

**United States Environmental Protection Agency (U.S. EPA) Science Advisory Board (SAB)
Teleconference Meeting
September 29, 2014
Meeting Minutes**

Date and Time: September 29, 2014, 1:30 p.m. to 4:30 p.m.

Location: By teleconference only.

Purpose: To deliberate on the adequacy of the scientific and technical basis of the proposed rule titled *Definition of Waters of the United States under the Clean Water Act (79 FR 22188-22274)*

Meeting Participants:

SAB Members (see Roster¹)

Dr. David T Allen, Chair	Dr. Madhu Khanna
Dr. George Alexeeff	Dr. Nancy K. Kim
Dr. Joseph Arvai	Dr. Kristina Mena
Dr. Ingrid Burke	Dr. Surabi Menon
Dr. George Daston	Dr. James R. Mihelcic
Dr. Costel Denson	Dr. Christine Moe
Dr. Otto C. Doering, III	Dr. Eileen Murphy
Dr. Michael Dourson	Dr. James Opaluch
Dr. Joel Ducoste	Dr. Duncan Patten
Dr. Taylor Eighmy	Mr. Richard Poirot
Dr. Elaine Faustman	Dr. Amanda Rodewald
Dr. H. Christopher Frey	Dr. James Sanders
Dr. Steven Hamburg	Dr. William Schlesinger
Dr. Cynthia M. Harris	Dr. Jeanne VanBriesen
Dr. Robert Johnston	Dr. Peter Wilcoxon
Dr. Kimberly L .Jones	

SAB Staff:

Dr. Angela Nugent, Designated Federal Officer (DFO)
Dr. Thomas Armitage, DFO for the SAB Panel for the Review of the EPA Water Body
Connectivity Report
Mr. Christopher Zarba, SAB Staff Office Director

Other Attendees: Names of those who requested the teleconference call-in number are provided in Attachment A.

Meeting Materials:

All materials for the meeting are available on the SAB webpage at:
<http://yosemite.epa.gov/sab/sabproduct.nsf/a84bfee16cc358ad85256ccd006b0b4b/d8fa4eb9005d50e485257d27004e3897!OpenDocument&Date=2014-09-29>

Meeting Summary:

Convene the meeting

Dr. Nugent, Designated Federal Officer for the Chartered SAB, formally opened the meeting and noted that this federal advisory committee teleconference of the SAB had been announced in the Federal Register² (published August 8, 2014, 79 FR 51154-51155). The SAB is an independent, expert federal advisory committee chartered under the authority of the Federal Advisory Committee Act (FACA). The SAB is empowered by law, the Environmental Research, Development, and Demonstration Authorization Act (ERDDAA), to provide advice to the EPA Administrator on scientific and technical issues that support the EPA's decisions. The DFO noted that the Federal Register notice announcing the meeting had provided the public with an opportunity to provide written and oral comment. There were two requests for oral comment. One written public comment³ had been received prior to the teleconference. Dr. Nugent also noted that there would be an opportunity for the public or the agency to provide brief additional clarifying remarks after the SAB had finished its discussions and before it entered the decision-making phase to reach a determination regarding a draft letter to be sent to the Administrator.

The DFO stated that the SAB consists entirely of special government employees (SGEs) appointed by EPA to their positions. As SGEs, chartered SAB members are subject to all applicable ethics laws and implementing regulations. The EPA has determined that advisors participating in this meeting have no financial conflicts of interest or appearance of a loss of impartiality under ethic regulations specified in 5 CFR 2635 relating to the topic of this meeting.

Purpose of the meeting and review of the agenda

Dr. David Allen, the SAB Chair announced that the purpose of the teleconference was to consider a draft letter (9/17/14 Draft) prepared by a Work Group of the chartered SAB titled *Science Advisory Board (SAB) Consideration of the Adequacy of the Scientific and Technical Basis of the EPA's proposed rule titled Definition of Waters of the United States Under the Clean Water Act*.⁴ He noted that he sent a memorandum on June 24, 2014, to Dr. Amanda Rodewald, Chair of the SAB Panel for the Review of the EPA Water Body Connectivity Report. In that memorandum he requested comments from panel members on the scientific and technical basis of the proposal "Definition of Waters of the United States under the CWA."⁵ Input from panel members, the agency, and the public were considered by the Work Group as it developed the draft letter to be considered by the chartered SAB.

