

Putting Drinking Water First:

Clarifying the “Definition of Waters of the United States Under the Clean Water Act”

Recent incidents of widespread drinking water service disruption have drawn attention to the importance of protecting drinking water sources from contamination. Source Water Protection is embodied in the Safe Drinking Water Act (SDWA) as a key approach to ensuring safe drinking water. Source Water Protection includes maintaining the health of streams, wetlands and other water bodies. These water bodies are not just landscape features. They are critical parts of our water infrastructure that influence water quality in drinking water sources. Protecting streams and wetlands protects drinking water sources, eases the burden of pollution and reduces treatment costs for communities.

The U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) have proposed to revise the *Definition of Waters of the United States Under the Clean Water Act*¹ (*Clean Water Rule*). Clarification of this definition is essential in light of confused interpretation of Supreme Court decisions and subsequent Bush Administration policies, which have led to permitting delays and left water resources vulnerable. At issue is whether the Clean Water Act’s pollution control programs should pertain to small streams, wetlands and certain other water bodies.

Clean Water Action’s **Putting Drinking Water First** approach means making drinking water impacts a primary consideration when developing regulations and other programs involving

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The Definition of Waters of the U.S. Under the Clean Water Act

➤ **We can’t all live upstream:**

Smaller water bodies are connected to larger water bodies downstream.

➤ **Natural water infrastructure:**

Streams and wetlands play a vital role in healthy watersheds.

➤ **Protect drinking water:**

Streams and wetlands affect drinking water quality and quantity.



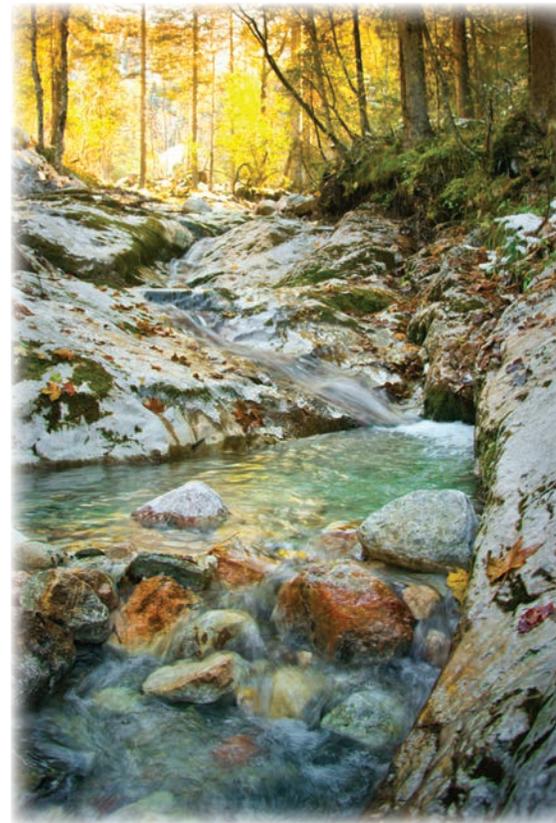
upstream activities that can impact downstream drinking water sources. When finalized, the EPA/Corps *Clean Water Rule* will lead to better protection of drinking water sources. EPA/Corps should strengthen the final rule by:

- Protecting all types of wetlands and other water bodies which contribute to improved drinking water quality downstream
- Including analysis and quantification of drinking water and public health benefits in the Economic Analysis of the *Clean Water Rule*

The *Definition of Waters of the U.S. Under the Clean Water Act* has concrete implications for source water protection and for drinking water quality.

Wetlands and other water bodies are complex systems that influence larger downstream water bodies.

EPA's draft *Connectivity of Streams and Wetlands to Downstream Waters*, a review and synthesis of the vast amount of science underpinning the proposed Clean Water Rule, confirms the role of wetlands, small streams and other water bodies in supporting the health of downstream water bodies.² EPA's Science Advisory Board has found that "the available science supports the proposed Clean Water Rule," and advised EPA to reconsider the proposal to evaluate some water bodies on a case by case basis due to their influence on downstream waters.³ This connection is important for both water quality and water quantity. Streams and wetlands filter pollution that would otherwise make its way to downstream water bodies. Streams and wetlands can also transport pollution into the water bodies which they feed. Most rivers get the majority of their water from headwater streams, so disruption of flow in upstream reaches can influence water quantity in the downstream river. Over 95% of Americans get most of their drinking water from Public Water Systems regulated under the Safe Drinking Water Act. Over 70% of these Systems use surface water sources.⁴ Safeguarding the streams, wetlands and other water bodies that influence larger bodies of water that serve as drinking water sources is a common-sense approach to protecting these tap water sources and preventing drinking water problems for the majority of the U.S. population.



Streams feed the drinking water sources for over 117 million people.

EPA has analyzed the connection between a specific group of vulnerable water bodies (headwaters, intermittent and ephemeral streams) and downstream drinking water sources. The analysis shows that over 117 million Americans get their drinking water from Public Water Systems that rely on headwater and seasonal streams.⁵ This means that the sources of

drinking water serving those people can be affected by the health of streams for which Clean Water Act protection is currently unclear. This analysis is only one aspect of the potential impact of pollution and destruction of streams and wetlands on drinking water sources. For example, it does not include analysis of wetland connections to drinking water sources or the potential impact of pollution and disruption of streams and wetlands on groundwater used by Public Water Systems or those relying on private wells.

