

State Water Resources Control Board

April 15, 2019

Andrew Wheeler
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Ave, NW
Washington, DC 20460

R.D. Secretary James
Assistant Secretary of the Army for Civil Works
Department of the Army
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WATERS OF THE UNITED STATES PROPOSED RULE DOCKET ID NO. EPA-HQ-OW-2018-0149

Dear Administrator Wheeler and Assistant Secretary James:

Thank you for the opportunity to comment on the U.S. Environmental Protection Agency and U.S. Department of the Army's (collectively, the "Agencies") jointly Proposed Rule,¹ which defines the scope of "waters of the United States" protected under the federal Clean Water Act (CWA). The California State Water Resources Control Board (State Water Board), in conjunction with the nine California Regional Water Quality Control Boards (collectively, "Water Boards"), is designated as California's water pollution control agency for the CWA. The Proposed Rule will affect all of the CWA programs that are administered by the Water Boards, including section 401 water quality certification, section 402 permitting, and section 303 water quality standards.

We believe that the Proposed Rule threatens to fundamentally undercut the ability of the Agencies to fulfill the objective of the CWA "to restore and maintain the chemical, physical and biological integrity of the Nation's waters." The Proposed Rule would dramatically shrink the scope of federal waters in California and other western states with highly variable hydrology. Stripping federal protections from these waters would threaten the water quality of downstream waters, including waters in and adjacent to downstream states. The Agencies would not be able to effectively address pollutant loading, stream flows, flood risk, or habitat for flora and fauna without consideration and protection of the proposed excluded waters, which are inextricably linked to the overall health of downstream waters of the United States. The Agencies have stated that the Proposed Rule is a policy-based, not a science-based, decision. But the underlying policy objective of the CWA cannot be fulfilled while ignoring the science regarding connectivity of waters. A science-based approach to rulemaking can improve efficiency and predictability while protecting water quality, public health, and the environment.

Contrary to the stated goal of the Proposed Rule, a sudden departure from the existing jurisdictional approach would cause widespread regulatory uncertainty. The Proposed Rule is a

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dramatic departure from how the scope of the CWA has been interpreted for decades. Adoption of the rule would require the federal government and California to unwind regulatory programs that have been built on a long history of successful cooperative federalism.

Because the Proposed Rule would upend an existing, well-established system, the Water Boards urge the Agencies to take more time to gather information regarding the potential ramifications of the Proposed Rule. The 60-day comment period was too short to meaningfully analyze the potential consequences of the Proposed Rule. Further, additional time is needed to develop necessary guidance and implementation tools.

California and other western states have a large number of ephemeral streams that warrant federal protection because they have a significant impact on downstream waters.

The Proposed Rule would exclude ephemeral streams, which are defined as “surface water flowing or pooling only in direct response to precipitation, such as rain or snow fall” (84 Fed. Reg. at 4173), from waters of the United States. A large proportion of California’s streams are ephemeral. Some streams that have traditionally been classified as intermittent could also be considered ephemeral in certain circumstances, such as during a prolonged drought. The same is true of other arid- and semi-arid western states. As Justice Kennedy noted in his concurring opinion in *Rapanos*, a rule based on a permanence test is ill suited for the western parts of the nation like California. California’s climate and hydrologic regimes range from coastal rain forest to inland desert. Many parts of the State are arid or semi-arid, and mountain ranges cover much of the State. In most places, precipitation is highly seasonal, and varies greatly from year to year. These environmental conditions result in a large inventory of transient waters, including swales, vernal lakes, vernal pools, desert seeps and springs, dry lake beds, and ephemeral and intermittent headwater streams. The Proposed Rule would effectively eviscerate federal protections over certain parts of the state, particularly the desert regions. In arid regions and some of the mountainous regions, non-perennial streams represent nearly all of the stream network. They are often the headwaters or major tributaries of perennial streams in the desert.

