STATE CAPITOL
P.O. Box 110001
Juneau, AK 99811-0001
907-465-3500
fax: 907-465-3532

550 West Seventh Avenue, Suite 1700
Anchorage, AK 99501
907-269-7450
fax 907-269-7461
www.Gov.Alaska.Gov
Governor@Alaska.Gov

Governor Sean Parnell
STATE OF ALASKA

November 14, 2014

The Honorable Gina McCarthy
Administrator
Environmental Protection Agency
USEPA Headquarters
Ariel Rios Building
1200 Pennsylvania Ave, NW
Washington, D.C. 20460

The Honorable John M. McHugh
Secretary
Department of the Army
101 Army Pentagon
Washington, DC 20310-0101

Water Docket
U.S. Environmental Protection Agency
Mail Code: 2822T
1200 Pennsylvania Ave, NW
Washington, DC 20460

Re: State of Alaska's Comments in Response to the Proposed Rule Defining "Waters of the United States" Under the Clean Water Act; **Docket # EPA–HQ–OW–2011–0880**

Dear Administrator McCarthy and Secretary McHugh,

Enclosed are the State of Alaska's comments in response to the Environmental Protection Agency's (EPA) and the U.S. Army Corps of Engineers' (Corps) proposed rule attempting to define the scope of federal jurisdiction under the Clean Water Act. The proposed rule would significantly expand federal jurisdiction under the Act, unlawfully subjecting nearly all waters and wetlands in Alaska and across the nation to regulation by the EPA and the Corps.

The proposed rule will not only federalize land use decisions for State, local, and private lands, it will, under threat of steep civil and criminal penalties, force owners or developers of these lands to pay to use them through costly mitigation requirements. The escalating costs of mitigation demanded by the federal agencies are spiraling out of control, hampering important development in both the public and private sectors. Moreover, EPA and the Corps have not meaningfully consulted with the states on a matter which implicates significant infringement on states' rights and responsibilities in matters of land and water resource management and use.

The State of Alaska, like many others, asks that you withdraw the proposed rule.

Sincerely,

Sean Parnell
Governor

cc: The Honorable Lisa Murkowski, United States Senate
The Honorable Mark Begich, United States Senate
The Honorable Don Young, United States House of Representatives
Jo Ellen Darcy, Assistant Secretary of the Army (Civil Works)
Ken Kopocis, Deputy Assistant Administrator, Office of Water, Environmental Protection Agency
Kip Knudson, Director of State and Federal Relations, Office of the Governor

THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Environmental Conservation

OFFICE OF THE COMMISSIONER

Post Office Box 111800
410 Willoughby Avenue, Suite 303
Juneau, Alaska 99811-1800
Main: 907.465.5066
Fax: 907.465.5070

November 14, 2014

Via Email & Certified First Class Mail

Ms. Gina McCarthy
Administrator
Environmental Protection Agency
USEPA Headquarters
Ariel Rios Building
1200 Pennsylvania Ave, NW
Washington, D.C. 20460
Mccarthy.gina@epa.gov

Mr. John M. McHugh
Secretary
Department of the Army
101 Army Pentagon
Washington, DC 20310-0101

Water Docket
U.S. Environmental Protection Agency
Mail Code: 2822T
1200 Pennsylvania Ave, NW
Washington, DC 20460
OW-Docket@epa.gov

Re: State of Alaska's Comments in Response to the Proposed Rule Defining "Waters of the United States" Under the Clean Water Act; **Docket # EPA–HQ–OW–2011–0880**

Dear Administrator McCarthy and Secretary McHugh:

On behalf of the State of Alaska (State), we submit the following comments on the proposed rule for the Definition of "Waters of the United States" under the Clean Water Act, (Docket No. EPA-HQ-OW-2011-0880), publicly noticed by the Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers (Corps) on April 21, 2013 (79 Fed. Reg. 22,188).[1] The State believes that the proposed rule unlawfully expands federal authority under the Clean Water Act (CWA). Congress specifically recognizes, preserves, and protects under

[1] The State has also joined in supporting other comments on the proposed rule, including an October 8, 2014 letter signed by the attorneys general and governors of several states, including Alaska Attorney General Michael Geraghty. Other states joining on the letter were West Virginia, Nebraska, Oklahoma, Alabama, Georgia, Kansas, Louisiana, North Dakota, South Carolina, South Dakota, Iowa, Mississippi, Nebraska, and North Carolina. The October 8 letter sets forth in detail many legal and procedural concerns regarding EPA and the Corps' development of the proposed rule. Those comments are expressly incorporated herein by reference. Further, the State's comments are applicable to all aspects of the proposed rule, both the preamble and the 11 sections of the Code of Federal Regulations (CFRs) that are proposed for revision.

Section 101(b)[2] of the act, the "primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, [and] to plan the development and use (including restoration, preservation, and enhancement) of land and water resources" within their respective state borders. Notwithstanding, under the proposed rule, EPA and the Corps seek to sweep up essentially all waters and wetlands under CWA jurisdiction, except in very limited circumstances, infringing on states' land and water management rights and responsibilities. As described below, if the proposed rule is finalized, it will lead to severe regulatory and economic consequences. The State also believes there are critical flaws with the economic analysis and the scientific and technical rationales upon which EPA and the Corps rely for the proposed rule.

Alaska's unique circumstances compel it to press for clarity on the question of what waters (including wetlands) are subject to CWA requirements. Alaska has more coastline than the entire conterminous United States, over three million lakes greater than five acres in size, and over 15,000 water bodies that are known to support resident or anadromous fish.[3] At least one inventory estimates that Alaska has over 174 million acres of wetlands, more wetlands than all other states combined. These wetlands comprise approximately 43 percent of the surface area of the State.[4] While not all of these waters are jurisdictional under the CWA, Alaska has long protected these important resources under several statutory and regulatory authorities.

EPA and the Corps appear to assume waters, no matter how attenuated their connection is to downstream traditionally navigable waters, will have no protection. This is incorrect and disregards the regulatory role of the states. In Alaska, our laws prohibit all discharges to lands or waters of the state, unless permitted. We do not have to make a determination whether a land or water is under State jurisdiction and so avoid the problems associated with federal CWA jurisdictional determinations.

Thus, for years the State has advocated for a collaborative rulemaking on the issue of CWA jurisdiction, and appreciates that the federal agencies are undertaking formal rulemaking rather than guidance for this important matter. However, the State joins with several other commenters in asking EPA and the Corps to withdraw the currently proposed rule, as it is devoid of any meaningful consultation and input from the states. Moreover, the so-called "Connectivity Report" that EPA and the Corps developed to support the proposed rule was neither finalized nor peer reviewed before the proposed rule was developed and published. The report is also biased toward justifying the rulemaking, rather than approaching the jurisdictional question from an objective position, and likewise was developed without consultation with the states.[5] Further, rather than recognizing that the CWA places limitations on jurisdiction under the act, EPA is misconstruing the act and Supreme Court precedent to significantly expand CWA jurisdiction, violating the limits of Congress'

---

[2] 33 U.S.C. 1251(b).

[3] Alaska Department of Fish and Game, *Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes*, available at: http://www.adfg.alaska.gov/sf/SARR/AWC/index.cfm?ADFG=main.overview.

[4] *Id.*

[5] The State, knowing that the federal agencies were going to heavily rely on the report to support the rule and also concerned about inadequacies with the report, sent a representative to testify on the report at the SAB proceedings in Washington, D.C., as well as submitted detailed written comments on the draft report.

Commerce Clause authority. A rulemaking such as this must comply with constitutional, statutory, procedural, and technical requirements and be conducted in an open and transparent process, not in a rushed manner where only federal regulators and members of academia steer the results.

The State's comments probe a wide range of issues raised by the proposed rule, including the following:

- **Impermissible Expansion of Jurisdiction.** The proposed rule would expand federal jurisdiction over large areas of Alaska, contrary to the CWA and Supreme Court precedent. Rather than tying jurisdiction to navigable waters, as Congress intended and as the Commerce Clause supports for assertion of federal authority, EPA and the Corps focus instead on connections, regardless of significance, to unreasonably construe Justice Kennedy's "significant nexus test" in such a way as to eliminate the navigability requirement for jurisdiction in its entirety from the CWA. In short, EPA and the Corps' recasting of the significant nexus test to sweep up nearly all waters and wetlands in the United States vitiates the fundamental prerequisite for federal jurisdiction under the CWA – a water's navigability.
- **Failure to Consult with States.** In contravention of federalism principles, CWA requirements, and Executive Order 13132, EPA and the Corps failed to embark on meaningful consultation with states in the promulgation of the proposed rule.
- **Increased Uncertainty.** The rulemaking, rather than clarifying jurisdiction, creates uncertainty, by introducing new terms and new definitions that only add confusion to implementation of the CWA, especially since the rule is intended to create jurisdiction across the entire act, not just Section 404. Indeed, the expansive "catch all" contemplated by the term "other waters" creates so much uncertainty about what waters are covered and what are not, no landowner would venture – at the risk of federal enforcement action or third party suit – to develop his or her property without first obtaining a jurisdictional determination, even though federal jurisdiction under the CWA is limited.
- **Muddled Process and Failure to comply with the Administrative Procedure Act (APA).** The proposed rule is based on the Connectivity Report, which was developed without consultation with state, local, or tribal governments, or industry. The report has not been completed, and lacks regional examples, including for Alaska. Yet, EPA has inexplicably pressed forward with its rulemaking. The rulemaking must be founded on a reasonable schedule, explore all potential consequences to the federal and state agencies, as well as the regulated community.
- **Failure to Afford Due Process.** The proposed rule provides no mechanism for judicially challenging affirmative jurisdictional determinations before other CWA requirements are imposed. ***Any*** rulemaking on the jurisdictional issue must allow regulated entities and states the opportunity to administratively and judicially challenge an affirmative jurisdictional determination ***before*** other CWA requirements are imposed. In light of the expensive, time-consuming and punitive consequences flowing from affirmative jurisdictional determinations, the rulemaking must – based on principles of due process and to avoid infringing upon states' regulatory authorities – allow jurisdictional determinations to be challenged.
- **Failure to Include State Regulatory Experts on Science Advisory Board (SAB) Peer Review Panel.** The peer review panel convened by the SAB to review the draft Connectivity Report was made up entirely of representatives from academia, creating a built-in bias toward expansive federal jurisdiction with limited relevance to a regulatory solution.
- **Disregard and Underestimation of Significant Economic Costs.** Economic analysis for the proposed rule does not adequately consider the significant cost of implementing the proposed rule. Costs to

comply with the rule divert funding from state and federal regulatory programs already in place, and place an unreasonable burden on private and public development projects for which there is little risk of impacting downstream, traditionally navigable waters. Increases in compliance and transactions costs include consulting contracts, compensatory mitigation, post-construction costs, and liabilities that are foreseeable. EPA and the Corps fail to adequately investigate and disclose what fiscal impacts implementation of this program will have on both state and federal agencies. The rule is an unfunded mandate in terms of its implementation, both for state regulatory agencies, state-funded public construction projects, and for the court system.

- **Increased Potential for Citizen Suits.** Because the proposed rule would sweep up nearly all waters and wetlands located throughout the United States under a variety of CWA provisions, not just the Section 404 program, it is likely to lead to a significant increase in citizen suits against the federal agencies, states, and public and private entities. EPA and the Corps fail to address this potential. If anything about the rule is certain, it is that it will result in an enormous proliferation of citizen suits, facilitating litigation that will likely be driven in large part by political agendas, rather than supported by any credible science.

I. Legal & Procedural Issues

A. Although federal jurisdiction under the CWA is limited, EPA and the Corps seek to impose expansive jurisdiction through the proposed rule.

With the proposed rulemaking, EPA and the Corps start from the premise that there is broad federal jurisdiction under the CWA, that the majority of waters and wetlands in the United States qualify as "waters of the U.S.," waters which would, in turn, be subject to CWA regulatory requirements, including Section 402 and 404 permitting requirements. The proposed rule assumes expansive jurisdiction by declaring most waterbodies and wetlands are jurisdictional. At the same time, the rule creates uncertainty through the proposed definitions of three key terms because landowners will wonder whether they can ever seek to develop or use their property without obtaining a jurisdictional determination.

First, except for limited exceptions, the term "tributary" requires only three criteria (bed, bank, and ordinary high water mark (OHWM) to qualify as a water of the U.S., including any flow, all natural or manmade features (e.g., ditches and culverts), and wetlands, lakes and ponds. Second, the term "adjacent," which heretofore has been applicable only to wetlands, will now include non-wetlands found in vaguely defined "riparian areas" and "floodplains," and relies on such new concepts as "shallow subsurface hydrologic connections" to assert jurisdiction over water features. Third, the new term "other waters" serves as a catchall, which also allows aggregation of similarly situated waters within a watershed. Thus, from a starting premise, the rule presumes far-reaching, rather than limited, federal jurisdiction. It also is unclear which waters would remain under the State's sole regulatory control.

However, closer examination of both the CWA and relevant Supreme Court case law reveal that there are important side bars on the extent of federal jurisdiction and the waters covered by the act. As noted at the

outset of this letter, under Section 101(b), as well as Section 510,[6] of the act, Congress intended for states to retain the primary rights and responsibilities for land and water uses within their boundaries, including the application of measures to minimize environmental impacts from any uses. Moreover, as both Congress intended and the Supreme Court has held, a key aspect of federal jurisdiction rests on the navigability of covered waters, because a water's navigability supports Congress' assertion of commerce clause authority over "waters of the U.S."[7] Non-navigable tributaries directly flowing into navigable waters may also be covered, and wetlands immediately abutting navigable waters may also be jurisdictional.[8] However, the Supreme Court has also twice held that there are limits to federal authority, that a water's navigability is still a key factor, and that waters and wetlands more remotely removed from traditionally navigable waters or which have insignificant impact on down-stream waters are not jurisdictional, even if they are connected or there may be some seasonal flow.

In *Solid Waste Agency of Northern Cook County v. Army Corps of Engineers (SWANCC)*,[9] the Supreme Court considered whether the Corps could assert jurisdiction over dredge and fill activities impacting isolated ponds, by virtue of the Corps' so-called Migratory Bird Rule, because migratory birds occasionally used those waters as habitat. The Court found the Corps' assertion of jurisdiction exceeded its authority, because navigable waters did not include "nonnavigable, isolated intrastate waters" such as the seasonal ponds at stake in the case.[10]

Key conclusions reached by the Court in *SWANCC* rested on the doctrine that "[w]here an administrative interpretation of a statute invokes the outer limits of Congress' power, we expect a clear indication that Congress intended such a result." The Court stated this was particularly a concern in *SWANCC* because unbounded assertion of jurisdiction "altered the federal-state framework by permitting federal encroachment upon a traditional state power."[11] By extending the Corps' jurisdiction to isolated ponds, the Corps' action raised "significant constitutional questions" regarding Congress' constitutional authority, and yet there was no clear statement by Congress that it sought to assert such broad authority.[12] Indeed, Congress expressed an intent to limit such authority, by recognizing, preserving, and protecting for the states their respective traditional authorities.[13]

Later, in *Rapanos v. United States*,[14] a case focusing on whether federal jurisdiction over several wetlands adjacent to non-navigable tributaries was appropriate, the Supreme Court, through separate opinions, announced two tests for determining whether federal jurisdiction was appropriate. Justice Scalia, writing for four justices in the plurality opinion, held that waters of the U.S. are only those that are "relatively permanent,

---

6 33 U.S.C. § 1370.
7 33 U.S.C. § 1344 and § 1362(7).
8 *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121 (1985).
9 531 U.S. 159 (2001).
10 *Id*. at 171.
11 *Id*. at 172.
12 *Id*.
13 *Id*.
14 547 U.S. 715 (2006).

standing or continuously flowing bodies of water" and secondary waters, which have a "continuous surface connection" to relatively permanent waters.[15] "Wetlands with only an intermittent, physically remote hydrological connection to 'waters of the United States'…lack the necessary connection to covered waters."[16]

Justice Kennedy, while holding with the majority that federal jurisdiction under the CWA was limited, found that jurisdiction should be based on a "significant nexus," that jurisdiction is only appropriate over "waters that are navigable in fact or that could reasonably be made so," or secondary waters that have a significant nexus to in-fact navigable waters.[17] Under this test, Justice Kennedy (writing only for himself) stated that a significant nexus exists only where the wetlands, "alone or in combination with similarly situated lands in the region," "significantly affected the chemical, physical, ***and*** biological integrity of other covered waters understood as navigable in the traditional sense."[18] Justice Kennedy rejected the federal assertion of broad authority because it "would permit federal regulation whenever wetlands lie alongside a ditch or drain, however remote and insubstantial" to a traditionally navigable water.[19]

EPA and the Corps acknowledge[20] that *SWANCC* and *Rapanos* reduce the historic scope of jurisdiction that the federal agencies previously asserted under the CWA. However, instead of recognizing the foregoing limits on federal authority, through their rulemaking, EPA and the Corps construe the most expansive, essentially boundless interpretation of federal jurisdictional authority possible, even beyond what they historically sought to assert.

B. EPA and the Corps have failed to adequately consult with the States in developing a proposed rule.

Contrary to Congress' CWA directive that EPA and the Corps consult and cooperate with the States in developing programs and comprehensive solutions to protect the nation's waters and to preserve the states' primary role in land and water resource management,[21] there has been no meaningful consultation with the states, certainly not with Alaska, in the development of the proposed rule. Writing such a fundamental rule that applies nationally is a very difficult task, and state regulators would bring valuable insight to promulgating a rule, given their regulatory authorities and knowledge of specific watersheds and state geomorphologic and hydrologic conditions. With this proposed rule, EPA and the Corps unilaterally acted to outline what they see as the bounds of their authority, without any consultation with the states on where it is appropriate to draw those lines. This is particularly disconcerting for the states, as Congress, in enacting the CWA, provided that the states should retain primary jurisdictional authority over state lands and water resources.

---

15 *Id*. at 739-42.
16 *Id*. at 742.
17 *Id*. at 779.
18 *Id*. at 780 (emphasis added).
19 *Id*.
20 *See, e.g.*, *EPA Summary of the Discretionary Small Entity Outreach for Planned Proposed Revised Definition of "Waters of the United States,* at 13.
21 *See, e.g.*, 33 U.S.C. § 1251(b) and (g), and 33 U.S.C. § 1252(a).

Additionally, EPA and the Corps fail to comply with EO 13132, which requires consultation on rulemakings that have federalism implications and which will have "substantial direct effects on the States."[22] Efforts to clarify the term "waters of the United States" clearly raise significant federalism issues. Consultation under the EO is further required in light of several other provisions, including the following:

- Section 2(i): "The national government should be deferential to the States when taking action that affects the policymaking discretion of the States and should act only with the greatest caution where State and local governments have identified uncertainties regarding the constitutional or statutory authority of the national government."
- Section 3(b): "Where there are significant uncertainties as to whether national action is authorized or appropriate, agencies shall consult with appropriate State and local officials to determine whether Federal objectives can be attained by other means."

