THE WILDLIFE SOCIETY

5410 Grosvenor Lane • Bethesda, MD 20814-2144
Tel: (301) 897-9770 • Fax: (301) 530-2471
E-mail: tws@wildlife.org

14 November 2014

Water Docket
Attn: Docket ID No. EPA-HQ-OW-2011-0880
U.S. Environmental Protection Agency
Mail Code 2822T
1200 Pennsylvania Avenue NW
Washington, DC 20460

Re: Comments of The Wildlife Society on the EPA's proposed rule titled *Definition of 'Waters of the United States' Under the Clean Water Act*: Docket ID No. EPA-HQ-OW-2011-0880

Dear Environmental Protection Agency:

The Wildlife Society was founded in 1937 and is a non-profit scientific and educational association of more than 9,000 professional wildlife biologists and managers, dedicated to excellence in wildlife stewardship through science and education. Our mission is to inspire, empower, and enable wildlife professionals to sustain wildlife populations and habitats through science-based management and conservation.

Our organization has formal working groups comprised of members with various kinds of specialized interests and experience. Members of our Wetlands Working Group, with expertise in wetland and stream ecology as well as the wildlife dependent upon those systems reviewed the proposed rule, *Definition of 'Waters of the United States' Under the Clean Water Act*, and its preamble published on April 21, 2014 in the Federal Register (79 FR 22188). The Wildlife Society's comments outlined in this letter are based heavily on the scientific expertise of our membership in this working group.

The Wildlife Society supports the fundamental approach of using the best science compiled in the Environmental Protection Agency (EPA) Science Advisory Board (SAB) report *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence* in the development of the proposed rule. We strongly support the EPA's approach of "science first" as the goals of the Clean Water Act (CWA) cannot be achieved without being firmly rooted in the physical, chemical, and biological principles associated with rivers, wetlands, and other water bodies. We believe that the protections given to all tributaries and wetlands adjacent or with a significant nexus to waters of the United States under the CWA are appropriate and consistent with the preponderance of science regarding their connectivity to downstream waters.

While we find that the basis of the proposed rule and its definitions are adequately based on available science, we offer the following additional information, direction, and specific language for consideration to strengthen their scientific validity and provide critical clarification where needed.

Adjacent

Language in the proposed rule indicates that adjacency is based in large part on a water body's physical location on the landscape, while available science clearly finds that the strength of connectivity between water bodies is based on ecological relationships. Therefore, the EPA should consider emphasizing the importance of functional adjacency, instead of relying almost solely on geographical proximity.

We also suggest adding the word "levee" in this definition as levees in floodplains of rivers are common structures which separate adjacent waters and navigable waters.

Neighboring

We find that there is potential for conflicting direction between the language in the definition for "neighboring" and the exclusions listed for waters of the United States. Language in the definition for "neighboring" indicates that waters with a "shallow subsurface hydrologic connection" to jurisdictional waters are themselves considered jurisdictional waters. Water that moves subsurface is in fact groundwater, and therefore groundwater should not be categorically excluded in paragraph (s)(5)(iii). Scientific evidence presented in the SAB report and Tiner (2003) on unidirectional wetlands cites numerous examples of the types and degrees of connectivity that exists between these wetlands and downstream waters (in cases including so-called geographically isolated wetlands, which are clearly identified as very often not being hydrologically isolated) at the regional level. Clarifying this language will be particularly useful for landscapes such as the Prairie Pothole Region, the Nebraska Sandhills, and playa wetlands in which unidirectional wetlands play a dominant role in landscape form and function.

We are especially concerned that even though a "shallow subsurface hydrologic connection" can create a significant nexus between jurisdictional waters, the "shallow surface hydrologic connection" itself is not protected under CWA. If such a connection is disturbed, this action may alter the nature of the water made jurisdictional because of this connection, even to the point of changing its jurisdictional status. We believe that this situation could form a loophole in the rule, allowing the destruction of a "shallow subsurface hydrologic connection" in order to remove a water body from jurisdictional status. Therefore we suggest that language be added to protect such connecting waters.

Also, because there will inevitably be ambiguity about what qualifies as "shallow" that will lead to the inability for consistent practical application, we suggest removing this word from the definition.

Floodplain

We suggest removing the phrase "and is inundated during periods of moderate to high water flows" from the definition of "floodplain". Many floodplains associated with rivers have

adjacent wetlands that are not connected by surface water flow at moderate or high flows because of anthropogenic levees, dikes, or berms that restrict natural water flows. Alternatively, adding the word "historical" or "pre-modification" before "period" could also adequately change the definition to include many floodplains where levees restrict water movement unnaturally.