Statistics specifically pertaining to ephemeral streams are generally not comprehensive or conclusive because ephemeral streams have not been systematically distinguished from other non-perennial streams. For example, according to the National Hydrology Dataset, only recently have ephemeral streams been added to the data set as “ephemeral.” Most of the data thus far is on U.S. Forest Service land, and ephemeral streams may have been previously categorized as intermittent or washes. As such, it is difficult to characterize the exact scope of impact in California, and the Water Boards would need significantly more time to do so. The data available thus far, however, indicates that the potential change would be substantial. According to the U.S. Geological Survey National Hydrography Dataset, ephemeral and intermittent streams make up over 81% of all streams in the arid and semi-arid Southwest United States (Arizona, New Mexico, Nevada, Utah, Colorado and California). The Southern California Coastal Water Research Project estimates that ephemeral streams make up about 60% of all streams in Southern California.

Ephemeral streams warrant federal protections because they serve important ecological functions. Ephemeral streams provide hydrologic connectivity allowing for the movement of nutrients, fish, wildlife, and plant propagules throughout a watershed. Most fish require different physical habitats for each stage of life such that connectivity between perennial, intermittent, ephemeral, and headwater streams is important to fish finding suitable habitat for each stage. Salmon, for example, require habitat complexity for optimal rearing under different flow

conditions. Ephemeral streams provide important wildlife movement corridors for migration and dispersal allowing for greater genetic diversity and habitat expansion.

Rich biotic communities often exist in ephemeral stream channels and in the surrounding riparian zones. Ephemeral desert washes are easily recognizable by their dense corridor of vegetation that is in strong contrast to the more sparsely vegetated uplands. These corridors make a disproportionately high contribution to the biological diversity of desert environments relative to their total area. For instance, desert washes embankments are home to the listed federally and state threatened desert tortoise.

Relying on a snapshot view can lead to inaccurate conclusions about a water's relative importance to the watershed. For example, some portions of Murrieta Creek in Riverside County flow only during and immediately after significant storm events. Following severe storms, the stream can transform in a few hours from practically no flow to a rate of thousands of cubic feet per second. Murrieta Creek is nevertheless vital to water quality to waters of the United States because its confluence with Temecula Creek forms the Santa Margarita River. As Murrieta Creek drains over 220 square miles, it would be impractical to address downstream water quality issues without consideration of Murrieta Creek. Indeed, the Army Corps of Engineers has embarked on a project on a multi-purpose flood control, environmental restoration, and recreation project along 7.5 miles of Murrieta Creek.

Protecting water quality in ephemeral streams is essential to protecting water quality in downstream waters. As Justice Scalia acknowledged in his plurality opinion in *Rapanos*, discharges into intermittent channels that naturally wash downstream would likely violate section 1311 even if the intervening waters were not classified as waters of the United States. A pollutant discharged from a point source to an ephemeral stream is still transmitted to the downstream waters after precipitation. Pollutant loading cannot be controlled in downstream waters without regulating discharges to ephemeral streams. The overall probability of a large-magnitude transfer of pollutants is higher when considered for all ephemeral streams in a watershed.

As noted in EPA's own report, *Connectivity of Streams and Wetlands to Downstream Waters*, and confirmed by the Science Advisory Board (SAB), there is "strong scientific support for the conclusion that ephemeral, intermittent, and perennial streams exert a strong influence on the character and functioning of downstream waters and that tributary streams are connected to downstream waters." Although the SAB recommended recognizing a gradient of connectivity, it noted that even "relatively low levels of connectivity can be meaningful in terms of impacts on the chemical, physical, and biological integrity of downwater streams." The Proposed Rule dismisses these conclusions as science, not policy. But the Agencies cannot ignore scientific conclusions to make a policy decision that would be at odds with the legislative intent of the CWA.

The importance and connectivity of ephemeral waters underscores the need for continued federal jurisdiction and oversight. Rivers such as the Klamath River and the Colorado River flow into or adjacent to California, fed in part by a network of ephemeral waters. With respect to the Colorado River, these ephemeral, tributary waters emanate from six upstream states (Nevada, Arizona, Utah, New Mexico, Colorado and Wyoming). Absent CWA jurisdiction and the accompanying federal oversight, downstream states like California are deprived federal protections from pollution and modification of upstream ephemeral waters that adversely impact downstream waters. Congress passed the CWA to set a regulatory floor, promote nationwide

consistency, and ensure states could not externalize their water pollution problems. A rule that excludes connected, ephemeral tributaries frustrates the CWA and harms downstream states.

