with the authority of States and Tribes to more appropriately regulate certain waters within their jurisdiction, such as ephemeral streams.”⁶⁷ The preamble also concludes, without data, that this approach effectively furthers the CWA goal to restore and maintain the chemical, physical, and biological integrity of the nation’s waters.⁶⁸

States and tribes have expressed concerns to ASWM and others that the NWPR definition of “tributary” is too narrow to achieve the goals of the CWR. For example, states have noted in lawsuits challenging the NWPR that the 2020 definition does not protect ephemeral streams, which represent at least 18 percent of all streams across the country according to EPA and Corps estimates.⁶⁹ Tribes seem almost unanimous in opposition to the NWPR, citing concerns about

⁶¹ 80 Fed.Reg. 37054, 37075 (June 29, 2015).

⁶² *Id.*

⁶³ *Id.* at 37076.

⁶⁴ *Id.*

⁶⁵ 85 Fed.Reg. 22250, 22286 (April 21, 2020); 33 C.F.R. 328(c)(12).

⁶⁶ *Id.* See also 328.3(b)(3).

⁶⁷ 85 Fed.Reg. 22250, 22287 (April 21, 2020).

⁶⁸ *Id.*

⁶⁹ USACE Internal Communication, September 4-5, 217, “Breakdown of Flow Regimes in NHD Streams Nationwide,” available at <http://www.eenews.net/stories/1060109323>, cited in *California v. Wheeler*, No. 3:20-cv0305-Rs (N.D. Ca).

implications for water resource protection of a narrow definition of tributary,⁷⁰ effects of a narrow definition of WOTUS on other federal programs⁷¹, and resulting failures to honor treaty obligations.⁷² Several tribes have sued to invalidate the NWPR, resulting in its recent vacatur.⁷³ Both states and tribes have emphasized the importance of science in informing a definition of WOTUS, and the NWPR's definition of tributary and requirement that flows be perennial or intermittent contradicts peer-reviewed science indicating and ephemeral waters have important effects on the integrity of downstream waters..⁷⁴

EPA and the Corps appear to agree with state and tribal concerns, and have indicated that effects of the NWPR “is leading to significant environmental degradation,” while observing

“Upon review of the Navigable Waters Protection Rule, the agencies have determined that the rule is significantly reducing clean water protections. The lack of protections is particularly significant in arid states, like New Mexico and Arizona, where nearly every one of over 1,500 streams assessed has been found to be non-jurisdictional. The agencies are also aware of 333 projects that would have required Section 404 permitting prior to the Navigable Waters Protection Rule, but no longer do.”⁷⁵

The agencies' “Notice of Public Meetings Regarding ‘Waters of the United States’” provides a number of questions about tributaries. In this letter, ASWM will focus on two tributary issues: what physical characteristics should be required for a water to be considered “tributary” and therefore jurisdictional as a class, and what role should flow regime play in the definition of tributary.

Physical Characteristics Required to be a “Tributary”

The Notice of Public Meetings asks whether physical characteristics should inform determinations about which tributaries should be considered jurisdictional as a class, as opposed to a case-by-case significant nexus determination for jurisdiction.⁷⁶

The 2015 CWR defined a “tributary” as a water having both a bed and bank and an indicator of ordinary high water mark (OHWM) such as staining or debris deposits, in addition to

⁷⁰ For example, in its lawsuit to invalidate the NWPR, the Navajo Nation notes that ephemeral and intermittent streams make up over 81% of all streams in the arid and semi-arid Southwest where the Navajo Nation is located. *Navajo Nation v. Wheeler*, No. 2:20-ev-602 (D.C. NM), Plaintiff complaint at 6.

⁷¹ See, e.g., U.S. EPA & Dept. of the Army, “Summary Report of Tribal Consultation and Engagement for the Navigable Waters Protection Rule: Definition of ‘Waters of the United States,’” at 9-12 (January 23, 2020).

⁷² See *Navajo Nation v. Wheeler*, No. 2:20-ev-602 (N,D Ca), Plaintiff complaint at 7, 33; *Pasqua Yaqui Tribe v. USEPA*, No. CV-20-00266-TUC-RM (D.C. Az).

⁷³ *Pasqua Yaqui Tribe v. USEPA*, No. CV-20-00266-TUC-RM (D.C. Az), order filed August 30, 2021.

⁷⁴ The NWPR expressly does not follow scientific principles. See 85 Fed.Reg. 22250, 22261 (April 21, 2020). See also *Navajo Nation v. Wheeler*, No. 2:20-ev-602 (D.C. NM), Plaintiff complaint at 6, quoting the Federal Register. (“[T]he agencies used the Connectivity Report to inform certain aspects of the definition of ‘waters of the United States,’ but recognize that science cannot dictate where to draw the line between Federal and State waters, as this is a legal question that must be answered on the overall framework and construct of the CWA.”)

⁷⁵ U.S. EPA and U.S. Army Corps of Engineers, Press Release, “EPA, Army Announce Intent to Revise Definition of WOTUS,” (June 9, 2021), available at <https://www.epa.gov/newsreleases/epa-army-announce-intent-revise-definition-wotus>.

⁷⁶ 86 Fed.Reg. 41911, 41913 (August 4, 2021).

contributing flow to a downstream traditional navigable water, interstate water, or territorial sea.⁷⁷ The CWR preamble noted that “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.”⁷⁸ The purpose of these required physical characteristics was to demonstrate that there is sufficient volume, frequency, and flow in such tributaries to establish a significant nexus.⁷⁹

The 2020 NWPR does not establish required physical characteristics for tributaries, other than the water contribute surface perennial or intermittent flow downstream to a traditional navigable water or territorial sea.⁸⁰

ASWM has heard from states, tribes, and others that the CWR’s requirement for a bed and bank and an indicator of OHWM was unnecessary or confusing. Some have asserted OHWM alone is an inappropriate criterion for many streams in the arid West where the characteristic of bed and banks is less common.⁸¹ Others have noted that bed and banks are themselves an indicator of OHWM, creating some confusion when an indicator of OHWM is required in addition to bed and banks. Still others have observed that requiring a bed and bank may eliminate some important springs which provide perennial or seasonal flow but may lack a defined bed and bank or all three wetland parameters, but clearly have observable flow. Springs may be particularly important for providing cold water baseflow.

ASWM recommends that a revised definition of “tributary” call for “bed and bank or other evidence of flow,” instead of requiring both a bed and bank and another indicator of OHWM for the water to be considered jurisdictional as a class. The rationale for requiring specific physical characteristics has been to ensure the stream has a significant nexus with the integrity of a traditional navigable water downstream, either individually or in combination with similarly situated waters.⁸² Another rationale may be to avoid regulating diffuse sheetflow as tributary. ASWM believes the formulation of “bed, bank, and other evidence of flow” is sufficient to distinguish streams with a significant nexus without inadvertently omitting streams lacking an OHWM that nonetheless have a significant nexus. It also would ensure that sheetflow is not considered tributary even where such sheetflow contributes water to a traditional navigable water. The Science Advisory Board observed that not all tributaries have OHWMs, such as ephemeral streams with arid and semi-arid environments or in low gradient landscapes where the flow of water is unlikely to cause an OHWM.⁸³ A substantial advantage of requiring a “bed and

⁷⁷ 80 Fed.Reg. 37054, 37058 (June 29, 2015).

⁷⁸ *Id.* at 37076.

⁷⁹ *Id.* The preamble quotes Justice Kennedy’s observation that a perceptible OHWM “may well provide a reasonable measure of whether specific minor tributaries bear a significant nexus with other regulated waters to constitute ‘navigable waters’ under the Act.” *Rapanos v. United States*, 547 U.S. 715, 781 (2006).

⁸⁰ 33 C.F.R. § 328.3(c)(12); *See also* 85 Fed.Reg. 22250, 22286 (April 21, 2020).

⁸¹ *See, e.g.*, 80 Fed.Reg. 30754, 37079 (June 29, 2015).

⁸² *Id.* at 37058.

