



November 14, 2014

Ms. Stacey Jensen  
Regulatory Community of Practice (CECW-CO-R)  
U.S. Army Corps of Engineers  
441 G Street NW.  
Washington, DC 20314

Ms. Donna Downing  
Office of Water (4502-T)  
Environmental Protection Agency  
1200 Pennsylvania Avenue NW.  
Washington, DC 20460

RE: Definition of "Waters of the United States" Under the Clean Water Act  
Docket ID No. EPA-HQ-OW-2011-0880

Dear Ms. Jensen and Ms. Downing:

The Aquatic Ecosystem Restoration Foundation (AERF) on behalf of its members is pleased to submit comments to the U.S. Army Corps of Engineers (ACOE) and the Environmental Protection Agency (EPA) to express our opposition to the newly proposed definition of U.S. Waters. We do not believe this new definition will enhance protection for the nation's public health and aquatic resources or increase Clean Water Act (CWA) program predictability and consistency by increasing clarity as to the scope of "waters of the United States." We are not alone in this assessment, the 27 PhD's that authored the Scientific Advisory Board's (SAB) Review of EPA's DRAFT Report *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence* also find problems with the proposed definition. The SAB Panel recommended "revisions to improve the clarity of the Report, better reflect the scientific evidence, expand the discussion of approaches to quantifying connectivity, and make the document more useful to decision-makers." We believe the Agencies should not move forward with this proposal until the scientific community develops a consensus position that can be clearly communicated and understood by both regulators and the regulated community. We oppose the proposed definition as currently written.

#### **Statement of Interest**

The AERF is a not-for-profit 501(3)(c) Foundation representing producers, suppliers of aquatic pesticide products, aquatic plant management professionals and scientists, riparian and lake associations, water management districts and local governments, and a wide assortment of

aquatic plant management related small businesses. Established in 1996, AERF mission is to support research and development that provides strategies and techniques for the

environmentally sound management, conservation, and restoration of aquatic ecosystems across the United States. AERF supports research on the biology and ecology of nuisance aquatic and wetland plants, particularly exotic invasive species. AERF provides public information concerning the benefits and value of conserving aquatic ecosystems and promotes cooperation among federal, state, and local natural resource and regulatory agencies, as well as between the public and private sectors. In support of all of these activities AERF members produce and promote the use of registered pesticides in, over or near waters of the United States. The majority of these pesticide applications are made by a one or two man team that works for a small business. Therefore, we strongly support the concept of additional clarity.

### **General Comments:**

The EPA and ACOE define point sources in various National Pollution Discharge Elimination System (NPDES) related documents as including “discrete conveyances such as pipes or man-made ditches.” The proposed rule, however, indicates that these “point sources”, in many cases are also “waters of the U.S.” It appears the agencies want it both ways. While one might acknowledge the oft times subtleties of the regulatory process, the proposed rule, according to the Environmental Protection Agency, is intended to provide clarity and not confusion. The proposed rules fails to accomplish that goal.

Protecting the waters of the United States and reducing the presence of pollutants is not the only purpose of the Clean Water Act. The statute is also intended to preserve the primary state responsibility for ordinary land-use decisions. The EPA and ACOE expansive rewrite, or “clarification,” of the statutory definition of waters of the United States not only impinges on the States’ authority over land and water use, it essentially usurps that power.

We agree with both Representative Smith and Senator Crapo that the agencies have assumed authority beyond the scope of their responsibilities by using the rulemaking process to amend a federal statute created and passed by Congress. Despite assertions by the agencies to the contrary, the plain language of the proposed rule does, in fact, broaden the scope of the EPA’s and the Corps of Engineers’ jurisdiction under the Clean Water Act by rewriting the definition of “waters of the United States” to fit their regulatory agenda. The proposed “clarification” is a transparent attempt to amend the Clean Water Act. The modification of federal statutes is the responsibility of Congress. If the agencies wish to change the definition of “waters of the U.S.”, then they should work with the various committees in the House and the Senate to amend the language in Clean Water Act to accomplish that objective.