Thus, a procedural component of the larger 404 – and indeed, 402 – permitting regime like that in the proposed rule for determining jurisdictional lines implicates the substantial rights of the states, both from a Tenth Amendment Constitutional, as well as a CWA statutory perspective. Including the states with all other stakeholders and interested parties in the opportunity for public comment on a proposed rule is decidedly not the robust and meaningfully state-federal "consult and cooperate" partnership that Congress clearly had in mind when it enacted the CWA. Nor do a handful of teleconferences where EPA is only there to present its proposal and to answer questions, rather than collaborate on rulemaking, satisfy the consultation requirement.

Under the CWA, Congress mandated that the "[f]ederal agencies ***shall*** co-operate with State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources."[23] Further, "[i]t is the policy of the Congress to recognize, preserve, and protect ***the primary responsibilities and rights of the State to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources, and to consult with the Administrator in the exercise of his authority under this chapter***."[24] Equally important, under the act, EPA's Administrator

> …shall, ***after careful investigation, and in cooperation with*** other Federal agencies, ***State water pollution control agencies***, interstate agencies, and the municipalities and industries involved, prepare or develop comprehensive programs for preventing, reducing, or eliminating the pollution of the navigable waters and ground waters and improving the sanitary condition of surface and underground waters.[25]

---

[22] Executive Order 13132, Section 1(a), Federalism (August 4, 1999).
[23] 33 U.S.C. § 1251(g) (emphasis added). Congress also stated that "[i]t is the policy of Congress that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this Act," and that nothing in the act "shall be construed to supersede or abrogate rights to quantities of water which have been established by the State." *Id*.
[24] 33 U.S.C. § 1251(b) (emphasis added).
[25] 33 U.S.C. § 1252(a) (emphases added).

The CWA also provides that EPA's "Administrator shall establish national programs for the prevention, reduction and elimination of pollution and as part of such programs shall [cooperate] with the other federal, state, and local agencies."[26]

Notwithstanding these important CWA mandates, there was no consultation or cooperation with state co-regulators on the development of this lengthy, complex, and important rule. Rather, the EPA and Corps have promulgated a proposed rule that incorporates an expansive view of federal jurisdiction, under cover of Justice Kennedy's "significant nexus" test, notwithstanding the sidebars clearly imposed on expansive interpretations by CWA provisions, Supreme Court precedent, and even Justice Kennedy's stand-alone decision in *Rapanos*. Significantly more waters and wetlands will automatically be determined jurisdictional rather than based on any significant "nexus" to a down-stream traditional navigable water, even though the Supreme Court has stated that federal jurisdiction under the CWA is not without limits.

As Justice Kennedy stated in *Rapanos*, the deference owed to regulations does not extend so far as to recognize CWA jurisdiction "whenever wetlands lie alongside a ditch or drain, however remote or insubstantial, that may eventually flow into traditional navigable waters."[27] Justice Kennedy's view directly refutes the agencies' conclusion in the rulemaking that "[t]ributaries that are small, flow infrequently, or are a substantial distance from the nearest [traditional navigable water] (e.g., headwater perennial, intermittent, and ephemeral tributaries) are essential components of the tributary network."[28]

The plurality also opined that federal jurisdiction was not without limitation. The proposed rule refers to *SWANCC* and *Rapanos*, but it does not adequately describe how the rule complies with the more limited scope of jurisdiction over headwaters, tributaries, isolated waters and wetlands that is contemplated in these decisions. The proposed rule is lacking in its primary objective because it does not inform field staff or the public what the limits of federal jurisdiction are for the wetlands and waters that were under consideration by the Supreme Court in *Rapanos*.

In addition to the concerns and lack of clarity surrounding terminology and concepts in the proposed rule, one of the key concerns is whether this rule will encroach on the states' traditional role[29] to manage state lands and water resources. In *Rapanos*, Justice Scalia recognized the danger of potential federal intrusion on traditional state regulation of land use in too expansive a view of CWA terminology:

> Even if the phrase "the water of the United States" were ambiguous as applied to intermittent flows, our own canons of construction would establish that the Corps' interpretation of the statute is impermissible. As we noted in *SWANCC*, the Government's expansive interpretation would "result in a significant impingement of the State's traditional and primary power over land and water use." Regulation of land use, as through the issuance of the development permits sought by petitioners in both of these cases, is a quintessential state and local power. The extensive federal jurisdiction urged by the Government would authorize the Corps to function as

[26] 33 U.S.C. § 1254(a)(1).
[27] *Rapanos*, 547 U.S. at 778-79.
[28] 79 Fed. Reg. at 22,206.
[29] 33 U.S.C. § 1251(b).

> a *de facto* regulator of immense stretches of intrastate land - an authority the agency has shown its willingness to exercise with the scope of discretion that would befit a local zoning board. We ordinarily expect a "clear and manifest" statement from Congress to authorize an unprecedented intrusion into traditional state authority. The phrase "the waters of the United States" hardly qualifies.[30]

As a practical matter, because so many waters (including wetlands) will be jurisdictional under the proposed rule, and because only two states have assumed the Section 404 permitting program, the rule confers upon the Corps and EPA expansive control over land use and economic development decisions traditionally reserved for state and local governments. All activities that will potentially affect newly jurisdictional waters will need to be approved by the Corps, and will be subject to EPA veto. Thus, it is misleading for EPA and the Corps to state, as they have repeatedly done so, that they only regulate waters of the U.S.

Alaska already has in place many statutes and regulations for preserving and protecting isolated waters and wetlands within its State boundaries that may be affected by development.[31] The law covers liquid and solid waste discharged to lands and waters of the State, and the State does not have to determine State jurisdiction. The proposed rule exacerbates the already expansive existing 2008 guidance,[32] and would compound federal intrusion on and displacement of Alaska's management of its lands and waters. Notwithstanding the State's earlier stated position that rather than implementing the 2008 guidance a rulemaking was required, the federal agencies fail to justify why that 2008 guidance, issued in response to *SWANCC* and *Rapanos,* should ***now*** be replaced by new regulations that expand jurisdiction even further, for all CWA requirements, not just those in Section 404.

Neither EPA nor the Corps contacted Alaska to consult with the State in the development of the proposed rule. The failure to meaningfully consult is contrary to case law examining similar state-federal consultation provisions. For example, in *California Wilderness v. U.S. Department of Energy (DOE)*,[33] the Ninth Circuit Court of Appeals considered whether DOE had properly consulted with the states when it issued an order that formally designated two national interest electric transmission corridors under the Energy Policy Act of 2005.[34] DOE's order rested on a Congestion Study that it had conducted, prepared, and noticed for comment.[35]

---

[30] 547 U.S. at 737-38 (citations omitted).

[31] *See, e.g.,* 33 U.S.C. § 1341 (CWA Section 401 certification authority); AS 46.03.100 (wastewater discharge permitting authority); 18 AAC 70 (Alaska water quality standards); 18 AAC 72 (wastewater disposal); and 18 AAC 83 (Alaska Pollutant Discharge Elimination System Program).

[32] Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States*, (EPA and Corps' 2008 Guidance), found at the following link: http://water.epa.gov/lawsregs/guidance/wetlands/upload/2008_12_3_wetlands_CWA_Jurisdiction_Following_Rapanos120208.pdf

[33] 631 F.3d 1072, 1095 (9th Cir. 2011).

[34] *Id*. at 1080.

[35] *Id*. at 1080-82.

As the Ninth Circuit noted, DOE defended its action "by stating that it reached out to affected States through meetings with the National Association of Regulatory Utility Commissioners…and through other meetings and correspondence with individual State entities."[36] The Ninth Circuit held that Congress statutorily mandated consultation, that DOE's notice and comment proceedings and other sparse conferences with the states did not suffice as substitution for the mandated state-federal consultation process, and that the failure to consult with states was not harmless error.[37] The court also stated that the "consultative process dictated by Congress serves the purpose of permitting the States to participate in the formulation of federal policy *in an area of major interest to the States*."[38]

Not surprisingly, the lines drawn in federal policy with respect to regulatory jurisdiction over activities involving land and water resources is an area of major interest to the State. In light of the Ninth Circuit's holding in *DOE*, the EPA and Corps' teleconferences held this summer and fall with interested states regarding the proposed rule likewise fail to satisfy the federal-state consultation required under the CWA and EO 13132.[39]

C. The rulemaking fails to comply with applicable rulemaking requirements and results in a muddled and confusing rule that generates enormous uncertainty.

Despite EPA and the Corps' claim that the proposed rule promotes "transparency, predictability, and consistency,"[40] the numerous difficulties in implementing the rule and the severe consequences it will wreak have not been adequately considered. The rulemaking fails to comply with the APA[41] and Executive Order 13563,[42] in large part because the federal agencies have not adequately considered the likely impacts of the rulemaking, nor allowed for meaningful public comment or review of the data the agencies rely upon.

1. As a consequence of failing to consult with co-regulator states, EPA and the Corps promulgated a proposed rule that fails to account for the regional differences existing among the states.

Proposed national rules cannot assume, as this one does, that "one size fits all," that a rule that works well in one part of the country will work just as well elsewhere. Given the significant differences in regional geomorphologic and hydrologic conditions between the states, it is particularly important to thoroughly consider whether there might be other approaches to the rulemaking that would work better to ensure consistency and predictability in jurisdictional determinations. One alternative that should be considered is whether states are in a better position to address any water quality issues that EPA and the Corps are trying to target with the proposed rulemaking. The states have jurisdiction over groundwater, and are in the best position

---

[36] *Id*. at 1081.
[37] *Id*. at 1081.
[38] *Id*. at 1092 (emphasis added).
[39] Indeed, the Ninth Circuit held that the meetings and conferences arranged through a quasi-governmental organization – like the teleconferences EPA and the Corps arranged on the proposed rule – did not provide "meaningful opportunities for dialogues between the States and DOE." *Id*. at 1086.
[40] 77 Fed. Reg. at 22190.
[41] 5 U.S.C. §§ 501, *et seq*.
[42] Executive Order 13563, Improving Regulation and Regulatory Review (January 18, 2011).

to address water issues that may arise due to the "interconnectedness" of water bodies. This alone militates against EPA and the Corps' proposal of making wetlands and isolated waters jurisdictional on the basis of a "shallow subsurface hydrologic" connection.[43] Alaska has authority and responsibility to protect all waters in the State regardless of whether the federal government has concurrent jurisdiction.

A rule-making should not leave the agencies and public wondering who or what is covered by a new rule and what requirements are being added or changed. There is significant uncertainty, particularly under Alaska's unique circumstances, of how the proposed concepts of "adjacency" "tributaries" and "interconnectedness" would be applied to specific field situations. For example, it is unclear whether these terms would exclude alpine muskeg peat bogs, or forested wetlands on steep slopes in southeast Alaska that do not have a traditional hydrological connection (defined bed, bank or ordinary high water mark). There are also wetlands that exist on the North Slope of Alaska as a result of relatively flat terrain, and seasonal snowmelt that cannot penetrate frozen soil. These areas can be tens, or even hundreds of miles from the nearest navigable water. The proposed rule only creates greater uncertainty for Alaska.

2. Issues surrounding the development, content, peer review, and use of the draft Connectivity Report render it incomplete and unreliable as support for this or any proposed jurisdictional rulemaking.

In the proposed rule, EPA and the Corps based many conclusions on the 2013 draft Connectivity Report.[44] The agencies conclude that certain waters categorically have a connection (biological, chemical, or physical) to jurisdictional waters. Since the agencies erroneously view any connection as a significant connection, they conclude that such waters should therefore be jurisdictional. EPA and the Corps essentially view the Connectivity Report as a significant nexus analysis. However, at the time EPA relied upon the report, it was still undergoing peer review, and the report itself is in need of significant additional work and improvement to be relevant for Alaska.

Through testimony and written comments submitted to the SAB Peer Review Panel, the State pointed out the lack of Alaska-specific information and references about wetlands and aquatic conditions common to northern latitudes that are uncommon or entirely absent in the rest of the country (e.g., permafrost, tundra, muskegs, boreal forest spruce bogs, glaciers, massive snowfields). Additional conditions that make Alaska unique, but which are not discussed in the Connectivity Report, include complex and variable connections of groundwater in areas underlain by continuous and discontinuous permafrost, seasonal flooding at spring break-up prior to the growing season, braided outwash rivers, and cold, low-nutrient streams.[45] With 63% of the

---

[43] Introduction of the term "shallow subsurface hydrologic connection" without definition in the proposed rule as if the term was distinct from a "groundwater connection" raises questions on whether EPA and the Corps are asserting authority where they have none. This makes the agencies vulnerable to charges they are seeking to secure more expansive federal jurisdiction than historically asserted.

[44] Draft *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence*, U.S. Environmental Protection Agency, Washington, D.C. 2013.

[45] For further information on these conditions, *see* the discussion below on "Alaska's Water and Wetlands Situation."

country's wetlands located in Alaska, the majority of which are associated with vast tracts of continuous or discontinuous permafrost, EPA and the Corps are remiss for not completing a rigorous review of scientific studies based on work in Alaska as part of the Connectivity Report. The State has provided examples of such studies in comments to the SAB's Peer Review Panel which are enclosed herein.

The proposed rule and draft Connectivity Report lack consideration of regional geomorphologic and hydrologic differences. There is a large difference between those states with a wetter climate than those with a drier climate. Tributaries and ephemeral streams will have a significant difference in appearance, seasonality, and level of input to downstream waters in a wetter climate than they would in a drier climate. Given Alaska's large geographic and climatic range, we have both situations within our borders (temperate rainforests in southeast Alaska with average annual precipitation rates of up to 153.3 inches (Ketchikan) and drier climates in the interior and northern portions of the State which receive annually less than 5 inches of "rainfall equivalent" precipitation (Barrow)) (Data from NOAA). There is also a significant difference in the impact of tributaries and ephemeral streams in a northern latitude climate. In Alaska, the majority of the waters (surface and subsurface) in nearly 2/3 of the state exist as a solid for the better part of each year. Only for the short summer season do they exhibit some of the traits and provide some of the functions normally attributed to waters and wetlands. These attributes of northern latitude climates limit or foreclose connectivity and the potential to impact traditional navigable waters.

The proposed rule does not consider in-state Alaska specific hydrologic regime variations, or even hydrological differences across other regions in the U.S. For example, all ephemeral and intermittent streams are classified as tributaries without regard to climate and based solely on the presence of a bed, bank, and ordinary high water mark. Due to regional differences, the State requests that EPA and the Corps continue dialogue with all the states in order to craft a proposed rule informed by regional differences that is beneficial for implementing the CWA programs administered by both state and federal agencies.

A rulemaking should account for regional differences, such as climate and hydrologic differences that may come into play during jurisdictional determinations. The federal agencies should consider and account for Alaska-specific differences in climate, hydrology and geography within the proposed rule. Given the vast differences in geography and climate among the regions, particularly for Alaska, broad national standards may not lead to reasonable assertions of federal jurisdiction. Also, in keeping with the Supreme Court's ruling in *SWANCC*,[46] any rulemaking should include a provision that explicitly excludes isolated, intrastate, and non-navigable waters as non-jurisdictional.

Apart from the content of the report, we note that the peer review and agency reliance on the report are fundamentally undermined by EPA's failure to comply with peer review principles recognized by EPA and the Office of Management and Budget (OMB). OMB observes that "when an information product is a critical

[46] *Cf*. 531 U.S. at 168 (stating that "[i]n order to rule for the [Corps], we would have to hold that the jurisdiction of the Corps extends to ponds that are not adjacent to open waters. But we conclude that the text of the statute will not allow this").

component of rule-making, it is important to obtain peer review *before* the agency announces its regulatory options so that any technical corrections can be made *before the agency becomes invested in a specific approach or the positions of interest groups have hardened*."[47] Likewise, EPA holds that peer review "is a process for enhancing scientific or technical work product so that the decision or position taken by the Agency, based on that product, has a sound, credible basis."[48] Because the proposed rule prematurely relied on a draft, incomplete, non-peer reviewed report, EPA and the Corps are already invested in an approach that may not be supported by the peer review process. Further, EPA's release of a proposed rule before the peer review was completed may have caused bias in the peer review towards not only the conclusions reached in the Connectivity Report, but also the approach adopted by EPA and the Corps in the prematurely released proposed rule. Thus, the muddled process EPA took in promulgating a proposed rule before any scientific review was completed puts the proverbial cart before the horse, with a strong potential to create bias in both written products.

3. Rather than assuring consistent, predictable, and timely jurisdictional determinations, the proposed rule will create further confusion.

Despite its length,[49] the proposed rule does not set forth sufficient criteria for determining whether a wetland or water body will be deemed jurisdictional. There is much that is discussed in the preamble that is not included in the language of the rule. While some of the terms are newly defined (e.g., adjacent), new terms of art are added that are not defined (e.g., shallow subsurface hydrologic connection). The *Rapanos* decision provides guidance and opinion but does not establish regulatory criteria for determining whether a wetland will be deemed jurisdictional. Rather than address this critical issue, the agencies chose to focus on expanding what is jurisdictional in contravention to the import of *Rapanos* which sets boundaries on what is jurisdictional. Due to the expansive interpretation that EPA and the Corps give to Justice Kennedy's significant nexus test in *Rapanos*, the agencies proceed to apply significant nexus to multiple situations that were not even under consideration by the Court (e.g., to tributaries and adjacent waters).

Many questions and concerns revolve around new terms and concepts introduced in the proposed rule. For example, the term "similarly situated" waters as defined by the agencies may be more expansive than what Justice Kennedy intended in his 2006 *Rapanos* opinion. The term itself is likely to be subjectively and inconsistently applied by individual field staff personnel. The EPA and Corps staff did not explain how the agency will ensure consistent implementation of the proposed rule on the ground, especially with respect to consistency in the application of the "significant nexus" test. But, that could be based on the Corps and EPA's assumption (which they say is already assumed today under existing guidance) that most of the non-navigable

---

[47] OMB Final Information Quality Bulletin for Peer Review, 70 Fed. Reg. 2664, 2668 (Jan. 14, 2005) (emphases added).

[48] EPA, Science Policy Council, *U.S. Environmental Protection Agency Peer Review Handbook*, available at http://www.epa.gov/peerreview/pdfs/peer_review_handbook_2006.pdf .

[49] In comparison, we note that the 2008 guidance was 13 pages total, and already unwieldy and complicated. The 2011 draft guidance was 39 pages long. The proposed rule is now 89 pages long, not including other documents the agencies used and referenced.

waters and wetlands throughout the country are jurisdictional, unless they qualify for one of the handful of specific exceptions set out in the proposed rule. This expansive and automatic affirmative jurisdictional view regarding Alaska waters and wetlands certainly ignores the "case-by-case" determinations that Justice Kennedy stated was required for the Corps to impose its authority.

4. Any new rule must provide the opportunity for an affected state, landowner, or developer – in advance of imposition of any CWA requirement – to obtain timely response to requests for jurisdictional determinations, as well as to administratively and judicially challenge an affirmative jurisdictional determination.

