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April 11, 2019

U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC
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U.S. Army Corps of Engineers
441 G Street NW
Washington, DC
20314-1000

Via Federal eRulemaking Portal: <http://www.regulations.gov/>

Re: Docket ID No. EPA-HQ-OW-2018-0149, Proposed Revised Definition of “Waters of the United States” (December 11, 2018)

Dear Administrator Wheeler and Assistant Secretary James,

We submit these comments on behalf of the Surfrider Foundation and our more than 500,000 members, activists and supporters in strong opposition to the proposed revised definition of the Waters of the United States under the Federal Clean Water Act. The Surfrider Foundation is a national non-profit grassroots organization dedicated to the protection and enjoyment of our ocean, waves, and beaches. Surfrider’s approximately 80 chapters and 90 school clubs throughout the U.S. are passionately working to protect clean water and healthy beaches along our coasts, including in the Great Lakes region. Our primary initiatives focus on clean water, ocean protection, coastal adaptation, beach access, and preventing marine plastic pollution.

Our members and supporters enjoy recreating in our coastal waters, from swimming, wading, and surfing, to snorkeling, fishing, and kayaking. Our lives are intimately connected to the water, and our and our children’s health depends on clean, safe waters in

which to recreate. Our ocean and waterways are public trust resources that require protection – and we know that our waterways are connected. Water by nature is fluid; it moves – from upstream to downstream – through our watersheds, where it eventually reaches a common surface body water, frequently the sea.¹ This basic principle underscores the need to ensure widespread jurisdictional coverage of the Clean Water Act.

Congress enacted the Clean Water Act (the “Act”) “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” (33 U.S.C. § 1251(a)). We cannot attain the Act’s goal if we ignore waters upstream that eventually connect downstream, whether by rain or other weather events.

The Surfrider Foundation is gravely concerned with numerous aspects of the proposed rule. Primarily, the elimination of protections for so called isolated wetlands, which do not directly abut other jurisdictional waters, and ephemeral tributaries (and their adjacent wetlands) is unacceptable and contravenes the explicit purpose of the Act. These critical waters must not be excluded under the rule.

Furthermore, this 60-day comment period was woefully inadequate to give the public a meaningful opportunity to review and comment on the proposal. The agencies themselves have not been able to explain in any detail how the proposal will affect our waterways on the ground, leaving the public a short amount of time to comment on an ambiguous - and devastating - proposal.

1. Reduction and Exclusion of Wetlands Coverage Contravenes the Purpose of the Clean Water Act

The rationale for Clean Water Act regulation of wetlands is, as the U.S. Army Corps of Engineers has recognized, that wetlands perform critical functions related to the integrity of other waters—functions which include water purification, flood control, and storm water runoff storage.² These wetland functions are not furthered by the proposed rule, which would eliminate jurisdiction for wetlands without a direct connection to another jurisdictional water (including where a manmade structure such as a dike or berm eliminates an otherwise existing connection). Instead, it’s estimated—based on the EPA’s own data—that the proposed rule would end protections for more than 50% of our country’s wetlands, and risk completely eliminating those wetlands’ beneficial functions.³

“In many cases, [...] filling in wetlands separated from another water by a berm can mean that flood water, impurities, or runoff that would have been stored or contained in the wetlands will instead flow out to major waterways.” (*Rapanos v. United States*, 547 U.S. 715 (2006), (Kennedy, J., concurring)).

¹ See <http://www.beachapedia.org/Watershed>; see also <https://www.neefusa.org/nature/water/lesson-1->

² See *Rapanos v. United States*, 547 U.S. 715 (2006), (Kennedy, J., concurring), citing C.F.R. §320.4(b)(2); see also <http://www.beachapedia.org/Wetlands> for additional information on wetland functions.

³ See <https://www.sciencemag.org/news/2018/12/epa-claims-no-data-impact-weakening-water-rule-numbers-exist>

This is unacceptable.

a. Wetlands Provide Flood Reduction Benefits

Of particular significance, as sea levels rise and storm events continue to become more frequent and severe with climate change,⁴ the flood reduction benefits of wetlands will become ever more important. Wetlands provide flood protection services worth billions of dollars nationwide. Wetlands play a pivotal role in lessening damage from storm surge during hurricanes and other storm events. This means less damage to our homes, businesses, and agricultural sites.⁵ Now is not the time to allow eliminating these vital resources.