Before embracing the concept of ephemeral as a new cornerstone of jurisdictional determinations, the Agencies need to develop guidance to determine whether a stream is ephemeral. Extensive anthropogenic actions, including urbanization, have changed hydrology such that many streams rely on a combination of sources, including, but not limited to, rain fall. Whereas reservoir storage can artificially lower flows, agricultural return flows, power generation releases, recycled water, and industrial process water can artificially increase flows from their natural conditions. Per the Proposed Rule, "effluent-dependent tributaries" would be included so long as they contribute perennial or intermittent flow. (84 Fed. Reg. at 4177.) There is no proposed benchmark that distinguishes intermittent flow from ephemeral flow where effluent is also being discharged. There is also no proposal regarding how to apply the "typical year" concept in the context of "effluent-dependent" streams. Information regarding effluent contributions are not systematically tracked like annual precipitation. It is unclear how the Proposed Rule would deal with variances in effluent releases from year-to-year, some of which could be significant.

Similarly, the Proposed Rule also fails to provide an adequate explanation of how the concept of ephemeral will be implemented where streams have artificial breaks. The Proposed Rule states that tributaries that flow through a culvert, dam, or other similar artificial break or through a natural break would not break jurisdiction so long as the artificial or natural break conveys perennial or intermittent flow to a tributary or other jurisdictional water. (84 Fed. Reg. at 4173.) Again, it is unclear what amount of flow is necessary to distinguish intermittent flow from ephemeral flow in the context of a dammed stream. The Proposed Rule should foreclose the possibility that different reaches of the same stream have different jurisdictional statuses. The San Joaquin River, one of California's largest rivers, spans 366 miles, starting as snowmelt in the Sierra Nevada Mountains, cascading down to fill a reservoir at Friant dam, and eventually spilling into the San Francisco Bay. Because the river is dammed at various points, it frequently runs dry for long stretches in a section between the Friant Dam and Mendota. The State Water Board already has a myriad of difficult considerations to weigh when determining the appropriate flows for the San Joaquin River and tributaries thereof. Conditioning federal protections on this decision would add an unwarranted layer of complexity.

Wetlands that lack a continuous surface connection to jurisdictional surface waters warrant federal protection because they have a significant impact on downstream waters

Many wetlands do not have a continuous surface connection with other jurisdictional waters, but retain a subsurface connection or intermittent connection to other surface waters. Nevertheless, these wetlands have significant hydrologic connectivity and functional linkage to jurisdictional waters. For example, vernal pools are a type of wetland that are often connected to other waters via intermittent swales. Vernal pools change dramatically throughout the year in response to varying weather patterns. Even within a single season, a pool may fill and dry several times. Plants and animals are able to survive the dry periods as seeds, eggs, or cysts. Vernal pools are valuable because they sustain a unique diversity of native flora and fauna. In the 2015 rulemaking regarding the definition of waters of the United States, EPA described western vernal pools as "reservoirs of biodiversity." (80 Fed. Reg. 37072 (June 29, 2015).) Specifically, vernal pools provide habitat for a number of endangered species, including fairy shrimp. According to EPA's website about vernal pools, they are also an increasingly

threatened ecosystem. More than 90 percent of California's vernal pools have already been lost.

Despite the lack of surface connection, these wetlands have much of the same functionality as wetlands with continuous surface water connections. As noted in Justice Kennedy's *Rapanos* concurrence, wetlands perform at least three functions that are related to the integrity of other waters: pollutant trapping, flood control, and runoff storage. Wetlands with subsurface connection or with intermittent surface connection to other waters can provide all of these vital functions. A surface connection is not a necessary precondition for wetland functionality. For instance, wetlands reduce nitrogen pollution. Because some forms of nitrogen are highly mobile in groundwater, even wetlands with only a subsurface groundwater connection can perform essential denitrification for nearby surface waters. Wetlands without a continuous surface connection can benefit downstream waters by acting as a sink that prevents pollutant from flowing to downstream waters. In instances where a manmade feature cut off surface connection, the wetland may also be a surrogate for some of the floodplain function that was lost when the surface connection was partially or fully obstructed. Because of this flood control and runoff storage functionality, wetlands can help ameliorate the effects of climate change.