In Alaska, there is so much at stake in advancing a development proposal that a decision to seek a permit under the CWA is often based on the cost of keeping a project moving and does not reflect an assessment of whether jurisdiction exists or is even likely to exist as there is no process to ***timely*** challenge an affirmative jurisdictional determination. With a short construction season (three to five months) and the long lead time for staging materials in areas with no roads at all (access is only after travel of hundreds of miles by boat or plane), there is a narrow window each year to conduct field work and obtain approvals for the next season. It is not possible to collect field data for a 404 permit application and receive approvals in the same season in time to stage and initiate work on a project. Since decisions to initiate work must often be made four to six months in advance of the construction season, there are only a couple of months after field data is collected to submit an application and received approval. It is a common occurrence that projects start no earlier than two years after field data collection. Project delay often comes at a significant cost to the project proponent.

Numerous cases exist where applicants cede to the assertion of federal jurisdiction over questionable waters to avoid the need for the Corps to thoroughly document why it is (or is not) taking jurisdiction. Applicants conclude that, with the brief construction season in Alaska, the delay which could result from a drawn out significant nexus determination would be costlier than accepting jurisdiction and complying with permit stipulations and compensatory mitigation requirements. It is uncertain how many of these cases would have resulted in a finding of no jurisdiction had the applicant opted to request an approved jurisdictional determination. However, as the cost of compensatory mitigation continues to increase throughout Alaska, it is possible that the cost-benefit analysis of construction delays versus accepting federal jurisdiction and paying for compensatory mitigation may shift, motivating more applicants to go through the longer approved jurisdictional determination process in the hopes of reducing compensatory mitigation needs. Adoption of the proposed rule would likely narrow opportunities to demonstrate the lack of a significant nexus and could, in the long run, result in increased compensatory mitigation requirements.

To address these long-standing issues, any proposed rule should provide landowners and project proponents with two important and efficient avenues to address CWA jurisdictional concerns. First, a provision should be included that if a landowner or project proponent requests a formal jurisdictional determination and the regulatory authority does not provide one within 30 days, the failure to respond will be deemed a negative jurisdictional determination not only under Section 404, but for all CWA purposes.

Second, a rule must clearly provide a requestor with a process to not only administratively appeal, but also judicially challenge affirmative jurisdictional determinations in advance of imposing the permitting process. This is particularly important because federal agencies take the position that jurisdictional determinations are not considered appealable, final agency actions. That is, no person or entity can judicially challenge an affirmative jurisdictional determination until the actual permitting process – an expensive and time-consuming endeavor – has been completed. In the meantime, absent any meaningful remedy to address challenges to affirmative jurisdictional determinations, individuals and entities are forced to materially change their positions once the permitting process is imposed. In most instances, applicants must enter into legally binding commitments and contractual obligations, spending on average hundreds of thousands of dollars to complete the lengthy 404 (and under the proposed rule, 402) permitting process and advancing expensive compensatory mitigation proposals, in order to obtain a permit and avoid a federal enforcement action when there may well be no legitimate jurisdiction for imposing the federal permitting process.[50]

5. EPA and the Corps failed to consider the consequences of a proposed rule that seeks to impose a broad array of CWA requirements.

EPA and the Corps have promulgated a rule that applies not only to Section 404 permitting, but to other aspects of the CWA, including 402 permitting and regulatory requirements under Section 303. Thus, for example, for every water (including wetland) that the proposed rule would sweep under CWA jurisdiction as a water of the U.S., state water quality standards would then apply. That is because there is the potential that the states will have to classify the uses of newly jurisdictional waters for application of State water quality standards.

Another example is how this proposed rulemaking will affect stormwater management, because under the rule, multi-sector (MS4) stormwater conveyances, including ditches, will likely be jurisdictional under the proposed rule, and also subject to state water quality standards. Would activities to maintain those conveyances also be subject to 404 permitting?

Other questions abound: Will new jurisdictional waters require preparation of Spill Prevention, Control, and Countermeasures (SPCC) plans? Will green infrastructure projects, not exempted under the rule, also become subject to CWA requirements? Will existing jurisdictional determinations and uses in waters that will fall under the proposed rule be grandfathered in, or will new jurisdictional determinations or CWA requirements be imposed? What regulatory costs and burdens will be created for states in light of their 401 certification authority in approving projects requiring either a 402 or 404 permit? What will be the costs and impacts to the state and federal regulatory authorities for enforcing compliance under CWA programs?

The preamble to the rule states that the Corps prepared an environmental assessment under the National Environmental Policy Act (NEPA) for this rulemaking[51]. However, the website for the proposed rule apparently

[50] *Cf*. subparagraphs 6 and 7, below, describing these costs and burdens in additional detail.
[51] 79 Fed. Reg. 22222.

does not contain the EA, and it is impossible to assess the adequacy of the document. Moreover, because this rulemaking will likely result in significant impacts, it constitutes major federal action requiring the preparation of an environmental impact statement (EIS) under NEPA[52].

By failing to adequately probe and describe the regulatory and economic impacts that sweeping imposition of CWA requirements would have if expansive jurisdiction under the proposed rule's provisions is triggered, EPA and the Corps have created enormous and unacceptable regulatory uncertainty.

6. Delays and costs in Section 404 and 402 permitting will increase, but EPA and the Corps failed to address these concerns in this rulemaking.

EPA and the Corps assert that the proposed rule only clarifies the scope of "waters of the U.S." under the CWA, rather than subjecting entities to additional regulatory burdens.[53] However, the proposed rule will only increase the need for more Section 404 permits, along with NEPA reviews, other required regulatory reviews (such as Endangered Species Act reviews), and compensatory mitigation requirements. Roughly 10 years ago, the time and average costs of obtaining a 404 permit were already significant: 788 days and $271,596 for an individual permit; 313 days and $28,915 for a nationwide permit.[54] These costs did not include costs for mitigation or design changes. As might be expected, these sorts of costs are higher now with inflation, and also create an enormous burden on small landowners and small businesses, those who are least able to absorb the costs.

Without adequate basis, EPA and the Corps have certified under the Regulatory Flexibility Act (RFA)[55] that the proposed rule would not have significant effects on small businesses. The United States Small Business Administration's Office of Advocacy has determined that the certification was improper, and that the proposed rule will indeed have direct, significant effects on small businesses. EPA and the Corps are required to conduct a full analysis of the proposed rule's effect on small business under the RFA, including the requirement to convene a Small Business Advocacy Review panel to facilitate the review.[56]

Even for large businesses and governmental entities sponsoring large projects, these costs serve as a drag on economic activity and job creation. The costs will only multiply with the additional waters that would become jurisdictional under the proposed rule. While transactions with mitigation banks and in-lieu fee programs are not publicly disclosed by the Corps, the state agencies involved in projects that require such mitigation are aware that credits are expensive, and often significantly reduce limited funding available for projects. Based on a preliminary review, the State paid the Conservation Fund over $8 million for public projects (i.e., bridges, roads, and rural airport projects) between 2009 through 2015. It is not clear from EPA's

---

[52] 42 U.S.C. 102(c).
[53] 79 Fed. Reg. 22220.
[54] *Rapanos*, 547 U.S. at 721 (footnote and citations omitted).
[55] Pub. L. 104-121, Title II, 110 Stat. 857 (1996) (codified in various sections of 5 U.S.C. § 601, et seq.). A copy of the Office of Advocacy's October 1, 2014 letter to EPA and the Corps is enclosed and incorporated as part of the State's comments on the proposed rule.
[56] 5 U.S.C. §§ 603 and 605.

economic analysis whether EPA has considered these costs or the potential increases to such costs if the proposed rule were finalized and applied.

7. The economic analysis conducted by EPA and the Corps is flawed.

The proposed rule does not comply with EO 12866.[57] For example, the rule relies on nearly 20-year old cost data that has not been adjusted for inflation. As a consequence, the agencies March 2014 economic analysis[58] does not provide the public and policy makers with reliable and credible information regarding the magnitude of the proposed rule's economic impacts. Further, EPA and the Corps fail to consider future costs of compensatory mitigation in light of the expansive jurisdiction proposed under the rule. The costs for compensatory mitigation are relentlessly escalating.

By the federal agencies' own estimation, implementation of the proposed rule will result in higher costs in at least millions of dollars for the agencies and the regulated community. Section 404 permit costs are projected to increase between $19.8 million and $52 million annually, while 404 mitigation costs are projected to rise between $59.7 million and $113.5 million annually.[59]

However, the economic analysis does not include the costs associated with other CWA programs,[60] or the potential costs of litigation that will flow from the implementation of the rule. Thus, the costs of adopting and implementing the proposed rule are likely to be exorbitant, because

- waters and wetlands that could not reasonably be found jurisdictional under a common sense reading of the CWA and Supreme Court precedent will, nonetheless, be deemed jurisdictional;
- any person or entity proposing activities in those additional waters and wetlands found to be jurisdictional under the rule will be subject to lengthy and expensive permitting reviews that produce no appreciable environmental benefit, or be exposed to stiff civil and criminal penalties for acting without a permit;
- vital public and private projects will suffer needless expense and delay, and the compensatory mitigation costs for these projects will increase; and
- taxpayers will have to help fund the federal agencies' ambitious exercise of nearly boundless jurisdictional authority under the guidance.

In short, EPA has not adequately analyzed the costs of imposing the proposed rule. As one expert concluded, the agencies have underestimated the costs because of the flawed methodology the agencies used to determine the extent of acreage that the proposed rule would regulate, and because the agencies failed to consider the costs and increased number of required permitting actions.[61]

---

[57] Executive Order 12866, Regulatory Planning and Review (September 30, 1993).
[58] Economic Analysis of Proposed Revised Definition of Waters of the United States, U.S. Environmental Protection Agency and U.S. Army Corps of Engineers (March 2014).
[59] *Id*. at 16.
[60] *Id*. at 12.
[61] D. Sunding, *The Waters Advocacy Coalition, Review of 2014 EPA Economic Analysis of Proposed Definition of Waters of the United States* (May 15, 2014). Dr. David Sunding is an economics professor at University of California, Berkeley.

8. The proposed rule, if finalized, will cause a proliferation of third party litigation and citizen suits.

The citizen suit provision is already used in an attempt to force affirmative jurisdictional determinations, even when EPA and the Corps do not believe jurisdiction is warranted.[62] The proposed rule, if finalized, is certain to trigger a huge increase in the number of citizen suits against federal, state, local, and private landowners and developers. By making so many waters (including wetlands) automatically subject to CWA requirements, or creating so much uncertainty about what waters could be subject to CWA requirements, EPA and the Corps have created a regulatory system that leaves public and private organizations and landowners vulnerable to third party litigation and citizen suits. Litigation tactics will become more prolific under the proposed rule. Not only will these third parties likely seek to impose a wide array of CWA requirements, they will likely seek penalties for alleged noncompliance. EPA and the Corps never address these or similar litigation risks relating to the proposed rule.

II. Technical Issues

A. Alaska's unique water and wetlands situation.

At more than 403 million acres, the State of Alaska encompasses the largest geographic area of any state in the nation (more than twice the area of the next largest state). Alaska has more coastline than the entire conterminous United States (nearly 34,000 miles), over three million lakes greater than five acres in size, and over 15,000 water bodies that are known to support resident or anadromous fish.[63] Its size is such that when a map of Alaska is superimposed on the lower 48 states, Alaska's boundaries' would extend roughly the equivalent of east coast to west coast (see Attachment 4).

---

[62] *See San Francisco Baykeeper v. Cargill Salt*, 481 F.3d 700 (9th Cir. 2007), in which an environmental group brought a citizen suit seeking to impose CWA requirements, even though federal agencies declined to assert jurisdiction over the isolated industrial ponds at issue. The Ninth Circuit held that the group failed to show that the ponds in that case constituted "adjacent wetlands." Under the proposed rule, the federal agencies would likely have a difficult time defending against a renewed claim that the ponds are jurisdictional, because the agencies expand the definition of "adjacency" to include waters more broadly, not just wetlands as has historically been the practice and which has been held to be the limit of CWA jurisdiction under Supreme Court precedent.

[63] Alaska Department of Fish and Game, *Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes*, available at: http://www.adfg.alaska.gov/sf/SARR/AWC/index.cfm?ADFG=main.overview.

Wetlands and deepwater habitat combined occupy over 204 million acres, or over 50 percent of the State's surface area.[64] By comparison, wetlands and deepwater habitat comprise a little more than nine percent of the surface area of the lower 48 states.[65]

Setting aside deepwater habitat, the State of Alaska has over 174 million acres of wetlands, comprising approximately 43 percent of the surface area of the State.[66] The rest of the U.S. contains approximately 103 million acres of wetlands, comprising approximately four percent of the surface area.[67] Sixty-three percent of the country's wetlands are in Alaska. Using National Hydrography Dataset information from the Bureau of Land Management (March 2014) Alaska has 884,075 miles of streams and 21,655 square miles of lakes.

Despite Alaska's wealth of water, its water resources are not uniformly distributed. According to the U.S. Army Corps of Engineers, "[w]etlands occupy 61 percent of Northern and Western Alaska," and "vast expanses of treeless tundra underlain by permafrost dominate the area."[68] These permafrost wetlands are a unique feature of the Alaskan landscape not found elsewhere in the United States. Interior Alaska is 44 percent wetlands and includes, "millions of acres of black spruce . . . muskeg and floodplain wetlands . . ."[69] Here again, the scrub/shrub vegetation and taiga forests of interior Alaska are uncommon features in the rest of the United States and many of these wetlands are underlain by permafrost (See Attachment 5).

Adding to the uniqueness and complexity of Alaska's situation is that the majority of the waters in the vast northern, interior, and western regions exist as a solid for the better part of each year. Only for the short summer season do they exhibit some of the traits and provide some of the functions normally attributed to waters and wetlands. Southeast Alaska, a temperate, mountainous rainforest region with a maritime climate and average annual precipitation of 100 to 200 inches, has countless isolated surface waters and wetlands, as does much of the rest of the state.

There is a unique situation in northern latitudes, including Alaska, where continuous or discontinuous permafrost exists. This results from frozen ground water throughout all or the majority of the year. Permafrost can form a nearly impervious layer of soil which then creates seasonally saturated soil conditions above the frozen layer. Depending on topography, soil types, and other features permafrost tends to be associated with wetlands. Wetlands in areas with permafrost are very dynamic systems that are not completely understood. While they serve certain valuable habitat functions, these functions do not make them subject to federal CWA

---

[64] Hall, Jonathan V., W. E. Frayer and Bill O. Wilen, *Status of Alaska Wetlands*, 1994, available at http://www.fws.gov/wetlands/_documents/gSandT/StateRegionalReports/StatusAlaskaWetlands.pdf

[65] *Id.*
[66] *Id.*

[67] *Id.*
[68] U.S. Army Corps of Engineers, *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region (Version 2.0)*, September 2007.
[69] *Id.*

jurisdiction. Moreover, due to a very short growing season (that may be interrupted with frosts) and hydric soils that generally hover around a "biological zero" temperature, it can be difficult to demonstrate a significant nexus to downstream waters and wetlands within permafrost areas. There is often a significant temporal lag in hydrology (freeze/thaw cycle and lack of slope) that is more equivalent to groundwater flow and in most cases there is little evidence of a significant subsurface connection.

Making permafrost even more difficult to understand is the fact that it is not distributed evenly within the State. There are areas of the State, mostly located in the northern areas, where permafrost is generally distributed continuously beneath the surface. There are also areas within the State where permafrost is discontinuous and sporadically distributed within isolated pockets on the landscape. This sporadic distribution can be related to soil types, aspect, or other geographic indicators.

B. Regional differences affect whether waters are jurisdictional.

The Corps' 1987 wetlands delineation manual (1987 Manual) was developed to provide criteria for identifying wetlands, and was viewed approvingly by Congress in subsequent legislation as a tool to assist the federal agencies in determining what may be jurisdictional wetlands under the CWA. Due to regional differences in vegetation, soils, and hydrology, application of the 1987 Manual to all regions proved unworkable. This is particularly the case for Alaska, given that permafrost is not even discussed in the manual. To address these and other issues, the federal agencies have developed over the years regional supplements to the 1987 manual to provide a more regional approach to wetland delineations.

These supplements, including the 2007 Regional Supplement for Alaska, are guidance. However, because they established criteria for determining whether a wetland is jurisdictional under the CWA, they should have been adopted under formal APA rulemaking. EPA and the Corps must consider regionalized rulemaking for jurisdictional determinations and conducting significant nexus determinations, since the proposed rule does not account for regional differences, and application of the proposed rule could result in the assertion of jurisdiction when it does not lawfully exist for the majority of waters or wetlands in a particular climate region.

C. Significant Nexus – under the proposed rule, essentially all waters (including wetlands) will become jurisdictional no matter how geographically remote or attenuated their impact on traditional navigable waters.

The proposed rule would provide a new definition of the term "significant nexus" based on the *SWANCC* and *Rapanos* decisions. The definition is generally consistent with that of Justice Kennedy's opinion in *Rapanos*, with the additional explanation that "Other waters, including wetlands, are similarly situated when they perform similar functions and are located sufficiently close together or sufficiently close to a "water of the United States" so that they can be evaluated as a single landscape unit with regard to their effect on the chemical, physical, or biological integrity of a [jurisdictional] water identified in paragraphs (a)(1) through (3) of this section." The definition also notes that the region includes "the watershed that drains to the nearest water identified in paragraphs (a)(1) through (3) of this section." This appears to be a departure from the current understanding of "similarly situated" waters in the 2008 guidance, which limits evaluation to waters and

adjacent wetlands within the reach of the stream of the same order. The new definition appears to expand consideration of similarly situated waters to all functionally similar wetlands within the watershed of a tributary that flows into a traditional navigable water, interstate water, or the territorial seas.

The proposed rule goes on to state that "for an effect to be significant, it must be more than speculative or insubstantial." This does not provide sufficient definition to the term 'significant' and will be difficult to implement with any consistency. Unfortunately, this language from Kennedy's *Rapanos* decision is used in the proposed rule in isolation, divorced from its context and becomes, at best, a definition of statistical significance indicating whether a variable has a discernible effect rather than addressing the critical question of a definition or threshold that measures the magnitude of the effect and then determines when such effects have a significant impact on characteristics of traditional navigable waters. Significant nexus in the proposed rule is descriptive of a connection but **not** predictive of impact; no light is shed on whether the characteristics of a traditional navigable water would change in a meaningful way if that connection did not exist. The proposed rule needs a clear definition of significant nexus that sets the standard for when similarly situated waters that are part of the same stream reach, and adjacent wetlands would change the characteristics of a traditional navigable water in a meaningful way beyond what would happen if that connection did not exist.

1. Significant nexus between geographically separated other waters.

The current language in the proposed rule as well as the preamble suggest that for "other waters" – that is, waters that do not fall into a specific category – are not jurisdictional as a single category but rather can be found jurisdictional on a case-specific basis. "Other waters" will be evaluated either individually or as a group of waters that have been determined "similarly situated" within a "region." The preamble states that "waters are similarly situated where they perform similar functions and are located sufficiently close together." Once it has been determined that there are "similarly situated" waters, then a case-specific significant nexus analysis would be conducted to determine if these waters are Waters of the U.S. The jurisdictional status of such waters would be indeterminate until the case-specific significant nexus analysis is completed.