Remarks from EPA's Office of Water

Dr. Allen introduced Mr. David Evans, Acting Deputy Director of the Office of Wetlands, Oceans and Watersheds in the EPA's Office of Water, to provide a background presentation. Mr. Evans provided a presentation titled *Proposed Rule: Definition of "Waters of the U.S." Under the Clean Water Act*.⁶ He began his presentation by thanking the SAB and Dr. Rodewald's panel for their peer review efforts, which were of real value to the agency. He described the purpose and scope of the proposed regulation published on April 21, 2014. He noted that the proposal principally focused on changes in the definition that involved tributaries, wetlands and open waters adjacent to defined waters, and "other waters" that have a significant nexus to a traditional navigable water, interstate water, or the territorial sea. He noted that "significant nexus" is a policy determination that forced a binary categorization for "real world" waters that EPA recognizes exist along a gradient of connectivity. He provided a table that translated the EPA's understanding of policy questions into science questions and noted that the EPA's final rule would make these translations clearer. He noted that the EPA relied primarily on ORD's draft report entitled *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence* (September 2013 External Review Draft) and also made use of more detailed technical reports to support the rulemaking. He described how the draft ORD findings regarding different waterbodies informed provisions of the proposed rule. He described waters that are not considered "waters of the United States" under the proposed rule and noted that the EPA had made an *a priori* decision not to revisit regulatory exclusions in place and considered that existing practices determine their status. Mr. Evans noted that groundwater was one of the listed exclusions from the definition of waters of the United States. He then clarified the proposed rule's treatment of groundwater that has a connection to surface waters, where there is no visible connection at the surface. The proposed rule would require field practitioners to determine whether there is clear evidence of a near-term temporal connection that has the ability to convey physical, chemical or biological effects on receiving waters.

After completing his presentation, Mr. Evans responded to questions from chartered SAB members.

- One question pertained to jurisdiction over a pond constructed in the middle of a river for trapping waste. Mr. Evans noted that the SAB had received a public comment on this matter and that he did not believe regulations intended to exclude such waters. Impoundments of streams are jurisdictional waters of the United States.
- Another question related to the impact of designations of waterbodies as waters of the United States. Mr. Evans clarified that Water Quality Standards would apply to jurisdictional waters. State water managers have the authority to apply different standards to different kinds of waters and it is very appropriate to customize standards for dissolved oxygen to waterbodies with special characteristics, such as wetlands. Many states have narrative statements for wetlands; few have attempted to apply numeric standards. He stated that he believed there was similar flexibility for Water Quality Standards for other chemical contaminants and would check on that.
- The next question concerned whether former wetlands converted to agriculture were covered by the rule. Mr. Evans noted that current regulations consider 1986, the year of enactment of the first Food Security Act, as the key dividing line for wetlands that had been drained and no longer met the criteria for waters of the United States. Former

wetlands converted to agriculture that were no longer actively cropped and no longer had hydrology that would meet the wetland standard were excluded. If an agricultural area is abandoned for five years and wetland conditions reemerge, however, it would not be excluded and would be considered a water of the United States. He stated that he believed that daylighting a previously covered stream would make that stream jurisdictional and would check on that.

- In response to a question, Mr. Evans noted that waters that originate in Canada and Mexico and enter the United States would be treated as an interstate water. If the water body has a bed, bank, and ordinary high water mark, then it would be subject to the Clean Water Act.
- In response to a request for more explanation of how EPA is considering groundwater in the rule, Mr. Evans responded that the EPA intended to distinguish between two types of groundwater situations. The first situation is that of deep aquifers that receive waters and, if they have any connection with downstream waters, the connections occur over long periods of times, decades or hundreds of years. The second situation involves shallow groundwater connections to downstream waters, where connections exist in the relative near term.

Deliberations on the adequacy of the scientific and technical basis of the proposed rule

Presentation from the Work Group Chair

As context for the chartered SAB discussions, Dr. David Allen introduced Dr. James Mihelcic, Chair of the SAB Work Group Developing Recommendations on the Adequacy of the Science Informing the EPA's proposed "Waters of the United States (WOUS)" Rule, and asked him to provide background on the draft letter.

Dr. Mihelcic noted that ERDDAA requires the EPA to make available to the SAB proposed criteria documents, standards, limitations, or regulations provided to any other Federal agency for formal review and comment, together with relevant scientific and technical information on which the proposed action is based. The SAB may then provide advice and comments on the adequacy of the scientific and technical basis of the proposed action. In developing the draft letter for chartered SAB consideration, the Work Group considered the proposed rule, comments provided by members of the SAB Connectivity Panel, presentations by agency representatives and public comments. Work Group members participated in the August 20 and 21, 2014 public teleconferences to hear members of the Connectivity Panel discuss the adequacy of the science to support the proposed rule. He then summarized the major findings of the draft letter to be discussed by the chartered SAB.

