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By Email and First Class Mail

Dr. Thomas Armitage
Designated Federal Officer (DFO)
EPA Science Advisory Board (1400R)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
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RE: Written Statement for Science Advisory Board ("SAB") Public Teleconference on Proposed Rule Defining the Scope of Waters Federally Regulated Under the Clean Water Act

Dear Dr. Armitage,

Harvard Law School's Emmett Environmental Law and Policy Clinic (the "Clinic") respectfully submits the following comments on behalf of the National Parks Conservation Association ("NPCA") regarding the SAB's draft commentary on the U.S. Environmental Protection Agency's ("EPA") and U.S. Army Corps of Engineers' ("USACE") (together, the "Agencies") proposed Revised Definition of "Waters of the United States," 84 Fed. Reg. 4154 (Feb. 14, 2019) (the "Proposal"). NPCA represents over 1.3 million supporters and members as "the voice of America's National Parks." It has been a leading independent, nonpartisan voice on natural resources issues since 1919. The Clinic is a legal clinic at Harvard Law School that works on a variety of local, national, and international projects covering the spectrum of environmental law and policy issues under the direction of Clinical Professor Wendy B. Jacobs.

We support the draft commentary's conclusion that "aspects of the proposed rule are in conflict with established science" and that "the existing WOTUS rule [was] developed based on the established science."[1] In particular, we agree with the draft commentary that established science supports the protection of ephemeral waters such as "the arroyos of the Southwest United States" and of "adjacent wetlands that do not abut or have a direct hydrologic surface connection to otherwise jurisdictional waters."[2] We have attached as an exhibit to this letter a copy of the

[1] SAB, *Draft Commentary on the Proposed Rule Defining the Scope of Waters Federally Regulated Under the Clean Water Act* 1 (Oct. 16, 2019), https://yosemite.epa.gov/sab/sabproduct.nsf/WebBOARD/5939AF1252DDADFB852584E10053D472/$File/WOTUS+SAB+Draft+Commentary_10_16_19_.pdf.

[2] *Id.* at 2, 3.

comment letter that we submitted last year on the Proposal, which offers additional support for these conclusions in the draft commentary.

We write separately here to indicate several additional ways in which the Proposal is inconsistent with established science. Specifically:

1. The Proposal lacks an adequate analysis of the number of waters that will lose protection if it is finalized.

The Proposal, if finalized, would protect significantly fewer waters than covered under either the 1986 or 2015 regulations. In particular, the proposed definition would remove protections for wetlands unless they abut or have a direct hydrologic surface connection with other jurisdictional waters and eliminate protections for all ephemeral streams. The net result of these changes will be a significant decrease in the waters that receive protection under the Clean Water Act ("CWA").

Nevertheless, the Proposal asserts that the Agencies "are not aware of any map or dataset that accurately or with any precision portrays the scope of CWA jurisdiction at any point in the history of this complex regulatory program."[3] This statement belies, however, briefing materials prepared in September 2017 for then-EPA Administrator Scott Pruitt and then-Acting Assistant Secretary of the Army (Civil Works) Douglas Lamont, which indicate that the Agencies were at least aware of the approximate percentages of streams and wetlands that would lose protection.[4] According to those materials, the Proposal would preclude CWA protection from 18 percent of streams and 51 percent of wetlands.[5] These numbers track the information in the Proposal's Resource and Programmatic Assessment, which provides that at least 18 percent of streams in the United States would not be considered "waters of the United States" if the Proposal is finalized.[6] The potential removal of protection for ephemeral streams is even more dramatic in the arid west, where "13 percent of streams (by stream length) are mapped as perennial, 48 percent are mapped as intermittent, and 39 percent are mapped as ephemeral."[7] Many, if not most, of these ephemeral streams and wetlands would have been considered jurisdictional under the 2015 Rule because of the significant nexus of these waters to downstream water quality.[8]

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[3] 84 Fed. Reg. at 4200.

[4] Ariel Wittenberg and Kevin Bogardus, *EPA Falsely Claims "No Data" on Waters in WOTUS Rule*, E&E NEWS (Dec. 11, 2018), https://www.eenews.net/stories/1060109323.

