



Consortium of Aquatic Science Societies

American Fisheries Society • Association for the Sciences of Limnology and Oceanography
• Coastal and Estuarine Research Federation • Freshwater Mollusk Conservation Society
• International Association for Great Lakes Research • North American Lake Management Society
• Phycological Society of America • Society of Canadian Aquatic Sciences
• Society for Freshwater Science • Society of Wetland Scientists

April 23, 2025

Honorable Lee Zeldin
Administrator
U.S. Environmental Protection Agency

Honorable Robyn S. Colosimo
Assistant Secretary of the Army
Department of the Army, Civil Works

Re: Docket ID No. EPA-HQ-OW-2025-0093

Dear Administrator Zeldin and Assistant Secretary Colosimo:

The Consortium of Aquatic Science Societies (CASS) is pleased to offer comments in response to the Request for Recommendations in Docket ID No. EPA-HQ-OW-2025-0093. CASS is composed of ten professional societies representing almost 20,000 individuals with diverse knowledge, work, and experience in the aquatic sciences. Our members work in the private sector, academia, nongovernmental organizations, and various tribal, state, and federal agencies. We support the development and use of the best-available science to sustainably manage our freshwater, estuarine, coastal, and ocean resources to the benefit of the U.S. economy, environment, and public health and safety.

We appreciate your intent to engage with State and Tribal co-regulators; industry and agricultural stakeholders; environmental and conservation stakeholders; and the public on key topics related to the implementation of the definition of “waters of the United States”¹ in light of the Supreme Court's 2023 decision in *Sackett v. Environmental Protection Agency* that narrowed protection for wetlands to those continuously connected to navigable waters. The EPA estimated this decision may result in the loss of protection of 63% of the Nation’s wetland acres. Recent results from the EPA’s National Wetland Condition Survey estimated 81% of the nation’s existing wetlands were in poor condition.² Ultimately further loss of federal protections will result in continued degradation and loss of these ecosystems. Declining wetland health will have dire consequences for fish, fisheries, wildlife, watersheds, water quality and supply, flood control, as well as the people and economies that rely on them.

We welcome the EPA’s stated commitment to learning from past regulatory approaches—the pre-2015 regulations, the 2015 Clean Water Rule, the 2020 Navigable Waters Protection Rule, the 2023 Rule, and the Amended 2023 Rule—before taking further administrative action on specific aspects of the definition

of “waters of the United States (WOTUS).” These WOTUS waters ultimately dictate the quality and abundance of much of the nation’s drinking water and the health of our aquatic ecosystems. The extent of WOTUS coverage is a vital component in making our water’s truly swimmable and fishable.

The Navigable Waters Protection Rule (NWPR) was finalized by the Environmental Protection Agency and U.S. Army Corps of Engineers and effective in June 2020. It established a very narrow definition of WOTUS under the Clean Water Act (CWA) that resulted in the loss of protections for millions of stream miles and acres of wetlands, including five types of isolated wetlands with ecological value disproportionate to their area.³ To maintain the biological, physical, and chemical integrity of the nation’s waters it has never been more important to protect streams and wetlands that store carbon, provide critical habitat for fish and wildlife, provide flood storage, and maintain downstream water quality and quantity.^{4, 5, 6, 7} The NWPR significantly deviates from previous interpretations of the CWA and largely ignores and oversimplifies science.³

CASS reiterates its strong opposition to the NWPR as inconsistent with over 50 years of scientific research that demonstrates that the integrity of “traditionally navigable” waters fundamentally depends on ephemeral (i.e., flow only after precipitation events), intermittent (i.e., flow seasonally), and perennial (flow year-round) streams, as well as on wetlands located both within (i.e., floodplain wetlands) and outside (i.e., non-floodplain or geographically isolated wetlands) of floodplains.^{3, 8} CASS fully supports the definition of WOTUS in the 2015 Clean Water Rule (CWR)⁹, which was overwhelmingly supported by peer-reviewed science.

The comprehensive Environmental Protection Agency scientific report that accompanied the 2015 CWR, “Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence”⁹, synthesized more than 1,200 peer-reviewed publications. Along with the input from 49 experts

and a 25-member panel of the EPA’s Scientific Advisory Board (SAB), this report provided the technical basis for the 2015 CWR. Substantial additional literature has emerged that reaffirms the report and the 2015 CWR.^{10, 11, 12, 13, 14, 15, 16} We stand by this science.