The below is just a sampling of the ecological and economic benefits wetlands provide across the United States with respect to minimizing flood damage:

- Unfortunately, there are few studies of the economic value of wetlands for reducing flood damage. However, the studies that have been done show their immense value. One study found that coastal wetlands prevented more than \$625 million in property damage during Hurricane Sandy in 2012, reducing property damage throughout the Northeast United States by an average of ten percent. The damage reduction benefits varied, and reached as high as 29% in Maryland.⁶ “[...] the benefits of wetland conservation accumulate upstream. Some townships with few wetlands within their boundaries nevertheless benefited from the cumulative surge reduction of wetlands downstream.”⁷
- In Ocean County, New Jersey, salt marsh conservation can significantly reduce average annual flood losses by more than 20%.⁸
- John Dorney, the former head of the Program Development Unit in the North Carolina Division of Water Resources has spent much of his career studying wetlands in the state. With respect to isolated wetlands in North Carolina, Dorney has stated that “[p]robably a majority of the state’s isolated wetlands are east of I-95, but nobody really knows. It’s largely a coastal plain thing. My best guess is there are hundreds of thousands of these [isolated] wetlands in North Carolina that occupy tens of thousands of acres. We just don’t have good data.” However, what Dorney does know is that isolated wetlands can

⁴ See U.S. Global Change Research Program, Third and Fourth National Climate Assessment Reports, available at <https://nca2014.globalchange.gov/report#section-1946>, and <https://science2017.globalchange.gov>

⁵ See <https://www.epa.gov/sites/production/files/2016-02/documents/wetlandfunctionsvalues.pdf>

⁶ See Narayan, S., Beck, M.W., Wilson, P., Thomas, C., Guerrero, A., Shepard, C., Reguero, B.G., Franco, G., Ingram, C.J., Trespalacios, D. 2016. Coastal Wetlands and Flood Damage Reduction: Using Risk Industry-based Models to Assess Natural Defenses in the Northeastern USA. Lloyd’s Tercentenary Research Foundation, London; available at https://www.nature.org/content/dam/tnc/nature/en/documents/Coastal_wetlands_and_flood_damage_reduction.pdf

⁷ Id.

⁸ Id.

store a lot of water. Dorney says this is important particularly during a tropical storm or hurricane.⁹

- In watersheds where wetlands have been lost, flood peaks may increase by as much as 80 percent. Wetlands within and upstream of urban areas are particularly valuable for flood protection. The impervious surface in urban areas greatly increases the rate and volume of runoff, thereby increasing the risk of flood damage. During Tropical Storm Irene in 2011, Otter Creek flooded Rutland, Vermont with nearly 19,000 cubic feet per second of water, severely damaging homes, roads, and other infrastructure in the city. In comparison, Middlebury, Vermont, approximately 30 miles north, experienced minimal flooding with a peak flow of only 7,000 cubic feet per second – significantly less than Rutland, which is located upstream. According to the Vermont Department of Environmental Conservation, the Otter Creek Swamp Complex, located between Rutland and Middlebury, stored the floodwaters and gradually released them, thereby sparing Middlebury. “The difference between the flooding experienced by these two communities demonstrates the value of wetlands for water storage and flood control.”¹⁰
- Wetland functions such as water quality treatment, erosion control, and flood control can be very expensive to replace when lost. The cost of replacing the flood control function of 5,000 acres of wetlands drained each year in Minnesota was estimated to be \$1.5 million by the U.S. EPA in 1995.¹¹ That estimate would of course be higher in today’s dollars.
- Preserving and restoring wetlands can help in providing flood protection otherwise provided by expensive dredging operations and levees. Whereas the Mississippi River’s bottomland hardwood-riparian wetlands once stored 60 days of floodwaters and served as significant fish and wildlife habitat, they now store only 12 days of floodwater after being filled, leveed, or drained.¹²
- Wetlands don’t just reduce *coastal* flooding; they’re also integral in minimizing inland flooding – for example, from melting snowpack. Experts are currently concerned about flooding in places like Minnesota and Colorado as the snowpack melts this spring,¹³ and many parts of the Midwest have already experienced devastating flooding this year.¹⁴ “Wetlands can hold excess water after the snow melts. But if they've been filled in and paved over for development, water can flow more quickly across the land and accelerate flooding.”¹⁵
- And hurricanes and tropical storms don’t just affect coastal areas. They can move inland and inundate communities with flooding. Wetlands provide flood reduction benefits in these inland areas as well. For example, overdevelopment in the wetlands areas surrounding Houston, Texas, has consistently been linked to the destruction caused by

⁹ See <https://www.coastalreview.org/2014/06/isolated-wetlands-a-primer/>

¹⁰ See <https://dec.vermont.gov/watershed/wetlands/functions/storage>

¹¹ See <https://www.epa.gov/sites/production/files/2016-02/documents/wetlandfunctionsvalues.pdf>

¹² See <https://www.epa.gov/sites/production/files/2016-02/documents/wetlandfunctionsvalues.pdf>, p. 10

¹³ See, e.g., <https://www.mprnews.org/story/2019/03/08/how-do-experts-forecast-floods> and <https://www.9news.com/article/weather/while-colorados-snowpack-remains-high-flood-outlook-remains-uncertain/73-c0e61e82-0a30-4ee4-9ba4-c47665d66fbb>