⁸³ 80 Fed.Reg. 37054, 37064, quoting a letter from Dr. David T. Allen, Chair, EPA Science Advisory Board to EPA Administrator Gina McCarthy, at 2 (September 30, 2014). *See also* EPA, *Connectivity of Streams and Wetlands to*

bank or other evidence of flow” would be that it would allow for regionalization of what is considered a jurisdictional tributary, not leaving without CWA protections streams in the arid West that are locally very important. A careful preamble explanation that “other evidence of flow” is intended to indicate presence of a significant nexus should avoid suggesting that any hydrologic connection, however minor, is sufficient to establish jurisdiction.⁸⁴

Relevance of Flow Regime to Jurisdiction and the Importance of Ephemeral Streams

The Notice of Public Meetings asks about the appropriate relevance of flow regime when determining whether a stream might be a “tributary” and thus categorically a WOTUS. In particular, the Notice asked for information regarding ephemeral streams.⁸⁵

The 2015 CWR considered all streams to be “tributary” regardless of whether the stream was perennial, intermittent, or ephemeral, so long as the stream had bed and banks and another indicator of OHWM, and contributed flow to a traditional navigable water, interstate water, or territorial sea.⁸⁶ The CWR’s approach to flow regimes reflected the agencies’ scientific conclusion that tributaries as defined, individually or in combination with similarly situated tributaries, had a significant nexus.⁸⁷

In contrast, the 2020 NWPR provides that only perennial or intermittent waters may be WOTUS⁸⁸ and specifically excludes ephemeral waters from jurisdiction.⁸⁹ The preamble to the NWPR explained the requirement that a tributary be perennial or intermittent and connected to a traditional navigable water was consistent with the “relatively permanent” standard in the *Rapanos* decision.⁹⁰

Peer-reviewed scientific literature is clear that all tributary streams, regardless of flow regime, are connected to the integrity of downstream rivers. As noted in EPA’s seminal summary of peer-reviewed literature on connectivity among waters, “[t]he 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

Downstream Waters: A Review and Synthesis of the Scientific Evidence, EPA–SAB–15–001, (U.S. Environmental Protection Agency, Washington, DC. 2015).

⁸⁴ When this approach was suggested during development of the 2015 CWR, EPA and the Corps were concerned that the approach suggested any hydrologic connection is sufficient for jurisdiction. 80 Fed.Reg. 37054, 37064 (June 29, 2015).

⁸⁵86 Fed.Reg. 41911, 41913 (August 4, 2021).

⁸⁶ 80 Fed.Reg. 37054, 37058 (June 29, 2015).

⁸⁷*Id.* at 37079.

⁸⁸ 85 Fed.Reg. 22250, 22286 (April 21, 2020); 33 C.F.R. §328.3(c)(12).

⁸⁹85 Fed.Reg. 22250, 22317 (April 21, 2020); 33 C.F.R. §328.3(b)(3).

⁹⁰ “The requirement that a tributary be perennial or intermittent and be connected to a traditional navigable water is reasonable and reflects the [*Rapanos*] plurality’s description of a ‘wate[r] of the United States’ as ‘i.e., a relatively permanent body of water connected to traditional interstate navigable waters.’” 85 Fed.Reg. 22250, 22289 (April 21, 2020)(quoting *Rapanos*, 547 U.S. at 742.)

other materials are concentrated, mixed, transformed, and transported.”⁹¹ Scientific literature observes these impacts “occur even when the covered tributaries flow infrequently (such as ephemeral tributaries), and even when the covered tributaries are large distances from the traditional navigable waters”⁹² These scientific conclusions are as relevant to policymaking today as they were in 2015, when such conclusions resulted in the CWR considering all streams with bed and banks and an indicator of OHWM to be jurisdictional tributaries regardless of flow regime.

Ephemeral streams are those that flow only after rain events, and do not have flow based on groundwater. Ephemeral streams play important roles in the aquatic system, such as dissipating stream energy during storms to reduce erosion, serving as a source of groundwater recharge, serving as a source of water for downstream streams and rivers, transporting sediment to aid in replenishment and maintenance of floodplains, transporting nutrients to support aquatic species, providing wildlife habitat, among other roles.⁹³ As indicated in peer-reviewed science, ephemeral waters also transport pollutants discharged into them to downstream waters.⁹⁴ While ephemeral streams may individually be less likely to transmit pollutants to downstream waters than perennial streams, they are often extremely abundant and widespread and therefore in the aggregate have the potential for significant adverse effects on downstream waters.⁹⁵

Prior to the NWPR, ephemeral tributaries had for decades been treated as WOTUS. EPA’s regulations as far back as 1973 identified tributaries of traditional navigable waters as WOTUS, including those that flow in direct response to rainfall because the regulations did not limit jurisdiction based on volume or duration of flow.⁹⁶ Rivers that are predominantly ephemeral even have been deemed to be traditional navigable waters themselves.⁹⁷ EPA regulations address development of water quality standards for ephemeral flows,⁹⁸ and states and tribes have viewed ephemeral waters as jurisdictional and included them in their water quality standards.⁹⁹ CWA section 402 National Pollutant Discharge Elimination Permits (NPDES) program has regulated

⁹¹ EPA, *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence*, EPA-SAB-15-001, p. ES-2 (U.S. Environmental Protection Agency, Washington, DC. 2015).

⁹² See, e.g., 80 Fed.Reg. 30754, 37069 (June 29, 2015).

⁹³ See, e.g., Groves, “How the Trump Administration Eased Destruction of the Nation’s Wetlands and Streams,” 41 ELR 10194, 10195 (March 2021).

⁹⁴ EPA, *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. 2015)..

⁹⁵ See, e.g., *Conservation Law Foundation v U.S. Environmental Protection Agency*, Case No. 20-cv-10820 (D.C. Mass), Complaint

⁹⁶ See, e.g., 38 Fed.Reg. 13528, 13529 (May 22, 1973), where EPA defied WOTUS as including, among other categories “tributaries to navigable waters” without qualifications regarding flow or duration.

⁹⁷ For example, in 2008 the Army Corps of Engineers found that two reaches of the Santa Cruz River in Arizona to be traditional navigable waters. (U.S. Army Corps of Engineers, Los Angeles District, Memorandum for the Record: Determination of Two Reaches of the Santa Cruz River as Traditional Navigable Waters (TNWs), May 23, 2008); EPA Office of Water, letter to John Paul Woodley, Jr., Assistant Secretary of the Army (Civil Works Regarding the Santa Cruz TNW Determination, December 3, 2008).

⁹⁸ See, e.g., 40 C.F.R. §131.10(g)(2).

⁹⁹ A quick review of state and tribal standards posted on the web found ephemeral waters expressly included as jurisdictional by, for example, Arizona, Delaware, South Carolina, Wyoming, and the Ute Mountain Ute Tribe.

discharges into ephemeral streams.¹⁰⁰ After *Rapanos*, EPA and the Corps of Engineers continued to find ephemeral waters were WOTUS where a water had a significant nexus, following the agencies' *Rapanos* Guidance.¹⁰¹ Courts both before and after *Rapanos* supported determinations that ephemeral waters were WOTUS.¹⁰² While interpretations that ephemeral waters were WOTUS occasionally have been challenged over the years, EPA and the Corps successfully defended those assertions for the decades prior to the NWPR. Decisionmakers revising the current definition of WOTUS should view inclusion of ephemeral waters as both a longstanding interpretation, defensible, and consistent with peer-reviewed science.

The 2020 NWPR's exclusion of ephemeral tributaries has had profound impacts on protection of the nation's aquatic resources. For example, under the NWPR nearly every one of over 1,500 streams in New Mexico and Arizona assessed were found to be non-jurisdictional,¹⁰³ a significant shift from their status of streams under both the CWR and the pre-2015 regulatory definition.¹⁰⁴ The district court order vacating the NWPR in August 2021 noted "[i]mpacts to ephemeral streams, wetlands, and other aquatic resources could have 'cascading and cumulative downstream effects,' and the agencies 'have heard concerns from a broad array of stakeholders ... that the reduction in the jurisdictional scope of the CWA is resulting in significant environmental harms.'"¹⁰⁵ As noted by EPA, "[t]he agencies are concerned that the NWPR did

¹⁰⁰ A 2003 EPA Region 9 analysis estimated that 160 of 165 NPDES permits in Arizona (97%) discharge into ephemeral or intermittent streams. Natri, Wayne, "EPA Region 9 Comments on ANPRM for Jurisdictional Waters," comment letter on the Advance Notice of Proposed Rulemaking for the Clean Water Act Regulatory Definition of 'Waters of the United States,'" 68 Fed.Reg. 1991 (January 15, 2003).