Although currently available risk-based Federal Emergency Management Agency floodplain classification maps (e.g., 100-year floodplain; FEMA 2014) may provide acceptable evidence of floodplain extent, we recommend the use of a science-based ecological definition of floodplain and the creation of a national floodplain database to simplify jurisdictional determinations.

Tributaries

While we applaud the EPA's inclusion of all tributaries within the jurisdiction of the Clean Water Act, we recommend reconsidering the use of the phrase "ordinary high water mark" (OHWM). By their nature, ephemeral streams, especially those within arid and semi-arid environments, and streams in low-gradient landscapes may not have an OHWM that is readily apparent. The lack of a clearly-apparent OHWM should not exclude these tributaries from jurisdictional status, as the connectivity these tributaries provide to downstream waters may be brief, but crucial to the physical, chemical, and biological integrity of the system. Furthermore, while these waters may not provide a perennial surface connection, they often provide a "shallow subsurface hydrologic connection" as used in the "neighboring" definition. Therefore, we suggest replacing OHWM with the phrase "other evidence of flow".

Significant Nexus

A consistent issue in the determination of "significant nexus" is that "significant" can be challenging or problematic to quantify scientifically, as the rule indicates. The "significance" of a connection is extremely difficult to establish without some subjectivity and may vary by wetland, watershed, or region; the indicators used to establish jurisdictional status; and available information to determine the significance of the nexus. In fact, the definition of "significant" includes the word "insubstantial" which is similarly difficult to quantify consistently and does not improve the regulatory capacity to make a determination of a "significant nexus" for jurisdictional purposes.

Presence of a "significant nexus" is difficult to consistently and objectively apply in jurisdictional determinations. Scientific evidence suggests that a nexus occurs where connectivity is established with the potential for an effect on the chemical, biological, or physical integrity of jurisdictional water. But, whether an effect is significant for a given quantity of toxin, nitrates, phosphorus, sediment, etc., on the integrity of downstream waters will inevitably vary from each other and from one wetland to another. Therefore, we submit that the word "significant" should be de-emphasized in this rule, or that more clearly defined criteria be outlined for determining the "significance" of a connection.

We understand that requiring individual determinations of a "significant nexus" for all other waters during the permitting process is impractical and likely infeasible. Scientific evidence of individual wetlands having a significant nexus to a jurisdictional water in most cases will not

be available and accumulating that evidence for individual wetlands is not pragmatic. As an alternative, we support the ecoregion aggregation approach whereby wetlands of a similar context and of similar form and function (e.g., playas in the southern and central Great Plains, prairie potholes in the northern Great Plains, pocosins of the eastern Atlantic Plain) be regulated in the aggregate. Evidence that wetlands of a similar form and function contain a significant nexus to navigable waters may be available and this method of determining regulatory authority should be used. Additionally, in uncommon instances where "significant nexus" determinations must be made, we recommend the formation of a clear and standardized process in which these determinations will be made and that this document be made available for public review.

Furthermore, the importance of ephemeral, intermittent, and perennial streams is discussed at length in the proposed rule's preamble and the SAB report; however, the temporal component of connectivity is not recognized in the proposed rule itself. Because hydrologic connectivity can vary within and between years while retaining its importance as a significant nexus, we recommend language reflecting this for not only streams, but also for tributaries, wetlands, and all other water bodies.

Additionally, we support the use of wetland-dependent wildlife as indicators of biological connectivity for determining jurisdictional status of other waters. Semi-aquatic and wetland-dependent species often depend on multiple wetland and deepwater habitats and presence or absence of these organisms can be used to indicate ecological adjacency and functional relationships between "other waters" and jurisdictional waters.

Level III Ecoregions

We support the idea that categories of wetlands and other waters should, in advance, be defined as jurisdictional, thereby offering protection to wetlands and other waters in the aggregate. The aggregate evaluation of 'similarly situated' wetlands within an ecoregion is likely appropriate and will provide clarity and certainty in an efficient process of determining jurisdictional status. We urge caution in consideration of the time-scale at which wetlands within an ecoregion are evaluated. For example, even if normally present, a significant nexus for wetlands in the Central California Valley ecoregions may not be readily identifiable or quantifiable if evaluated during an ongoing drought in western states, for example.