¹⁴ See <https://www.nytimes.com/2019/03/18/us/nebraska-floods.html>

¹⁵ See <https://www.mprnews.org/story/2019/03/08/how-do-experts-forecast-floods>

Hurricane Harvey in 2017.¹⁶ Experts blame Houston's rapid growth and over development for the flood's devastation; as the city's population swelled, local officials allowed developers to pave over absorbent prairie land, containing considerable wetlands, causing floodwaters to accumulate across the city.¹⁷ “The region was once home to acres of prairie grass whose roots extended far underground, with a capacity to absorb water for days on end or even permanently. Most of that land has now been paved over. The Katy Prairie northwest of Houston was once about 600,000 acres of flood-absorbing land; recent development has reduced it to a quarter of that capacity, according to estimates from the Katy Prairie Conservancy, an advocacy group. [...] In Harris County alone, research by Texas A&M scientist John Jacob shows almost 30 percent of freshwater wetlands were lost between 1992 and 2010, a figure he calls “unconscionable.” As wetlands have been lost, the amount of impervious surface in Harris County increased by 25 percent from 1996 to 2011, [Sam] Brody¹⁸ said. And there’s no way that engineering projects or flood control regulations have made up for that change, he said.”¹⁹

- Coastal wetlands in the U.S. have been estimated to provide \$23.2 billion per year in storm protection services alone based on a regression model of 34 major hurricanes to hit the U.S. since 1980; a loss of 1 hectare of wetland in the model corresponded with increased average storm damages of \$33,000 from specific storms.²⁰
- An estimate for southeast Louisiana determined that coastal wetlands significantly reduced storm surge and that a 0.1 increase in the ratio of wetland to open water saved three to five properties – avoiding estimated damages of between \$590,000 and \$792,000 – for a given storm.²¹
- An acre of wetland can typically store about three-acre feet of water, or one million gallons.²²

b. Wetlands Provide Water Quality Benefits

Additionally, wetlands are immensely valuable for their water purification and pollution reduction functions.²³ The following are merely *some* examples of the value they provide:

¹⁶ See <https://psmag.com/economics/a-newly-proposed-epa-deregulation-would-quash-any-hope-of-protecting-whats-left-of-americas-wetlands>

¹⁷ See <https://houston.texastribune.org/boomtown-floodtown/> and <http://www.katyprairie.org/learn-about-kpc-1>

¹⁸ Sam Brody is a Texas A&M University at Galveston researcher who specializes in natural hazards mitigation.

¹⁹ See <https://houston.texastribune.org/boomtown-floodtown/> and <http://www.katyprairie.org/learn-about-kpc-1>

²⁰ See Sutton-Grier, Ariana et. al., Future of our coasts: The potential for natural and hybrid infrastructure to enhance the resilience of our coastal communities, economies and ecosystems, citing R. Costanza, O. Perez-Maqueo, M.Luisa Martinez, P. Sutton, S.J.Anderson, K. Mulder. The value of coastal wetlands for hurricane protection. *AMBIO*, 37 (2008), pp. 241-248.

²¹ Id., citing E.B. Barbier, I.Y. Georgiou, B.Enchelmeyer, D.J. Reed. The value of wetlands in protecting southeast Louisiana from hurricane storm surges. *PLoS ONE* (2013), p. 8

²² See <https://www.epa.gov/sites/production/files/2016-02/documents/flooding.pdf>.

- Wetlands are valuable as they help improve water quality, including for drinking water, by intercepting surface runoff and removing or retaining inorganic nutrients, processing organic wastes, and reducing suspended sediments before they reach open water. This filtering function is economically beneficial for the nearby communities. According to the EPA's own materials, a 1990 study showed that the Congaree Bottomland Hardwood Swamp in South Carolina removes pollutants equivalent to that which would be removed annually by a \$5 million waste water treatment plant.²⁴
- EPA materials also report that a study at a 2,500 acre wetland in Georgia indicated that it saves \$1 million in water pollution abatement costs annually.²⁵
- Wetlands have been constructed in several locations in California, South Carolina, Oregon, Florida, Alabama, and Mississippi to cost-effectively treat municipal wastewater by taking the place of traditional mechanical "secondary treatment" processes. These wetlands provide some of the benefits of natural wetlands while also treating wastewater.²⁶
- New York City found that it could avoid spending \$3-8 billion on new wastewater treatment plants by investing \$1.5 billion to buy land around the reservoirs upstate as well as instituting other protective measures for the watershed that will do the job of purifying the water supply for free.²⁷
- The Charles River Basin wetlands in Massachusetts consist of approximately 8,500 acres of freshwater marsh and wooded swamp (75% of Boston's major watershed's wetlands). The economic value of the Basin's wetlands was estimated to be over \$24 million for pollution reduction (in 2003). Additional benefits are estimated as follows: Nearly \$40 million for flood damage prevention, and more than \$30 million in recreational benefits (including for small game hunting and trout fishing), in 2003 U.S. dollars.²⁸

c. Wetlands Provide Still More Benefits

In addition to flood reduction and pollution filtration, wetlands provide even more benefits, related to groundwater resources, recreation, the seafood and agriculture industries, species habitat, and tourism. Many of these in turn have economic impacts on interstate and foreign commerce.

