

PENNSYLVANIA CAMPAIGN FOR CLEAN WATER

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November 6, 2013

Science Advisory Board Review Panel
Attn: Dr. Thomas Armitage, Designated Federal Officer (DFO)
EPA Science Advisory Board Staff Office (1400 R)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Re: Comments on Connectivity of Streams and Wetlands to
Downstream Waters: **Docket ID No. EPA-HQ-OA-2013-0582**

Subject line: Docket ID No. EPA-HQ-OA-2013-0582: "Connectivity of Streams and
Wetlands to Downstream Waters"

Dear Dr. Armitage,

As a coalition of organizations based in Pennsylvania, the undersigned 20 organizations applaud the Environmental Protection Agency (EPA) for collecting scientific evidence to evaluate in detail how wetlands and headwater streams have physical, chemical, or biological linkages to downstream waters and therefore impact the integrity of our rivers and lakes, including drinking water sources.

This new report, "Connectivity of Streams and Wetlands to Downstream Waters," affirms the well-established scientific principle that the network of small interconnected wetlands and headwater streams in our watersheds are critically important to the health of our larger waters downstream. If pollutants enter wetlands and headwaters up in the mountains, they can harm aquatic life and water quality all the way down the watershed. Similarly, waters more remote from larger water bodies can prevent downstream harm by capturing flow and waterborne pollutants.

The science review is an important first step and we hope that EPA and the Army Corps of Engineers are able to build on the Connectivity Report and ensure that it accurately reflects the functions and connections of streams and wetlands in watersheds. The universe of data and studies on small streams and wetlands is vast and the report should attempt to include as much pertinent information as possible. The strength of the report's science and conclusions may well be essential to ensuring that Clean Water Act protections cover smaller waters that influence the health of our nation's rivers, estuaries, and drinking water supplies. The report should also recognize that science, and our understanding of our nation's water resources, evolves over time, and there should be room to include new information in the future.

Our organizations were pleased to see two important principles regarding aquatic resources identified in the EPA report. First, the report lays out the case for using a watershed as the primary unit by which to determine connections and relationships between waters. Second, the report speaks to the importance of the principle of aggregation. What the scientific report shows is that while one small stream may not have a big impact on a larger downstream water, the combined effect of many small headwater streams or small wetlands can have a significant impact on the larger downstream waterbody. These two principles are very important when it comes to thinking about the complete landscape of watersheds and the aggregate effects that the loss of some waters can have on larger waterbodies.

Lastly, our organizations request clarification on one important point regarding so-called "unidirectional" wetlands and open waters. The scientific report correctly concludes that wetlands in unidirectional landscape settings can benefit downstream water quality and integrity, in spite of lacking bidirectional hydrologic connections with downstream waters. However, the report then includes a statement that there is not sufficient evidence, based on the literature, to evaluate the degree of connectivity or the downstream effects of wetlands in unidirectional landscapes. In our opinion, the report includes more than enough scientific literature to establish the connectivity and downstream effects of unidirectional wetlands, at least in certain unidirectional landscape settings on a regional or watershed basis. Specifically, the science can at least be summarized as establishing that unidirectional wetlands outside of riparian/floodplain areas, when considered as a class, have a more than insubstantial aggregate effect on the chemical, physical, and biological integrity of downstream waters. Moreover, the several categories of unidirectional waters discussed in the report have an even more substantial collective impact. We ask that the final report clarify this point.

We strongly support the Agency using this science report as it develops a rulemaking to clarify the scope of the Clean Water Act's coverage. At a minimum, this rule must protect those waters science shows to be important in our nation's aquatic systems and strengthens protections for these wetlands and headwaters as "Waters of the United States" under the Clean Water Act.

Sincerely,

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