Streams and wetlands reduce contaminants of specific concern for drinking water quality.

Streams and wetlands filter pollution out of water before it makes its way to downstream receiving waters. The pollutants filtered by streams and wetlands include nutrients, chemicals and other contaminants, which can cause public health risk and impact Public Water Systems' ability to comply with the Safe Drinking Water Act. The August 2014 tap water disruption in Toledo, Ohio is a real-world example. Excessive phosphorous and nitrogen in Lake Erie contribute to algal blooms, which contribute to occurrence of a class of toxic chemicals called cyanotoxins. One of these cyanotoxins, microcystin, was found in finished tap water samples at levels above the Ohio advisory level, leading to a two-day "Do Not Drink" advisory for nearly 500,000 consumers.⁶ In *Connectivity of Streams and Wetlands to Downstream Waters*, EPA found that one study demonstrates that the complex processes occurring in small streams can remove as much as 20–40% of nitrogen before it makes its way to larger water bodies downstream.⁷ EPA found current scientific literature to be "replete" with data supporting the role of wetlands as sinks for nutrients including phosphorus.⁸ This nutrient removal function is critical in the face of the serious public health concerns, the cost of water service disruption and the enormous costs to Public Water Systems and their consumers. Protecting these natural pollution filters is a common sense way to protect drinking water sources.



EPA policy and strategy supports Protecting Drinking Water through strong Clean Water Act programs:

Putting the burden on downstream drinking water users is not a pollution solution: Allowing pollution and destruction of streams, wetlands and other water bodies that feed drinking water sources is counter to EPA's stated policy on pollution prevention goals because it shifts the burden of contamination caused by upstream activity onto a downstream user through potential treatment costs.⁹ Downstream drinking water users should not have to pay higher treatment costs to solve pollution problems that can be solved by stronger Clean Water Act programs upstream.

Our Nation's Water Laws Should Work Together: Consideration of the contribution of streams and wetlands to healthy drinking water sources is an appropriate way to integrate Clean Water Act and Safe Drinking Water Act programs. This integration has been an area of increasing interest to diverse stakeholders during the past decade, is part of EPA's 2010 Drinking Water Strategy¹⁰ and is embodied in EPA's Strategic Plan for 2011–2015.¹¹ The public assumes that our water laws work together to achieve the maximum protection of public health but in fact, consideration of downstream drinking water impacts often appear to be an afterthought in Clean Water Act regulations and other implementation activities. For example, in the *Economic Analysis of the proposed Clean Water Rule*, EPA/Corps note that clearer protections could "...save the costs of additional drinking water filtration". However, the Analysis does not include any quantification of drinking water treatment costs or public health risks avoided through this proposal.¹¹ EPA/Corps should quantify these benefits in order to more completely present the potential benefit of protecting drinking water sources and the costs of inaction.

EPA/Corps should strengthen the proposal and expedite finalization of the proposed *Definition of Waters of the United States Under the Clean Water Act* in order to support the overall goals of the Clean Water Act, ensure that drinking water and public health are protected and maximize pollution prevention in the Clean Water Act's implementation.

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- 1 *Definition of Waters of the United States Under the Clean Water Act*, U.S. Department of Defense, Department of the Army, Corps of Engineers and U.S. Environmental Protection Agency, (EPA), April 21, 2014
 - 2 EPA, *Connectivity of Streams and Wetlands to Downstream Waters: A Review of Synthesis of the Scientific Literature*, External Review Draft, September 13
 - 3 Letter from Dr. David T. Allen, Science Advisory Board Chair to EPA Administrator Gina McCarthy, 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" and SAB Review of the Draft EPA Report *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence*, October 17, 2014
 - 4 EPA, *Public Drinking Water Facts and Figures*, <http://water.epa.gov/infrastructure/drinkingwater/pws/factoids.cfm>
 - 5 EPA, *Rivers and Streams: Drinking Water Map*, <http://water.epa.gov/type/rsl/drinkingwatermap.cfm>
 - 6 City of Toledo, *Urgent Notice to Residents*, 8-2-14, <http://toledo.oh.gov/news/2014/08/urgent-water-notice/>
 - 7 EPA, *Connectivity*, 1–8
 - 8 EPA, *Connectivity*, 5–30
 - 9 EPA, *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health*, 2000 [2000 Human Health Methodology], 4–2
 - 10 EPA, *Water: Drinking Water Strategy*, <http://water.epa.gov/lawsregs/rulesregs/sdwa/dwstrategy/>
 - 11 EPA, *Fiscal Year 2011–2015 Strategic Plan*, September 10, 2013, p. 12
 - 12 EPA & Corps, *Economic Analysis of Proposed Revised Definition of Waters of the United States*, March 2014

This is the 2nd in a series of Putting Drinking Water First papers exploring the connection between key environmental policy initiatives and drinking water issues.

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