This proposed change lacks sufficient definition and clarity for the applicant, and regulators. Case-specific analysis is very resource intensive and since the burden to prove a water or wetland is not jurisdictional lies with an applicant this could become very cost prohibitive. The State recommends that the federal agencies provide clarification and define terms such as "region" and "sufficiently close" to reduce confusion. Without this clarification, one could interpret the language as stated in the proposed rule to mean that significant nexus analyses would be required on large-scale watersheds. In some cases applicants may simply treat geographically separated waters as jurisdictional in order to avoid the burden of proving that these waters do not in fact have a significant nexus to a downstream water.

Moreover, until the federal agencies prove otherwise, "other waters" should be deemed non-jurisdictional. Notably, with this approach, the "other waters" are still regulated by states, so there is no absence of regulation.

Since geographically separated "other waters" do not have readily discernible characteristics that would demonstrate significant nexus, the default status should be non-jurisdictional unless and until a case-specific significant nexus analysis shows otherwise. If a case-specific significant nexus analysis demonstrates jurisdiction, that jurisdictional status should apply from that point in time forward unless and until material circumstances change (i.e., fill was permitted under a CWA Section 404 permit including any compensatory mitigation requirements of such a permit).

Further, as a legal matter, the State notes that EPA and the Corps inappropriately expand the significant nexus test to cover "waters," rather than just "wetlands" as Justice Kennedy opined in *Rapanos*. This will result in an unlawful and significant expansion of federal jurisdiction over waters that would, under Justice Kennedy's test, not be covered.

2. The use of "shallow subsurface hydrologic connections" to support jurisdiction.

The CWA does not provide federal jurisdiction over groundwater, which is under the state's exclusive jurisdiction. However, the language in the proposed rule suggests that a wetland within the riparian area may be deemed "adjacent" and jurisdictional where there is "surface or ***subsurface*** hydrology" (emphasis added) that directly influences the ecology in the area. The preamble suggests that tributaries and other waters may be connected by "shallow subsurface hydrologic connections" but neither the preamble nor the proposed rule defines what is intended by using these terms and there is inconsistency on whether the modifier "shallow" is applied or even what "shallow" means. The incorporation of "shallow subsurface" hydrology would be significantly problematic for implementation in Alaska due to suprapermafrost water. This is the seasonal snow melt water within the soil above the frozen layer of permafrost soil. The application of the latter term (shallow subsurface hydrologic connection) may involve consideration of groundwater, tributary or alluvial groundwater, waters that are stored in the bed and banks of streams, or even soil moisture, once again expanding federal jurisdictional reach without legal basis or limit. Any rule should expressly exclude permafrost lands from CWA jurisdiction, due to permafrost's unique conditions. Further, the federal agencies should not use shallow subsurface waters – i.e., groundwaters – as a means to assert CWA jurisdiction over waters and wetlands that are upgradient of groundwaters and navigable waters.

3. Importance of flow timescales for shallow subsurface hydrologic connections and definitions for neighboring and riparian area.

The preamble discussion does not provide the necessary context for considering whether subsurface connections have a role to play in determining jurisdiction. There is an over emphasis on the mere existence of connections without discussion of the importance of the connections. While one can consider the entire world as an interconnected ecosystem under sufficiently large time scales, it is established practice to consider different subdivisions (e.g., atmosphere, oceans, lands, biosphere, etc.). Likewise, the hydrologic cycle has defined elements including surface waters, groundwater, atmosphere, and biological life. These divisions have utility despite the challenge of drawing bright lines in all circumstances (e.g., the vadose zone of soil where all the elements of the hydrological cycle are present and are not easily separable).

The proposed rule does not adequately define physical differences and does not even consider timescale differences when trying to establish the jurisdictional boundaries between surface water and groundwater. Arguably, timescale differences in flow are the most significant differentiator between ground water and surface water. Any definition of shallow subsurface hydrologic connection must address flow timescales. Any determination of jurisdiction for waters upstream or upgradient of a shallow subsurface hydrologic connection must likewise consider flow timescales, in addition to considering the significance of any effects on downstream waters. Note that groundwater, including shallow subsurface water, is under the clear jurisdiction of states.

The definitions of "neighboring" and "riparian area" are inconsistent. Neighboring uses the phrase "with a shallow subsurface hydrologic connection" while riparian uses where "subsurface hydrology directly influences …" There should be consistency in the definitions that only significant effects on the characteristics of downstream traditionally navigable waters are important. This would require a definition for shallow subsurface hydrologic connection. This would also require that the riparian area definition language use threshold language for when there is a significant effect on the characteristics of traditional navigable waters rather than the indiscriminate "influences."

Additionally, in the definition of "neighboring," the phrase "or confined surface hydrologic connection" is unnecessary, adds confusion, and should be struck. If such a connection exists, under the proposed rule that would be considered under the definition of tributary.

4. Assertion of jurisdiction over "wetland mosaics."

The CWA does not confer federal jurisdiction to the EPA and Corps for an entire "wetland mosaic" containing wetlands that are not adjacent to or hydrologically connected to a navigable water, and any activities in these areas are already subject to state jurisdiction. The federal agencies cannot "jump over" the uplands/non-wetlands to other wetlands to assert federal jurisdiction simply because they determine an area to be a "wetland mosaic." Similarly, the Supreme Court stated that federal jurisdiction is not limitless -- it did not say that federal jurisdiction extends to wetlands adjacent to wetlands, adjacent to wetlands, adjacent to a navigable water. This stretches the definition of contiguous beyond the breaking point when wetlands that have an insignificant effect on traditional navigable waters are jurisdictional on the basis of contiguity particularly when the insignificant effects occur over timescales that are more akin to groundwater than surface water flow.

D. Tributaries – The proposed rule would apply the significant nexus test to tributaries and isolated waters, when Justice Kennedy held it was only applicable to wetlands.

All tributaries of jurisdictional waters would become jurisdictional by rule. Under the 2008 guidance, ephemeral (or non-relatively permanent) tributaries to traditional navigable waters required a significant nexus to establish jurisdiction. Under the Proposed Rule, the agencies determined that all tributaries of traditional navigable waters, including ephemeral tributaries, have a significant nexus with traditional navigable waters and are therefore proposed to be jurisdictional by rule. The significant nexus finding is based on the conclusions of the draft Connectivity Report (EPA 2013), which has not been completed, nor does it address Alaska's unique circumstances.

1. Wetlands, lakes, and ponds should not be included in the proposed definition of "tributary."

The proposed rule defines tributaries as waters that have a bed, bank and ordinary high water mark (OHWM). The tributary must also contribute flow either directly, or through another water, to a jurisdictional water. The proposed definition also includes wetlands, lakes, and ponds, even if they do not have a bed, bank and OHWM. Including these types of waters within the definition of "tributary" is not scientifically supported. On page 2 of their September 17, 2014 draft comments on the proposed rule, the SAB peer review panel stated that "tributaries are not typically defined to include lentic systems (e.g., lakes, ponds, wetlands)." The peer review panel went on to recommend that EPA consider whether flow-through lentic systems should be included as adjacent waters and wetlands, rather than defined as tributaries.

The inclusion of wetlands, lakes, and ponds in the definition of "tributary" adds significant confusion and would create significant implementation problems. Any rulemaking should not subject lakes and ponds to the significant nexus test, as that test is inapplicable for these types of waters, and is only applicable, if at all, to wetlands. Further, ponds and lakes without a surface water connection to downstream navigable waters should be categorically excluded from jurisdiction.

2. The rule should exclude roadside ditches as non-jurisdictional.

The proposed rule also newly states that jurisdictional tributaries may be man-made or man-altered. The proposed rule states that "Ditches that are excavated wholly in uplands, drain only uplands, and have less than perennial flow" are not "waters of the U.S." The proposed rule adds a second exclusion which states "(b)(4) ditches that do not contribute flow, either directly or through another water, to a water identified in paragraphs (a)(1) through (4) of this section" are not Waters of the United States. This exclusion clarifies that a ditch is not jurisdictional (even if it has perennial flow) if it does not transport flow into another jurisdictional water. As outlined in section (c)(5) of the proposed rule, jurisdictional tributaries would include "ditches not excluded in paragraph (b)(3) or (b)(4)." Most if not all the roadside ditches within Alaska would be classified as jurisdictional because those ditches that would fall within the two exclusions are rare. Most if not all the roadside ditches contribute flow into a jurisdictional tributary (either directly, or through another water). All roadside ditches should be excluded from jurisdiction because a large portion of the nation's public and private transportation infrastructure relies on drainage structures that transport water away from facilities. The federal agencies did not consider the significant confusion and workload that will occur with these changes. Water quality concerns from roadside ditches are already addressed in Section 402 permits and state Section 401 certifications of Section 404 permits.

E. Adjacent Waters

Appendix B of the rulemaking (Legal Analysis)[70] contains the agencies' rationale for its new regulatory term "adjacent waters." The agencies begin the discussion by referencing CWA Section 404(g), the statutory provision that allows individual states to assume responsibility for administering a Section 404 dredge and fill

[70] 79 Fed. Reg. 22260.

program within their borders. The agencies note that Section 404(g) excludes certain navigable waters and their adjacent ***wetlands*** from state-run programs. EPA and the Corps then couple the term "adjacent" – from Section 404(g), and the only place the term appears in the act – with the term "waters" to buttress its rationale for expanding the scope of waters and wetlands covered by the CWA.

Not only would application of this new term "adjacent waters" vastly expand the waters and wetlands subject to federal control, it would likely leave nothing for a state to assume control over. Congress clearly did not intend either of these results. The agencies' legal analysis is a reckless construction of discrete terms and different sections of the CWA, undermining Congressional intent and creating further confusion about what waters or wetlands are ***jurisdictional*** under the CWA, versus what waters and wetlands are ***assumable*** under a state program, two distinctly different concepts.

The preamble to the rule – but not the Legal Analysis itself – qualifies that the rulemaking is not intended to "affect the scope of waters subject to state assumption of the section 404 regulatory program under Section 404(g) of the CWA," and that "[t]he scope of waters that are subject to state and tribal permitting is a separate inquiry and must be based on the statutory language of the CWA."[71] That may be the intent, but because there is no clear understanding between states that are interested in assumption and the federal agencies regarding which waters and wetlands are assumable, there is little comfort in the preamble's qualification, inasmuch as "adjacent waters" is defined so broadly.

1. Wetlands adjacent to tributaries.

Under the proposed rule, the agencies determined that all wetlands that are bordering, contiguous, or neighboring to a traditional navigable water or tributary (including perennial, intermittent, and ephemeral streams) have a significant nexus with traditional navigable waters and are therefore proposed to be jurisdictional by rule. The significant nexus finding is based on the conclusions of the draft Connectivity Report (EPA 2013). The proposed rule also removes the specific exclusion of wetlands adjacent to "waters that are themselves wetlands." This change would mean a wetland could be found to be jurisdictional based on it being adjacent to another wetland (and also, therefore, excluded from a state-managed 404 program). Example: Wetland A is now jurisdictional because it is adjacent to wetland B that was determined to be jurisdictional. The State objects to this arbitrary expansion of federal jurisdiction, and the potential impact it would have on a state-managed 404 program.

2. Adjacent non-wetland waters.

Under the existing rule (33 CFR 328.3(a)(7)), only *wetlands* adjacent to "waters of the United States" are defined as jurisdictional. The proposed rule changed this term from "adjacent wetlands" to "adjacent waters." Adjacent non-wetland and non-tributary waterbodies (e.g., lakes or ponds) are presently jurisdictional only if navigable, or otherwise have an interstate commerce connection to a traditionally navigable waters. The proposed rule would revise the definition to state "all *waters, including wetlands*, adjacent to a water identified in paragraphs (a)(1) through (5)…" would be jurisdictional based on a significant nexus with traditional

[71] *Id*. at 22200.

navigable waters. As a result, under the proposed rule, ponds, lakes, ***and even shallow groundwater*** – though the federal agencies protest otherwise – that are adjacent (but not a tributary) to traditional navigable waters, or their tributaries (including ephemeral streams), would become jurisdictional by rule. The proposed rule also uses terms to define "adjacent" like "neighboring," "riparian area," and "floodplain," without defining these terms, thus not fulfilling the intended purpose of the proposed rule to reduce confusion and uncertainty. The State objects to this expansion of federal jurisdiction to waters that may not have a significant nexus to a navigable water.

F. Other Waters

Prior to the *SWANCC* decision, non-adjacent wetlands and waters were often deemed jurisdictional under the "other waters" provision (33 CFR 328.3(a)(3)). The *SWANCC* decision found that the use of "isolated" non-navigable intrastate ponds by migratory birds was not a sufficient basis for jurisdiction under the CWA and required an isolated waters analysis for all waters not jurisdictional under another part of the definition (*SWANCC*). The proposed rule would eliminate the "other waters" provision from 33 CFR 328.3.

However, the use of the term as part of the new definitions under the proposed rule creates greater confusion and uncertainty, in large part due to EPA and the Corps' misinterpretation of controlling Supreme Court precedent. "All waters" or "other waters" that may be adjacent to a traditional navigable water, interstate water, the territorial seas, or tributary thereof, would now be jurisdictional under the proposed rule. Further, non-adjacent waters not jurisdictional under another part of the definition could still be found jurisdictional by a "case-specific" significant nexus determination.

This will lead to a significant increase in the assertion of federal jurisdiction where such assertion would be unlawful, mainly because the proposed rule lumps waters *and* wetlands into provisions that EPA and the Corps then intends to make subject to the significant nexus test. However, that would be an inappropriate application of Justice Kennedy's significant nexus test, which applies, if at all, only to wetlands. Moreover, EPA and the Corps have further misconstrued the test in another fundamental way: While Justice Kennedy would require a wetland to "significantly affect the chemical, physical, ***and*** biological integrity of other covered waters," the proposed rule only requires a "water" to "significantly affect[] the chemical, physical, ***or*** biological integrity" of a covered water. For these and other reasons, EPA should eliminate the vague catch-all category of "other waters" from any rulemaking.

Further, the criteria announced by the plurality in *Rapanos* should control for lakes and ponds, and addressing those water types should be fairly straight forward for rulemaking purposes. Simply stated, if there is no continuous surface water connection between a pond or lake and a downstream navigable waterbody, then they should not be viewed as tributaries and there should be no assertion of jurisdiction. These types of ponds and lakes should be ***categorically excluded*** in any rulemaking.

There are additional issues, described below, with EPA's "other waters" catchall.

1. Watershed or ecosystem approach (aggregation approach).

The proposed rule introduces a new watershed/ecosystem concept into jurisdictional determinations that, as written, would allow EPA and the Corps to "aggregate" the contributions of all similar waters within an *entire watershed* to determine whether jurisdiction should be asserted. Implementation of this portion of the proposed rule would require additional guidance and does not meet the intended purpose of the proposed rule to reduce confusion and uncertainty. Based on the significant nexus analysis provided in the proposed rule, particularly for consideration of whether or not wetlands are jurisdictional, field staff would need to start from a "watershed" standpoint, looking at the whole watershed in which the activity will occur, in determining whether jurisdiction should be asserted.

As we understand it from discussions with representatives of both federal agencies, under the existing 2008 guidance, field staff looks to the "relevant reach" of the tributary (navigable or non-navigable) relative to the adjacent wetland which is to be disturbed, a more confined geographical assessment. Under the watershed approach in the proposed rule, the relevant reach concept is no longer used, and field staff will aggregate and consider all similarly situated waters or wetlands (not just adjacent wetlands) in determining whether a significant nexus exists to a "downstream" navigable water. Thus, under the proposed rule, the analysis would start from a greater geographic area/landscape looking back at the activity and including assessment of "similarly situated waters." An entire group of waters could be determined jurisdictional without ever performing a significant nexus analysis of each of those waters. Attempts to establish classes of waters in this manner (based on assumptions instead of a case-by-case analysis) should only be done so with public involvement and comment. There is no formal written process by which these significant nexus studies would be conducted which is not consistent with the intended purpose of the proposed rule to reduce confusion and uncertainty.

Such a blanket jurisdictional approach would establish a nexus between remote intrastate waters and traditional navigable waters, even though it may not meet any common understanding of the term "significant." The proposed rule's sweeping ecosystem/watershed approach defies Supreme Court precedent, where Justice Kennedy stated that "absent more specific regulations," a pointed, "case-by-case," significant nexus analysis is required to determine whether jurisdiction over a wetland, based on adjacency to a navigable water, is appropriately exercised.[72]

Additionally, wet areas isolated from tributaries because they are hydrologically disconnected are likely to be held jurisdictional, requiring enormous effort to verify or rebut the presumption of jurisdiction. This will put project proponents at a significant disadvantage when a wrong, but non-appealable decision, is made by federal agency staff. It will lead to delays in projects, costs of inflation associated with delayed construction, and the cost of hiring experts and lawyers to debate jurisdiction.

[72] 547 U.S. 782.

2. "Similarly Situated" -- Significant nexus based on similarly situated waters of same watershed

Under the proposed rule, non-navigable tributaries, isolated waters, and wetlands in Alaska with no significant nexus will be deemed jurisdictional. Application of the new factors set forth in the proposed rule allows broad assumptions rather than an actual case-by-case assessment by field staff to determine whether a water or wetland is jurisdictional. This means that more isolated waters and wetlands in Alaska will likely be determined jurisdictional, even if there is no meaningful, significant nexus of those waters and wetlands to a navigable waterbody. In fact, the proposed rule incorrectly applies Justice Kennedy's "significant nexus" concept to the formula for determining whether ***tributary or adjacent waters*** are jurisdictional, when Justice Kennedy limits this concept to ***wetlands*** jurisdictional determinations.

Even under existing 2008 guidance, using assumptions for wetlands jurisdictional determinations instead of actual factual inquiries, the agencies are determining too many of these waters and wetlands are jurisdictional, without devoting appropriate review to whether the nexus between them and a navigable water is significant under Justice Kennedy's *Rapanos* analysis, much less what might be determined a relatively permanent, continuous surface water connection of a wetland to a navigable waterbody under Justice Scalia's *Rapanos* plurality decision.

Even if one were to assume that Justice Kennedy's significant nexus test is the controlling test for determining federal jurisdiction, that test as opined by Justice Kennedy requires the government to demonstrate its jurisdiction on a cases-by-case basis. The proposed rule, however, clearly departs from that required, heavily fact-dependent demonstration, and instructs field staff that it may make assumptions about whether "similarly situated waters" are jurisdictional.