The loss of protections for our nation’s waters under the NWPR, and any similar rule, threatens fish, fisheries, wildlife, aquatic ecosystems, and the human populations that rely on them and places the highly valued ecosystem services that are derived from these systems in great peril.^{10, 11, 17}

Unlike the 2015 definition of WOTUS that established protection based on the connectivity of waters, the NWPR defined a WOTUS in terms of its direct, consistent surface flows with traditionally navigable waters. This is inconsistent with the full mandate of the CWA and is a critical shortcoming of the NWPR since many waters that play an important part in maintaining ecological integrity flow ephemerally or intermittently and fluctuate substantially throughout any typical year.

Rather than protecting our waters’ integrity, the NWPR would intensify their vulnerability to climate change and extensive and intensive land uses such as agriculture, livestock grazing, forestry, mining, and urbanization.^{6, 17} Climate change is warming rivers, lakes, streams, and wetlands and significantly altering precipitation patterns (both increasing and decreasing precipitation depending on season and location) throughout America and is accelerating and intensifying water-quality problems, altering the functions of aquatic ecosystems, and impacting species’ ranges and survival.¹⁸ These impacts to our nation’s waters extend from small lakes and streams to large rivers like the once perennial Gila, lower Colorado, and Río Grande rivers. These changes are not just theoretical. Scientists are already seeing massive shifts in seasonal flows, stream length, and surface flows from climate change and land use shifts, water withdrawal, and groundwater pumping.^{5, 11}

By length, approximately half of stream channels in the conterminous United States are ephemeral, and

50% of these would no longer be protected under a rule such as the NWPR; thus, at least 25% of the nation's stream channels would lose protection.¹⁹ Removing protections from millions of miles of ephemeral headwater streams will exacerbate the transformation of historically perennial streams and rivers into highly vulnerable intermittent and ephemeral streams and rivers. The NWPR reduced protections across the nation, with some of the strongest impacts in arid areas of the country, such as in many states in the Southwest and Southern Plains. As such, the loss of CWA protections will be most acute where water quantity and quality issues already threaten the sustainability of watersheds and communities.

The NWPR also abandons the bipartisan and long-standing "No Net Loss of Wetlands" national policy, first established by President George H. W. Bush, by excluding non-floodplain wetlands, or wetlands that are not connected at the surface to navigable waters, from CWA protection. Relying on a surface connection of a wetland to navigable waters to establish CWA jurisdiction ignores the important biological and chemical connections with navigable waters that allow these wetlands to play an outsized role in protecting water quality, reducing flooding and pollution, providing fish and wildlife habitat, and storing carbon.^{20, 21}

Science-based Clean Water Act protections and aggressive action to reduce greenhouse gas emissions can help to protect the integrity of aquatic ecosystems, maintain crucial ecosystem services for sequestration and storage of carbon, improve climate resilience, and promote our progress towards the drawdown of carbon from the atmosphere.¹⁸ Land and water-based conservation solutions are a critical part of a multi-faceted effort to sequester carbon, which will help to ensure that our nation's rivers, lakes and streams, forests, grasslands, wetlands, and coastal ecosystems are more resilient to the impacts of climate change.^{21, 22}

With regard to the main issues raised by the agencies for stakeholder feedback, we support following scientifically defensible and hydrologically consistent definitions that can be used consistently to clarify the definition of "the waters of the United States." These definitions, recommendations, and implementations have been provided in detail by our colleagues at the Stroud Water Research Center as a response to this docket and are summarized here:

Relatively Permanent Waters: can be defined as a morphologic feature whose channel or basin, during some portion of a typical year, receives groundwater originating from the adjoining land or introduces water into the water table below or beside the feature. In contrast, an impermanent waterbody (i.e., ephemeral) is a morphologic feature that only conveys the overland flow of water during or immediately after a precipitation event. To prevent misidentification with ephemeral (impermanent) waters, identification should be determined during periods when rain is not falling and when maximum shallow groundwater elevation occurs.

Continuous Surface Water Connections: The issue involved here is whether the word "continuous" refers to a connection in space, time, or both. The Sackett decision noted that "temporary interruptions in surface connection may sometimes occur because of phenomena like low tides or dry spells" which infers that the court will allow for temporal interruptions; however, the court did not explicitly comment on spatial interruptions. Thus, we recommend that an "adjacent, abutting, or touching" wetland is one that, the high-water mark of the jurisdictional waterbody is equivalent to the elevation of the wetland such that a continuous surface water connection can be drawn between them.

