KATE BROWN
GOVERNOR

June 19, 2017

Honorable E. Scott Pruitt
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW (1101A)
Washington, D.C. 20460

Honorable Douglas W. Lamont, P.E.
Senior Official Performing the Duties of the
Assistant Secretary of the Army for Civil
Works, Department of the Army
108 Army Pentagon
Washington, D.C. 20310

Dear Administrator Pruitt and Acting Assistant Secretary Lamont,

The Oregon Department of Environmental Quality, Department of Fish and Wildlife, Department of Forestry and Department of State Lands [hereinafter referred to as "the State of Oregon"] are providing these comments in response to the request for comments regarding the proposed plan to implement the "*Executive Order on Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the Waters of the United States Rule.*" We appreciate the opportunity to provide the State of Oregon's perspectives on the anticipated rulemaking process.

The Waters of the United States (WOTUS) rule is vitally important to the nation's ecological and economic wellbeing. The State of Oregon supported the 2015 WOTUS rule because it was based on sound science and took into account the practical and ecological realities of hydrology, seasonality and interconnected waters. Any rule that replaces the 2015 rule must accomplish the same in order to achieve the objective of protecting the chemical, physical and biological integrity of Oregon's and our nation's waters.

The Executive Order (EO) directs the federal agencies to *consider* interpreting the term "navigable waters" in a manner consistent with Justice Scalia's opinion in Rapanos v. United States, 547 U.S. 715 (2006). The EO does not require the federal agencies to propose a new rule that *implements* Scalia's opinion. Any new definition of "navigable waters" needs to be science-based and account for regional hydrologic regimes and locally unique chemical and biological conditions. Adopting narrow or rigid interpretations of "relatively permanent" and "continuous surface connection" in rule or guidance could have significant negative impacts. The following information is intended to illustrate these points by focusing on potential implications to Oregon's native fish and aquatic habitat.

Oregon's diverse ecosystems span the hydrologic spectrum, from the lush, wet rainforests near the coast to the arid, desert landscapes in eastern Oregon. Fish and wildlife use all waters of the state as they are available in space and time. Degradation of water quality will have an impact on fish and wildlife consistent with the magnitude of the degradation and the importance of the water resource to the life stage.

Flow permanence – especially in the drier climes – varies spatially and temporally. For example, the Oregon Department of Fish and Wildlife (ODFW) conducted annual status surveys for redband trout in an eastern Oregon basin (Rock Creek) from 2007 to 2012. The interannual variability in the number of sites visited that were dry was substantial (2007 – 56% dry; 2009 – 18% dry; 2010 & 2011 – 0% dry; 2012 – 75% dry). Despite this variability and the large extent of drying in some years, ODFW concluded "redband trout in this system appear to be abundant relative to other areas in the northern portion of the Great Basin."[1] Aquatic habitat that is periodically and unpredictably dry does not necessarily cease to be important habitat. Stream networks like these are commonplace in eastern Oregon and throughout the arid West. The United States Geologic Survey categorizes over half of the waterways in Oregon as intermittent. If they lose federal clean water protections because of a rigid interpretation of "relatively permanent" or a decision-framework that does not allow for local scientific input, it could result in substantial habitat destruction and species decline.

Devastating consequences could similarly result from making "continuous surface connection" a litmus test for jurisdictional determinations. Ecologically meaningful hydrologic connectivity is not necessarily severed by a discontinuous surface connection. Perennial streams are clearly important for fish and wildlife, including ecologically and economically valuable cold-water species like salmon, steelhead, and trout. However, the capacity of those perennial waters to function as habitat for those species throughout the year is often tied to the larger stream network, including intermittent and ephemeral streams. For example, during summer months when stream flows are low and water temperatures are elevated, some fish species rely on localized pockets of cooler water for survival. Many of these "cold water refugia" exist because subsurface hydrologic connections continue to exist even after the seasonal loss of surface connectivity.[2]

Floodplain wetlands are another example where there may be hydrologic connectivity without evidence of a surface connection. Whether continuous or discontinuous, lateral connectivity between mainstem streams and floodplain wetlands has implications for fish and wildlife and for the ecohydrology of perennial mainstem streams.[3] Permanent and seasonal floodplain wetlands serve as important water reservoirs, withholding waters from mainstem flow during periods of high flow and gradually returning waters during periods of lower flow. By maintaining baseflow during hotter, dryer portions of the year, these wetlands can moderate warm water temperatures and poor water quality, both of which play a role in determining the type and degree of support for beneficial uses in perennial mainstem rivers.