¹⁰¹ The 2008 guidance, "Clean Water Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States*" (December 2, 2008) provides that tributaries flowing only in direct response to rainfall are WOTUS if they have a significant nexus to a downstream traditional navigable water. Following the 2008 Guidance, the agencies asserted jurisdiction over ephemeral tributaries with a significant nexus, with Corps online data indicating virtually all ephemeral tributaries were found jurisdictional until the 2020 NWPR took effect. For example, EPA and the Corps issued a joint memorandum in 2007 asserting jurisdiction over a first order ephemeral stream in Riverside County, California, based on its significant nexus to a traditional navigable water. Joint memoranda providing resolution to jurisdictional issues elevated to EPA and Corps headquarters can be found on the Corps' website: [U.S. Army Corps of Engineers Headquarters > Missions > Civil Works > Regulatory Program and Permits > juris info.](#)

¹⁰² See, e.g., *United States v. HVI Cat Canyon, Inc.*, 314 F. Supp. 3d 1049 (C.D. Cal. 2018) (ephemeral streams may have a significant nexus to downstream waters and be considered jurisdictional). For illustrative court decisions before *Rapanos*, see, e.g., *United States v. Deaton*, 332 F.3d 698 (4th Cir. 2003) (The Corps "has always used [tributary] to mean the entire tributary system, all of the streams whose water eventually flows into navigable waters."); *United States v. Phelps Dodge Corp.*, 391 F.Supp. 1181, 1187 (1975) ("[A] legal definition of 'navigable waters' or 'waters of the United States' within the scope of the Act includes any waterway within the United States also including normally dry arroyos through which water may flow, where such water ultimately ends up in public waters such as a river or stream, tributary to a river or stream, lake, reservoir, bay, gulf sea, or ocean either win or adjacent to the United States.")

¹⁰³ *Pasqua Yaqui Tribe v EPA*, Case No. CV-20-00266-TUC-RM (D.C. Az, 2021), quoting Declaration of Radhika Fox, Deputy Administrator for Water, EPA).

¹⁰⁴ EPA and Army Corps data indicate that from 2013 to 2018, most jurisdictional determinations for non-relatively permanent waters (primarily ephemeral streams) found presence of a significant nexus and therefore concluded the waters were WOTUS. See EPA and Department of the Army, "Resource and Programmatic Assessment for the Navigable Waters Protection Rule: Definition of 'Waters of the United States,'" (January 23, 2020), EPA-HQ-OW-2018-0149.

¹⁰⁵ Declaration of Radhika Fox, *Conservation Law Found. V. U.S. Envtl Prot. Agency*, No. 20-cv-10820-DPSW, at 4 (June 9, 2021).

not look closely enough at the effect ephemeral waters have on traditional navigable waters when the agencies decided to categorically exclude all ephemeral waters.”¹⁰⁶

Considering ephemeral tributaries to not be WOTUS is inconsistent with the goal of the CWA to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.”¹⁰⁷ As peer-reviewed science indicates, ephemeral tributaries have important effects on the integrity of downstream rivers and other waters. In effect, protecting traditional navigable waters by regulating only perennial and intermittent tributaries to those waters and not ephemerals is analogous to hoping your house is protected by locking the front door and windows even as you leave the back door not only unlocked but open.

Implementing a WOTUS definition that excludes ephemeral tributaries is very difficult to administer. Separating out ephemeral tributaries from WOTUS ironically increases the regulatory burden for states, tribes, and project proponents, as there is no clear delineation between what is an intermittent (and jurisdictional) stream from an ephemeral (and non-jurisdictional) stream). Additionally, a single tributary can plausibly become ephemeral, intermittent, and back again several times on its journey to a traditional navigable water. Under the NWPR, a jurisdictional determination needs to determine whether a stream is intermittent or ephemeral at various locations or project sites, resulting in an increase in site visits and case-by-case determinations. Corps of Engineers staff have said that it is more labor intensive to determine the difference between an intermittent versus an ephemeral stream that it was to apply the significant nexus test under the pre-NWPR regulatory regime.¹⁰⁸ States and tribes implementing CWA programs are similarly challenged.

ASWM recommends that a revised definition of “tributary” include waters that have a bed and bank and other evidence of flow to a downstream traditional navigable water or interstate water, without reference to flow regime. Including ephemeral tributaries as WOTUS would be consistent with goals and authorities of the CWA and would fully reflect peer-reviewed science. Such a policy decision also would be consistent with past regulatory and implementation practice across numerous CWA programs, and is legally defensible.

6(c): Scope of Jurisdictional Ditches

The “Notice of Public Hearings Regarding ‘Waters of the United States’” asks for information regarding when ditches should be considered WOTUS, and what characteristics could appropriately help distinguish between jurisdictional and non-jurisdictional ditches.

Under the 2015 Clean Water Rule (CWR) ditches were considered WOTUS where they met the definition of “tributary” and were not expressly excluded.¹⁰⁹ Examples of jurisdictional ditches under the CWR include ditches with perennial flow, ditches with intermittent flow that are excavated in or relocating tributaries or are draining wetlands, and ditches excavated in or

¹⁰⁶ *Id.*

¹⁰⁷ CWA 101§(a), 33 U.S.C. §1251(a).

¹⁰⁸ Groves, “How the Trump Administration Eased Destruction of the Nation’s Wetlands and Streams,” 41 ELR 10194, 10195 (March 2021).

¹⁰⁹ 80 Fed.Reg. 37054, 37078 (June 29, 2015); 33 C.F.R. §328.3(c)(3).

relocating a tributary regardless of flow.¹¹⁰ The CWR expressly excluded ditches with ephemeral flow that are not excavated in or relocating a tributary, ditches with intermittent flow that are not excavated in or relocating a tributary and do not drain wetlands, and all ditches that do not flow into a traditional navigable water, interstate water, or territorial sea.¹¹¹

Like the CWR, the 2020 Navigable Waters Protection Rule (NWPR) identified some ditches as jurisdictional tributaries and excluded others from jurisdiction, based in part on their flow regime. Under the NWPR, ditches constructed in or relocating a tributary are considered WOTUS, as are ditches constructed in adjacent wetlands, so long as they contribute perennial or intermittent flow in a typical year to a traditional navigable water.¹¹² For the first time, the NWPR defined “ditch,” indicating “the term ‘ditch’ means a constructed or excavated channel used to convey water.”¹¹³

Ditches have historically been one of the most challenging issues when defining WOTUS. The concept of “ditch” remains vague and the term not well-defined, in part because naturally occurring streams often have been modified by man, and from the scientific point of view, constructed ditches often function as tributary with effects on the stream network similar to a naturally occurring stream. The CWA and its legislative history do not resolve the jurisdictional issue for ditches, other than indicating some ditches are jurisdictional by providing statutory exemptions for certain activities discharging dredged or fill material in jurisdictional ditches.¹¹⁴ EPA and the Corps have considered various approaches to ditches prior to the 2015 CWR and 2020 NWPR, such as including as WOTUS all tidal ditches while excluding non-tidal ditches from WOTUS regardless of flow regime,¹¹⁵ generally excluding ditches excavated on dry land but evaluating specific ditches on a case-by-case basis,¹¹⁶ and excluding ditches (including roadside ditches) excavated wholly in and draining only uplands that do not carry a relatively permanent flow of water.¹¹⁷ All approaches have been subject to criticism, whether for jurisdictional purposes they focused on the natural versus man-made characteristics, on flow regime, on use for which the ditch was created, or on the effects of the ditch on the tributary system and its downstream traditional navigable waters.

ASWM agrees with EPA and the Army Corps that clarity about the status of ditches is very important, and that ditch status must be consistent with the goals and agency authorities under the CWA and be capable of being implemented. This suggests at least three possible approaches: focus on a ditch’s role in the tributary system, focus on the purpose for which the ditch was

¹¹⁰ *Id.*

¹¹¹ *Id.* at 37097; 33 C.F.R. §328.3(b)(3).

¹¹² 85 Fed.Reg. 22250, 22295 (April 21, 2020); 33 C.F.R. §328.3(c)(12).

¹¹³ 33 C.F.R. §328.3(c)(2).

¹¹⁴ CWA §404(f), 33 U.S.C. §1344(f). Canons of statutory interpretation include the concept that Congress would not enact a nullity, suggesting that at least some ditches are WOTUS or certain activities would not need permit exemptions. *See generally, e.g.*, Congressional Research Service, “Statutory Interpretation: Theories, Tools, and Trends” (April 5, 2018).

¹¹⁵ 40 Fed.Reg. 31320, 31321 (July 25, 1975).

¹¹⁶ 51 Fed.Reg. 41206, 41217 (November 13, 1986).

¹¹⁷ EPA and the Army Corps of Engineers, “Clean Water Act Jurisdiction Following the U.S. Supreme Court’s Decision in *Rapanos v. United States & Carabell v. United States*,” 1, 12, (December 02, 2008)

created, and a focus on both a ditch's effects on the tributary system and whether it was created in upland or in waters.