Jurisdictional ditches: Depending on their connection to groundwater, ditches can be relatively permanent or ephemeral. A ditch should be considered jurisdictional if it meets the definition of a relatively permanent water body (above). Ditches that represent modified or replacement of previously

existing permanent water bodies should retain their jurisdictional status.

We urge you to quickly establish a science-based definition of WOTUS that will allow the CWA to fulfill its mandate to restore and maintain the chemical, physical, and biological integrity of the nation's waters. We ask for your continued leadership in working towards significant reductions in greenhouse gas emissions to avoid the worst impacts of climate change on fish, wildlife, aquatic resources including wetlands, and the communities that depend on them. We look forward to working together on these critically important issues.

Thank you for this opportunity to provide feedback on issues pertaining to the implementation of the definition of the waters of the United States.

Sincerely,

American Fisheries Society
Association for the Sciences of Limnology and Oceanography
Coastal and Estuarine Research Federation
Freshwater Mollusk Conservation Society
International Association for Great Lakes Research
North American Lake Management Society
Phycological Society of America
Society for Freshwater Science
Society of Wetland Scientists

¹ U.S. Env't Prot. Agency, Policy Webinar: Updates on the Definition of "Waters of the United States," 24:09-24:18, YOUTUBE (Sept. 12, 2023, 03:00 PM EST), <https://www.youtube.com/watch?v=lcCVelsAy2c> [https://perma.cc/67GC-TTY2].

² U.S. Env't Prot. Agency. 2021. National Wetlands Condition Assessment 2021 Key Findings. <https://www.epa.gov/national-aquatic-resource-surveys/national-wetlands-condition-assessment-2021-key-findings>

³ Sullivan, S. M. P., M. C. Rains, A. D. Rodewald, W. W. Buzbee, and A. D. Rosemond. 2020. Distorting science, putting water at risk. *Science* 369:766–768.

⁴ Bradshaw, J. A., P. R. Erlich, A. Beattie, G. Ceballos, E. Crist, J. Diamond, R. Dirzo, A. H. Ehrlich, J. Harte, M. E. Harte, G. Pyke, P. H. Raven, W. J. Ripple, F. Saltré, C. Turnbull, M. Wackernagel, and D. T. Blumstein. 2021. Underestimating the challenges of avoiding a ghastly future. *Frontiers in Conservation Science* 1:615419.

⁵ Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). 2019. Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. IPBES secretariat, Bonn, Germany.

⁶ Ripple, W. J., C. Wolf, T. M. Newsome, P. Barnard, and W. R. Moomaw. 2020. World scientists' warning of a climate emergency. *Bioscience* 7:8–12.

⁷ American Fisheries Society, American Institute of Fishery Research Biologists, American Society of Ichthyologists and Herpetologists, American Water Resources Association, Asian Fisheries Society, Asociación de Oceanólogos de México, A. C., Asociación Internacional de Hidrogeólogos - México Chapter et al. 2020. Statement of world aquatic scientific societies on the need to take urgent action against human-caused climate change, based on scientific evidence. Available: <https://climate.fisheries.org/world-climate-statement/>. (February 2021).

⁸ Letter from the Consortium of Aquatic Sciences to Administrator Wheeler and Assistant Secretary James re: scientific societies' comments on proposed rule - revised definition of "waters of the United States" (84 FR 4154; Docket ID No. EPA-HQOW-2018-0149). Available: https://www.esa.org/wp-content/uploads/2019/04/2019_4_10-Science-Societies-WOTUS-Letter-Final.pdf. (February 2021). ⁹ U.S. Army Corps of Engineers and U.S. Environmental Protection Agency. 2015. Clean water rule: definition of "waters of the United States." *Federal Register* 80(29 June 2015):37054.

⁹ U.S. Environmental Protection Agency. 2015. Connectivity of streams and wetlands to downstream waters: a review and synthesis of the scientific evidence (final report). U.S. Environmental Protection Agency, EPA/600/R-14/475F, Washington, D.C. ¹⁰ Cohen, M. J., I. F. Creed, L. Alexander, N. B. Basu, A. J. K. Calhoun, C. Craft, E. D'Amico, E. DeKeyser, L. Fowler, H. E. Golden, J. W. Jawitz, P. Kalla, L. K. Kirkman, C. R. Lane, M. Lang, S. G. Leibowitz, D. B. Lewis, J. Marton, D. L. McLaughlin, D. M. Mushet, H. Raanan-Kiperwas, M. C. Rains, L. Smith, and S. C. Walls. 2016. Do geographically isolated wetlands influence landscape functions? *Proceedings of the National Academy of Sciences of the United States of America* 113:1978–1986.

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