



Alaska Chapter
American Fisheries Society
1614 Tanaga Ave.
Kenai, AK 99611

The Honorable Lee Zeldin, Administrator, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW Washington, DC 20460

The Honorable Adam Telle, Assistant Secretary of the Army for Civil Works, U.S. Department of the Army, 108 Army Pentagon Washington, DC 20310

RE: Comments on the Supplemental Notice of Proposed Rulemaking, "Updated Definition of 'Waters of the United States'" (91 Fed. Reg. 57284, September 9, 2026); Docket ID No. EPA-HQ-OW-2025-0322

10/1/2026

Dear Administrator Zeldin and Assistant Secretary Telle:

The Alaska Chapter of the American Fisheries Society (Alaska Chapter AFS) is a professional organization of individuals interested in maintaining high standards for the fisheries profession and ensuring conservation of Alaska's fisheries. Organized in 1974, the Alaska Chapter currently has over 200 members and provides continuing education, fisheries science development, and communication opportunities through annual meetings and ad hoc committees. Our members work in Tribal, state, and federal agencies, academic institutions, and the private sector, and they study, manage, and depend on the streams, lakes, and wetlands that sustain Alaska's commercial, sport, personal use, and subsistence fisheries. The chapter raised many of the concerns below in its April 2019 comments on the prior proposed definition, including the treatment of streams that are frozen for much of the year and wetlands underlain by permafrost (Alaska Chapter AFS 2019).

The Alaska Chapter AFS opposes the supplemental regulatory options that would define "perennial," limit "relatively permanent" waters to perennial waters, require perennial surface water for a "continuous surface connection," and delete the definition of "adjacent." By the agencies' own assessment, most intermittent streams and the majority of wetlands now jurisdictional as adjacent wetlands would fail these tests, and the forgone benefits would exceed those of the November 2025 proposal (91 Fed. Reg. at 57297 to 57298). In Alaska, the consequences would be greater still, because the supplemental regulatory options were written without accounting for a northern climate.

Winter is not a dry spell. The supplemental regulatory option would define "perennial" as "having standing or continuously flowing water every day of the year during ordinary conditions" (91 Fed. Reg. at 57288). A water that goes dry would keep its perennial status in only two cases: when the cause is an unusual ("anomalous") event such as drought, or when the cause is an ordinary, expected ("non-anomalous") event, such as low tide or a regularly occurring dry spell, that happens no more than once a year and lasts no more than 30 consecutive days (91 Fed. Reg. at 57288). The notice does not address freezing. It does not say whether ice is standing water, whether flow beneath

ice is continuous flow, or how a stream frozen to its bed would be treated. Across much of Alaska, streams are ice-covered for months each year. Small streams can freeze completely, and Arctic rivers often freeze to the bottom (Fukás 2023; USGS 2019), while others carry winter flow only beneath the ice or through streambed gravels. Freeze-up is regular and predictable, so it is not an anomalous event, and it lasts far longer than 30 days. As written, the options could exclude much of Alaska's small-stream network on the basis of a season that occurs every year. The "single period" limit compounds the problem. By the agencies' own example, two 10-day interruptions in one year would end jurisdiction (91 Fed. Reg. at 57288), so a stream that freezes in winter and also drops to low flow in late summer would fail even if each interruption were short. The notice also states that members of the public could determine jurisdiction "simply by observation, without the need for any further analysis or professional consultation" (91 Fed. Reg. at 57290 to 57291), yet flow beneath ice and snow cannot be observed by eye for much of the year.

The 30-day threshold has no scientific basis. The agencies acknowledge that "there are no precise, scientifically-grounded, nationally consistent time limits" for the duration of temporary interruptions, and they propose 30 days, "roughly the length of a month," as a bright line that would be "predictable, transparent, and easy to administer" (91 Fed. Reg. at 57290). The agencies ask whether a different numerical threshold would be more appropriate (91 Fed. Reg. at 57288, 57290). No single national number can be appropriate, because streams in different regions go dry or freeze for very different lengths of time. EPA's own review of the scientific literature concluded that streams, including those that flow only intermittently or ephemerally, are physically, chemically, and biologically connected to downstream waters (USEPA 2015). A fixed cutoff or "bright line" adopted for administrative convenience, applied uniformly from the Southwest to the Arctic, cannot reflect the chemical, physical, and biological connections the Clean Water Act exists to protect.