Dr. David Allen then asked Dr. Amanda Rodewald to provide background on the SAB Connectivity Panel activities in response to his request for their input. Dr. Rodewald stated that she had organized the August 20-21, 2014 public teleconferences after receiving the SAB Chair's request of June 24, 2014. She noted that the panel did not try to reach consensus. Instead, panel members discussed their individual comments on the adequacy of the scientific and technical basis of the proposed rule. She then summarized the various perspectives in a memorandum to the SAB chair on September 2, 2014.⁷ The memorandum also transmitted

written comments from panel members. She noted that there was broad but not unanimous panel member agreement that the categorical approach used by the agency to include tributaries, floodplains and waters and wetlands in floodplain settings as waters of the United States was supported by the science. Two panel members disagreed because such a categorical approach was inconsistent to a gradient approach to evaluating waterbodies. The other panel members, however, supported the agency's determinations because they agreed that the waterbodies in question fall on the upper end of the connectivity gradient and thus should be considered jurisdictional.

Public comments

The DFO introduced the two public speakers. Ms. Jennifer Chavez from Earthjustice was the first public speaker. She summarized information provided in her written comments. She expressed concern that the proposed rule did not reconsider exclusions in the current regulation such as the in-stream waste treatment exclusion described in her letter. She asked the SAB to request the EPA and Army Corps of Engineers (COE) provide information on existing exclusions and the scientific bases for them.

Ms. Elizabeth Tatham was the second public speaker. She identified herself as a hydraulic fracturing stakeholder and provided written comments after the teleconference.⁸ Ms. Tatham urged the EPA and the COE to move ahead with the rulemaking except for the categorical exclusion of groundwater from the definition of waters of the United States. She stressed the importance of the connectivity of groundwater and its importance to ecological structures, drinking water and flood protection.

After the public commenters finished their remarks, members of the chartered SAB asked a question and made a comment. One member asked Ms. Chavez whether she was proposing that the Clean Water Act disallow mountaintop mining or sediment ponds. Ms. Chavez responded that her comments related to activities not subject to 404 permit requirements. She stated that the COE used the exclusion to allow a practice that would not be allowed if in-stream waste impoundments were included as waters of the United States. She noted that such a pond does not receive any regulatory protection and can contaminate downstream waters. Another member thanked the public commenters for bringing these matters to the attention of the Board.

Chartered SAB discussion of the draft letter to the Administrator

Members of the chartered SAB then discussed the draft letter to the Administrator. One member asked whether the Connectivity Panel or Work Group considered temporal connections between waterbodies as a criterion. He expressed concern about regulating a pond that is only occasionally flooded and empties into a stream. Dr. Rodewald responded that the panel was mindful of temporal dimensions of connectivity but recognized that non-constant connections between water bodies can have large-scale impacts on downstream waters. There is abundant evidence that periodic storm events can have major impacts. She said that it is important to inform the designation of waters of the United States with an adequate consideration of the existing science so that the physical, chemical and biological integrity of downstream waters can be protected. There was not a strong scientific basis for excluding "other waters" as a category

from the definition of waters of the United States. “Other waters” should be considered on a case-by-case basis and some sets of waters (e.g., certain kinds of similarly situated waters) even should be considered as subcategories to be *included* in the definition.

Members then discussed changes to be made to the draft letter. They discussed making the following changes:

- Page 4, line 4, insert the words “structures such as” before “construction of oil and gas tank basins” and add “in-stream sediment ponds used to collect waste from surface coal mining.”
- Insert an underlined header for “Exclusions “on page 3, line 26.
- Clarify language on page 3 to state that some exclusions are not justified by the science.
- Remove language on p. 4 stating that the term “significant nexus” was not well defined and instead call for the EPA to clarify that it is a legal term, not a scientific term.
- Remove the Connectivity Panel Chair memo as an attachment.
- Replace the concluding paragraph with more standard language requesting agency feedback on SAB letters.

Brief clarifying comments

There were no requests from the public or agency representatives for additional comments or clarifying remarks

Chartered SAB Deliberations on the draft letter to the Administrator

After discussion had concluded, Dr. Allen asked for a motion to dispose of the report. Dr. Taylor Eighmy moved that Dr. Allen revise the letter in consultation with Drs. Rodewald and Mihelcic. Dr. James Sanders seconded the motion. The motion was approved unanimously with Dr. Michael Dourson abstaining.