Such assumptions cannot withstand judicial scrutiny. Indeed, the Fourth Circuit Court of Appeals, in *Precon Development Corp. v. Army Corps of Engineers*,[73] reversed the district court and found that the Corps failed to demonstrate its finding of a significant nexus between wetlands present in a residential development to the Northwest River, a navigable water located several miles away. The circuit court stated that "[w]e ask only that in cases like this one, involving wetlands running alongside a ditch miles from any navigable water, the Corps pay particular attention to documenting why such wetlands significantly, rather than insubstantially, affect the integrity of navigable waters."[74] The court held that the Corps failed to demonstrate that sediment and nutrient loading were at issue for the Northwest River, and how wetlands located miles away were significant in controlling these pollutants or reducing the potential for flooding in the river.[75] In short, the court held that the Corps must make quantitative or qualitative showing of how a wetland significantly affects the ecological or physical integrity of a navigable water. In response to the circuit court's remand, the Corps conducted additional jurisdictional findings and gathered additional supporting documents. When the district court reviewed the

[73] 633 F.3d 278 (4th Cir. 2011).
[74] *Id*. at 297.
[75] *Id*. at 293-297.

post-remand administrative records, it found that the Corps had compiled a record that met the circuit court's test to support the agency's asserted jurisdiction over the wetlands at issue in the case.[76]

G. Exclusions

The State agrees that the specific exclusions listed in the proposed rule will provide increased clarity for regulators and the regulated community. This, in turn, may help streamline permitting by reducing the number of individual jurisdictional determinations that will have to be made. There are some exclusions, however, that need further clarification.

1. Groundwater

The regulatory reach of the CWA was not intended to be applied to the management and protection of groundwater. As such, the State appreciates the rule's exclusion of "groundwater, including groundwater drained through subsurface drainage systems."[77] Given the rule's use of "shallow subsurface hydrologic connections" to establish jurisdiction between surface waters, the State also appreciates the preamble's statement that "nothing…would cause the shallow subsurface hydrologic connections themselves to become jurisdictional."[78]

However, once codified, the preamble language regarding shallow subsurface hydrologic connections will not be published in the Code of Federal Regulations, leading to possible misinterpretations and confusion about your agencies' intent and the jurisdictional status of such waters. Therefore, the State requests that the groundwater exclusion in section (t)(5)(vi) of the rule be amended to state as follows:

> "Groundwater, including *but not limited to* groundwater drained through subsurface drainage systems *and shallow subsurface hydrologic connections used to establish jurisdiction between surface waters under this section*" (changes in italics).

Further, while EPA states it would not regulate the land on which "shallow subsurface water" flows, the practical effect would be to regulate both those groundwaters and the land on which they rest because it accommodates the flow, and it makes remotely connected waters jurisdictional when there may be no significant connection. Simply put, the CWA does not provide the federal agencies legal authority to use shallow-subsurface waters that are groundwaters regulated by the states as a means to assert CWA jurisdiction over waters not directly connected to downstream navigable waters.

2. Ditches

Regarding the exclusion of "[d]itches that are excavated wholly in uplands, drain only uplands, and have less than perennial flow," the State requests that the agencies clarify in a newly proposed rule that such ditches that drain uplands but eventually discharge to waters of the U.S. are not jurisdictional throughout the portion of the ditch that was excavated in uplands. The agencies should also include detail in the newly proposed rule that

---

[76] 984 F. Supp. 2d 538 (E.D. Va. 2013).
[77] *Id.*
[78] *Id.* at 22210.

defines exactly where the line is between non-jurisdictional and jurisdictional sections of such ditches, as when a ditch does not contribute flow to a downstream navigable water, or when the flow will not contribute "significantly" to the water quality in a down-stream navigable water.

Finally, further clarity is needed in a newly proposed rulemaking that explicitly excludes stormwater collection and treatment systems from broad CWA jurisdiction. EPA already regulates discharges from certain stormwater systems to navigable waters under CWA 402.

Conclusion

EPA and the Corps should withdraw the proposed rule and draft Connectivity Report, and start promulgation of this important rulemaking anew in consultation with the states, as Congress required. The State of Alaska remains willing to collaborate with EPA and the Corps on developing regulations supported by credible science that will enhance CWA programs – several of which are administered by the State – while avoiding the crushing regulatory and economic burden the current proposed rule would impose. Constructive collaboration will help the state and federal agencies continue to protect and enhance our nation's waters, while also preserving states' primary rights and responsibilities over land and water uses, consistent with Congress' intent.

Sincerely,

Lynn J. Tomich Kent
for Larry Hartig
Commissioner

cc (via email):

The Honorable Lisa Murkowski, United States Senate
The Honorable Mark Begich, United States Senate
The Honorable Don Young, United States House of Representatives
Kip Knudson, Director of State/Federal Relations, Office of the Governor
Jo Ellen Darcy, Assistant Secretary of the Army (Civil Works)
Ken Kopocis, Deputy Assistant Administrator, EPA Office of Water

Enclosures:

Attachment 1 – December 16, 2013 Oral Testimony to SAB Panel
Attachment 2 – November 16, 2013 State Comments on EPA's Connectivity Study
Attachment 3 – October 1, 2014 Review by the Small Business Administration's Office of Advocacy Regarding the Economic Impact of the Proposed Rule on Small Businesses
Attachment 4 – Alaska Superimposed on Contiguous U.S.
Attachment 5 – Alaska Permafrost Map (Jorgenson, et al, 2008)

THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Natural Resources
OFFICE OF PROJECT MANAGEMENT & PERMITTING
550 West Seventh Avenue, Suite 1430
Anchorage, Alaska 99501
Main: 907.269.8690
Fax: 907.269.5673
tom.crafford@alaska.gov

TESTIMONY TO SAB PEER REVIEW PANEL ON EPA's CONNECTIVITY STUDY

WASHINGTON, DC - DECEMBER 16, 2013

Good morning (afternoon). My name is Tom Crafford and I serve the State of Alaska as Director of the Office of Project Management and Permitting in the Department of Natural Resources.

My comments today augment those submitted by the State of Alaska on November 6 for this panel's review. The State's comments were compiled from reviews by multiple state agency technical professionals. I urge the panel to consider them in your deliberations as I can only cover a few key points in my testimony today.

Alaska is a long way from Washington DC. Alaskans are accustomed to seeing maps of the U.S. where Alaska appears as a miniature inset map distorting the size and location of our state. Even so, we were incredulous that Alaska, which hosts more wetlands than the rest of the combined U.S., was wholly omitted from the illustrations in the report. Coupled with the lack of information about wetlands and aquatic conditions common to northern latitudes, it's hard to discern how Alaska was considered in the connectivity report.

Permafrost, tundra, muskegs, boreal forest spruce bogs, glaciers, massive snowfields – these are features of our state that are uncommon or entirely absent in the rest of the country. The complex interconnections of groundwater in areas underlain by continuous and discontinuous permafrost, seasonal flooding at spring break-up, braided outwash rivers, and cold, low-nutrient streams are a few of the conditions that make Alaska unique.

Alaska's estimated 174 million acres of wetlands constitute about 65% of the nation's total and comprise about 43% of the state. That's an area larger than the next largest state, Texas. In fact, EPA considers all land north of the Brooks Range as tundra wetlands. Very few of our wetlands have been disturbed by man and vast acreages have been forever protected in federal Parks, Preserves, Refuges and Monuments as well as our State Park system.

Because of the remoteness and lack of developed overland access throughout most of the state, there is much about Alaskan waterbodies and wetlands we are still learning. We do know, however, that some methodology used to delineate wetlands per Army Corps of Engineers guidance doesn't work well in areas with undeveloped soils and where hydrology is often driven by seasonal freezing and flooding or permafrost.

The connectivity report makes reference to headwaters, perennial, intermittent and ephemeral waters. It introduces new terms such as "unidirectional" and "bidirectional" to describe connectivity of waters within a watershed. It commingles and interchanges terms that have been previously defined in wetland science, such as "riparian/floodplain wetland" and "riverine wetland". By introducing and defining new terms, the report compounds already complex terminology. The State recommends that EPA use terms and definitions that are long-established and accepted for scientific and technical analyses when discussing wetland connectivity.

The concept of a geographically isolated wetland where a surface water cannot be readily observed requires on-site, targeted data collection to determine the degree -- that is, the significance -- of connectivity. According to the report, the only truly isolated wetlands are completely surrounded by uplands. But not all wetlands, including wide swaths of permafrost tundra in Alaska that may be near but do not abut "waters of the U.S.", will have a demonstrated significant nexus.

We are concerned that this report has been written after the fact to support an already crafted proposed Clean Water Act jurisdictional rule. A draft of that rule was leaked in early November 2013, redefining and significantly expanding federal jurisdiction under the Clean Water Act. Alaska is no stranger to federal rules and policies which, written with the lower-48 in mind, are at best awkward and difficult to apply to Alaska.

In addition, the State of Alaska is currently evaluating whether it will assume Section 404 permitting, as states are entitled and Congress intended, under the Clean Water Act. If the connectivity report is used to support redefinition of "waters of the U.S." in a manner that would further limit those waters over which a state is entitled to assume jurisdiction under a state 404 program, or if the report and rulemaking make faulty assumptions about what waters and wetlands are – in the first instance – subject to Clean Water Act regulation, we have significant concerns with both the report and the pending rulemaking.

In closing, the state reviewers appreciated the effort behind the report as a literature review. However, the report lacks studies relevant to interior and arctic Alaska, and it appears to assume, as a rule, that connectivity is significant, even when such an assumption is unsupported. This results in a massive expansion of waters and wetlands that would be subject to Clean Water Act regulation. These and other weaknesses in the report undermine its effectiveness if it's to inform a truly nationwide rulemaking process.

THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Natural Resources

OFFICE OF PROJECT MANAGEMENT & PERMITTING

550 West Seventh Avenue, Suite 1430
Anchorage, Alaska 99501
Main: 907.269.8690
Fax: 907.269.5673
tom.crafford@alaska.gov

November 6, 2013

VIA EMAIL & CERTIFIED MAIL

Dr. Thomas Armitage, Designated Federal Officer (DFO)
EPA Science Advisory Board Staff Office (1400R)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460
via email at armitage.thomas@epa.gov

Office of Environmental Information (OEI) Docket (Mail Code 28221T)
Docket # EPA-HQ-OA 2013-0582
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, DC 20460
ORD.Docket@epa.gov

Re: State of Alaska Comments on EPA's draft report, *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence* (September, 2013 External Review Draft, EPA/600/R-11/098B)

Dear Dr. Armitage:

The State of Alaska has reviewed the U.S. Environmental Protection Agency's (EPA) draft report *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence* (September, 2013 External Review Draft, EPA/600/R-11/098B) (hereinafter the "Report") that EPA publicly noticed in the Federal Register on September 24, 2013. EPA imposed a short public review period on the Report, stating that public comments had to be submitted by November 6, 2013 if commenters were to expect EPA to provide

their comments to the Science Advisory Board (SAB) expert review panel that is reviewing the Report.

As you know, for the benefit of the SAB external review panel as well as the public, the State requested that EPA extend the public review and comment period for an additional 90 days, but EPA denied that request. The State remains very concerned about the lack of adequate time allowed for state regulatory agencies to review this document and the information it relies upon. EPA has failed to make many of the documents underlying the Report available, which makes it extremely difficult, if not impossible, to adequately critique the Report. Nonetheless, the State provides the following and enclosed comments.

The State also nominated two scientists familiar with Alaska hydrology to sit on the external review panel, and one was selected along with a federal agency scientist from Alaska. We appreciate their representation on the panel. But because this Report is informing federal rulemaking that will be implemented by the states, the addition of a scientist from a state regulatory agency could have served those interests in the external review.

Background

The EPA Report is a synthesis of peer-reviewed scientific literature on the connectivity of streams and wetlands. The Report consists of 331 pages and it references over 1000 technical sources. It is a large-scale review that relies upon a broad array of scientific literature documenting research conducted nationwide and indeed worldwide. However, the Report lacks Alaska-specific information and references.

EPA summarizes three major conclusions reached in the Report:

1) scientific literature demonstrates that streams have a strong influence on the character and function of downstream waters;

2) wetlands and open waters in landscapes that are connected such that hydrological flow occurs into and out of the wetland or open water (bidirectional hydrologic exchanges) are physically, chemically, and biologically connected with rivers; and

3) wetlands in landscapes that lack bidirectional hydrologic exchange (isolated wetlands such as prairie potholes, vernal pools, etc.) provide numerous functions that can benefit downstream water quality. There are three chapters where scientific literature is used to support these conclusions. The study explores the three main methods of stream and wetland connection (physical, chemical, and biological).

While the study explores the three main methods of stream and wetland connection (physical, chemical, and biological) and discusses hundreds of scientific studies, the Report does not explain how waters and wetland systems that may be hydrologically connected demonstrate a significance nexus.

Technical Comments and Concerns:

The Report uses very general terms (such "most", "all", "numerous", "typically", among others) to apply a specific study to a broader category of wetlands. Terms that are commonly used during the regulatory process were used in the Report, but with slightly different definitions (e.g., "upland" and "isolated"). Most important for Alaska, there is very little or no discussion of wetland types and northern latitude conditions that are the most common in Alaska (for example permafrost, tundra, muskegs, and boreal forest spruce bogs). In addition, Alaska has approximately 65% of the nation's total wetlands (estimated at 174 million acres) comprising about 43% of Alaska's surface area. Many of these wetlands are in areas with no man-made disturbance.

This Report introduces new terms such as "unidirectional" and "bidirectional" to describe connectivity of waters within a watershed. The Report commingles and interchanges terms that have been previously defined in wetland science, such as "riparian/floodplain wetland" and "riverine wetland". By introducing new terms and creating a definition for them the Report essentially compounds the already complex nature of wetland designation and terminology. The State recommends that EPA use terms and definitions that are long-established and accepted for scientific and technical analyses when deliberating and using these terms when discussing wetland connectivity.

Page-specific technical comments compiled from hydrologists and other scientists at the Alaska Departments of Natural Resources and Environmental Conservation are attached to this letter. Below are some of the key observations summarized from these comments:

- Lack of Alaska specificity

Little of the referenced research was conducted in Alaska and the wetlands types on which it focuses are not representative of the wetlands typically found in Alaska. The maps and illustrations in the study do not even depict Alaska and the limited references in the text to Alaska focus on the biological, not hydrological, connections of streams and wetlands such as the dispersion of nutrients by wildlife feeding on salmon.

- Case studies are from areas much more impacted than Alaska

Case studies, and indeed much of the cited literature, refer to areas that have been heavily impacted by man-made changes. Agricultural and silvicultural activities: dams and other barriers to and moderators of flow; road and culverts; urbanization and channeling of natural waterways; groundwater withdrawal and use; stormwater collection systems; and discharged effluents from wastewater treatment plants have altered the landscape throughout most of the United States. Research conclusions from impacted watersheds reflect the disturbance of the natural hydrologic cycles. The next iteration of the Report should highlight studies done in experimental or otherwise non-impacted watersheds to show interconnections of water bodies and wetlands in healthy ecosystems. We have listed several references in the attached table that could direct EPA and the SAB external review panel to studies conducted in Alaska.

- Geographically isolated waters and wetlands

The concept of a geographically isolated wetland where a surface water cannot be observed requires on-site specific data collection to determine the degree -- that is, the significance -- of connectivity. According to the Report, the only truly isolated wetlands are completely surrounded by uplands. But not all wetlands, including wide swaths of permafrost tundra in Alaska that may be near but do not abut “waters of the U.S.”, will have a demonstrated significant nexus.

Potential policy implications of the Report:

On September 17, 2013, or perhaps even earlier, EPA sent to the White House Office of Management and Budget (OMB) a proposed rule that apparently provides EPA’s proposed process for determining federal jurisdiction under the Clean Water Act. This proposed rule, rumored to be based largely on controversial draft guidance that EPA circulated in 2011, is being fast-tracked through OMB review, when the report that EPA clearly intends to rely upon to buttress the rule has not been reviewed by the external panel nor subjected to rigorous public review and state-federal consultation. Thus, Alaska is concerned that the Report is *post hoc* justification for policy that has already been developed, regardless of the contents of the Report, future versions of it, or the deliberations of the SAB external review panel.

This Report and a final rulemaking will likely significantly expand the reach of federal jurisdiction by expanding the definition of "waters of the U.S." to include wetlands and other isolated water bodies over which, because of multiple Supreme Court rulings, the federal government does not currently have clear jurisdiction. The State of Alaska’s primary concern is that the rulemaking will

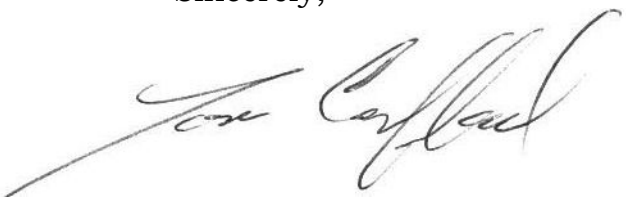
lead to most, if not all, isolated or nominally hydrologically connected waters and wetlands being classified as "waters of the U.S". even though no significant nexus has been demonstrated by virtue of the Report. Such results clearly would encroach on state regulatory prerogatives.

The Report may be used to exert CWA jurisdiction over more and more types of water bodies and wetlands than are now regulated. The Report was apparently commissioned by EPA to bring clarity to thorny regulatory issues regarding connections of subsurface flow, streams and certain wetlands with larger, downstream navigable waters. The issue concerning the reach of federal jurisdiction left unresolved in *Rapanos v. United State*s, 547 U.S. 715(2006) remains problematic if rulemaking is informed by this Report. Moreover, the State believes that any scientific review used to underpin the process for making federal jurisdictional determinations must be completed before a draft rule is prepared by the agencies.

In closing, the state reviewers were impressed with the Report as a literature review of the science of connectivity of waters. It is based on apparently peer-reviewed science, but lacks studies conducted in or relevant to interior and arctic Alaska and therefore has limited applicability in Alaska. This is a key weakness in this Report and undermines its effectiveness in being used in a rulemaking process that will apply nationwide. Notwithstanding this deficiency, if the federal agencies feel compelled to use the Report to buttress the process they propose for determining "waters of the U.S.", the State believes that it would violate the CWA for the EPA and Corps to use that same jurisdictional process for determining those waters and wetlands which states may assume under CWA §404(g)(1). Such application of that process would be contrary to the regulatory directive Congress gave for state-managed §404 programs [*see e.g.* 33 USC §§1251(b) and 1344(g)(1)]. As part of the assumption process, determining assumable vs. non-assumable waters is merely an administrative tool that is used to create a seamless state/federal sharing of permitting responsibilities under the CWA.

With these important caveats, the State of Alaska looks forward to the recommendations of the SAB external review panel, the next iteration of the document, and opportunities to comment on rulemaking.