The primary goal of the CWA is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters,”¹¹⁸ indicating that agency decisions interpreting key terms and implementing statutory programs should be done in a manner consistent with that goal with results furthering that goal. This suggests an approach that regulates ditches functioning as tributaries with a significant nexus to the chemical, physical, or biological integrity of downstream waters, regardless of their origins or purpose. This approach would protect as WOTUS those ditches with a significant nexus, as well as tidal ditches and ditches that are excavated in or relocate tributaries. It would not itself require a significant nexus analysis for individual ditches functioning as tributaries, because peer-reviewed science has determined that tributaries as a class have a significant nexus.¹¹⁹ Ditches not connected to or otherwise impacting the tributary system would be excluded from jurisdiction under this approach. A challenge with this approach would be the number of ditches potentially jurisdictional and the associated administrative burden of applying CWA programs to those ditches, which would affect not only the number of jurisdictional determinations and discharge permits potentially required but also the number of waters in need of CWA water quality standards.

An alternative approach to ditches would be not to focus on whether a ditch is functioning as tributary, but instead to consider the ditch's origins and exclude specific categories of ditches from WOTUS based on the purpose for which the ditch was created, such as roadside drainage or agricultural water delivery. This approach would be responsive to various stakeholders who have sought an exclusion for their ditches for various reasons, such as public safety, food security, or an aversion to regulation. However, roadside ditches can drain roads and efficiently intercept the runoff from adjacent hill slopes, rapidly carrying that water to streams. Along with that water, ditches can transport road salts, fertilizers, viable pathogens, and other pollutants. Agricultural ditches can have similar functions. As a result, this approach would not be sensitive to the “restore and maintain” goal of the CWA because it would not consider a ditch's impact on the integrity of the tributary system and downstream waters and could result in channelized or relocated streams being excluded from jurisdiction. The approach also requires historic information about the ditch's original construction and purpose, which can be challenging to locate. In addition, the approach raises questions about jurisdictional status if the use of the ditch has changed since its construction.

A third possible approach to ditches is a blend, considering the ditch impacts on the tributary system as well as its origins and functions. As noted in the 2015 CWR preamble,

“[M]odified 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. ... [and] also provide corridors for movement of organisms The

¹¹⁸ CWA §101(a), 33 U.S.C. §1251(a).

¹¹⁹ EPA Office of Research and Development, “Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence” (January 2015)(EPA/600/R-14/475F).

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.”¹²⁰

Under this third approach, tidal ditches would continue to be considered WOTUS. Non-tidal ditches could only be WOTUS if they have a bed and banks and another indicator of flow, connect directly or indirectly through other tributaries to a traditional navigable water or interstate water, and have at least one of the following four characteristics: (1) the ditch is a natural stream that has been altered, such as channelized, straightened, or relocated; (2) the ditch has been excavated in WOTUS including wetlands; (3) the ditch has at least intermittent flow or standing water, or (4) the ditch connects two or more jurisdictional WOTUS. This third approach likely is not as expansive as the first approach or scientifically problematic as the second approach. It would exclude ditches excavated only in uplands that drain only uplands or non-jurisdictional waters and have no more than ephemeral flow. As a result, most roadside and agricultural ditches would be excluded where they are excavated in uplands and have only ephemeral flow. It also would exclude ditches not connected to the tributary system. This approach to ditches is familiar and capable of being implemented because it is consistent with the *Rapanos* Guidance in effect from 2007 to 2015. This approach strikes a balance, including as WOTUS ditches with characteristics more likely to result in impacts to the stream network being evaluated as tributary, while ditches lacking those characteristics are identified as not tributary.

ASWM recommends that a revised definition of WOTUS consider ditches to be jurisdictional where they have the physical characteristics of a tributary and provide flow to a traditional navigable water or interstate water, and if a ditch was created wholly in upland it has at least intermittent flow or standing water. This approach is described more completely in the paragraph immediately above. While ASWM would prefer to protect all ditches functioning as tributary regardless of whether they are excavated in upland or in waters and regardless of their flow regime, we recognize that longstanding policy interpretation and implementation practice may preclude such a broad protection of ditches and so are recommending a blended approach.

6(d): Scope of Adjacency

The definition of WOTUS has included adjacent wetlands as a categorically jurisdictional water since the mid-1970s.¹²¹ Prior to 2015, the longstanding definition of “adjacent” was “bordering,

¹²⁰ 80 Fed.Reg. 37054, 37065 (June 29, 2015).

¹²¹ See, e.g., 40 Fed.Reg. 31320, 31324 (July 25, 1975).

contiguous, or neighboring,” while providing wetlands separated from other WOTUS by man-made or natural structures such as dikes or dunes were considered adjacent.¹²²

The 2015 CWR kept the longstanding definition of “adjacent” but applied the concept not only to wetlands but to other waters as well, providing that wetlands, ponds, lakes, oxbows, impoundments, and similar water features could all be adjacent waters and therefore categorically WOTUS.¹²³ The CWR based this interpretation on a scientific conclusion that non-wetland waters that were physically proximate to jurisdictional waters had a similarly important effect on the integrity of downstream waters.¹²⁴ The CWR defined “neighboring” for the first time as including waters within 100 feet of jurisdictional waters, or within a 100-year floodplain to a maximum of 1,500 feet of the OHWM, or within 1,500 feet of the high tide line.¹²⁵ The entire water was jurisdictional as long as the water was at least partially located within the distance threshold¹²⁶. The CWR also indicated that “adjacent” waters did not include waters that were subject to established normal farming, silviculture, and ranching activities as those terms are used in CWA section 404(f),¹²⁷ although such waters could be determined to be WOTUS on a case-by-case basis.¹²⁸

The 2020 NWPR establishes that wetlands adjacent to a WOTUS are themselves categorically WOTUS. The NWPR does not use the terms “bordering, contiguous, or neighboring, which the preamble describes as requiring interpretation by Corps districts and thus too ambiguous.¹²⁹ Instead, the 2020 Rule defines “adjacent wetlands” that are jurisdictional as including wetlands (1) that abut a WOTUS, (2) that are inundated by flooding from a WOTUS, (3) are physically separated from a WOTUS only by a natural feature such as a dune or bank, or (4) are physically separated by an artificial dike or other barrier so long as the structure allows for a direct hydrologic surface connection to a WOTUS in a typical year such as through a culvert or other artificial feature.¹³⁰ The preamble explains the definition of “adjacent wetlands” is intended to protect those wetlands that are inseparably bound up with other jurisdictional waters in a typical year (such as wetlands that directly abut or are inundated by a WOTUS), while excluding wetlands that are not (such as wetlands lacking a direct hydrologic surface connection to WOTUS).¹³¹

Adjacent Wetlands or Adjacent Waters

Peer-reviewed scientific literature clearly documents the important relationships between jurisdictional waters and nearby wetlands and other waters. EPA’s Connectivity Report, for example, concluded that both wetlands and open waters in riparian areas and floodplains are

¹²² 33 C.F.R. §230.3(b).

¹²³ 80 Fed.Reg.37054, 37058 (June 29, 2015).

¹²⁴ EPA, *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. 2015).

¹²⁵ 80 Fed.Reg. 37054, 37069 (June 29, 2015).

¹²⁶ *Id.* at 37058.

¹²⁷ *Id.*

¹²⁸ *Id.* at 37080.

¹²⁹ See 85 Fed.Reg. 22250, 22307 (April 21, 2020).

¹³⁰ 85 Fed.Reg. 22250, 22307 (April 21, 2020).

¹³¹ *Id.* at 22278-80 (April 21, 2020).

physically, chemically, and biologically integrated with rivers through functions that improve downstream water quality.¹³²

Despite scientific literature indicating that open waters have similar important effects on the integrity of downstream waters as do wetlands, prior to the 2015 CWR the concept of adjacency applied only to wetlands and not to open waters.¹³³ A jurisdictional determination for an oxbow lake, for example, would consider if the lake had a wetland fringe sufficient to make it “adjacent” and thus jurisdictional, but if it lacked wetlands it would be considered non-jurisdictional unless it fell into another category of WOTUS. This makes no scientific or policy sense if your goal is to restore and maintain the chemical, physical, and biological integrity of the nation’s waters. By applying the concept of adjacency to both wetlands and open waters, the 2015 CWR took a policy step that was not only fully consistent with the goal of the CWA but also was firmly based in aquatic science. Unfortunately, the 2020 NWPR decided to not include non-wetland waters as “adjacent.”¹³⁴

ASWM recommends that the revised regulatory definition of WOTUS consider both wetlands and open waters in its concept of adjacency, which closely reflects peer-reviewed aquatic resource science as well as the goals of the CWA.