The DFO adjourned the meeting at 2:50 p.m.

Respectfully Submitted

Certified as Accurate

/Signed/

/Signed/

Dr. Angela Nugent
SAB DFO

Dr. David T. Allen
SAB Chair

NOTE AND DISCLAIMER: The minutes of this public meeting reflect diverse ideas and suggestions offered by committee members during the course of deliberations within the meeting. Such ideas, suggestions, and deliberations do not necessarily reflect definitive consensus advice from the panel members. The reader is cautioned to not rely on the minutes to represent final, approved, consensus advice and recommendations offered to the Agency. Such advice and recommendations may be found in the final advisories,

commentaries, letters, or reports prepared and transmitted to the EPA Administrator following the public meetings.

Attachment A: Names of those who requested the teleconference call-in number

Laurie Alexander, EPA
Geremew Amenu, LACDPW | LACFCD | WMD | WQS
Marcela Benavides-Aguilar, County of Los Angeles Dept. of Public Works
Sarah Caspar
David Y. Chung, Crowell & Moring LLP
Claudia Copeland, Congressional Research Service
Bridget DiCosmo, Inside EPA
Acacia Croy, Chesapeake Energy Corporation
Jill Csekitz, TCEQ Water Quality Standards Group Leader
Brian Dailey, California State Water Resources Control Board
Jill Davidson, ADM
David D. Dunlap, Koch Companies Public Sector, LLC
W. Blaine Early, III, Stites & Harbison PLLC
Shelly Ellerhorst, Kazmarek Mowrey Cloud Laseter LLP
Tim Foley, Southern Group of State Foresters
Jeff Frithsen, EPA
Shelly Jacobs Ellerhorst, Kazmarek Mowrey Cloud Laseter LLP
Robert Gensemer, GEI Consultant
Susan Gilson, NAFSMA
Vincent Gin, OC Public Works, Regulatory & Policy Division
Jason Groves, Waterlaw
Annette Habetz, U.S. SASOL
Jimmy Hague, Theodore Roosevelt Conservation Partnership
Staci Heaton, Rural County Representatives of California
Fredrik J. Jacobsen, San Diego Gas & Electric Company
Bethany R. Johns, Crop Science Society of America
Karen A. Keene, California State Association of Counties
Matthew Klasen, EPA
Rose Kwok
T.J. Mascia, Troutman Sanders LLP
Jesse Maxwell, SWANA
Thad McDonald, Naval Station Norfolk
Owen McDonough, National Association of Home Builders
Kerry McGrath, Hunton & Williams LLP
Olga V. Naidenko, EPA
Katherine Nelson, Texas Commission on Environmental Quality
Terry Ann Paulo, National Pork Producers Council
Jim Pendergast, EPA
Vic Ramirez, LCRA
Shelly Ross, Kelly Hart
Amena H. Saiyid, Bloomberg BNA
Lynda A. Saul, Montana Department of Environmental Quality
Jennifer Stenger, Duke Energy
Sandy Stephens, La. Dept. of Environmental Quality

Thad McDonald, NAVFAC MIDLANT
Kim Teweleit, BP
Steve Via, American Water Works Association

Materials Cited

The following meeting materials are available on the SAB website, <http://www.epa.gov/sab>, at the page for the [September 29, 2014](#) teleconference: <http://yosemite.epa.gov/sab/sabproduct.nsf/a84bfee16cc358ad85256ccd006b0b4b/d8fa4eb9005d50e485257d27004e3897!OpenDocument&Date=2014-09-29>

¹ Roster of SAB members

² Federal Register, (published August 8, 2014, 79 FR 51154-51155)

³ Comments from Jennifer Chavez, Earthjustice

⁴ Draft letter (09/17/14) titled *Science Advisory Board (SAB) Consideration of the Adequacy of the Scientific and Technical Basis of the EPA's proposed rule titled Definition of Waters of the United States Under the Clean Water Act*.

⁵ Memorandum from Dr. David Allen, Chartered SAB Chair, to Dr. Amanda Rodewald requesting comments from the SAB Connectivity Panel on the scientific and technical basis of the proposal "Definition of Waters of the United State under the CWA"

⁶ Proposed Rule: Definition of "Waters the U.S." Under the Clean Water Act

⁷ Memorandum from the Chair of the SAB Connectivity Panel transmitting comments on the adequacy of the scientific and technical basis of the proposed rule titled "Definition of 'Waters of the United States' under the Clean Water Act, September 2, 2014.

⁸ Comments from Elizabeth Tatham, 9/29/14