Sincerely,



Tom Crafford, Director

cc: Via Email & First Class Mail:

EPA Region 10 Administrator Dennis McLerran
EPA Region 10, Alaska Region Director Dianne Soderlund
Alaska Governor Sean Parnell
DNR Acting Commissioner Joe Balash
DEC Commissioner Larry Hartig
ADF&G Commissioner Cora Campbell
Alaska Attorney General Michael Geraghty
Senator Lisa Murkowski
Senator Mark Begich
Congressman Don Young

Attachment: Table of page-specific technical comments

State of Alaska technical comments: EPA Connectivity of Streams and Wetlands to Downstream Waters
(EPA External Review Draft September 2013)

Doc Page Number (e.g. 3-21)	Line No.	General subject area (e.g physical, chemical and biologic waterbody attributes, conceptual model, etc)	
			General – Comments on document as a whole, elements missing, etc.
			This study focuses on the connectivity of streams and wetlands to downstream waters and, as part of the water cycle, but fails to look at the entire system; it only addresses the wetlands-to-downstream water connections, but not the stream/wetlands-to-upland connections. Upland disturbances (e.g. pavement, agriculture etc.) cause problems that alter the characteristics of downstream waters, and the wetlands are needed to correct for the up-gradient changes. (Physical: e.g. floods from paved surfaces, Chemical: e.g. nutrient from feedlots, etc.). This means that wetlands are mainly valuable in areas where they provide this important ecological service of flood control and purification for upstream factors. Wetlands are of less value in areas where upstream activities/impacts are absent or not significant. The focus of the report should include the entire hydrological cycle and focus on areas where unwanted changes are or could be happening in the future. Wetland systems, either natural or manmade (e.g. rain gardens), can be used to reduce the unwanted impacts of upstream activities.
			The document speaks about ephemeral streams and expanding flow networks after rain events, but does not address unpaved surfaces such as parking lots and paved surfaces (e.g. urban areas) that have a vast network of storm drains that should be included in the ephemeral streams concept. The unpaved surfaces contribute to flooding downstream and these storm water floods carry numerous contaminants. Manmade storm water basins and wetlands can be very effective in reducing flood potential and removing contaminants.
		Geographic/regional	References cited in the report which contain subject matter pertinent to the State of Alaska are predominately focused on the southern portions of the State and coastal areas. Although a large portion of Alaska's population is centered in the southern regions, geographically the northern latitudes and interior portions of the State are significant for several reasons, including endangered species habitat, subsistence land use, economic activity, unique thermal/hydrologic systems, and the sheer spatial scale. For instance Hall et al. 1994, reported the interior, arctic, and western regions of the state account for over 90% of the state's 174 million acres of wetlands (approximately 60% of the nation's wetlands as a whole for comparison [Hall et al. 1994]). The majority of the wetlands included in these regions would be classified as Palustrine scrub/shrub and emergent wetlands, commonly cited and referred to as tundra. These areas are generally associated with continuous and discontinuous permafrost and large terrestrial carbon stores (e.g. Oechel et al., 1993, Zimov et al., 2006). Hall, J. V., Frayer, W. E., & Wilen, B. O. (1994). Status of Alaska wetlands. Oechel, W. C., Hastings, S. J., Vourlrtis, G., Jenkins, M., Riechers, G., & Grulke, N. (1993). Recent change of Arctic tundra ecosystems from a net carbon dioxide sink to a source. *Nature*, *361*(6412), 520-523.

Doc Page Number (e.g. 3-21)	Line No.	General subject area (e.g physical, chemical and biologic waterbody attributes, conceptual model, etc)	
			Zimov, S. A., Schuur, E. A., & Chapin III, F. S. (2006). Permafrost and the global carbon budget. *Science(Washington)*, *312*(5780), 1612-1613. Although hydrologic settings and processes described within the EPA's literature review may accurately describe some aspects of the physical hydrologic processes included in arctic and subarctic systems, an elucidation of how northern latitude systems apply within the document would be beneficial to the overall breadth of material in the review, and to the scope of the EPA's objective in commissioning this report. Many studies focusing on these physical processes, including arctic/subarctic wetlands or tundra ecosystems have been conducted and are too numerous to list here, but a few examples are listed below: 1) R.J. Rovansek, L.D. Hinzman, D.L. Kane. 1996. Hydrology of a Tundra Wetland Complex on the Alaskan Arctic Coastal Plain, U.S.A. *Arctic and Alpine Research*, 28:3. 2) N.T. Roulet, M. Woo. 1986. Hydrology of a Wetland in the Continuous Permafrost Region. *Journal of Hydrology*, 89:1-2. 3) N.T. Roulet, M. Woo. 1986. Wetland and Lake Evaporation in the Low Arctic. *Arctic and Alpine Research,* 18:2. 4) L.D. Hangman, D.L. Kane, R.E. Gieck, K.R. Everett. 1991. Hydrologic and Thermal Properties of the Active Layer in the Alaskan Arctic. *Cold Regions Science and Technology,* 19:2. 5) J. Brown, S.L. Dingman, R.I. Lewellen. 1968. Hydrology of a Drainage Basin on the Alaskan Coastal Plain. *Cold Regions Research & Engineering Laboratory, New Hampshire.* 6) R.B. Stewart, W.R. Rouse. 1976. Simple Models for Calculating Evaporation from Dry and Wet Tundra Surfaces. *Arctic and Alpine Research,* 8:3. 7) W.R. Rouse, P.F. Mills, R.B. Stewart. 1977. Evaporation in High Latitudes. *Water Resource Research*. 13:6. 8) J. Ford, B.L. Bedford. 1987. The Hydrology of Alaskan Wetlands, USA: A Review. *Arctic and Alpine Research,* 19:3. 9) S.L. Dingman, R.G. Barry, G. Weller, C. Benson, E.F. LeDrew, C.W. Goodwin. 1980. Climate, snow cover, microclimate and hydrology. *In* J. Brown, P.C. Miller, L.L. Tieszen, F.L. Bunnell, *eds. An Arctic ecosystem: the coastal tundra at Barrow, Alaska.* Stroudsburg, PA, Dowden, Hutchinson and Ross, 30-65.
			This study introduces new terms such as "unidirectional" and "bidirectional" to describe connectivity of waters within a watershed. This study often mixes and interchanges terms that have been previously defined, such as riparian/floodplain wetland and riverine wetland. By introducing new terms and creating a definition for them, the report essentially compounds the already complex nature of wetland science. It is recommended that the study look to the current literature for terms and definitions that have already been established and use these terms when discussing wetland connectivity.

Doc Page Number (e.g. 3-21)	Line No.	General subject area (e.g physical, chemical and biologic waterbody attributes, conceptual model, etc)	
			Chapter 1 – Executive Summary
1-3	12	Generalized conclusion	Suggest removing the word "All" as literature does not support "all".
1-4	30	Materials in rivers	Add " ice" as a material in rivers. It has a significant geomorphic role in shaping Alaska rivers.
	33	What effects rivers	Therefore, Streams (Glaciers) and wetlands…..
1-4,5	39-9	Definition of Connectivity	Suggest moving this section closer to the beginning, suggest to move it to P1-1, line 14
1-6	15	Explanation of Nitrogen	The line "a nutrient that can be a contaminant when present in high concentrations" can be removed.
1-6	13-22	Potential function	Potential wetland function for future use as contaminant and flood reduction mechanisms should be tied to the likelihood of upland development, land use type, climate, precipitation potential, and climate change impacts. Simply stating that a wetland will be useful in the future is not sufficient because there are situations where large numbers of wetlands are associated with a small upland area, meaning that a small number of those wetlands would provide enough ecological service to balance the upland disturbance potential.
1-6	21-22	Potential Function	The last sentence should be struck from the study as this is not a synthesis of scientific literature, but rather a policy driven statement. Protecting waters from future use based on "potential functions" has no basis in the literature cited. How could "potential function" of a wetland be measured or analyzed? Current wetland functional assessments are based on "actual functions".
1-9	2-7	Consider revising	"Export of channel forming sediment and woody debris" - why only export if this is a bidirectional wetland; "they remove and transform excess nutrients" – They can also add nutrients to the stream. "Storage of local groundwater" is confusing, because incoming surface water is stored in the wetland while it is likely exported as groundwater.
1-9	9-12	Consider revising	There is no general rule that determines that all forms of flooding, sedimentation, nutrients, and contaminants (also add carbon) are bad for downstream waters; these processes (except most contaminants) can also provide new habitat for endangered species through exposure of new gravel beds and creation of deep pools or local stream sections that have a different shading regime. If the same water standards are used under all circumstances, then most extreme conditions would be considered "bad," including low flow as well as flooding.
1-14	5-7	Geographically Isolated wetlands	The concept of a geographically isolated wetland where a surface water cannot be observed requires on-site specific data collection to determine the degree of connectivity. This will require states and regulators to review each geographically isolated wetland on a case-by-case basis and will therefore cause expense as well as, potentially, elevations and delays.

Doc Page Number (e.g. 3-21)	Line No.	General subject area (e.g physical, chemical and biologic waterbody attributes, conceptual model, etc)	
			Chapter 2 – Introduction
2-1	19-20	CWA Jurisdiction	The scientific literature review for discussing connectivity should not interject "legal standards for CWA jurisdiction" into the discussion. This only leads to confusion and appears to make a policy statement based on a scientific literature review.
			Chapter 3 – Effects of Streams and Wetlands on Downstream Waters: A Conceptual Framework
3-1	5	Wrong word choice	The second time the word "integrate" is used it does not have the mathematical intent it had the first time the word was used, it is therefore preferable to use the word "relates" in the second occurrence. "Spatial integration" implies a mathematically-derived volume that is not meant in this context.
3-6	2-14	Definition of a wetland	This study introduces two definitions of a wetland, Cowardin and the Federal regulatory definition. According to the study an area can be defined as a wetland when one of the three Cowardin attributes have been met. The reference to the federal regulatory definition of a wetland does not appear to have any merit to the discussion in the study as the report does not use the federal regulatory definition of a wetland. The use of regulatory citations is not necessary and only confuses the reader by making it appear that the definition the authors chose to use for a wetland is supported by regulation. Again, this is an example of using a definition for the study that is not consistent with current wetland management. Regulatory definition of wetlands does not allow for the determination of an area as a wetland by passing only one of the three Cowardin attributes. The broader definition in the study applies the term "wetland" to a lot of areas that would not be defined as a "wetland" using the federal regulatory definition, thus creating an unnecessary level of confusion and misunderstanding.
3-10	24	Wrong word	"Well" should be replaced by "piezometer". The word "well" is used typically for a fully screened borehole whereas a piezometer is only screened at a particular depth interval. In a confined aquifer this is always a piezometer.
3-12	6	explain	"Previous subsurfaces" needs explanation
3-16	28-35	River Network Expansion and Contraction	This section uses a generalization of hydrology based on conditions in the contiguous 48 states (as depicted in the accompanying figures), however riverine hydrology in Alaska cannot be generalized this way as there are larger glacially-fed riverine systems that have higher flows during warmer, drier periods as opposed to a cool wet season as is the case in Oregon. Alaska river hydrology is more likely to be impacted by snowmelt rates and glacial melt than high rates of precipitation.
3-21	19	New term	"riverine wetland" is a new term introduced. This is a Cowardin term, and does not match with the riparian/floodplain wetland definition that was provided earlier in the study. The Study should either define "riverine wetlands" or use the previously defined term.
3-22	15-17	Statement needs revision	If groundwater levels in the wetland are artesian and levels are above the flooding river stage, water cannot infiltrate. Groundwater levels do not dictate flow, but groundwater level gradients do. If the potentiometric surface drops with elevation drop, then water infiltrates; if the potentiometric surface rises with elevation drop, then groundwater seeps out of the ground.

Doc Page Number (e.g. 3-21)	Line No.	General subject area (e.g physical, chemical and biologic waterbody attributes, conceptual model, etc)	
3-27	5	Potential function	The term "potential function" is used again. Measuring the "potential function" of denitrification in a wetland that may never have nitrogen imported into the system appears to be a difficult assessment. "What if" scenarios make management of these resources virtually impossible.
3-33	20	Section 3.4.1 Climate-Watershed Characteristics	This section is void of any discussion of glacial systems and impacts to melting ice. There is a very brief discussion on snowmelt. Northern climates such as in Alaska are quite unique and not discussed in this section of the study.
			Chapter 4 – Streams: Physical, Chemical and Biological Connections to Rivers
4-11		Paragraph 4.3.3	A paragraph should be devoted to woody debris that is transported along the bottom of the river (as opposed to floating woody debris). Research on kinematic hydro power generation shows that the wood causes problems with moving components of a generator system.
4-13		Paragraph 4.3.4 Add this text concerning permafrost related groundwater flow and temperature	The presence of permafrost (ground below 0˚C for more than 2 consecutive years) commonly creates artesian groundwater flow in narrow stream valleys (Williams 1970), because permafrost is an impermeable barrier to groundwater flow (Callegary et.al. 2013). This water is typically just above freezing (Yoshikawa 1993). It is prevented from freezing by the geothermal gradient underneath the watershed, which is offset by the mean annual ground surface heat flow (Romanovsky and Osterkamp 1995). Regional groundwater flow alters the geothermal heat flux in many cases (Deming 1993). In the case of narrow valleys, gravels are commonly present in the deepest portion of the unconsolidated materials and can carry water, but only if the permafrost is not deep enough to block the flow (Williams 1970). Thermal processes in the ground are complex near the ground surface due to seasonal freezing and thawing. Artesian groundwater flow only adds to this complexity. Larger, more concentrated springs maintain flow all winter long and can create large ice deposits on the surface called aufeis (Yoshikawa et.al. 2006). These deposits are found throughout Alaska where mean annual air temperatures are below -10˚C, including the North Slope (Kane et.al. 2013).
4-13	31	replace	"that affect" with "in"
4-21		Paragraph 4.4.2 Add a section on carbon storage in permafrost	Large carbon pools are present in permafrost-controlled landscapes (Tarnocai et.al. 2009). Low temperatures and anoxic conditions in frozen ground preserve this carbon over time. However, warming atmospheric conditions in the northern regions have led to widespread degradation of permafrost (Jorgenson et.al. 2010) and DOC release to surface water (O'Donnell et.al. 2012). Additional DOC from warming soils will likely add to the aquatic food chain of streams and rivers throughout Alaska in the coming decades. These changes could alter community structures due to shifting energy supplies in these systems (Jansson et.al. 2000).
4-26		Paragraph 4.4.4	There is no discussion on dissolved or suspended organic contaminants in this paragraph (hydrocarbons, pesticides, herbicides, etc.); they often behave differently than other contaminants due to bioaccumulation and adsorption to other organic matter.

Doc Page Number (e.g. 3-21)	Line No.	General subject area (e.g physical, chemical and biologic waterbody attributes, conceptual model, etc)	
4-29		Paragraph 4.5	Large springs from sub-permafrost groundwater (see section 4.3.4) provide a thermal shelter for overwintering fish on the North Slope of Alaska. Many streams and some rivers in this region freeze completely to the bed during the winter months. Only deep water bodies and springs remain as liquid water for fish to survive in.
			Chapter 5 – Wetlands: Physical, Chemical and Biological Connections to Rivers
5-1	4	Consider revising	Suggest adding "generally" in front of transitional ecosystems as not all wetlands are transitional ecosystems.
5-3	24-34		Most scientific peer-reviewed literature that was reviewed for riparian and floodplain areas did not specify the area as a wetland. However, the study surveyed the "riparian literature broadly and included any results and conclusions that we judged were pertinent to riparian/floodplain wetlands." This does not seem consistent with the intent of the study.
5-5		Baseflow	Table 5-1 point 5: Stored water does not just return as base flow to the stream, it also returns as normal flow after water levels in the stream recede. Only the portion of the water that remains in the wetlands when the stream is near its lowest level will add to baseflow.
5-6		Paragraph 5.3.1.1 Add permafrost and ice flows as physical interactions	Riparian areas in the discontinuous permafrost zone, (permafrost present in 50-90% of the area) are more likely to form permafrost than other areas in the region. This is because of the following reasons: 1) saturated areas conduct more heat in winter than in summer, resulting in a thermal offset that favors freezing; 2) wet ecosystems support the development of a moss cover and peat layer, further enhancing the thermal offset; 3) vegetation structures such as tussocks and small coniferous trees provide additional cooling in winter through snow pack manipulation. The vegetation causes the snow pack to be discontinuous and holes provide opportunities for thermal convection and therefore rapid cooling of the ground underneath the snow cover. Development of this permafrost layer affects groundwater movement by obstructing subsurface drainage/seepage and favoring flow directly into the unfrozen river bed. Groundwater flow directly into the river bed alters the geothermal heat flow and further reduces the heat input into this zone. The presence of the permafrost layer cuts the direct groundwater connection between the river and the riparian wetlands in permafrost regions, but connects the river with groundwater from upland areas that might have otherwise surfaced in the wetland. Climate change has in many cases already affected the permafrost in the discontinuous permafrost zone, leading to the widespread development of thermokarst (Jorgenson et.al. 2001). This thermokarst can open a connection between surface water and groundwater (Yoshikawa et.al. 2006). In the continuous permafrost zone (permafrost present in >90% of the area) permafrost can be much deeper, e.g. ~600 m in northern Alaska. Only large rivers can have an open talik (unfrozen zone) to sub-permafrost groundwater (Kane et.al. 2013). Riparian areas in the continuous permafrost zone are not likely to lose permafrost in the next century, but taliks can form in the upper part of permafrost and create a perched groundwater aquifer. Permafrost also affects local ground surface elevation due to massive ground ice formation. There is evidence that entire riparian zones have uplifted (inflated) during the Little Ice Age due to massive ground ice development (Jorgenson et.al. 2007).

Doc Page Number (e.g. 3-21)	Line No.	General subject area (e.g physical, chemical and biologic waterbody attributes, conceptual model, etc)	
			On a smaller scale the ground surface can move up and down on an annual basis due to frost heave in the Arctic tundra (Daanen 2012). These elevation changes influence drainage patterns and runoff amounts in ice wedge polygon networks such as those at Barrow, Alaska (Liljedahl et.al. 2012).
5-7		Paragraph 5.3.1.2 Add ice flows in geomorphology dynamics	In Arctic regions river ice plays an important role in river dynamics and river bed evolution, primarily through spring flooding events. Most lakes and rivers freeze deeper than a meter and during spring this ice is forced to flow with the river as water levels rise due to snowmelt. During some years ice is moved beyond the river bank, disturbing riparian vegetation and scouring the river banks. River ice can also pick up large boulders from the river bed and deposit them in riparian areas. Glacial rivers transport large amounts of sediment, causing the broad river bed to be virtually devoid of vegetation. Braided river systems are typically open- river systems where ice and ice dams play an important role every spring in scouring the river bed, cutting new channels or closing old ones, and even removing vegetation.
5-12	4	Insert line	
5-23	35	Add text	In the list add “the presence or absence of permafrost”
5-24	14	Add text	In the list add “the presence or absence of permafrost”
5-28	22	Change text	“boreal” to “Laurentian mixed”
5-29	13	Add text	Degradation of permafrost in riparian areas can also lead to increased release of DOC (O’Donnell et.al. 2012) (see section 4.4.2).
5-37	32	Change text	“all” to “most”
5-37	33	Delete text	“; this is why the water cycle environment is referred to as the hydrosphere”
5-38	1	Delete text	“ The purpose of this review is to determine, based on the peer reviewed literature, the degree of connectivity and associated affects between different unidirectional wetlands and downstream waters.” This sentence is not correct, because this connectivity is unique for each wetland and can only be determined on an individual basis by experts. Each unidirectional wetland has potentially a different relation with downstream waters, especially the isolated ones. To say that this relation can be determined with a literature review is misleading; at best we can speculate that there is a connection if no research was done on the connectivity. (also see section starting on line 30, p5-40)
5-40	29	Add text	“ Especially regions with permafrost where the hydrological connectivity depends directly on the temperature of the ground.”