²³ See e.g., <https://dec.vermont.gov/watershed/wetlands/functions/water-quality> ("Wetlands can improve water quality by removing pollutants from surface waters. Three pollutant removal processes provided by wetlands are particularly important: sediment trapping, nutrient removal and chemical detoxification"); see also <http://www.beachapedia.org/Wetlands>

²⁴ See <https://www.epa.gov/sites/production/files/2016-02/documents/wetlandfunctionsvalues.pdf>, p. 8-9

²⁵ See <https://www.epa.gov/sites/production/files/2016-02/documents/wetlandfunctionsvalues.pdf>

²⁶ See *Constructed Wetlands for Wastewater Treatment and Wildlife Habitat Case Study*, EPA Case Study Report (1993), available at https://www.epa.gov/sites/production/files/2018-07/documents/constructed_wetlands_for_wastewater_treatment_and_wildlife_habitat_17_case_studies_epa_832-r-93-005.pdf

²⁷ See <http://d2ouvy59p0dg6k.cloudfront.net/downloads/wetlandsbrochurefinal.pdf>, at p. 10.

²⁸ See <http://d2ouvy59p0dg6k.cloudfront.net/downloads/wetlandsbrochurefinal.pdf>

- John Dorney, referenced above, has stated “[i]f they, [wetlands], get wiped out that will cause a problem. With few exceptions they’re connected to downstream. These things are intimately connected to the groundwater.” As he has said, “[m]ost of the people in the [North Carolina] coastal plain drink groundwater. [...] If you fill these isolated wetlands in with parking lots you’re not going to recharge the groundwater. This is particularly important now as it relates to climate change and streams drying out.”²⁹
- Wetlands provide recharge for groundwater, which many Americans rely upon for their drinking water. The Floridian aquifer system, for instance, is one of the more productive ground water sources in the United States. It occurs across the entire state of Florida, and into southern Georgia, and portions of South Carolina and Alabama. According to EPA’s own materials, this huge subsurface reservoir produces some of the cleanest water in the nation. Its primary source is rainwater that filters through hundreds of feet of sand and rock. One estimate for a 5-acre Florida cypress swamp recharging groundwater was that if 80 percent of the swamp was drained, available ground water would be reduced by an estimated 45 percent.³⁰
- Wetlands provide endless opportunities for popular recreational activities, such as hiking, boating, hunting, fishing, trapping and bird watching. According to the Vermont Department of Environmental Conservation, the observation and photography of wetland dependent birds, alone, entice an estimated 50 million people to spend nearly \$10 billion each year. Meanwhile, the nation's harvest of muskrat pelts is worth over \$70 million annually, while waterfowl hunters in the United States spend over \$600 million annually to harvest wetland-dependent birds.³¹
- 17 million Americans participate in wetland dependent recreational fishing every year generating at least \$18 billion for local coastal economies.³²
- Nature based recreation is the fastest growing activity within the tourism industry. In 1996, Americans spent an estimated \$29.2 billion to observe, photograph, or feed wildlife, much of which involves birds dependent on wetlands. That amount is likely much higher today. Similarly, in 1991, approximately 25 million Americans traveled away from home for bird watching, spending over \$5 billion. This amount is likewise much higher today. As the EPA has stated itself, “[a]n inordinate amount of this recreational birding is associated with wetlands and aquatic habitats.”³³
- Coastal wetlands are some of the most productive ecosystems on Earth, generating more than half of the commercially harvested seafood in the United States. In 2015, U.S. fisheries supported 1.6 million jobs (a one percent increase from 2011) and contributed \$208 billion in sales (a twelve percent increase from 2011).³⁴

²⁹ See <https://www.coastalreview.org/2014/06/isolated-wetlands-a-primer/>

³⁰ See <https://www.epa.gov/sites/production/files/2016-02/documents/wetlandfunctionsvalues.pdf>

³¹ See <https://dec.vermont.gov/watershed/wetlands/functions/benefits> and

<https://www.epa.gov/sites/production/files/2016-02/documents/wetlandfunctionsvalues.pdf>

³² See <https://www.epa.gov/sites/production/files/2016-02/documents/wetlandfunctionsvalues.pdf>

³³ See <https://www.epa.gov/sites/production/files/2016-02/documents/wetlandfunctionsvalues.pdf>