Seasonal and small headwater streams are critical salmon habitat. Juvenile coho, Chinook, and sockeye salmon, along with Dolly Varden, rainbow trout, and Arctic grayling, rear in small tributaries, side channels, beaver ponds, and seasonally flowing streams. Headwater streams and wetlands supply the water, nutrients, invertebrate prey, and cold groundwater inflow that downstream fisheries depend on (Colvin et al. 2019). Research by the Kachemak Bay National Estuarine Research Reserve in the Kenai Lowlands has documented thousands of juvenile salmon rearing for multiple years in small headwater streams sustained by groundwater and adjacent wetlands (KBNERR 2019; King et al. 2012; Callahan et al. 2015). Streams like these could easily be excluded under a perennial surface-flow test.

The wetland options ignore how Alaska's wetlands function. Alaska contains more than half of the nation's wetland area (Hall et al. 1994). Much of it lies in permafrost landscapes, peatlands, glacial outwash plains, and the deltas of the Yukon, Kuskokwim, and Bristol Bay drainages. These wetlands are typically saturated rather than covered by standing water, and they are frozen for much of the year. They connect to rivers and

lakes through shallow groundwater, seasonal flooding, and meltwater flow during spring and summer thaw. Under the supplemental option, a wetland would be protected only where year-round surface water joins it to the adjacent river or lake so completely that it is "difficult to determine where the jurisdictional water ends and the wetland begins," and only that portion of the wetland would be protected (91 Fed. Reg. at 57294). That standard would exclude most of Alaska's wetlands. The agencies have already acknowledged this for permafrost wetlands, even under the weaker wet-season standard proposed in November 2025. Their Regulatory Impact Analysis for that proposal anticipates that "not many wetlands in permafrost areas in Alaska would likely meet" the wet-season standard, and that "few wetlands would be found to be adjacent in those areas of the State," where under current practice "there may be many acres of continuous permafrost wetlands" protected as adjacent wetlands (RIA p. 17). A perennial standard would push this loss further, and deleting the definition of "adjacent" (91 Fed. Reg. at 57295) would compound it. These wetlands store and filter water, moderate floods and low flows, and provide rearing and overwintering habitat for fish.

The drought provision assumes a stable climate that Alaska does not have. Under the supplemental option, only extreme or exceptional drought would count as anomalous, and a drought lasting more than five years would become "the new normal," after which affected waters would lose jurisdiction (91 Fed. Reg. at 57290 to 57291, 57294 to 57295). Alaska's hydrology is changing directionally as permafrost thaws, glaciers recede, and drainage patterns shift (Schoen et al. 2017; Box et al. 2019), and river ice seasons are shortening as breakup comes earlier (Fukš 2023). A framework that converts sustained change into loss of protection would remove oversight precisely when and where waters are most stressed.

Alaska's losses are acknowledged but not measured. The agencies anticipate that few permafrost wetlands in Alaska would remain jurisdictional (RIA p. 17), yet they "did not conduct national level analyses" of the proposed rule's effects (RIA p. 22), and the stream estimates in the supplemental notice cover only the contiguous United States (91 Fed. Reg. at 57297). The supplemental notice names the arid West as the region most affected (91 Fed. Reg. at 57297 to 57298) and does not mention Alaska, frozen waters, or permafrost. The agencies should not finalize definitions that remove protection from much of the state holding more than half of the nation's wetlands without measuring and disclosing what would be lost.