October 1, 2014

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Maj. Gen. John Peabody
Deputy Commanding General
Civil and Emergency Operations
U.S. Army Corps of Engineers
Attn: CECW-CO-R 441 G Street, NW
Washington, D.C. 20314-1000

Re: Definition of "Waters of the United States" Under the Clean Water Act [1]

Dear Administrator McCarthy and Major General Peabody:

The Office of Advocacy of the U.S. Small Business Administration (Advocacy) submits these comments regarding the proposed rule to the U.S. Army Corps of Engineers (the Corps) and the Environmental Protection Agency (EPA, and together, "the agencies"). Advocacy believes that EPA and the Corps have improperly certified the proposed rule under the Regulatory Flexibility Act (RFA) because it would have direct, significant effects on small businesses. Advocacy recommends that the agencies withdraw the rule and that the EPA conduct a Small Business Advocacy Review panel before proceeding any further with this rulemaking.

The Office of Advocacy and the Regulatory Flexibility Act

Advocacy was established pursuant to Pub. L. 94-305 to represent the views of small entities before federal agencies and Congress. Advocacy is an independent office within SBA, so our views do not necessarily reflect those of SBA or the Administration. The RFA, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA),[2] requires small entities to be considered in the federal rulemaking process. The RFA requires federal agencies to consider the impact of their proposed rules on small businesses. When a rule is expected to have a significant economic impact on a substantial number of small entities, agencies must evaluate the impact, consider less

[1] Definition of Waters of the United States Under the Clean Water Act, 79 *Fed. Reg.* 22188 (April 21, 2014).
[2] Pub. L. 104-121, Title II, 110 Stat. 857 (1996) (codified in various sections of 5 U.S.C. §601 et seq.).

burdensome alternatives, and in the case of EPA, convene a Small Business Advocacy Review panel.[3] The RFA directs Advocacy to monitor agency compliance with the RFA. To this end, Advocacy may file written comments reflecting small business concerns about the impact of a rulemaking.[4] Because of small business concerns with the proposed rule, Advocacy held a roundtable on July 21, 2014 and has heard from numerous small entities in many industries.

Background

The Clean Water Act (CWA) was enacted in 1972 to "restore and maintain the chemical, physical and biological integrity of the Nation's waters."[5] The CWA accomplishes this by eliminating the "discharge of pollutants into the navigable waters."[6] The CWA defines "navigable waters" as "the waters of the United States, including the territorial seas."[7] Existing regulations currently define "waters of the United States" as traditional navigable waters, interstate waters, all other waters that could affect interstate or foreign commerce, impoundments of waters of the United States, tributaries, the territorial seas, and adjacent wetlands.[8]

The CWA requires a permit in order to discharge pollutants, dredged, or fill materials into any body of water deemed to be a "water of the United States."[9] The EPA generally administers these permits, but EPA and the Corps jointly administer and enforce certain permit programs under the Act.[10]

The extent of the Act's jurisdiction has been the subject of much litigation and regulatory action, including three Supreme Court decisions. Actions of the Court have expanded and contracted the definition, especially regarding wetlands and smaller bodies of water.

- In 1985, the Supreme Court determined that adjacent wetlands may be included in the regulatory definition of "waters of the United States."[11]
- In 2001, the Court held that migratory birds' use of isolated "nonnavigable" intrastate ponds was not sufficient cause to extend federal jurisdiction under the CWA.[12]
- In 2006, the Supreme Court considered whether wetlands near ditches or man-made drains that eventually empty into traditional navigable waters were

[3] 5 U.S.C. § 603, 605.
[4] The Small Business Jobs Act of 2010 (Pub. L. 111-240 § 1601) also requires agencies to give every appropriate consideration to Advocacy's written comments on a proposed rule. This response must be included in an explanation or discussion accompanying the final rule's publication in the *Federal Register* unless the agency certifies that the public interest is not served by doing so.
[5] 33 U.S.C. § 1251(a) (1972).
[6] Id. at § 1251(a)(1).
[7] Id. at § 1362(7).
[8] 33 C.F.R. § 328.3(a); 40 C.F.R. §230.3(s).
[9] 33 U.S.C. §§ 1311(a), 1342, 1344.
[10] Id. at § 1344.
[11] *United States v. Riverside Bayview Homes,* 474 U.S. 121, 134-135 (1985).
[12] *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (SWANCC),* 531 U.S. 159, 174 (2001).

considered "waters of the United States."[13] Justice Scalia, writing for the plurality, determined that "*only* those wetlands with a continuous surface connection to bodies that are 'waters of the United States' [. . .] are 'adjacent to' such waters and covered by the Act."[14] Justice Kennedy concurred in the judgment, but concluded that the Corps must establish the existence of a "significant nexus" when it asserted jurisdiction over wetlands adjacent to non-navigable tributaries.[15]

The courts have left much uncertainty regarding what constitutes a "water of the United States." Such uncertainty has made it difficult for small entities to know which waters are subject to jurisdiction and CWA permitting.

To address this uncertainty, the EPA and Corps proposed this rule which would revise the regulatory definition of "waters of the United States" and would apply to all sections of the Clean Water Act. The proposed rule defines "waters of the United States" within the framework of the CWA as the following seven categories:

- All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters, including interstate wetlands;
- The territorial seas;
- All impoundments of a traditional navigable water, interstate water, the territorial seas or a tributary;
- All tributaries of a traditional navigable water, interstate water, the territorial seas or impoundment;
- All waters, including wetlands, adjacent to a traditional navigable water, interstate water, the territorial seas, impoundment or tributary; and
- On a case-specific basis, other waters, including wetlands, provided that those waters alone, or in combination with other similarly situated waters, including wetlands, located in the same region, have a significant nexus to a traditional navigable water, interstate water or the territorial seas.[16]

The proposed rule defines several terms for the first time: "neighboring," "riparian area," "floodplain," "tributary," and "significant nexus"; and it clarifies the terms, "adjacent" and "wetlands."[17] The rule leaves the regulatory definitions of "traditional navigable waters," "interstate waters," "the territorial seas," and "impoundments" unchanged.[18]

Regulatory Flexibility Act Requirements

The RFA states that "[w]henever an agency is required by section 553 of this title, or any other law, to publish general notice of proposed rulemaking for any proposed rule, or

[13] *Rapanos v. United States*, 547 U.S. 715, 729 (2006).
[14] Id. at 742.
[15] Id. at 779 (Kennedy, J., concurring).
[16] 79 *Fed. Reg.* at 22,198.
[17] See Id. at 22,263, for the complete definitions of "adjacent," "neighboring," "riparian area," "floodplain," "tributary," "wetlands," and "significant nexus."
[18] Id.

publishes a notice of proposed rulemaking for an interpretative rule involving the internal revenue laws of the United States, the agency shall prepare and make available for public comment an initial regulatory flexibility analysis [IRFA]. Such analysis shall describe the impact of the proposed rule on small entities."[19]

Under Section 609(b) of the RFA, EPA is required to conduct small business advocacy review panels, often referred to as SBREFA panels, when it is unable to certify that a rule will not have a significant economic impact on a substantial number of small businesses. SBREFA panels consist of representatives of the rulemaking agency, the Office of Management and Budget's Office of Information and Regulatory Affairs (OIRA), and the Chief Counsel for Advocacy. SBREFA panels give small entity representatives (SERs) a chance to understand an upcoming proposed rule and provide meaningful input to help the agency comply with the RFA. SERs help the panel understand the ramifications of the proposed rule and significant alternatives to it.

Section 605(b) of the RFA allows an agency to certify that a rule will not have a significant economic impact on a substantial number of small entities in lieu of preparing an IRFA.[20] When certifying, the agency must provide a factual basis for the certification.[21] In the current case, the agencies have certified that revising the definition of "waters of the United States" will not have a significant economic impact on a substantial number of small businesses.

The Proposed Rule Has Been Certified in Error

Advocacy believes that the agencies have improperly certified this rule. Advocacy, and the small businesses we have spoken to, believe that

- The agencies used an incorrect baseline for determining their obligations under the RFA;
- The rule imposes costs directly on small businesses; and
- The rule will have a significant economic impact on small businesses.

A. The Agencies Use the Incorrect Baseline for its Regulatory Flexibility Act Certification

Advocacy believes that the agencies used the wrong baseline for their RFA certification. In certifying the rule, the agencies state that, "This proposed rule is narrower than that under the existing regulations…fewer waters will be subject to the CWA under the proposed rule than are subject to regulation under the existing regulations."[22] On this

[19] 5 U.S.C. §603.
[20] 5 U.S.C. §605.
[21] Id.
[22] Id.

basis the agencies conclude that, "This action will not affect small entities to a greater degree than the existing regulations."[23]

The "existing regulations" that the agencies refer to in this reasoning is the 1986 rule defining the scope of waters of the United States. Compared to the 1986 definition, the proposed changes represent a narrowing of coverage. However, in the economic analysis accompanying the rule, the agencies assess the regulation vis-à-vis current practice and determine that the rule increases the CWA's jurisdiction by approximately 3 percent.[24] The agencies' certification and economic analysis contradict each other.

Advocacy believes that the proper baseline from which to assess the rule's impact is current practice. Guidance from the Office of Management and Budget's Office of Information and Regulatory Affairs (OIRA) substantiates this view. OIRA's Circular A-4 provides guidance to federal agencies on the development of regulatory analysis.[25] It states that "The baseline should be the best assessment of the way the world would look absent the proposed action."[26] The 1986 regulation has been abrogated by several Supreme Court cases and is no longer in use.[27] The Corps and EPA also issued a guidance document in 2008 which sought to bring jurisdictional determinations in line with these Supreme Court cases.[28] The 1986 regulation does not represent the current method for determining jurisdiction and has not served that purpose for more than thirteen years. Using an obsolete baseline improperly diminishes the effects of this rule. Advocacy agrees with the agencies' economic analysis that uses current practice as the appropriate baseline for evaluating the rule.

B. The Rule Imposes Costs Directly on Small Businesses

The second basis for the certification appears to be the agencies' position that the impact on small businesses will be indirect, hence not requiring an initial regulatory flexibility analysis or a SBAR panel.[29] EPA cites *Mid-Tex Electric Cooperative, Inc., v. Federal Energy Regulatory Commission*[30] and *American Trucking Associations, Inc., v. EPA*[31] in support of their certification.[32] Advocacy believes that the agencies' reliance on *Mid-Tex* and *American Trucking* is misplaced because the proposed rule will have direct effects on small businesses.

---

[23] Id.
[24] Id.
[25] Office of Management and Budget, *Circular A-4*, http://www.whitehouse.gov/omb/circulars_a004_a-4/#e (September 17, 2003).
[26] Id.
[27] See *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (SWANCC)*, 531 U.S. 159, 174 (2001); *Rapanos v. United States*, 547 U.S. 715, 729 (2006).
[28] Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States* and *Carabell v. United States*, December 2, 2008, http://water.epa.gov/lawsregs/guidance/wetlands/CWAwaters.cfm .
[29] 79 *Fed. Reg.* at 22,220.
[30] *Mid-Tex Electric Cooperative, Inc. v. Federal Energy Regulatory Commission (FERC)*, 773 F.2d 327, 342 (D.C. Cir. 1985).
[31] *American Trucking Associations v. EPA*, 175 F.3d 1027 (D.C. Cir. 1999).
[32] 79 *Fed. Reg.* at 22,220.

In *Mid-Tex*,[33] the Federal Energy Regulatory Commission (FERC) issued regulations instructing generating utilities how to include costs of construction work in their rates. Although the generating utilities were large businesses, their customers included small entities, to whom they may or may not have been able to pass on these costs through any rate changes.[34] The issue raised in this case was whether the agency had improperly certified the rule because it failed to consider the impact on the small business customers. The court concluded that an agency is required to file an IRFA only in cases where a regulation directly affects small businesses;[35] if it does not, an agency may properly certify.

In *Mid-Tex*, the proposed regulation's applicability to small businesses is akin to the FERC regulation's applicability to the generating utilities themselves, not their customers, as EPA seems to believe. Generating utilities were an intervening actor between the regulatory agency and the small business customers; the utilities had a substantial amount of discretion as to whether they would pass on their construction costs to their small entity customers and, if so, how much of those costs they would pass on.

Such is not the case with this rule. First, there is no intervening regulated actor. In *Mid-Tex*, the generating utilities were the entities regulated and bound by FERC guidelines, and it was not certain that they would pass on the costs of the new guidelines to their small business customers. In the current case, the Clean Water Act and the revised definition proposed in this rule directly determine permitting requirements and other obligations. It is unquestionable that small businesses will continue to seek permits under the Clean Water Act. Therefore they will be subject to the application of the proposed definition and the impacts arising from its application.

Second, the rule defines the scope of jurisdiction of the Clean Water Act without any discretion left to any entity or intermediary. The rule does not, for example, set a goal for which types or how many waters must be included in jurisdiction, leaving the Corps or states to determine the exact definition of waters of the United States in particular instances. This rule establishes the definition and all small entities are bound by it.

In *American Trucking*,[36] the EPA's certification of rules to establish a primary national ambient air quality standard (NAAQS) for ozone was challenged. The basis of the EPA's certification was that the NAAQS regulated small entities indirectly through state implementation plans. The rules gave states broad discretion to determine how to achieve compliance with the NAAQS.[37] The rules *required* EPA to approve any state plan that met the standards; it could not reject a plan based upon its view of the wisdom of a state's choices.[38] Under these circumstances, the court concluded that EPA had properly

[33] 773 F.2d at 342.
[34] Id. The generating utilities were not required to pass on the rate increases and in some cases were limited by state law in how much of the rate increase could be passed on to customers.
[35] Id.
[36] 175 F.3d 1027 (D.C. Cir. 1999).
[37] Id.
[38] Id. at 1044.

certified because any impacts to small entities would flow from the individual states' actions and thus be indirect.[39]

EPA's proposed rule is distinguishable from the regulations at issue in *American Trucking*. The states were intervening actors with broad discretion regarding how to implement the federal standards. The EPA rules only told the states what the goal was; the states were left to develop the plans that would implement those goals and thereby impose impacts on small businesses.[40] In the current case, the agencies are not defining a goal nor are they authorizing any third party to determine the means and methods for reaching the goal. To the contrary, the agencies are defining the term governing the applicability of their own CWA programs. A change in the scope of the definition of "waters of the United States" necessarily leads to an increase in the scope and impact of the CWA since the programs thereunder only apply to waters that fall within this definition. The agencies, not a third party, determine whether a given body of water is within the jurisdiction of the requirements of the Clean Water Act and therefore subject to it.

Small businesses have also provided specific examples of how this rule will directly impact them. For example, during a May hearing of the U.S. House of Representatives Committee on Small Business, Jack Field of the Lazy JF Cattle Co. testified that the rule would essentially eliminate an exemption for normal farming practices that he relies upon to do things such as building a fence to control his grazing cattle.[41] The proposed rule would eliminate the exemption for farmers whose actions do not comply with Natural Resources Conservation Services standards.[42]

Small entities in the utility industry have expressed that this proposed rule could eliminate the advantages of Nationwide Permit 12 – Utility Line Projects (NWP 12). Utility companies use NWP 12 to construct and maintain roads that provide access to the utility grid. Under NWP 12 a "single and complete" project that results in less than a ½ acre loss of waters of the U.S. is allowed to proceed under NWP 12 rather than obtain an individual CWA permit.[43] Currently, each crossing of a road over a water of the U.S. is treated as a "single and complete" project. The proposed rule creates large areas in which NWP 12 could no longer be used at all. Under this proposed rule waters in the same riparian area or floodplain all become adjacent waters and therefore waters of the U.S. If all of the waters in the riparian area or floodplain are treated as one interconnected water of the U.S. it would be virtually impossible for small utility companies to use NWP 12. Small utilities would need to apply for the more costly and time consuming individual

[39] Id. at 1045.
[40] Id. at 1044.
[41] Testimony of Jack Field, Owner Lazy JF Cattle Co. at U.S. House of Representatives Committee on Small Business Hearing entitled "Will EPA's Waters of the United States Rule Drown Small Businesses?", May 29, 2014 at http://smallbusiness.house.gov/calendar/eventsingle.aspx?EventID=373099.
[42] 79 Fed. Reg. at 22,194; Notice of Availability Regarding the Exemption From Permitting Under Section 404(f)(1)(A) of the Clean Water Act to Certain Agricultural Conservation Practices,79 Fed. Reg. 22,276.
[43] Reissuance of Nationwide Permits, 77 Fed. Reg. 10195 (February 21, 2012).

permits. This is a direct cost imposed solely as a result of the changes to the definition of the term "waters of the United States" proposed in this rule.

These examples, as well as comments that Advocacy has received from small entities in other industries, demonstrate that the impact of the proposed rule will be direct. Therefore, the agencies are required to measure the impacts of the rule and to determine whether those impacts are significant for a substantial number of small entities.

C. The Rule Will Have a Significant Economic Impact on Small Businesses

The economic analysis clearly indicates that this rule is likely to have a significant economic effect on small businesses. In the analysis, the agencies examine the anticipated changes to permitting under CWA Section 404 (development projects that discharge dredge or fill materials into waters of the U.S.). They find that in current practice 98 percent of streams and 98.5 percent of wetlands meet the definition of waters of the U.S.;[44] under the revised definition these figures rise to 100 percent.[45] They find zero percent of "other waters" (the seventh category in the revised definition) to be covered in current practice, but the revised definition would cover 17 percent of this category.[46] The agencies evidence an understanding that this increase in jurisdiction will lead to greater costs stating, "A change in assertion of CWA jurisdiction could result in indirect costs of implementation of the CWA 404 program: a greater share of development projects would intersect with jurisdictional waters, thus requiring the sponsors of those additional projects to obtain and comply with CWA 404 permits."[47]

The agencies estimate that CWA 404 permit costs would increase between $19.8 million and $52.0 million dollars annually, and they estimate that section 404 mitigation costs would rise between $59.7 million and $113.5 million annually.[48] These amounts do not reflect additional possible cost increases associated with other Clean Water Act programs, such as Section 402 permitting or Section 311 oil spill prevention plans.[49] The agencies further state that the economic analysis done with respect to the 404 program increase is likely not representative of the changes that may occur with respect to 402 and 311 permitting,[50] leaving small businesses without a clear idea of the additional costs they are likely to incur for these Clean Water Act programs.