³⁴ See <https://www.fisheries.noaa.gov/coastal-wetlands-too-valuable-lose>

- Wetlands support high concentrations of birds, mammals, reptiles, amphibians, fish and invertebrate species. It has been estimated that freshwater wetlands hold more than 40% of all the world’s species and 12% of all animal species.³⁵
- Isolated wetlands provide significant numbers of rare and endangered plant and animal species. Some experts have suggested smaller wetlands may actually contain even more diverse species than larger wetlands.³⁶ As of 2005, 86 plant and animal species listed as threatened or endangered under the Endangered Species Act (and 274 at-risk plant and animal species) were supported by isolated wetlands, and more than half of the threatened or endangered species (52%) were completely dependent on isolated wetland habitat. Nearly half of the isolated wetland types (35 of 81, or 43%) are known to support at least one listed species under the Endangered Species Act.³⁷
- A type of wetland known as pocosins stretch along the southeastern coast, from southern Virginia to North Florida. “[...]restoring healthy pocosin wetlands provides important benefits to terrestrial and aquatic ecosystems, as well as human communities: They provide wildlife habitat, lessen the frequency and severity of wildfires, sequester carbon, nitrogen, and mercury (known as a carbon sink), protect the water quality of estuaries, and control flooding in low-elevation coastal areas. Pocosin restoration also plays a key role in the adaption of ecosystems to sea level rise by preventing soil loss and promoting soil formation.”³⁸
- Similar to the flood reduction benefits discussed above, coastal wetlands play a critical role in protecting coasts from shoreline erosion. Coastal wetlands “anchor” barrier beaches and sand dunes to the mainland. As new sediment washes into the marsh with each tide, the marsh surface maintains elevation as sea level rises. They also protect against damaging storm surge, slowing wind-driven waves, and helping protect uplands from erosion during storm-related coastal flooding.³⁹
- With respect to their storm buffering functions, scientists estimate that every three miles of healthy wetlands could reduce storm surge around one foot. In Louisiana, which has undergone significant erosion from oil and gas development and manmade levees, restoring and conserving wetlands is critical. Wetlands provide \$23.2 billion per year in storm protection services alone.⁴⁰
- By 2100, New York City could witness sea level rise of up to six feet. Wetlands will provide a critical buffer for those living within this rapidly expanding flood zone. That’s why the city is supporting programs like “Marshes”, a 68-acre “wetland mitigation bank” on Staten Island

³⁵ See <http://d2ouvy59p0dg6k.cloudfront.net/downloads/wetlandsbrochurefinal.pdf>, p. 9.

³⁶ See, e.g., Semlitsch and Bodie 1998; Are small, isolated wetlands expendable? *Conservation Biology* 12:1129-33, available at

<https://pdfs.semanticscholar.org/9ebf/aa206af4718032f60e87714305d085b23159.pdf>

³⁷ See Comer, P., K. Goodin, A. Tomaino, G. Hammerson, G. Kittel, S. Menard, C. Nordman, M. Pyne, M. Reid, L. Sneddon, and K. Snow. 2005. Biodiversity Values of Geographically Isolated Wetlands in the United States. NatureServe, Arlington, VA; available at

http://www.natureserve.org/sites/default/files/projects/files/isolated_wetlands.pdf

³⁸ See <https://oceanservice.noaa.gov/facts/pocosin.html>

³⁹ See <https://www.seagrant.umaine.edu/coastal-hazards-guide/coastal-wetlands/learn-more/how-they-work-and-benefits>

⁴⁰ See <https://www.earthshare.org/wetlands/>

- University of South Carolina professor Dan Tufford, who has studied isolated wetlands in South Carolina, says the following, with respect to the impacts of depleting wetlands on the environment: “There are many critters that depend on these isolated wetlands and they’re going to go away. [...] Those environmental functions are going to go away. Getting rid of them all, which is probably what’s going to happen, will be detrimental. It seems pretty clear that isolated wetlands do improve the quality of water that ultimately makes it into a nearby stream. By all means, the connection is there.”⁴¹
- Cypress domes, a type of wetland found in Florida, help prevent flooding of local areas and aid in groundwater recharge, as they hold water for long periods of time.⁴²
- Wetland soils can store carbon for hundreds of years, and thus play an important role in fighting climate change.⁴³

Given these demonstrated invaluable benefits wetlands (including isolated wetlands) provide, the agencies should not be reducing jurisdictional coverage for these resources - particularly as the agencies haven’t even been able to accurately describe the extent to which protection for our wetland resources will be eliminated under the proposed rule. A conservative estimate put forward is that protection for up to *half* of our country’s wetlands will be eliminated - this, at a time when we’ve already filled in innumerable acres of wetlands and are now suffering the consequences. The U.S. lost more than half of our wetlands in the contiguous 48 states between the late 1700s and mid-1980s, and the percentage of wetlands lost is even higher in California and other densely populated coastal areas.⁴⁴

The foregoing examples also illustrate how isolated wetlands are essential for habitat, including for dozens of threatened and endangered species. They play an integral role in recreational tourism, ranging from birding to wildlife photography to recreational fishing, and thereby generate billions of dollars in interstate commerce. Even the pre-2015 regulations recognized the impact wetlands and other intrastate waters can have on interstate commerce (with the pre-2015 version of 33 C.F.R § 328.3 formerly extending jurisdiction to “[a]ll other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters” used for recreational purposes or commercial seafood purposes. The proposed rule inappropriately ignores these features.