[5] Indeed, these materials note that the available dataset likely results "in an underestimation of the number of ephemeral streams throughout the country." E-mail and Attachments from Stacey M. Jenson, HQ USACE Regulatory Program Manager, to John Gooden, EPA Director of the Office of Wetlands, Oceans and Watersheds (Sept. 5, 2017, 1:00 PM), *available at* https://www.eenews.net/assets/2018/12/11/document_gw_05.pdf.

[6] EPA & U.S. DEP'T OF THE ARMY, RESOURCE AND PROGRAMMATIC ASSESSMENT FOR THE PROPOSED REVISED DEFINITION OF "WATERS OF THE UNITED STATES" 38 (Dec. 11, 2018).

[7] *Id.*

[8] *See* Clean Water Rule: Definition of "Waters of the United States," 80 Fed. Reg. 37,054, 37,060 (June 29, 2015) ("In the rule, the agencies determine that tributaries, as defined ('covered tributaries'), and 'adjacent waters', as defined ('covered adjacent waters'), have a significant nexus to downstream traditional navigable waters, interstate waters, and the territorial seas and therefore are 'waters of the United States.'").

2. The Proposal lacks analysis of the environmental and public health consequences of the loss of protection for ephemeral streams and non-adjacent wetlands.

The loss of protection for a large (but unanalyzed) number of streams and wetlands will presumably result in severe environmental and public health impacts. Yet the Proposal fails to determine, analyze, or even qualitatively describe the magnitude of these types of impacts.

3. The Proposal introduces an ambiguous "typical year" concept.

The Proposal introduces a new "typical year" concept, which plays a central role in two of the distinctions drawn in the Proposal. First, it draws the line between intermittent and ephemeral streams based on whether a tributary flows "continuously during certain times of a typical year."[9] Second, it defines adjacency for wetlands based on whether they "abut or have a direct hydrological surface connection to other" jurisdictional waters "in a typical year."[10]

The Proposal defines a "typical year" as "within the normal range of precipitation over a rolling 30-year period for a particular geographic area."[11] Yet it does not define the scope of "a particular geographic area." Nor does it clearly delineate the data sources on which the Agencies would rely in making these determinations.

4. The Proposal incorporates an unclear definition of "snowpack" that could lead to inconsistent jurisdictional determinations.

The Proposal would treat streams as jurisdictional intermittent streams if they flow "when snowpack melts."[12] By contrast, streams that flow "only in direct response to precipitation" would be considered ephemeral and therefore not jurisdictional.[13]

The use of snowpack as a jurisdictional dividing line and the proposed definition for snowpack would increase regulatory uncertainty. First, the definition of snowpack—"layers of snow that accumulate over extended periods of time in certain geographic regions and high altitudes (*e.g.*, in northern climes and mountainous regions)"—is vague.[14] The Agencies do not define "extended periods of time," so it is uncertain what will distinguish snowpack from other accumulations of snow.[15] For instance, it is unclear whether a stream fed by melting snow that accumulated over a period of weeks would qualify as "intermittent" or if it would instead be an "ephemeral" stream that flows only "in direct response to precipitation."

[9] 84 Fed. Reg. at 4173. Further complicating this distinction, the Agencies "are not proposing a specific duration (*e.g.*, the number days, weeks, or months) of surface flow that constitutes intermittent flow." *Id.*

[10] *Id.* at 4155.

[11] *Id.* at 4178.

[12] *Id.* at 4173.

[13] *Id.*

[14] *Id.* at 4173.