The economic analysis also singles out a particular class of businesses potentially affected by the revised definition, yet fails to evaluate any of these potential effects. EPA acknowledges that "a large portion of traditional 402 permit holders are located nearby large water sources to support their operations."[51] The agencies do not identify how many

[44] Economic Analysis of Proposed Revised Definition of Waters of the United States, U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, 11 (March 2014).
[45] Id.
[46] Id.
[47] Id. at 13. Advocacy disagrees with the agencies' assertion that this cost is indirect (see above).
[48] Id. at 16.
[49] Id. at 12.
[50] Id.
[51] Id.

of these businesses may be small nor do they discuss the expected impact of this rule on them. Yet this proposed rule would directly affect those small businesses that may be located next to large water sources and which fall within the 3 percent of waters that will be newly included in the definition "waters of the U.S."

Concerns raised by small businesses as well as the agencies' own economic analysis both indicate that small businesses will see a cost increase as a result of the revised definition. The EPA and the Corps have obligations under OMB guidance, and the RFA to measure and communicate this increase. Their certification of no small business impact is inappropriate in light of this information. Because of this probable small business impact, the RFA requires the agencies to complete an IRFA and a SBAR panel.

Conclusion

Advocacy and small businesses are extremely concerned about the rule as proposed. The rule will have a direct and potentially costly impact on small businesses. The limited economic analysis which the agencies submitted with the rule provides ample evidence of a potentially significant economic impact. Advocacy advises the agencies to withdraw the rule and conduct a SBAR panel prior to promulgating any further rule on this issue.

If we can be of any further assistance, please contact Kia Dennis, Assistant Chief Counsel, at (202) 205-6936.

Thank you for your attention to this matter.

Sincerely,

/s/ Winslow Sargeant, Ph.D.

Chief Counsel for Advocacy

/s/ Kia Dennis

Assistant Chief Counsel

/s/ Stephanie Fekete

Legal Fellow

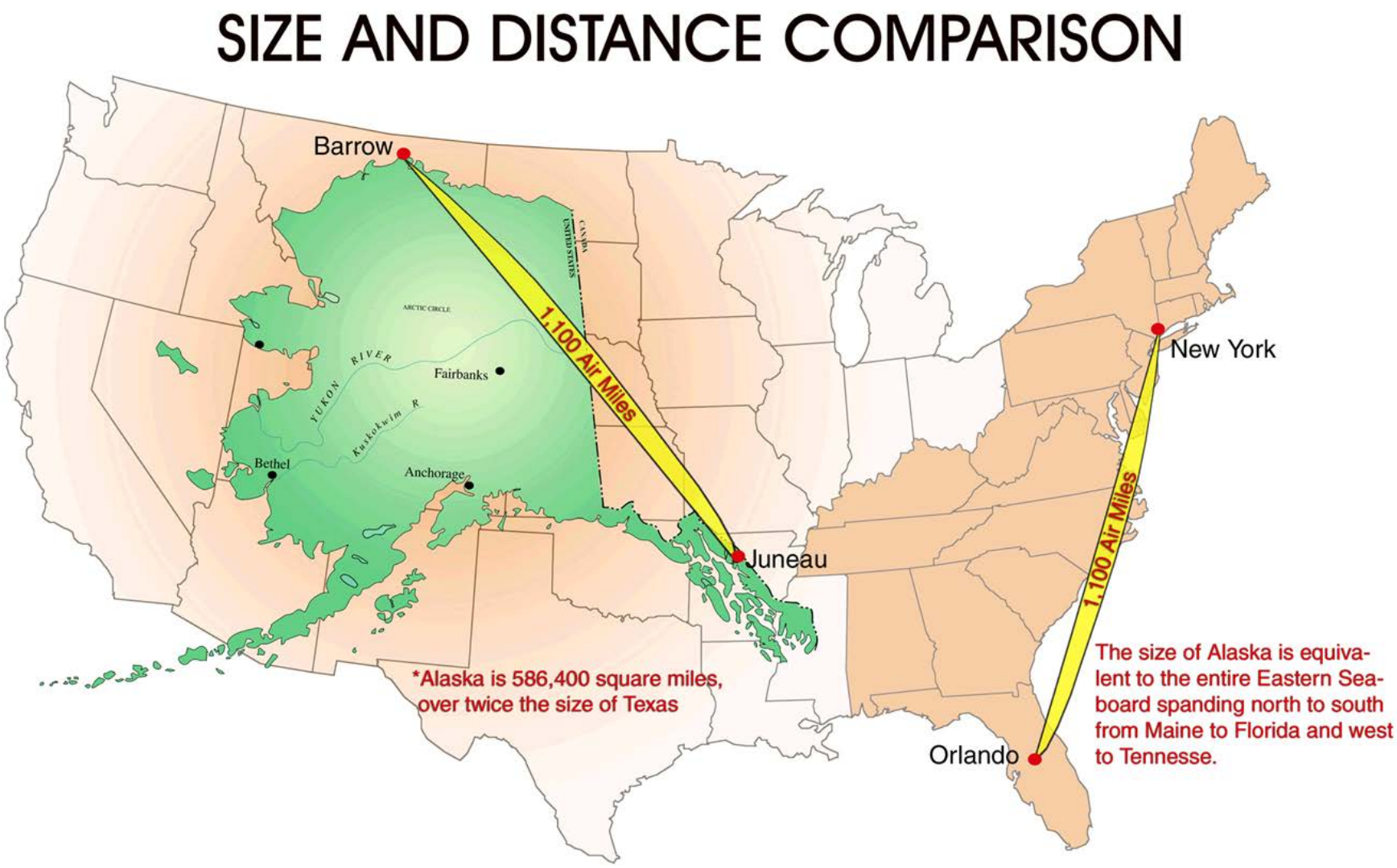
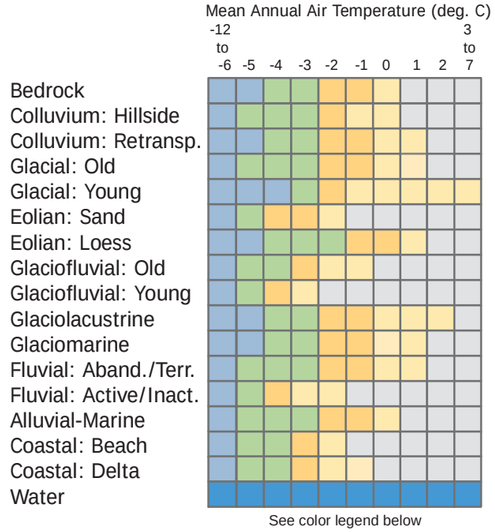


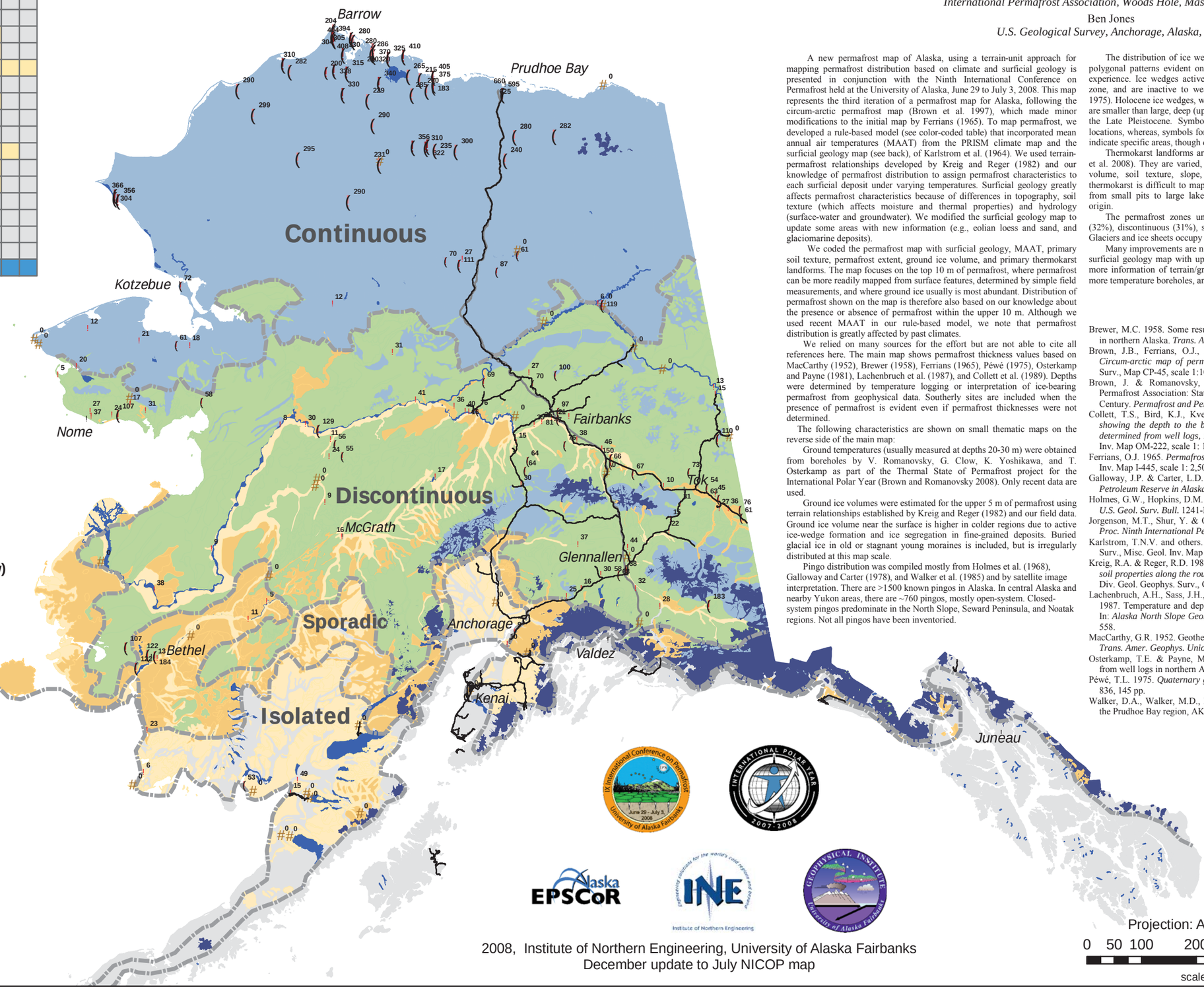
Figure 1. Comparison of Alaska's Land Size to the Contiguous United States and Indication of the Regional Variability Across Such a Large Area (http://www.usmarshals.gov/district/ak/general/information.htm).

Permafrost Characteristics of Alaska

Torre Jorgenson, Kenji Yoshikawa, Mikhail Kanevskiy, and Yuri Shur
University of Alaska Fairbanks, Institute of Northern Engineering, Fairbanks, Alaska, USA
Vladimir Romanovsky, Sergei Marchenko, and Guido Grosse
University of Alaska Fairbanks, Geophysical Institute, Fairbanks, Alaska, USA
Jerry Brown
International Permafrost Association, Woods Hole, Massachusetts, USA
Ben Jones
U.S. Geological Survey, Anchorage, Alaska, USA

Permafrost Extent by Surficial Deposit





Legend

Permafrost Distribution

- Glacier
- Continuous (>90%)
- Discontinuous (50-90%)
- Sporadic (10-50%)
- Isolated (>0-10%)
- Absent (0%)
- Large Waterbodies (unfrozen below)
- Permafrost_Zones Generalized

Permafrost Depth (m)

- ! 5 - 50
- (51 - 100
- (101 - 200
- (201 - 300
- (301 - 500
- (501 - 600
- # Permafrost present but depth unknown

Other Features

- Major Roads
- Trans-Alaska Pipeline

A new permafrost map of Alaska, using a terrain-unit approach for mapping permafrost distribution based on climate and surficial geology is presented in conjunction with the Ninth International Conference on Permafrost held at the University of Alaska, June 29 to July 3, 2008. This map represents the third iteration of a permafrost map for Alaska, following the circum-arctic permafrost map (Brown et al. 1997), which made minor modifications to the initial map by Ferrians (1965). To map permafrost, we developed a rule-based model (see color-coded table) that incorporated mean annual air temperatures (MAAT) from the PRISM climate map and the surficial geology map (see back), of Karlstrom et al. (1964). We used terrain-permafrost relationships developed by Kreig and Reger (1982) and our knowledge of permafrost distribution to assign permafrost characteristics to each surficial deposit under varying temperatures. Surficial geology greatly affects permafrost characteristics because of differences in topography, soil texture (which affects moisture and thermal properties) and hydrology (surface-water and groundwater). We modified the surficial geology map to update some areas with new information (e.g., colian loess and sand, and glaciomarine deposits).

We coded the permafrost map with surficial geology, MAAT, primary soil texture, permafrost extent, ground ice volume, and primary thermokarst landforms. The map focuses on the top 10 m of permafrost, where permafrost can be more readily mapped from surface features, determined by simple field measurements, and where ground ice usually is most abundant. Distribution of permafrost shown on the map is therefore also based on our knowledge about the presence or absence of permafrost within the upper 10 m. Although we used recent MAAT in our rule-based model, we note that permafrost distribution is greatly affected by past climates.

We relied on many sources for the effort but are not able to cite all references here. The main map shows permafrost thickness values based on MacCarthy (1952), Brewer (1958), Ferrians (1965), Péwé (1975), Osterkamp and Payne (1981), Lachenbruch et al. (1987), and Collett et al. (1989). Depths were determined by temperature logging or interpretation of ice-bearing permafrost from geophysical data. Southerly sites are included when the presence of permafrost is evident even if permafrost thicknesses were not determined.

The following characteristics are shown on small thematic maps on the reverse side of the main map:

Ground temperatures (usually measured at depths 20-30 m) were obtained from boreholes by V. Romanovsky, G. Clow, K. Yoshikawa, and T. Osterkamp as part of the Thermal State of Permafrost project for the International Polar Year (Brown and Romanovsky 2008). Only recent data are used.

Ground ice volumes were estimated for the upper 5 m of permafrost using terrain relationships established by Kreig and Reger (1982) and our field data. Ground ice volume near the surface is higher in colder regions due to active ice-wedge formation and ice segregation in fine-grained deposits. Buried glacial ice in old or stagnant young moraines is included, but is irregularly distributed at this map scale.

Pingo distribution was compiled mostly from Holmes et al. (1968), Galloway and Carter (1978), and Walker et al. (1985) and by satellite image interpretation. There are >1500 known pingos in Alaska. In central Alaska and nearby Yukon areas, there are ~760 pingos, mostly open-system. Closed-system pingos predominate in the North Slope, Seward Peninsula, and Noatak regions. Not all pingos have been inventoried.

The distribution of ice wedges was determined from the literature, from polygonal patterns evident on remote sensing imagery, and from our field experience. Ice wedges actively form mainly in the continuous permafrost zone, and are inactive to weakly active in the discontinuous zone (Péwé 1975). Holocene ice wedges, which are limited to the top 3-5 m of permafrost, are smaller than large, deep (up to 35 m) syngenetic ice wedges formed during the Late Pleistocene. Symbols for abundant ice wedges denote general locations, whereas, symbols for sparse Holocene and Late Pleistocene wedges indicate specific areas, though distribution remains poorly known.

Thermokarst landforms are abundant in all permafrost zones (Jorgenson et al. 2008). They are varied, due to differences in temperature, ground ice volume, soil texture, slope, and hydrologic conditions. Abundance of thermokarst is difficult to map because of the wide range in size of features from small pits to large lakes, and similar landforms may have different origin.

The permafrost zones underlie 80% of Alaska, including continuous (32%), discontinuous (31%), sporadic (8%), and isolated (10%) permafrost. Glaciers and ice sheets occupy 4% of the area.

Many improvements are needed for a better permafrost map, including: a surficial geology map with updated information and better spatial accuracy; more information of terrain/ground ice/temperature/permafrost relationships, more temperature boreholes, and improved spatial models.

References

Brewer, M.C. 1958. Some results of geothermal investigations of permafrost in northern Alaska. *Trans. Amer. Geophys. Union* 39(1): 19-26.
Brown, J.B., Ferrians, O.J., Heginbottom, J.A. & Melnikov, E.S. 1997. *Circum-arctic map of permafrost and ground-ice conditions.* U.S. Geol. Surv., Map CP-45, scale 1:10,000,000.
Brown, J. & Romanovsky, V.E. 2008. Report from the International Permafrost Association: State of Permafrost in the First Decade of the 21st Century. *Permafrost and Periglacial Processes* 19: 255-260.
Collett, T.S., Bird, K.J., Kvenvolden, K.A. & Magoon, L.B. 1989. *Map showing the depth to the base of the deepest ice-bearing permafrost as determined from well logs, North Slope, Alaska.* U.S. Geol. Surv. Oil Gas Inv. Map OM-222, scale 1: 1,000,000.
Ferrians, O.J. 1965. *Permafrost map of Alaska.* U.S. Geol. Surv. Misc. Geol. Inv. Map I-445, scale 1: 2,500,000.
Galloway, J.P. & Carter, L.D. 1978. *Preliminary map of pingos in National Petroleum Reserve in Alaska.* U.S. Geol. Surv. OF 78-795.
Holmes, G.W., Hopkins, D.M. & Foster, H.L. 1968. Pingos in central Alaska. *U.S. Geol. Surv. Bull.* 1241-H: 1-40.
Jorgenson, M.T., Shur, Y. & Osterkamp, T.E. 2008. Thermokarst in Alaska. *Proc. Ninth International Permafrost Conf., Fairbanks.* In press.
Karlstrom, T.N.V. and others. 1964. *Surficial geology of Alaska.* U.S. Geol. Surv., Misc. Geol. Inv. Map I-357, scale 1:1,584,000.
Kreig, R.A. & Reger, R.D. 1982. *Air-photo analysis and summary of landform soil properties along the route of the Trans-Alaska Pipeline System.* Alaska Div. Geol. Geophys. Surv., Geologic Rep. 66, 149 pp.
Lachenbruch, A.H., Sass, J.H., Lawyer, L.A., Brewer, M.C., and five others. 1987. Temperature and depth of permafrost on the Alaskan Arctic Slope. In: *Alaska North Slope Geology. Alaska Geol. Soc.*, Book 50, Vol. 2: 545-558.
MacCarthy, G.R. 1952. Geothermal investigations on the Arctic Slope Alaska. *Trans. Amer. Geophys. Union* 33(4): 589-593.
Osterkamp, T.E. & Payne, M.W. 1981. Estimates of permafrost thickness from well logs in northern AK. *Cold Reg. Sci Tech.* 5: 13-27.
Péwé, T.L. 1975. *Quaternary geology of Alaska.* U.S. Geol. Surv. Prof. Pap. 836, 145 pp.
Walker, D.A., Walker, M.D., Everett, K.R. & Webber, P.J. 1985. Pingos of the Prudhoe Bay region, AK. *Arctic Alp. Res.* 17: 321-336.

2008, Institute of Northern Engineering, University of Alaska Fairbanks
December update to July NICOP map

Projection: Albers Alaska, NAD 83
0 50 100 200 300 400 500 km
scale 1: 7,200,000