## Specific Comments:

### Clarity: “the quality of being easily understood.”

From the proposed rule...

“The agencies are proposing to clearly exclude from the definition of “waters of the United States” two types of ditches that might otherwise be evaluated as tributaries: ditches that are excavated wholly in uplands, drain only uplands, and **have less than perennial flow**; and ditches that do not contribute flow, either directly or through another water, to a water identified in paragraphs (a)(1) through (4).”

The proposed rule for the first time excludes certain ditches by rule rather than simply through preamble and guidance. Even before the decisions in SWANCC and Rapanos, the agencies excluded certain ditches from jurisdiction because they either are not part of the tributary system or because they are excavated wholly in uplands, drain only uplands, and are dry for much of the year, i.e. upland ditches. The agencies are proposing to continue this exclusion and, to provide improved consistency and clarity, further define flow characteristics of upland ditches that are and are not jurisdictional. The proposed rule would exclude from jurisdiction upland ditches **with less than perennial flow**. The scientific concept of perennial flow is a widely accepted and a well understood hydrologic characteristic of tributaries. Perennial flow means that water is present in a tributary year round when rainfall is normal or above normal. Identifying upland ditches with perennial flow is straightforward and will provide for consistent, predictable, and technically accurate determinations at any time of year. The agencies specifically seek comment on the appropriate flow regime for a ditch excavated wholly in uplands and draining only uplands to be included in the exclusion of paragraph (b)(3). In particular, the agencies seek comment on whether the flow regime in such ditches should be **less than intermittent flow** or whether the **flow regime** in such ditches should be **less than perennial flow** as proposed.

“Only those ditches not excluded by the proposed regulation and that meet the proposed definition of tributary are “waters of the United States.” Ditches that are excluded from the definition of “waters of the United States” under (b)(3) and (b)(4) cannot be recaptured and considered jurisdictional under any of the jurisdictional categories in section (a) of the proposed rule, such as a ditch that crosses a state line. This is true for all other features excluded under section (b) as well. Ditches not excluded under paragraphs (b)(3) and (b)(4) of the proposed regulation meet the definition of tributary where they have a bed and banks and ordinary high water mark and they contribute flow directly or indirectly through another water to (a)(1) through (a)(4) waters. Such jurisdictional ditches may include, but are not limited to, the following:

- natural streams that have been altered (*e.g.*, channelized, straightened or relocated);
- ditches that have been excavated in “waters of the United States,” including jurisdictional wetlands;
- ditches that have **perennial flow**; and
- ditches that connect two or more “waters of the United States.”

In an effort to distinguish ditches that are not “waters of the United States” from those that are “waters of the United States,” the proposal states...

“that ditches **with less than perennial flow** that are excavated in uplands, rather than in wetlands or other types of waters, for their entire length are not tributaries and are not “waters of the United States”

under the proposed rule. Ditches that are perennial generally have water present year round when rainfall is normal or above normal. Under this exclusion, water that only stands or pools in a ditch is not considered perennial flow and therefore, any such upland ditch would not be subject to regulation. In addition...

“ditches that do not contribute flow to the tributary system of traditional navigable water, interstate water or the territorial seas are not “waters of the United States,” **even if the ditch has perennial flow.**”

This proposal makes it absolutely clear; all ditches with **perennial flow** are “waters of the United States” except the ditches that do not contribute flow to the tributary system of traditional navigable water, interstate water or the territorial seas. According to the EPA, there are 2,110 watersheds in the continental United States and all water moving through each of those watersheds will eventually reach navigable water, interstate water or the territorial sea.