Alaska has no backstop for waters that lose federal protection. The notice states that States and Tribes would be free to regulate waters that fall outside federal jurisdiction, and it requests comment on how States, Tribes, and the public have relied on the current rules, which it calls "reliance interests" (91 Fed. Reg. at 57290, 57292). Alaska has not assumed the Section 404 program and has no general state dredge-and-fill permit program (ADEC 2026). The State's Anadromous Fish Act protects only waters documented in the Anadromous Waters Catalog (AS 16.05.871). The catalog lists almost 20,000 water bodies, a number the Alaska Department of Fish and Game believes "represents a fraction of the streams, rivers, and lakes actually used by

anadromous species" (ADF&G 2026). Because of their remote location, small size, or seasonal nature, most of the small streams salmon use have never been surveyed or cataloged. Waters dropped from federal jurisdiction would, in many cases, have no meaningful protection at any level of government. Alaskans have relied on federal protection of these waters for decades, and that reliance interest deserves weight.

The stakes for Alaskans are high. Alaska's commercial seafood industry directly employed about 48,000 workers and generated \$6.0 billion in annual economic output and \$2.3 billion in labor income in Alaska in 2021 and 2022, and \$15.8 billion in economic output nationwide (McKinley Research Group 2024). The Bristol Bay sockeye fishery, the largest in the world, accounted for half of the ex-vessel value of Alaska's 2022 salmon harvest (McKinley Research Group 2024), and in 2019 Bristol Bay salmon generated an estimated \$2 billion in economic activity and supported about 15,000 jobs (McKinley Research Group 2021). Sport fishing adds substantially to this. The most recent statewide estimate, for 2007, placed its economic output at \$1.6 billion, supporting more than 15,000 jobs (Southwick Associates et al. 2008). Rural Alaskans harvest about 34 million pounds of wild foods each year, more than half of it fish and about a third of it salmon (Fall 2018), and many communities depend on these resources for food security where imported food and fuel are costly.

The process does not allow meaningful input from those most affected. The 30-day comment period (91 Fed. Reg. at 57284) coincides with the end of the fall harvest season, when many rural and Alaska Native residents are occupied with fishing, hunting, and processing. Tribal consultation on this rulemaking took place from March through June 2025, before either the November 2025 proposal (90 Fed. Reg. 52498) or the supplemental options were published, and the consultation record lists no session specific to Alaska (Tribal Consultation Report). Alaska's 229 federally recognized Tribes hold detailed knowledge of how the state's waters connect across seasons, and we found no record that they have been consulted on the supplemental options that would apply to them.

We recommend that the agencies:

1. Reject both proposed definitions of "perennial" and the perennial-based definitions of "relatively permanent" and "continuous surface connection";
2. Retain the definition of "adjacent" and reject the alternative limiting jurisdiction to wetlands "indistinguishably part of" a jurisdictional water;
3. If any flow-duration standard is adopted, expressly state that seasonal ice cover, freeze-up, and flow beneath ice or through streambed gravels do not interrupt jurisdiction, and rely on regionally appropriate methods rather than a single national threshold, such as the seasonal-flow approach the agencies implemented for years under the pre-2015 regulatory regime (91 Fed. Reg. at 57287);
4. Recognize saturation and physical connection, not only perennial inundation, in assessing wetland connections;

5. Complete an Alaska-specific, quantitative analysis of the effects of any final definitions on streams and wetlands; and
6. Extend the comment period by at least 60 days and consult directly with Alaska Tribes on the supplemental options.

The objective of the Clean Water Act is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (33 U.S.C. 1251(a)). Definitions built around dry spells and low tides, applied to Alaska's frozen, dynamic, and largely unmapped watersheds, cannot meet that objective. We urge the agencies to withdraw the supplemental options and develop a rule grounded in the best available science on stream and wetland connectivity.

Thank you for the opportunity to comment.