Requiring a continuous surface connection would fail to preserve federal protections over the diversity of wetlands in a watershed. Wetlands adjacent to smaller tributaries may process more nitrogen and retain more large sediment particles while wetland floodplains associated with larger downstream rivers retain phosphorous and trap finer particles. Protections are needed for both upstream and downstream wetlands to fully address problems of nitrogen and phosphorus as well as sediment in surface waters.

It is also unclear how the Proposed Rule would treat flood control waters that are specifically designed to have only episodic flows and to not have a continuous surface connection with other waters. For example, the Yolo bypass is part of a federal flood control project, and presumably the Proposed Rule would retain jurisdiction over the entirety of the project. However, there are physical barriers that generally cut off surface connection to the Sacramento River. It is common for many years to elapse before it is necessary to open the floodgates on the Sacramento River to flood the Yolo bypass.

Interstate waters should be categorically included as waters of the United States.

The Proposed Rule anticipates that interstate waters would likely be covered under another category, such as traditionally navigable waters. This proposed revision is one of a myriad of times that the Agencies indicate their uncertainty regarding the effect of the Proposed Rule. It is likely that there are waters that would not fall under any other proposed category, but that are nevertheless important to chemical, physical and biological integrity of the Nation's waters. For example, there are ephemeral streams that straddle the border between Oregon and California that are unlikely to be jurisdictional under any of the other proposed categories. These ephemeral streams contribute flow to waters that would remain jurisdictional, such as the Klamath River and the Upper Klamath Lake. To protect the water quality of the Klamath River and Upper Klamath Lake, it is essential to regulate discharges to these ephemeral streams, some of which may be occurring outside of California's boundaries and therefore are outside of regulation via California's state authorities.

In another example, the Amargosa River flows from Nye County, Nevada, and terminates in Death Valley, California. The Amargosa River has historically been regulated as a water of the

United States, and several segments of the river in California are designated as a National Wild and Scenic River. While most of the Amargosa River is intermittent or ephemeral and flows at the surface only following storm events, there are also areas of perennial flow that sustain riparian and wetland habitat and that serve as critical habitat for a variety of plants and animals including the Amargosa vole, a state and federally listed endangered species. Including interstate waters as a discrete category eliminates the risk that rivers like the Amargosa would lose their jurisdictional status because of its predominant ephemeral nature.

Maintaining interstate waters as a jurisdictional category also helps ensure that impaired interstate waters, such as the Walker River, which crosses the California-Nevada border, receive the same minimum protections across state boundaries. The Agencies are valuable co-regulators of waterbodies that cross state lines. Interstate issues are more readily and effectively resolved where federal jurisdiction over interstate waters is maintained. The Proposed Rule should include a category of interstate waters because it is clear category that is straightforward to implement, and its inclusion would reduce the risk of the unintentionally eliminating waters from jurisdiction.

The Proposed Rule sets forth new definitions that are unclear, do not reflect the climate and hydrology of California, and should be revised.

Typical Year – The Proposed Rule references the term “typical year” throughout. The definition of the term is narrow and would allow most years to be considered typical in arid areas. “Typical year” is defined as “within the normal range of precipitation over a rolling thirty-year period for a particular geographic area.” (84 Fed. Reg. at 4173.) The Proposed Rule states that the “agencies consider a year to be ‘typical’ when the observed rainfall from the previous three months falls within the 30th and 70th percentiles established by a 30-year rainfall average generated at NOAA weather stations.” (84 Fed. Reg. at 4177.) If observed in August in southern California, where no precipitation for the prior three months is common, the vast majority of years would be deemed “typical.” In California’s highly seasonal and variable hydrology, an atypical water year with precipitation well outside the 30th and 70th percentiles for the year, could still be considered a “typical year” based on the absence of summer rainfall. In addition, most climate models for California predict severe weather changes including intensification of droughts and increased variability of precipitation. With such changes, there will be an increase in variability even during a purportedly “typical year.” How precipitation affects hydrology is also tied to other factors such as temperature. The same amount of precipitation can result in significantly different hydrology depending, for example, on the snow pack for the year.