Relatedly, the agencies are soliciting comments on how to create a regulatory framework that would authorize interested states, tribes and federal agencies to develop geospatial datasets of waters within their border, as there's no framework in the proposed rule. This

⁴¹ See <https://www.coastalreview.org/2014/06/isolated-wetlands-a-primer/>

⁴² See https://www.aswm.org/wetlandsonestop/tiner_geographically_isolated_wetlands.pdf, at p. 16

⁴³ See <https://www.earthshare.org/wetlands/> and <https://oceanservice.noaa.gov/facts/bluecarbon.html>

⁴⁴ See, e.g., <http://www.beachapedia.org/Wetlands>, <http://www.waterencyclopedia.com/Tw-Z/Wetlands.html#ixzz5kdvpqx3J> and <https://www.neefusa.org/nature/land/wetlands-united-states>

should be done *before* adopting a rule that is going to exclude so many critical natural water resources; we need to have an accurate idea of what – and how much - is being proposed for exclusion, and where these resources lie, so that we understand the full extent of consequences proposed. Soliciting comments on a rule narrowing jurisdiction of the Act before setting forth an understanding of how the rule will actually affect our nation’s waters is improper.

Additionally, the agencies are soliciting comments on its decision to dispense with the “neighboring” concept within the definition of “adjacent,” as that term applies to jurisdictional waters including wetlands. The Surfrider Foundation opposes doing away with the neighboring concept, and supports the 2015 rule’s definition of “neighboring.” This definition is more in accord with science, as it recognizes how watersheds function. That is, waters do not necessarily have to directly abut to influence another water’s integrity. Many “isolated wetlands” that may not have a direct and continuous surface connection are not truly isolated, but are hydrologically connected to other wetlands and waterbodies through groundwater flows or by intermittent overflows or spillovers.⁴⁵ For example, wetlands near but not directly on the Great Lakes play a vital role in preventing runoff pollution and protecting the Lakes’ water quality.⁴⁶ Waters and wetlands located near the high tide line or within the flood plain of another jurisdictional water additionally provide storage capacity for floodwaters which may spill over the banks of the nearby waterway.

Additionally, many entire wetland ecosystems have had their surface water flow artificially separated by dikes, levees, berms, and other man made structures. In some cases, these artificial structures were meant to *protect* the wetlands.⁴⁷ In many cases, barriers like roads, dikes, and levees are put in for any number of purposes, damaging the wetlands and their species (work is being done in some areas to restore the degradation).⁴⁸ In any scenario, wetlands should not lose their Clean Water Act protections as a consequence of being artificially cut off from other jurisdictional waters.

The proposed rule, eliminating the “neighboring” concept, violates the purpose of the Act. Wetlands without a direct surface flow connection should not be excluded from the Clean Water Act’s jurisdiction, as they still influence water quality in downstream navigable waterways.

⁴⁵ See Geographically Isolated Wetlands of the United States, WETLANDS, Vol. 23, No. 3, September 2003, pp. 494–516; *available at* https://www.aswm.org/wetlandsonestop/tiner_geographically_isolated_wetlands.pdf

⁴⁶ See, e.g., <https://www.greatlakeslaw.org/blog/2009/07/better-protections-for-wetlands-in-michigan-and-the-great-lakes.html>

⁴⁷ See, e.g., https://www.nola.com/news/gulf-oil-spill/2010/05/coast_guard_approves_building.html and https://www.huffpost.com/entry/louisiana-turns-sand-berm_b_3376220 (sand berms constructed to protect Louisiana wetlands from B.P. Gulf of Mexico oil spill, and then converted into barrier islands).

⁴⁸ See <https://www.nps.gov/subjects/wetlands/threats-to-wetlands.htm>

2. Excluding Ephemeral Tributaries from the Act's Jurisdiction Contravenes the Purpose of the Act

Similar to the exclusion of isolated wetlands, Surfrider strongly opposes the new definition of “tributaries” which will eliminate jurisdiction for ephemeral tributaries. Despite the inconsistent nature of such waters, when rain eventually does come, pollutants entering these tributaries will be carried downstream, connecting with other waterways, and typically, reaching our oceans. Thus, protection of our dry washes and ephemeral streams is vital to downstream water quality and flood safety.