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[1] Meeuwig, M.H. and S.P. Clements. 2015. Temporal variability in the distribution and abundance of a desert trout: Implications for monitoring design and population persistence in dynamic stream environments. Technical Report, Oregon Department of Fish and Wildlife, Corvallis, Oregon.

[2] Ebersole, J.L., P.J. Wigington, Jr., S. G. Leibowitz, R.L. Comeleo and J. Van Sickle. 2014. Predicting the occurrence of cold-water patches at intermittent and ephemeral tributary confluences with warm rivers. *Freshwater Science*, 34(1): 111-124. DOI: 10.1086/678127

[3] For discussion of the role of geographically isolated wetlands (rather than lateral wetlands) in regional hydrology and baseflows, see McLaughlin, D.L., D.A. Kaplan and M. J. Cohen. 2014. A significant nexus: Geographically isolated wetlands influence landscape hydrology. *Water Resources Research*, 50: 7153-7166. DOI: 10.1002/2013WR015002 and Everson, G.R., H.E. Golden, C.R. Lane and E. D'Amico. 2015. Geographically isolated wetlands and watershed hydrology: A modified model analysis. *Journal of Hydrology*, 529(2015): 240-256. DOI: 10.1016/j.jhydrol.2015.07.039

When considered across the drainage network, findings such as these reinforce the role that intermittent and ephemeral waterbodies can play in determining the quality of perennial water and, hence, the beneficial uses supported in downstream perennial reaches and the health of economies tied to these resources. In Oregon, salmon and steelhead are a vital part of our natural heritage, culture, and economy. These iconic fish support commercial and recreational fisheries that contribute hundreds of millions of dollars to the nation's economy each year. The economic contributions of these fisheries are particularly important in many rural and coastal communities in Oregon. For example:

- A 2015 report issued by ODFW and the Oregon Coastal Zone Management Association found that total economic contributions of analyzed recreational salmon fisheries were estimated at $53.8 million in 2013 and $57.1 million in 2014.

- Ocean salmon fishing angler days were estimated to contribute $6.3 million to the economy in 2014, while inland and lower Columbia River recreational salmon fisheries contributed an estimated $45.9 million in that same year.

- Oregon's commercial salmon harvests, including troll, net and offshore/distant water fisheries, resulted in economic contributions of over $315 million in 2014.

- Recreational fishing is an economic driver across this state. In 2011, the year of the most recent National Survey of Fishing, Hunting and Wildlife-Associated Recreation, 638,000 recreational anglers spent over 5.6 million days of fishing in Oregon with total fishing-related expenditures exceeding $640 million.[4]

Many of Oregon's once-abundant wild salmon and steelhead populations have declined to a point of listing under the Endangered Species Act (ESA) as threatened or endangered. To address these declines, Oregon and other Northwest states, federal agencies, local governments, tribes, and private citizens have engaged in an unprecedented cooperative recovery effort with regional investments of hundreds of millions of dollars annually. This effort speaks to an extraordinary commitment to recovering salmon and steelhead populations in the Northwest.