Considerations for Defining “Adjacent”

The Notice of Public Meetings quotes Executive Order 13990 signed by President Biden on his inauguration day that provides “[i]t is ... the policy of my Administration to listen to the science; to improve public health and protect our environment...”¹³⁵ This indicates a revised definition of WOTUS should establish the scope of adjacent waters informed by peer-reviewed aquatic resource science. As noted in the NWPR preamble, “agencies recognize that science cannot dictate where to draw the line between Federal and State or tribal waters, as those are legal distinctions that have been established within the overall framework and construct of the CWA.”¹³⁶ However, within the authorities and goals under the CWA, science plays an essential role in helping to determine characteristics of waters that should be protected if the integrity of the nation’s waters is indeed to be restored and maintained.

Peer-reviewed science indicates that the geographic proximity of an “adjacent” water to a WOTUS helps indicate the relationship between the two waters and the implications for the integrity of downstream traditional navigable waters and interstate waters. Particularly important elements of that relationship involve the movement of materials and energy between the waters.

¹³² EPA, *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence*, EPA-SAB-15-001, pp. ES-2 to ES-3 (U.S. Environmental Protection Agency, Washington, DC. 2015).

¹³³ The regulatory definition of WOTUS in effect prior to the 2015 CWR included “wetlands adjacent to waters (other than wetlands that are themselves wetlands)...” 33 C.F.R. §328.3(a)(7). The term “adjacent” was defined as “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.’” 33 C.F.R. §328.3(c).

¹³⁴ The NWPR did establish a category of WOTUS for lakes and ponds and impoundments of jurisdictional waters, where such waters could be jurisdictional if they contribute surface water flow to a traditional navigable water in a typical year. 33 C.F.R. 328.3(c)(6).

¹³⁵ 86 Fed.Reg. 41911, 41912 (August 4, 2021).

¹³⁶ 85 Fed.Reg. 22250, 22308 (April 21, 2020).

However, when reviewing the proposed CWR, 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.”¹³⁷ This strongly suggests that a scientifically informed definition of “adjacent waters” should focus on functional relationships, informed by proximity, but not be based on distance alone.

The 2015 CWR and the regulatory definition of WOTUS that preceded the CWR both used “bordering, contiguous, and neighboring” in their definitions of “adjacent.” The pre-2015 definition of WOTUS did not provide specific distance limits. The CWR did provide specific distance limits, providing that waters within 100 feet of a WOTUS were jurisdictional as adjacent, as were waters in a floodplain up to 1,500 feet from the WOTUS, based on a conclusion that such waters have a significant nexus either individually or in combination with similarly situated waters.¹³⁸ The NWPR did not reflect any distance limits but instead focused on presence of a surface water connection present in a typical year, which the NWPR preamble described as more aligned with the plurality’s “relatively permanent” standard in *Rapanos*.¹³⁹

The CWR’s definition of “adjacent” was based on peer-reviewed scientific literature showing 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, such as 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.¹⁴⁰ The preamble indicates the distance limits in the CWR were informed by functional relationships such as these.

The 2020 NWPR, however, seems to ignore prior findings and the comprehensive, peer-reviewed synthesis of current scientific understanding in the Connectivity Report.¹⁴¹ The SAB issued a commentary on the proposed NWPR, stating that its revised definition of WOTUS “decreases protection for our Nation’s waters and does not provide a scientific basis in support of its consistency with the objective of restoring and maintaining ‘the chemical, physical and biological integrity’ of these waters.”¹⁴² The SAB explained that the NWPR “does not fully

¹³⁷ EPA Science Advisory Board, “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,” at 2-3 (EPA-SAB-14-007)(2014).

¹³⁸ 80 Fed.Reg. 37054, 37080 (June 29, 2015).

¹³⁹ 85 Fed.Reg. 22250, 22308 (April 21, 2020).

¹⁴⁰ EPA, *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence*, EPA-SAB-15-001, pp. ES-2 to ES-3 (U.S. Environmental Protection Agency, Washington, DC. 2015), quoted in 80 Fed.Reg. 37054, 37063 (June 29, 2015).

¹⁴¹ This point also was made in *Calif. et.al. v. Wheeler*, Case No. 3:20-cv-03005 (D.C. N. Ca), Complaint for Declaratory and Injunctive Relief, filed May 1, 2020, at 14-15.

¹⁴² Letter from Michael Honeycutt, Chair, Science Advisory Board to Andrew R. Wheeler, Administrator, U.S. Environmental Protection Agency (Feb. 27, 2020) EPA-SAB-20-002, at 2.3

incorporate the body of science on connectivity of waters reviewed previously by the SAB and found to represent a scientific justification for including functional connectivity in rule making.” With respect to adjacent wetlands specifically, the SAB noted the exclusion of wetlands that do not abut or have a direct hydrologic surface connection to other WOTUS “is inconsistent with previous SAB review which justified scientifically the inclusion of these wetlands. No new body of peer reviewed scientific evidence has been presented to support an alternative conclusion.”¹⁴³

The NWPR’s narrow definition of adjacency as wetlands with a surface water connection to WOTUS in typical years ignores not only peer-reviewed science but also the unchanged regulatory definition of “wetland” incorporated into the NWPR: “wetlands means 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 for life in saturated soil conditions.”¹⁴⁴ (emphasis or added). In other words, shallow subsurface flows are sufficient to determine an area is a “wetland” but such subsurface flows under the NWPR are an inadequate basis for protecting that wetland.

Documents used by EPA and the Army Corps to support the NWPR analysis of potential impacts estimate that the 2020 Rule will leave as much as 51 percent of wetlands across the country without federal protection.¹⁴⁵ Wetlands that were previously protected as “adjacent” under the 2015 CWR and the regulatory definition of WOTUS that preceded it, but are no longer protected under the NWPR include: (1) wetlands with a shallow sub-surface, rather than surface, connection to jurisdictional waters; (2) wetlands physically separated from jurisdictional waters by human-made dikes or barriers, and lacking a direct hydrologic surface connection in “a typical year”; and (3) neighboring wetlands sufficiently close to a jurisdictional water so as to have a functional ecological connection with such water, but without a surface connection.

ASWM recommends that a revised definition of “adjacent waters” that are categorically WOTUS focus on functional relationships, including both surface and shallow subsurface connections, informed by proximity, but not be based on distance alone. Such a definition would be scientifically informed, within the authorities available under the CWA, and consistent with statutory goals. The revisions should not incorporate the NWPR approach requiring a surface hydrologic connection for a wetland or water to be considered “adjacent.” Similarly, a revised definition of WOTUS should not adopt the CWR’s distance limits for adjacency unless accompanied by a scientific analysis including recent relevant literature on functionality. **ASWM also notes that functional relationships between an adjacent water and a WOTUS likely vary in different areas of the country, and as a result the definition of “adjacent” offers an opportunity for the definition of WOTUS to reflect regional variations.**

¹⁴³ *Id.*

¹⁴⁴ 33 C.F.R. §328.3(c)(16).

¹⁴⁵ Army Corps of Engineers internal communication, “Breakdown of Flow Regimes in NHD Streams Nationwide,” September 4-5, available at <http://222.eenews.net/stories/1060109323>.

Waters and Wetlands Not Physically Proximate to WOTUS

“Other waters” can play important roles in the aquatic ecosystem, including wetlands and waters that are not considered traditional navigable waters, interstate, tributary, or adjacent. In its review of the adequacy of the scientific and technical basis of the proposed 2015 CWR, the EPA Science Advisory Board (SAB) found that “scientific literature has established that ‘other waters’ can influence downstream waters, particularly when considered in the aggregate.”¹⁴⁶ The SAB 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.”¹⁴⁷

These “other” waters typically were not protected under the 2020 NWPR but might be considered as WOTUS under the 2015 CWR if they are shown to have a significant nexus to a traditional navigable water or interstate water. EPA and the Corps decided to not categorically declare a subset of “other” waters to be WOTUS in the 2015 rule. Instead, the CWR indicated that WOTUS included waters found to have a significant nexus.