We also suggest that Level III ecoregions are an appropriate scale at which to establish jurisdiction classifications of similarly situated wetlands in the aggregate and that a finer-scale designation would not offer increased precision or clarity in determining jurisdictional status. We support existing Level III ecoregions listed on page 22215 of the Federal Register, however we urge agencies to consider inclusion of additional ecoregions containing different wetland ecotypes, such as playa wetlands (within ecoregions 24, 25 and 26; Chihuahuan Deserts, High Plains and Southwestern Tablelands)) (79 FR 22215). Therefore, we encourage the EPA to include "Level III ecoregions" specifically in the proposed rule language to recognize the value of this unit of measure as an appropriate level for analysis of similarly situated "other waters".

Additionally, we suggest a clear process be outlined whereby the presumptions of the aggregate regulation could be controverted if there is significant supporting science. For example, if an aggregated group of other waters is considered to not have a nexus (e.g., playas), but a wetland of the group can be shown to have a nexus, there should be a clear process for establishing jurisdictional status of individual or subcategories of other waters.

Other Waters

We are particularly pleased to see the explicit recognition in the proposed rule that "other waters" can either "alone, or in combination with other similarly situated waters" be considered jurisdictional under the CWA. Extensive scientific evidence illustrates that while one small reach of a headwater stream or small wetland, for example, may not have a demonstrably significant effect on large, downstream rivers, the cumulative effect of losing many similar reaches of headwater streams or small wetlands can indeed have a significant impact on downstream waters such as the Mississippi River or even the Gulf of Mexico. In fact, the degradation of navigable waters as significant as the Gulf, empirically demonstrated through problems such as the hypoxic zone that emerges there each year, is clearly not typically the result of any single project or event (except in exceptional cases such as the BP oil spill), but rather reflects the aggregated impacts of the loss and degradation of thousands of small headwater streams and wetlands throughout the Mississippi River watershed.

Thus, to appropriately assess the types and degrees of connectivity among wetlands in a watershed and the integrity of the downstream waters within it, it is important that various classes of wetlands and waters be assessed in context with each other and their collective effect on downstream waters. Evaluating systems in the aggregate will provide clarity to both regulators and the public while reducing the volume of waters to be evaluated on a case-specific basis.

For similarly situated other waters not covered by a Level III ecoregion designation, it should be understood that studies are and always will be lacking which would indicate every exact grouping of individual wetlands that could be categorized as similarly situated. Therefore, we recommend the EPA consider language emphasizing the need to be scientifically pragmatic in assessing what constitutes evidence for aggregation and to be considerate of science that continues to develop in this field. Although there might not be a study conducted on every single wetland in existence, broad scientific themes of ecological and hydrological connectivity can be applied with confidence while also considering regional to site-specific data.

There will inevitably be situations where wetlands will not be covered by an ecoregion or aggregate of similarly situated waters, leading to a need for case-specific evaluation. However, The Wildlife Society recommends caution in depending too heavily on making case-specific decisions for "other waters" not fitting a category of jurisdictional waters. We encourage the EPA to consider applying case-specific evaluation only in unique situations, as it will be extremely resource intensive for all parties involved to determine every individual water's potential nexus to jurisdictional waters. In these cases, we again encourage application of broadly accepted principles of connectivity and rigorous scientific analyses in future decision-making.

Exemptions

Because the terms "upland" and "ditch" have a high potential for ambiguity and therefore variety in interpretation, we suggest that adding definitions will provide further clarity.

The ecological integrity, health, and welfare of all aquatic and wetland habitats, as well as the fish and wildlife species associated with them, are dependent upon landscape-level connectivity. Therefore, it is imperative that the strongest possible science is used to guide the development of policies intended to protect and conserve the full range of physical, chemical and biological integrity of these systems. We strongly support the use of language in the proposed rule that refers to using the best available science on wetlands, streams, tributaries, riparian areas, floodplains and other waters first and foremost in decision-making. We believe that recommendations made in this letter will work to strengthen and clarify the proposed rule, providing direction that is consistent with the scope and content of the science.

Thank you for considering the views of wildlife professionals. Should you have any questions, please contact Keith Norris, Assistant Director of Government Affairs at (301)897-9770 x309 or keith.norris@wildlife.org.

Sincerely,

Rick Baydack, President
The Wildlife Society

Tiner, R.W. 2003. Geographically isolated wetlands of the United States. Wetlands 23(3):494-516.

Federal Emergency Management Agency (FEMA 2014). Accessed 3 October 2014 <Online> http://fema.maps.arcgis.com/home/webmap/viewer.html?webmap=cbe088e7c8704464aa0fc34eb99e7f30