[15] *Id.*

Moreover, the use of 30-year rolling data for accumulation type (*i.e.*, snowpack, snow fall, or rain) in a "typical year" to distinguish between jurisdictional intermittent and non-jurisdictional ephemeral streams also creates the risk that long-term droughts will change the status of individual streams between intermittent and ephemeral from year to year. As the Fourth National Climate Assessment recently found, "[v]ariable precipitation and rising temperature are intensifying droughts, increasing heavy downpours, and reducing snowpack."[16] Also, "[i]ncreasing air temperatures have substantially reduced the fraction of winter precipitation falling as snow, particularly over the western United States."[17] For example, the Sierra Nevada range in California "has seen far less snow accumulation in recent years."[18] Under the Proposal, it is unclear if streams in the Sierra Nevada would change from jurisdictional to non-jurisdictional based on annually resetting baselines from rolling 30-year snowpack averages.

5. The Proposal mischaracterizes the SAB's previous commentary on the 2015 WOTUS Rule.

The Proposal misleadingly cherry-picks and reframes quotes from the SAB's comments on a draft of the 2015 Connectivity Report to create the false impression that the 2015 Rule was not supported by the scientific record. The Agencies argue that the Proposal is based on the SAB's recommendation in that letter that EPA recognize that connectivity of waters and wetlands exists along a "gradient" rather than as a binary characteristic (connected or not connected).[19] But while the SAB recommended an emphasis on a gradient of connectivity to improve the technical aspects of the Connectivity Report, the SAB also emphasized that "relatively low levels of connectivity can be meaningful in terms of impacts on the chemical, physical, and biological integrity of downstream waters."[20]

The Proposal also misleadingly quotes from the SAB letter to imply that the SAB downplayed the connectivity of certain waters and wetlands. In particular, the Proposal asserts that, "[w]hile the SAB stated that 'at sufficiently large spatial and temporal scales, all waters and wetlands are connected,' it found that '[m]ore important are the degree of connection (*e.g.*, frequency, magnitude, timing, duration) and the extent to which those connections affect the chemical, physical, and biological integrity of downstream waters.'"[21] But in its proper context the quoted portion of the SAB letter relates to a technical discussion of the definition and use of the term "geographically isolated wetlands" in the Connectivity Report. Rather than dismissing the importance of these wetlands, the SAB recommended that the "EPA should draw upon the

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[16] U.S. GLOBAL CHANGE RESEARCH PROGRAM, IMPACTS, RISKS, AND ADAPTATION IN THE UNITED STATES: FOURTH NATIONAL CLIMATE ASSESSMENT, VOLUME II, at 152 (2018).

[17] *Id.*

[18] *World of Change: Snowpack in the Sierra Nevada*, NASA EARTH OBSERVATORY, https://earthobservatory.nasa.gov/world-of-change/SierraNevada (last visited Jan. 10, 2020).

[19] 84 Fed. Reg. at 4176.

[20] Letter from Dr. David T. Allen, SAB Chair, and Dr. Amanda D. Rodewald, Chair SAB Panel for the Review of the EPA Water Body Connectivity Report, to Gina McCarthy, EPA Administrator, *SAB Review of the Draft EPA Report Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence*, at 2 (Oct. 17, 2014) [hereinafter, "2014 SAB Review Letter"].

[21] 84 Fed. Reg. at 4176.

literature to carefully define 'geographically isolated wetlands' and explain that the term does not imply functional isolation."[22] The Agencies properly interpreted the SAB recommendations in 2015 by observing that the

> SAB noted that although water bodies differ in degree of connectivity that affects the extent of influence they exert on downstream waters (i.e., they exist on a "connectivity gradient"), the available science supports the conclusion that the types of water bodies identified as "waters of the United States" in the proposed rule exert strong influence on the chemical, physical, and biological integrity of downstream waters.[23]

The Proposal does not explain why the Agencies are departing from this understanding of the SAB's recommendation or offer valid reasons for an alternative interpretation.

We request that the SAB amend its draft commentary to address these additional shortcomings and flaws of the Proposal. Thank you for considering these comments and raising these issues with EPA.

Sincerely,

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[22] 2014 SAB Review Letter, *supra* note 20, at 18.

[23] EPA & U.S. DEP'T OF THE ARMY, TECHNICAL SUPPORT DOCUMENT FOR THE CLEAN WATER RULE: DEFINITION OF WATERS OF THE UNITED STATES 61 (May 27, 2015).

EXHIBIT