In 2014 the SAB stated there is “adequate scientific evidence to support a determination that certain subcategories and types of ‘other waters’ in particular regions of the United States ... have a similar influence on the chemical physical, and biological integrity of downstream waters ... and thus could be considered waters of the United States.”¹⁴⁸ As demonstrated in the attached bibliography of illustrative recent scientific literature, science has continued develop and may by now provide a solid basis for determining some subsets of “other” waters are categorically WOTUS without the need for a case-by-case significant nexus evaluation. As a result, **ASWM recommends the process of revising the definition of WOTUS include a careful examination of recent peer-reviewed scientific literature to evaluate if some subcategories of “other” waters could be deemed to be WOTUS consistent with both the CWA and aquatic resource science. ASWM also recommends that a revised definition include as WOTUS those waters with a significant nexus.**

6(e): Exclusions from Jurisdiction

The “Notice of Public Meetings Regarding ‘Waters of the United States’” asked for input on the scope of exclusions from the definition of WOTUS, including the current exclusions for prior converted cropland (PCC) and waste treatment systems.

The 2015 CWR established numerous exclusions from WOTUS. Two exclusions were from prior regulatory definitions of WOTUS and established that prior converted cropland (PCC) and waste treatment systems designed to meet the requirements of the CWA were not WOTUS.¹⁴⁹ The CWR for the first time in regulation excluded certain ditches, and added to regulations seven

¹⁴⁶ EPA Science Advisory Board, “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,” at 3 (EPA-SAB-14-007)(2014).

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ 80 Fed.Reg. 37054, 37997 (June 29, 2015)

exclusions from WOTUS reflecting longstanding agency practice such for waters and features such as lakes and ponds artificially constructed in dry land, ephemeral features not meeting the definition of “tributary,” and groundwater.¹⁵⁰ Finally, the CWR added two new exclusions addressing from WOTUS stormwater control features created on dry land and for wastewater recycling structures created on dry land.¹⁵¹

The 2020 NWPR took a very similar approach to exclusions, retaining the exclusions for PCC and waste treatment systems,¹⁵² the seven exclusions from longstanding agency practice,¹⁵³ and the exclusions for stormwater control features and wastewater recycling and groundwater recharge.¹⁵⁴ The NWPR also redefined PCC with a particular focus on what constituted an “agricultural purpose.”¹⁵⁵

This letter will focus primarily on issues raised by the relationship of exclusions to science, and the new definition of PCC.

Science and Exclusions from the Definition of WOTUS

The independent EPA Science Advisory Board (SAB) has stated that these exclusions from WOTUS are not justified by science.¹⁵⁶ The SAB observed that there is, for example, a lack of scientific knowledge to determine whether ditches should be categorically excluded, particularly in light of potential ecosystem services from ditches and their potential to carry pollutants downstream.¹⁵⁷ Similarly, although ephemeral erosional features are excluded under both the CWR and NWPR, the SAB notes such features can be important conduits for moving water between jurisdictional features.¹⁵⁸ These exclusions also are not directly authorized by the CWA, although an argument might be made that they are necessary for implementing the statute’s programs and therefore EPA as the federal agency charged with implementation of the CWA is authorized to develop exclusions as part of its efforts. However, exclusions from the definition of WOTUS that increase the potential for unregulated pollutants to enter waters can delay or prevent achieving the CWA goal of restoring and maintaining the chemical, physical, and biological integrity of the nation’s waters.

A revised definition of WOTUS possibly will include many of the exclusions found in the CWR and the NWPR, albeit potentially with tweaks. It also seems likely that many stakeholder groups will encourage EPA and the Corps to adopt additional new exclusions tailored to their own circumstances, arguing such exclusions are necessary for clarity and transparency. ASWM believes that the first exclusion listed in the NWPR, “all water features that are not identified [as

¹⁵⁰ *Id.* at 37098-99.

¹⁵¹ *Id.* at 37100-101

¹⁵² 85 Fed.Reg. 22250, 22317 (April 21, 2020); 33 C.F.R. §328.3(b)(6) and §(b)(12).

¹⁵³ *Id.* at 22319, 22321; 33 C.F.R. §§328.3(b)(3), (7), (8), (9).

¹⁵⁴ *Id.* at 22323-22324; 33 C.F.R. §§328.3(b)(10)-(11).

¹⁵⁵ *Id.* at 22320-22320, 22326; 33 C.F.R. §328.3(b)(6).

¹⁵⁶ *See, e.g.*, Letter from Dr. David T. Allen, Chair, EPA Science Advisory Board to Gina McCarthy, EPA Administrator, September 30, 2014, p. 3.

¹⁵⁷ *Id.*

¹⁵⁸ *Id.*

WOTUS in paragraph (a)]” should provide sufficient definitional clarity¹⁵⁹ -- if a water isn’t listed as WOTUS then it is excluded from WOTUS.

ASWM recommends that a revised definition of WOTUS avoid expanding the list of exclusions, despite likely pressures to do so, because exclusions do not have a basis in science and can be inconsistent with accomplishing CWA goals. The agencies can attain the desirable clarity in the definition by stating in the exclusion section that if a water feature is not listed as WOTUS then it is excluded from WOTUS.

Prior Converted Cropland

U.S. Department of Agriculture’s Food Security Act Manual defines “Prior Converted Cropland” (PCC) as “wetlands which were both manipulated (drained or otherwise physically altered to remove excess water from the land) and cropped before 23 December 1985, to the extent they no longer exhibit important wetland values.”¹⁶⁰ The CWA does not define or PCC explicitly or provide from its exclusion from WOTUS. However, since 1993 EPA and Corps regulations have excluded PCC from WOTUS, unless the PCC has been abandoned and reverted to wetlands.¹⁶¹ The 1993 rule preamble indicated PCC that “now meets wetland criteria is considered to be abandoned unless: for one in every five years the area has been used for the production of an agricultural commodity, or the area has been used and will continue to be used for the production of an agricultural commodity in a commonly used rotation with aquaculture, grasses, legumes, or pasture production.”¹⁶² Although EPA and the Corps included the PCC definition and abandonment discussion in the 1993 preamble, they were not included in the regulations themselves.

The 2015 CWR retained without change the existing exclusion for PCC.¹⁶³ The 2020 NWPR similarly retained the PCC exclusion but made some significant changes. In particular, the PCC exclusion in the NWPR indicates PCC will be considered abandoned and no longer excluded if the area “is not used for, or in support of, agricultural purposes at least once in the immediately preceding five years” and has reverted to wetlands.¹⁶⁴ The preamble to the NWPR describes the term “agricultural purposes” quite broadly as land use that makes production of an agricultural product possible, including but not limited to grazing and haying, pollinator habitat, idling land for conservation uses, irrigation tailwater storage, crawfish farming, cranberry bogs, nutrient retention, and idling land for soil recovery following natural disasters.¹⁶⁵

The PCC exemption from WOTUS is greatly broadened under the NWPR. The NWPR shifts to the term “agricultural purposes,” thereby changing the PCC definition from land that produces an agricultural commodity to land that supports agriculture. Under the abandonment criteria in the 1993 rule’s preamble, an area was required to be used for the *production* of an agricultural

¹⁵⁹ Assuming the revised rule also provides that waters with a significant nexus are jurisdictional.

¹⁶⁰ USDA Natural Resources Conservation Service, “National Food Security Act Manual” (1988)

¹⁶¹ 58 Fed.Reg. 45034, 45036 (August 25, 1993)

¹⁶² *Id.*

¹⁶³ 80 Fed.Reg. 37054, 37097 (June 29, 2015).

¹⁶⁴ 33 U.S.C. §328.3(c)(8).

¹⁶⁵ 85 Fed.Reg. 22250, 22320 (April 21, 2020).

commodity once within a five-year period. Under the NWPR's approach to PCC, the exclusion no longer requires actual production. Additionally, the pre-NWPR requirement for the land to be used at least once in five years has essentially been eliminated by the NWPR. The NWPR considers "cropland that is left idle or fallow for conservation or agricultural purposes for any period or duration of time remains in agricultural use."¹⁶⁶ As a result, under the NWPR almost any land that was manipulated prior to December 1985 and remains undeveloped could now be excluded from WOTUS protections as PCC.

In addition to being broader, the PCC exclusion under the NWPR is unclear. It remains uncertain, for example, if a single cow grazing in a large field, or even if a farmer is preparing the field for a single cow, would be sufficient to ensure the area remains exempt as PCC. Any field with wildflowers could be considered pollinator habitat and therefore sufficient for an area to remain exempt as PCC.

An article quotes a Corps staffer as saying this change to the PCC definition could remove federal jurisdiction from "two-thirds, but more like three-quarters" of the entire state of Texas.¹⁶⁷ Another Corps staffer said that now "word is getting out" that grazing makes land qualify as PCC, as the Corps has seen a significant increase in requests for jurisdictional determinations as exempt PCC.¹⁶⁸

In short, the NWPR's approach to the PCC exclusion is ambiguous, subject to misinterpretation, and is potentially so broad that it interferes with attaining the CWA's goal of restoring and maintaining the nation's waters.