As Justice Kennedy correctly observed in his concurrence in *Rapanos*, with respect to the plurality's requirement for permanent standing water or continuous flow, at least for a period of “some months,” this “makes little practical sense in a statute concerned with downstream water quality. The merest trickle, if continuous, would count as a “water” subject to federal regulation, while torrents thundering at irregular intervals through otherwise dry channels would not.” It is this reality which requires including rain driven ephemeral streams under the Clean Water Act's jurisdiction. To not do so disregards the very purpose of the Act – to restore and maintain the integrity of our nation's waters.

Justice Kennedy pointed to the Los Angeles River to illustrate his point. “The Los Angeles River, for instance, ordinarily carries only a trickle of water and often looks more like a dry roadway than a river. [citation] Yet it periodically releases water-volumes so powerful and destructive that it has been encased in concrete and steel over a length of some 50 miles. [citation]. Though this particular waterway might satisfy the plurality's test,⁴⁹ it is illustrative of what often-dry watercourses can become when rain waters flow. [citation] (indicating creek carried no flow for much of the year but carried 122 cubic feet per second on Feb. 12, 2003).”⁵⁰

Limiting tributaries to those waters which carry perennial flow (continuous surface water flow during a typical year) and intermittent flow (continuous surface water flow during certain times of a typical year, but not merely in direct response to precipitation) and excluding all other tributaries thus violates the purpose of the Clean Water Act.

With respect to the proposed definition of “intermittent” flow that comes within the Act's jurisdictional scope, utilizing the defined term “snowpack” is too narrow and vague. It's unclear what will constitute accumulation over “extended periods of time” or which “certain geographic regions and high altitudes” will come within the definition's scope. Instead, all snow, regardless of the period of time over which it has accumulated, or where it falls, should be included within the “intermittent” definition. This aligns with the purpose of the Act- whether melted snow or melted “snowpack,” it is going to connect and affect water quality downstream.

⁴⁹ In 2010, the EPA did correctly determine all 51 miles of the River to be jurisdictional. (See 4 Golden Gate U. Env'tl. L.J. 251, available at <https://digitalcommons.law.ggu.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1061&context=gguelj>).

⁵⁰ *Rapanos v. United States*, 547 U.S. 715 (2006), (Kennedy, J., concurring)(citations omitted)

The requirements for “perennial flow” and “intermittent flow,” are likewise vague and their narrow scope is not scientifically justified. “Intermittent” flow requires continuous flow during “certain times of a typical year,” which is proposed to include *extended periods of predictable*, continuous, seasonal surface flow occurring in the same geographic feature *year after year* (emphasis added). These requirements are unclear, and irrelevant to the effects that actual flows have downstream. “Typical year” with respect to “perennial flow” is similarly vague. Additionally, with climate change, extreme weather events, including droughts and extreme flooding, will continue to be more common. Flows may be less predictable, or less “extended.” Due to increased droughts they may not necessarily continue *year after year*. However, flows should not be excluded based on their inconsistency or unpredictability.

The primary problem with the definitions, however, is the exclusion of tributaries fed solely by precipitation. A waterway gushing with water solely due to extreme rainfall likely wouldn’t come within the Act’s jurisdiction according to the proposed definition even if it happened numerous times during a thirty-year period. However, when flood events happen, as described above, the water will make its way downstream through the watershed and into other traditional navigable waterways or our seas. The prior definition of “tributary” (i.e. “characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark”) more appropriately extends the jurisdictional reach to these circumstances. As the prior regulation correctly noted, “these physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high water mark” - flow powerful enough to carve those features surely has an impact on the downstream water quality, no matter what its source.

Furthermore, as intimated above, the proposed rule is inconsistent with *Rapanos*. The agencies’ proposed rule is based on a plurality opinion, the basis of which a majority of the justices *disagreed* with. Given the reality of how our watersheds function, as Justice Kennedy pointed out in his example with the L.A. River, Justice Kennedy’s concurrence requires an alternative jurisdictional basis, where a significant nexus exists between waters.

The 2007 EPA & Army Corps Guidance document which the agencies issued to provide their interpretation of *Rapanos* included the significant nexus test, and did not limit jurisdiction to surface-water connected waters.⁵¹

As the guidance document explains, “the agencies have evaluated the *Rapanos* opinion to identify those waters that are subject to CWA jurisdiction under the reasoning of a majority of the justices.”⁵² The agencies clearly interpreted *Rapanos* to apply the significant nexus test to non-navigable tributaries that are not relatively permanent, wetlands adjacent thereto, and wetlands adjacent to (but not directly abutting) relatively permanent tributaries. *See, e.g.:*

⁵¹ See <https://www.epa.gov/sites/production/files/201604/documents/rapanosguidance6507.pdf>

⁵² *Id.*, at 3.

“The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- Non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.”