Sincerely,

Andy Seitz,

President

On behalf of the Alaska Chapter of the American Fisheries Society

Literature Cited

- 90 Fed. Reg. 52498 (November 20, 2025). Updated Definition of "Waters of the United States." Proposed rule.
- 91 Fed. Reg. 57284 (September 9, 2026). Updated Definition of "Waters of the United States." Supplemental notice of proposed rulemaking.
- Alaska Chapter of the American Fisheries Society (Alaska Chapter AFS). 2019. Comments on "Revised Definition of 'Waters of the United States,'" 84 Fed. Reg. 4154. Docket ID No. EPA-HQ-OW-2018-0149. April 15, 2019.
- Alaska Department of Environmental Conservation (ADEC). 2026. Alaska's CWA Sec. 404 dredge and fill permitting program development. <https://dec.alaska.gov/water/wetlands-404/> Accessed September 30, 2026.
- Alaska Department of Fish and Game (ADF&G). 2026. Anadromous Waters Catalog: overview. Division of Sport Fish. <https://www.adfg.alaska.gov/sf/SARR/AWC/index.cfm?ADFG=main.home> Accessed September 30, 2026.
- Box, J.E., et al. 2019. Key indicators of Arctic climate change: 1971-2017. *Environmental Research Letters* 14:045010. <https://doi.org/10.1088/1748-9326/aafc1b>
- Callahan, M.K., M.C. Rains, J.C. Bellino, C.M. Walker, S.J. Baird, D.F. Whigham, and R.S. King. 2015. Controls on temperature in salmonid-bearing headwater streams in two common hydrogeologic settings, Kenai Peninsula, Alaska. *Journal of the American Water Resources Association* 51(1):84-98.
- Colvin, S.A.R., et al. 2019. Headwater streams and wetlands are critical for sustaining fish, fisheries, and ecosystem services. *Fisheries* 44(2):73-91.
- Fall, J.A. 2018. Subsistence in Alaska: a year 2017 update. Alaska Department of Fish and Game, Division of Subsistence, Anchorage. https://www.adfg.alaska.gov/static/home/subsistence/pdfs/subsistence_update_2017.pdf
- Fukś, M. 2023. Changes in river ice cover in the context of climate change and dam impacts: a review. *Aquatic Sciences* 85:113. <https://doi.org/10.1007/s00027-023-01011-4>
- Hall, J.V., W.E. Frayer, and B.O. Wilen. 1994. Status of Alaska wetlands. U.S. Fish and Wildlife Service, Alaska Region, Anchorage.
- Kachemak Bay National Estuarine Research Reserve (KBNERR). 2019. Annotated headwater stream research review. <https://accs.uaa.alaska.edu/kbnerr/publications/>
- King, R.S., C.M. Walker, D.F. Whigham, S.J. Baird, and J.A. Back. 2012. Catchment topography and wetland geomorphology drive macroinvertebrate community structure and juvenile salmonid distributions in south-central Alaska headwater streams. *Freshwater Science* 31(2):341-364.
- McKinley Research Group. 2021. The economic benefits of Bristol Bay salmon. Prepared for the Bristol Bay Defense Fund. February 2021.

- McKinley Research Group. 2024. The economic value of Alaska's seafood industry. Prepared for the Alaska Seafood Marketing Institute. April 2024.
- Schoen, E.R., et al. 2017. Future of Pacific salmon in the face of environmental change: lessons from one of the world's remaining productive salmon regions. *Fisheries* 42(10):538-553.
- Southwick Associates, Inc., W.J. Romberg, A.E. Bingham, G.B. Jennings, and R.A. Clark. 2008. Economic impacts and contributions of sportfishing in Alaska, 2007. Alaska Department of Fish and Game, Professional Publication No. 08-01, Anchorage.
- U.S. Environmental Protection Agency (USEPA). 2015. Connectivity of streams and wetlands to downstream waters: a review and synthesis of the scientific evidence. EPA/600/R-14/475F. Washington, D.C.
- U.S. Environmental Protection Agency and Department of the Army. 2025a. Regulatory Impact Analysis for the Proposed Updated Definition of Waters of the United States Rule. November 2025. Docket ID No. EPA-HQ-OW-2025-0322-0120. Cited in text as "RIA."
- U.S. Environmental Protection Agency and Department of the Army. 2025b. Summary Report of Tribal Consultation and Engagement for the Proposed Updated Definition of "Waters of the United States" Rule. November 2025. Docket ID No. EPA-HQ-OW-2025-0322. Cited in text as "Tribal Consultation Report."
- U.S. Geological Survey (USGS). 2019. Winter habitat of juvenile Dolly Varden in the Canning River. Alaska Science Center. May 6, 2019. <https://www.usgs.gov/centers/alaska-science-center/science/winter-habitat-juvenile-dolly-var-den-canning-river>