The SAB Panel notes that “relatively low levels of connectivity can be meaningful in terms of impacts on the chemical, physical, and biological integrity of downstream waters.” In the Report, the EPA has classified waters and wetlands as having the potential for either “bidirectional” or “unidirectional” hydrologic flows with rivers and lakes. The SAB Panel finds that these terms “do not adequately describe the four-dimensional (longitudinal, lateral, vertical, and temporal) nature of connectivity, and the SAB Panel recommends EPA use more “commonly understood terms” that are “grounded in the peer-reviewed literature.” The SAB Panel recommends that the interpretation of connectivity be revised to reflect a “gradient approach that recognizes variation in the frequency, duration, magnitude, predictability, and consequences of physical, chemical, and biological connections.” The revised framework should illustrate the importance of climate, geology, and topographic relief on flow and transport and highlight the four-dimensional (longitudinal, lateral, vertical, and temporal) nature of connectivity. In the Report, the EPA discusses connectivity within a classification system based on discrete landscape settings (i.e., rivers and streams; waters and wetlands in floodplain settings; and waters and wetlands in non-floodplain settings). The SAB Panel recommends that “this classification system be mapped onto the flowpath framework to show that continuous phenomena interact across these discrete landscape settings.”

The SAB Panel recommends “the flowpath framework should highlight the four-dimensional nature of connectivity, because four-dimensional connectivity scaled in a habitat-to-watershed context is a foundational aspect of freshwater ecology (e.g., Ward 1989). The flux and transformation of water, materials, and organisms – which fundamentally control the integrity of downgradient freshwater ecosystems – occur at varying rates primarily determined by climate, geology, topographic relief, and biology and are expressed in terms of surface water and groundwater storage and flow through the landscape (e.g., uplands, wetlands, lakes, rivers, and floodplains). Therefore, these flowpaths are inherently four-dimensional (i.e., longitudinal, lateral, vertical, and through time).” The SAB Panel suggests that EPA acknowledge “The expansion of runoff-producing areas in non-floodplain settings

can intermittently or ephemerally change the extent of headwater streams (e.g., Dunne 1978; Van der Kwaak and Loague 2001; Rains et al. 2006, 2008). This type of variability suggests that connectivity should be discussed within a continuum of runoff producing mechanisms

The SAB Panel writes “Habitats that are seasonally dry or even dry for several years in a row can be critical to the biological integrity of downgradient waters because a wide range of species (e.g., fish, amphibians, reptiles, birds, mammals, and invertebrates) use them to complete certain annual or life-cycle stages (Falke and Fausch 2010).” This suggests that **perennial flow** is not the determining factor of whether a ditch contains “waters of the United States.” The SAB Panel believes “a substantial body of evidence unequivocally demonstrates connectivity above and **below ground**” and these “linkages and exchanges influence physical, chemical, and biological connectivity with downstream systems.” This information should determine the waters classification.

### **Small Businesses need Business Certainty**

A significant number of pesticide applications in, over or near CWA jurisdiction waters are made by small businesses, these small companies (typically less than 15 employees) cannot afford a single violation of the Clean Water Act. A violation and subsequent fine would cause financial ruin for the company. If the EPA and ACOE had done any outreach to small businesses, they would have learned that these companies need certainty, these small businesses need to know prior to making the pesticide application whether or not the application must be made under the EPA’s NPDES Pesticide General Permit (PGP) Program. Compliance with the PGP will require additional record keeping and documentation, which increases the costs of the pesticide application. Increased costs can be the determinative factor for pesticide treatments. Expenses associated with current regulatory compliance efforts are already punitive in some states. The rule as proposed so greatly expands the reach of the NPDES PGP programs that it would cause a cumulative adverse effect on the financial stability of the small businesses operating in this field.