ASWM strongly recommends that a revised WOTUS definition indicate that PCC loses its exclusion if not used for the production of an agricultural commodity in the preceding five years and has reverted to wetlands. The NWPR's shift from "production of an agricultural commodity" to "agricultural purposes" is inappropriately broad, unclear, and inconsistent with attaining CWA goals.

Closing

Thank you for the opportunity to submit information, policy recommendations, and other feedback in support of EPA's efforts to develop a revised definition of "waters of the United States" protected under the Clean Water Act. ASWM strongly supports EPA's objective of developing a revised definition that is fully consistent with Clean Water Act goals and authorities while being informed by aquatic resource science. Although these comments have been prepared by ASWM with input from the ASWM Board of Directors, they do not necessarily represent the individual views of all states and tribes. We encourage your full consideration of the comments of individual states and tribes, and other state and tribal associations.

¹⁶⁶ *Id.*

¹⁶⁷ Groves, David, "How the Trump Administration Eased Destruction of the Nation's Wetlands and Streams," 51 ELR 10194, 10196 (March 2021).

¹⁶⁸ *Id.*

Sincerely,

A handwritten signature in black ink, appearing to read "Marla J. Stelk". The signature is fluid and cursive, with a long horizontal stroke at the end.

Marla J. Stelk
Executive Director

Cc: ASWM Board of Directors
Radhika Fox, Assistant Administrator of Water, EPA
Brian Frazer, Director, Oceans, Wetlands, and Communities Division, EPA
Russell Kaiser, Chief, Program Development and Jurisdiction, EPA

Appendix A: Hydrologic Connectivity Literature

Disclaimer: This is a collection of references that has been provided to ASWM. We have not reviewed or vetted this literature and do not assert that this is a full and complete list of relevant scientific literature. ASWM will periodically update this list; for the latest version of this document, consult aswm.org.

Bibliography

- Alexander LC, Fritz KM, Schofield KA, Autrey BC, DeMeester JE, Golden HE, Goodrich DC, Kepner WG, Kiperwas HR, Lane CR, et al. 2018. Featured collection introduction: connectivity of streams and wetlands to downstream waters. *Journal of the American Water Resources Association (JAWRA)*. 54(2): 287–297. [DOI 10.1111/1752-1688.12630](https://doi.org/10.1111/1752-1688.12630)
- Ali G, Haque A, Basu N, Badiou P, Wilson H. 2017. Groundwater-Driven Wetland-Stream Connectivity in the Prairie Pothole Region: Inferences Based on Electrical Conductivity Data. *Wetlands*. 37:773-785. [DOI 10.1007/s13157-017-0913-5](https://doi.org/10.1007/s13157-017-0913-5)
- Ameli AA, Creed IF. 2017. Quantifying hydrologic connectivity of wetlands to surface water systems. *Hydrol. Earth Syst. Sci.*, 21: 1791–1808. [DOI 10.5194/hess-21-1791-2017](https://doi.org/10.5194/hess-21-1791-2017)
- Brooks JR, Mushet DM, Vanderhoof MK, Leibowitz SG, Christensen JR, Neff BP, Rosenberry DO, Rugh WD, Alexander LC. 2018. Estimating wetland connectivity to streams in the Prairie Pothole Region: an isotopic and remote sensing approach. *Water Resources Research* 54(2): 955-977. [DOI 10.1002/2017WR021016](https://doi.org/10.1002/2017WR021016)
- Calhoun AJK, Mushet DM, Alexander LC, DeKeyser ES, Fowler L, Lane CR, Lang MW, Rains MC, Richter SC, Walls SC. 2017. The significant surface-water connectivity of “geographically isolated wetlands.” *Wetlands*. 37:801–806. [DOI 10.1007/s13157-017-0887-3](https://doi.org/10.1007/s13157-017-0887-3)
- Chow AT, Pitt AL, Baldwin RF, Suhre D, Wang J. 2016. Water quality dynamics of ephemeral wetlands in the Piedmont ecoregion, South Carolina, USA. *Ecological Engineering*. 94: 555-563. [DOI 10.1016/j.ecoleng.2016.06.075](https://doi.org/10.1016/j.ecoleng.2016.06.075)
- Cohen MJ, Creed IF, Alexander L, Basu NB, Calhoun AJK, Craft C, D’Amico E, DeKeyser E, Fowler L, Golden HE, et al. 2016. Do geographically isolated wetlands influence landscape functions? *Proceedings of the National Academy of Sciences of the United States of America (PNAS)*. 113(8): 1978–1986. [DOI 10.1073/pnas.1512650113](https://doi.org/10.1073/pnas.1512650113)
- Colvin SAR, Sullivan SMP, Shirey PD, Colvin RW, Winemiller KO, Hughes RM, Fausch KD, Infante DM, Olden JD, Bestgen KR, et al. 2019. Headwater streams and wetlands are critical for sustaining fish, fisheries, and ecosystem services. *Fisheries*. 44(2):73-91. [DOI 10.1002/fsh.10229](https://doi.org/10.1002/fsh.10229)
- Creed IF, Lane CR, Serran JN, Alexander LC, Basu NB, Calhoun AJK, Christensen JR, Cohen MJ, Craft C, D’Amico E, et al. 2017. Enhancing protection for vulnerable waters. *Nature Geoscience*. 10: 809-815. [DOI 10.1038/ngeo3041](https://doi.org/10.1038/ngeo3041)
- Datry T, Bonada N, Boulton A, editors. 2017. *Intermittent rivers and ephemeral streams*. Academic Press. [DOI 10.1016/C2015-0-00459-2](https://doi.org/10.1016/C2015-0-00459-2)

- Dybala KE, Matzek V, Gardali T, Seavy N. 2018. Carbon sequestration in riparian forests: A global synthesis and meta-analysis. *Glob Change Biol.* 25(1): 57-67. [DOI: 10.1111/gcb.14475](https://doi.org/10.1111/gcb.14475)
- Epting SM, Hosen JD, Alexander LC, Lang MW, Armstrong AW, Palmer MA. 2018. Landscape metrics as predictors of hydrologic connectivity between Coastal Plain forested wetlands and streams. *Hydrological Processes.* 32(4):516–532. [DOI 10.1002/hyp.11433](https://doi.org/10.1002/hyp.11433)
- Etheridge JR, Burchell II MR, Birgand F. Can created tidal marshes reduce nitrate export to downstream estuaries? *Ecological Engineering.* 105: 314-324. [DOI 10.1016/j.ecoleng.2017.05.009](https://doi.org/10.1016/j.ecoleng.2017.05.009)
- Evenson GR, Golden HE, Lane CR, McLaughlin DL, D'Amico E. 2018. Depressional wetlands affect watershed hydrological, biogeochemical, and ecological functions. *Ecological Applications.* 28(4): 953-966. [DOI 10.1002/eap.1701](https://doi.org/10.1002/eap.1701)
- Fritz KM, Schofield KA, Alexander LC, McManus MG, Golden HE, Lane CR, Kepner WG, LeDuc SD, DeMeester JE, Pollard AI. 2018. Physical and chemical connectivity of streams and riparian wetlands to downstream waters: a synthesis. *Journal of the American Water Resources Association (JAWRA).* 54(2):323–345. [DOI 10.1111/1752-1688.12632](https://doi.org/10.1111/1752-1688.12632)
- Goodrich DC, Kepner WG, Levick LR, Wigington Jr PJ. 2018. Southwestern intermittent and ephemeral stream connectivity. *Journal of the American Water Resources Association (JAWRA).* 54(2): 400-422. [DOI 10.1111/1752-1688.12636](https://doi.org/10.1111/1752-1688.12636)
- Hansen AT, Dolph CL, Foufoula-Georgiou E, Finlay JC. 2018. Contribution of wetlands to nitrate removal at the watershed scale. *Nature Geoscience.* 11: 127–132. [DOI 10.1038/s41561-017-0056-6](https://doi.org/10.1038/s41561-017-0056-6)
- Harvey J, Gomez-Velez J, Schmadel N, Scott D, Boyer E, Alexander R, Eng K, Golden H, Kettner A, Konrad C, et al. 2018. How hydrologic connectivity regulates water quality in river corridors. *Journal of the American Water Resources Association (JAWRA).* 55(2):369–381. [DOI 10.1111/1752-1688.12691](https://doi.org/10.1111/1752-1688.12691)
- Hosen JD, Armstrong AW, Palmer MA. 2018. Dissolved organic matter variations in coastal plain wetland watersheds: the integrated role of hydrological connectivity, land use, and seasonality. *Hydrological Processes.* 32(11): 1664-1681. [DOI 10.1002/hyp.11519](https://doi.org/10.1002/hyp.11519)
- Isaak DJ, Young MK, Nagel DE, Horan DL, and Groce MC. 2015. The cold-water climate shield: delineating refugia to preserve salmonid fishes through the 21st Century. *Global Change Biology.* 21(7): 2540-2553. <https://doi.org/10.1111/gcb.12879>
- Jaeger KL, Sando R, McShane RR, Dunham JB, Hockman-Wert DP, Kaiser KE, Hafen K, Risley JC, Blasch KW. 2019. Probability of Streamflow Permanence Model (PROSPER): A spatially continuous model of annual streamflow permanence throughout the Pacific Northwest. *Journal of Hydrology X.* 2:100005. <https://doi.org/10.1016/j.hydroa.2018.100005>
- Lane CR, D'Amico E. 2016. Identification of putative geographically isolated wetlands of the conterminous United States. *J. Am. Water Resour. Assoc.* 52:705–722.
- Lane, CR, Leibowitz SG, Autrey BC, LeDuc SD, Alexander LC. 2018. Hydrological, physical, and chemical functions and connectivity of non-floodplain wetlands to downstream waters: a review. *Journal of the American Water Resources Association (JAWRA).* 54(2): 346-371. [DOI 10.1111/1752-1688.12633](https://doi.org/10.1111/1752-1688.12633)