Healthy populations of salmon and steelhead are not solely the product of permanently flowing waters. Rather, these species make their living through the use of a complex mosaic of habitat that depends on ephemeral and intermittent as well as perennial streams. Intermittent streams can also provide important spawning habitat for adult coho salmon, and juveniles rearing in these habitats can experience faster growth rates than those rearing in perennial mainstem reaches.[5] Similarly, juvenile Chinook salmon have been shown to experience higher growth rates in seasonal floodplain habitats relative to perennial tidal or

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[4] US. Department of the Interior, U.S. Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

[5] Wigington Jr., P.J., J.L. Ebersole, M.E. Colvin, S. G. Leibowitz, B. Miller, B. Hansen, H.R. Lavigne, D. White, J.P. Baker, M.R. Church, J.R. Brooks, M.A. Cairns and J.E. Compton. 2006. Coho salmon dependence on intermittent streams. *Frontiers in Ecology and the Environment*, 4(10): 513-518. doi:10.1890/1540-9295(2006)4[513:CSDOIS]2.0.CO;2

river habitats[6], and this may have implications for survival during ocean residency. These species are relying on habitats in ways that vary across their lifespan from egg to adulthood and across a continuum of flow permanence that may not be well encompassed by a strict interpretation of the Scalia opinion.

The ecological role of non-permanent waters extends beyond species like salmon and steelhead. Though sometimes short-lived on the landscape, these waters support breeding by native amphibians, and they can be hotspots of biological productivity (e.g., vernal pools). In semiarid regions of eastern Oregon, the distribution of many terrestrial species is related to the presence of water. For example, the distribution of greater sage grouse, a species of conservation concern, is correlated to the proximity to wet habitats, including seasonal and temporary wetlands, playas, and streamside habitats, among others. Though many of these habitat features are not permanent, they have an ecological value disproportionate to their abundance on the landscape.[7]

It will be no easy feat to redefine "navigable waters" in a manner that clearly defines and protects all water resources that contribute to the health of downstream waters, and that can be successfully applied across the myriad of hydrologic regimes across the nation. We urge you to consult early and often with states and other stakeholders during the rule drafting process to help ensure a successful outcome and avoid the regulatory uncertainty, economic gridlock and ecological damage that will result from a narrowly-construed or unimplementable rule.

At a minimum, any proposed rule should accomplish the following:

- Establish clear categories of waters within the protection of the law, to include tributaries and adjacent waters (such as wetlands), along with traditional navigable waters, interstate waters, and the territorial seas.

- Establish that waters that have not been included within the program's jurisdiction as a matter of practice, such as most types of irrigation ditches, will continue to be excluded.

- Protect waters downstream of other states by securing a strong federal "floor" for water pollution control.

- Promote consistent and efficient implementation of state water pollution programs across the country in accordance with the principles of "cooperative federalism" on which this landmark statute is based.

- Allow for consultation/engagement with state and local agencies when making jurisdictional determinations, including consideration of local scientific studies and allowing for field determinations when appropriate.

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[6] Jeffres, C.A., J.L. Opperman and P.B. Moyle. 2008. Ephemeral floodplain habitats provide best growth conditions for juvenile Chinook in a California river. Environmental Biology of Fishes, 83(4)L 449-458. DOI: 10.1007/s10641-008-9367-1

[7] Donnelly, J.P., D.E. Naugle, C.A. Hagen and J.D. Maestas. 2016. Public lands and private waters: scarce mesic resources structure land tenure and sage-grouse distributions. *Ecosphere*, 7(1): e01208. 10.1002/ecs2.1208

- Include a timeline for agencies to determine whether a particular area contains jurisdictional waters that applies whenever a permit application is submitted to Corps or is otherwise needed or requested.

- Minimize use of guidance, but where it is used, develop it contemporaneously with the rule so that affected entities and communities can understand the entire package.

In addition, it will also be important to provide sufficient information with the proposed rule to enable states to understand the delta between the status quo and jurisdictional waters under the proposed rule, and to clarify whether and, if so, to what extent a new rule is intended to apply to actions that have already occurred or are pending.

Thank you again for this opportunity to share the State of Oregon's perspectives. We look forward to working with you on this important undertaking.

Sincerely,

Richard Whitman, Director
Oregon Department of Environmental Quality

Jim Paul, Director
Oregon Department of State Lands

Curt Melcher, Director
Oregon Department of Fish and Wildlife

Peter Daugherty, Director
Oregon Department of Forestry

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