So, as currently proposed, a vegetation management specialist, making a pesticide application adjacent to a “ditch” will have to determine; whether or not there is flowing water in the ditch and if the flow is **perennial** to determine whether or not the PGP applies. In some situations, it may be difficult to determine if the flow is perennial or not. Reasonable people can and will disagree with these “in field determinations.” However, according to the SAB Panel, groundwater flow should also be a determinant in the “waters of the United States” classification and **perennial flow** should not be the determining factor. According to the SAB Panel “A substantial body of evidence unequivocally demonstrates connectivity above and **below ground**.” There is simply no way a vegetation management specialist can make the “waters of the United States” determination in the field, without access to piezometers readings (groundwater data). Therefore, every prudent pesticide applicators making an application alongside a ditch will apply for coverage under the NPDES PGP program to ensure compliance. This additional (and perhaps unnecessary) burden will further increase the cost of the pesticide application. These prophylactic actions will also increase the number of NPDES PGP applications processed by each and every state.

All pesticide applicators need business certainty; they need to know what rules and regulations apply before they arrive at any site to make a pesticide application. If the EPA and ACOE are determined to move forward with this proposal, we suggest “waters of the United States” should

include all non-farm ditches delineated within the 100-year floodplain. We suggest the Agencies rely upon Flood hazard areas identified by FEMA on the Flood Insurance Rate Map (FIRM) as identified as a Special Flood Hazard Area (SFHA). SFHA are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood. Compilations of digital geographic information system (GIS) data representing the same information presented on the FIRMs, and in the Flood Insurance Study (FIS) report are available. This GIS data is designed to provide the user with the ability to determine the flood zone, base flood elevation and the floodway status for any location in the United States.

The SAB Panel suggested EPA consider using Hydrologic-Landscape Regions (HLRs; Wolock et al. 2004), or an equivalent system (e.g., Wigington et al. 2013). HLRs are fundamentally a function of climate, geology, **and topographic relief**, which are already recognized as central controls on watershed hydrology. The SAB Panel notes “The increasing availability of high resolution DEM, including the USGS National Elevation Dataset (NED) 10 m DEM (USGS 2014) and more robust flow routing algorithms means that more accurate stream maps are becoming increasingly available. Thus the ability to predict (and discern) hydrological, chemical, and biological connections between small and large streams is increasing rapidly.” We were surprised to learn that the ACOE is currently working on a new definition for Ordinary High Water Mark (OHWM); and that this new definition will be used to delineate non-perennial streams in portions of the United States. If the ACOE is able to determine and map the OHWM for all United States water, the ACOE in conjunction with all other federal partners should also be able to map the elevations of the 10-year, 25-year, 50-year and 100-year flood zones. There is supposed to be a well understood relationship between OHWM and flooding. It is however disconcerting to learn that the ACOE is working on the new definition for OHWM without public input.

In any event, these maps would allow any vegetation management specialist with a hand held GPS device, smart phone or tablet with an App to make a CWA jurisdictional determination in the field. The “in field determination” would enable the specialist to determine if the pesticide application was covered by the NPDES PGP.

Clearly the EPA, ACOE and the 27 PhD’s on the Science Advisory Board Panel for the Review of the *EPA Water Body Connectivity Report* have differing opinions as to “what is” and “what is not” a “water of the United States.” On March 9, 2009 President Obama issued an Executive Order on Scientific Integrity to all Executive Departments and Agencies which stated...

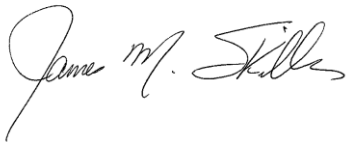
“(b) Each agency should have appropriate rules and procedures to ensure the integrity of the scientific process within the agency;

(c) When scientific or technological information is considered in policy decisions, the information should be subject to well-established scientific processes, including peer review where appropriate, and each agency should appropriately and accurately reflect that information in complying with and applying relevant statutory standards;”

Clearly, there is not a consensus position within the scientific community on this topic. Therefore, we believe the Agencies should not move forward with this proposal until the scientific community develops a consensus position that can be clearly communicated and understood by both regulators and the regulated community.

Thank you for the opportunity to comment on the proposed definition. Please do not hesitate to contact me should you require any additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "James M. Skillen". The signature is fluid and cursive, with the first name "James" and last name "Skillen" being more legible than the middle initial "M.".

James M. Skillen on behalf of:

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