The significant nexus analysis assesses the flow characteristics and functions of a tributary, and the functions performed by all wetlands adjacent thereto, to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters. Even the agencies’ revised 2008 Rapanos Guidance, issued “after careful consideration of public comments received and based on the agencies’ experience in implementing the *Rapanos* decision,” recognizes the significant nexus test as an alternative jurisdictional basis.⁵³ And the courts have widely accepted Justice Kennedy’s significant nexus analysis as well.

The proposed rule eliminates any semblance of a significant nexus analysis, utterly disregarding the fact that ephemeral tributaries and their adjacent wetlands can and do significantly affect the chemical, physical, and biological integrity of downstream waters; and, again, the rule is based only on the reasoning of a minority of the U.S. Supreme Court justices. Thus, the proposed rule not only violates the agencies’ own explicit interpretation of the case law, but defeats the very purpose of the Act.

Ephemeral tributaries should not be excluded from the definition of Waters of the U.S. Likewise, seasonal intermittent streams should continue to be jurisdictional.

3. The Proposed Rule Will Negatively Impact Recreation and Tourism

By conservative estimates, the proposed rule is believed to result in eliminating protections for at least 20% of our tributaries and more than 50% of our nation’s wetlands. Given how watersheds function, with water draining to and affecting downstream coastal areas (including our Great Lakes coastal areas), this will have simply devastating impacts on water quality along our coasts. This, in turn, will have immeasurable negative impacts on the millions of people who visit and recreate along our coasts each year.

Over 100 million people visit our nation’s beaches each year (making over 385 million visits), driving coastal tourism and recreation economies valued at more than \$124 billion and supporting 2.4 million jobs nationwide in 2016.⁵⁴ Water pollution threatens public

⁵³ See https://www.epa.gov/sites/production/files/2016-02/documents/cwa_jurisdiction_following_rapanos120208.pdf

⁵⁴ See National Ocean Economics Program. Middlebury Institute of International Studies at Monterey. 2015 Ocean Economy for Coastal Recreation and Tourism Industry: <http://oceanomics.org/> and <http://www.oceanomics.org/Market/ocean/oceanEconResults.asp?IC=N&dataSource=E&selState=0&>

health and these tourism economies, with over 20,000 beach closure and advisory days issued each year to protect the bathing public from exposure to bacteria and other illness causing pathogens.⁵⁵

Polluted water at the beach puts beachgoers at risk of contracting waterborne illnesses such as diarrhea, nausea, ear and eye infections and skin rashes.⁵⁶ Researchers estimate that 90 million recreational water illnesses occur annually and cost the U.S. economy \$2.2-\$3.7 billion each year.⁵⁷ Beach closures protect public health but harm coastal recreation tourism economies.⁵⁸ A one-day beach closure at a heavily used urban beach can cost up to an estimated \$170,000 in loss of beachgoer spending and local sales.⁵⁹

In short, coastal water based recreation is immensely popular and enjoyed by millions of Americans, and is a significant part of the American economy. The health risks and number of annual beach closures are already concerning, and with such profoundly reduced federal Clean Water Act protections proposed in this rule revision, further significant water quality impairment is guaranteed. It is unconscionable to put people's health and safety at risk when they are enjoying recreating at their beaches and coastal waters, not to mention inland public rivers, lakes and streams, all of which are their public trust resources.

While the Clean Water Act's Beach Act grants program assists states with funding for beach water quality monitoring and notification programs, these programs are already strained for resources and unable to adequately monitor and notify the public of water quality problems at all times or at all places. With the anticipated increases in water pollution the proposed rule will surely bring, Beach Act programs will simply not be able to keep up and more cases of recreational illnesses will foreseeably result

The Surfrider Foundation fiercely opposes the proposed rule because, while purporting to protect our "territorial seas," it effectively fails to protect our downstream coastal waters, and accordingly, will threaten the health and safety of the more than 100 million annual coastal users, including our members, who visit and enjoy our coasts each year.

The purpose of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. That hasn't changed. Nor has the science, which tells us that the waters in our watersheds are intimately connected, and upstream headwaters certainly impact the quality and integrity of our downstream coastal waters.

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⁵⁵ See <https://www.nrdc.org/sites/default/files/ttw2013.pdf>

⁵⁶ See <https://ehjournal.biomedcentral.com/articles/10.1186/s12940-017-0347-9>

⁵⁷ See www.ncbi.nlm.nih.gov/pmc/articles/PMC5759255/

⁵⁸ See

<http://www.oceaneconomics.org/Market/ocean/oceanEconResults.asp?IC=N&dataSource=E&selState=0&selCounty=All&selYears=2016&selSector=6&selIndust=TO00&selValue=All&selOut=display&noepID=40C7>

⁵⁹ See www.jstor.org/stable/42629652?seq=1#page_scan_tab_contents

Accordingly, the agencies should not adopt the proposed regulations which contravene both the purpose of the Act and the science, and should readopt and utilize the 2015 Clean Water Rule.

Sincerely,



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