- Lee S, McCarty GW, Moglen GE, Lang MW, Jones CN, Palmer M, Yeo I, Anderson M, Sadeghi AM, Rabenhorst MC. 2020. Seasonal drivers of geographically isolated wetland hydrology in a low-gradient, Coastal Plain landscape. *Journal of Hydrology*. 583(April 2020): 124608. [DOI 10.1016/j.jhydrol.2020.124608](https://doi.org/10.1016/j.jhydrol.2020.124608)
- Leibowitz SG, Mushet DM, Newton WE. 2016. Intermittent surface water connectivity: fill and spill vs. fill and merge dynamics. *Wetlands*. 36: 323-342. [DOI 10.1007/s13157-016-0830-z](https://doi.org/10.1007/s13157-016-0830-z)
- Leibowitz SG, Wigington Jr PJ, Schofield KA, Alexander LC, Vanderhoof MK, Golden HE. 2018. Connectivity of streams and wetlands to downstream waters: an integrated systems framework. *Journal of the American Water Resources Association*. 54(2): 298–322. [DOI 10.1111/1752-1688.12631](https://doi.org/10.1111/1752-1688.12631)
- Mushet DM, Calhoun AJK, Alexander LC, Cohen MJ, DeKeyser ES, Fowler L, Lane CR, Lang MW, Rains MC, Walls SC. 2015. Geographically isolated wetlands: rethinking a misnomer. *Wetlands*. 35:423-431. [DOI 10.1007/s13157-015-0631-9](https://doi.org/10.1007/s13157-015-0631-9)
- Narayan S, Beck MW, Wilson P, Thomas CJ, Guerrero A, Shepard CC, Reguero BG, Franco G, Ingram JC, Trespalacios D. 2017. The value of coastal wetlands for flood damage reduction in the northeastern USA. *Scientific Reports*. 7:9463. [DOI 10.1038/s41598-017-09269-z](https://doi.org/10.1038/s41598-017-09269-z)
- Neff BP, Rosenberry DO, Leibowitz SG, Mushet DM, Golden HE, Rains MC, Brooks JR, Lane CR. 2020. A hydrologic landscapes perspective on groundwater connectivity of depressional wetlands. *Water*. 12(1): 50. [DOI 10.3390/w12010050](https://doi.org/10.3390/w12010050)
- Quinn T, Wilhere GF, Krueger KL, technical editors. 2020. *Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications*. Habitat Program, Washington Department of Fish and Wildlife, Olympia. Available at <https://wdfw.wa.gov/publications/01987>
- Rains MC, Leibowitz SG, Cohen MJ, Creed IF, Golden HE, Jawitz JW, Kalla P, Lane CR, Lang MW, McLaughlin DL. 2015. Geographically isolated wetlands are part of the hydrological landscape. *Hydrological Processes*. 30(1):153–160. <https://doi.org/10.1002/hyp.10610>
- Schofield KA, Alexander LC, Ridley CE, Vanderhoof MK, Fritz KM, Autrey BC, DeMeester JE, Kepner WG, Lane CR, Leibowitz SG, Pollard AI. 2018. Biota connect aquatic habitats throughout freshwater ecosystem mosaics. *Journal of the American Water Resources Association (JAWRA)*. 54(2): 372–399. <https://doi.org/10.1111/1752-1688.12634>
- Stoddard JL, Sickle JV, Herlihy AT, Brahney J, Paulsen S, Peck DV, Mitchell R, Pollard AI. 2016. Continental-Scale Increase in Lake and Stream Phosphorus: Are Oligotrophic Systems Disappearing in the United States? *Environ. Sci. Technol.* 50(7): 3409–3415. [DOI 10.1021/acs.est.5b05950](https://doi.org/10.1021/acs.est.5b05950)
- Thorslund J, Cohen MJ, Jawitz JW, Destouni G, Creed IF, Rains MC, Badiou P, Jarsjö J. 2018. Solute evidence for hydrological connectivity of geographically isolated wetlands. *Land Degradation & Development*. 29(11):3954-3962. [DOI 10.1002/ldr.3145](https://doi.org/10.1002/ldr.3145)
- Vanderhoof MK, Christensen JR, Alexander LC. 2017. Patterns and drivers for wetland connections in the Prairie Pothole Region, United States. *Wetlands Ecology and Management*. 25(3): 275-297. [DOI 10.1007/s11273-016-9516-9](https://doi.org/10.1007/s11273-016-9516-9)

- Vanderhoof MK., Distler HE, Lang MW, Alexander LC. 2018. The influence of data characteristics on detecting wetland/stream surface-water connections in the Delmarva Peninsula, Maryland and Delaware. *Wetlands Ecology and Management*. 26: 63-86. [DOI 10.1007/s11273-017-9554-y](https://doi.org/10.1007/s11273-017-9554-y)
- Yeo I, Lang MW, Lee S, McCarty GW, Sadeghi AM, Yetemen O, Huang C. 2018. Mapping landscape-level hydrological connectivity of headwater wetlands to downstream waters: a geospatial modelling approach - Part I. *Science of The Total Environment*. 653: 1546-1556. [DOI 10.1016/j.scitotenv.2018.11.238](https://doi.org/10.1016/j.scitotenv.2018.11.238)
- Yeo I, Lee S, Lang MW, Yetemen O, McCarty GW, Sadeghi AM, Evenson G. 2019. Mapping landscape-level hydrological connectivity of headwater wetlands to downstream waters: a catchment modeling approach - Part 2. *Science of the Total Environment*. 653: 1557-1570. [DOI 10.1016/j.scitotenv.2018.11.237](https://doi.org/10.1016/j.scitotenv.2018.11.237)

Other known sources for additional references:

1. Earthjustice. Footnotes #65-97, pp 15-25. In “Request for Recommendations: Waters of the United States; Docket ID No. EPA-HQ-OW-2021-0328; Comments of Sierra Club, Puget Soundkeeper Alliance, Idaho Conservation League, and Mi Familia Vota.” (Sept. 3, 2021). Accessed 9/14/21 at <https://www.regulations.gov/comment/EPA-HQ-OW-2021-0328-0257>
2. National Resource Defense Council. Appendix A: Selected Bibliography of Likely Relevant Scientific Literature, 2015-2021, pp 22-28. In “Comment on Docket EPA-HQ-OW-2021-0328: Notice of Public Meetings Regarding ‘Waters of the United States’; Establishment of a Public Docket; Request for Recommendations” (Sept. 3, 2021). Accessed on 9/14/21 at <https://www.regulations.gov/comment/EPA-HQ-OW-2021-0328-0199>
3. Southern Environmental Law Center. Appendix B: Scientific Literature, pp B-1 to B-9. In “Request for Recommendations on Defining ‘Waters of the United States’ Docket No. EPA-HQ-OW-2021-0328.” (Sept. 2, 2021). Accessed on 9/14/21 at <https://www.regulations.gov/comment/EPA-HQ-OW-2021-0328-0079>