Tributary – Under the Proposed Rule a tributary must contribute perennial or intermittent flow to a traditional navigable water or territorial sea in typical year. Perennial or intermittent flow would require some form of discrete and confined flow (as opposed to diffuse overland flow) forming geographic features such as rivers, streams, or similar naturally occurring surface water channels. (84 Fed. Reg. at 4173.) In California, a feature-creating storm is an uncommon occurrence not seen in most years.

Ditch – The Proposed Rule defines a “ditch” as “an artificial channel used to convey water.” (84 Fed. Reg. at 4182.) Additional guidance regarding how to determine whether a channel is “artificial” is necessary. In California, many streams have been rechannelized, and rechannelization could arguably result in an artificial channel

because the channel is manmade. The Agencies should provide clarification that rerouted streams would remain jurisdictional.

Upland – The rule proposes to define “upland” as any land area that under normal circumstances does not meet the wetland delineation criteria and does not lie below the ordinary high water mark or the high tide line of a jurisdictional water. (84 Fed. Reg. at 4184.) This definition would classify all non-federal waters of the state as “upland” including ephemeral streams, isolated waters, and unvegetated wetlands as “upland.” Even if some waters lose their federal jurisdictional status, they are still waters under state law, and should not be treated as dry land.

Prior Converted Cropland (PCC) – The Proposed Rule proposes to codify “abandonment” in regulation but would not extend jurisdiction to PCC with wetlands proposed to be converted to non-agricultural use. The Water Boards are supportive of codifying practices related to PCC in regulation, but the Agencies should retain jurisdiction over wetlands being converted to non-agricultural use. Codifying only abandonment, and not the general practices regarding conversion to non-agricultural use, would allow for the development of wetlands that have returned to PCC. Under an abandonment-only regime, wetland areas that qualify as PCC can be converted to urban development and would only be subject to regulation five years later, long after the PCC wetlands have been filled.

The Proposed Rule would disturb the administration of well-established water quality programs and is at odds with the spirit of cooperative federalism.

The 60-day comment period was inadequate to assess the ramifications of the Proposed Rule, especially considering the dramatic changes from the existing Clean Water Rule. The Proposed Rule acknowledges many areas where available information is insufficient to analyze the impact. If the Proposed Rule is finalized, the Water Boards and other CWA administrators would need a significant amount of time to redesign entire programs that were premised on a different jurisdictional regime.

California has existing state law that supplements the CWA’s ability to protect certain types of waters. Even so, the Water Boards also rely on the authority provided by CWA section 401 to regulate discharges to waters of the United States, especially for discharges associated with projects licensed by the Federal Energy Regulatory Commission. A narrow definition of “waters of the United States” would mean that state authority over more of these types of projects would be preempted by the Federal Power Act. Similarly, the Water Boards rely heavily on the Agencies’ activities under the section 404 dredge and fill program to leverage limited staff resources in the section 401 water quality certification program. The Proposed Rule would require additional state resources to achieve the same level of protection as is afforded under the section 404 program today.

The dramatic shift proposed by the Agencies would also have widespread implications on other programs. In another example, the section 311 oil spill prevention, preparedness and response program is administered by EPA Region 9 in coordination with California. To extent the scope of coverage for the section 311 changes, California would need to develop a mechanism to replace those protections. Moreover, Water Board programs use the CWA as a complement to their state authorities. Constraining CWA jurisdiction may remove the availability of enforcement tools that the Water Boards have traditionally used. Radical change in the scope

of the CWA would require additional resources and administrative reorganization on a scale that would be exceedingly difficult to execute without a lengthy implementation schedule.

Instead of establishing greater clarity regarding the scope of jurisdiction of the CWA, the Proposed Rule would likely cause widespread regulatory confusion. Since *Rapanos*, most regulatory decisions have been based on a significant nexus analysis, and accordingly the significant nexus test has the benefit of a longstanding regulatory history. Nine United States Circuit Courts of Appeals have endorsed the significant nexus test as controlling precedent. An abrupt change of course now would shroud over ten years of case law with a cloud of uncertainty. It is unclear whether waters that have been regulated for decades would now be excluded under the Proposed Rule.

Federal protections are necessary to retain to prevent downstream states from having to bear a disproportionate burden from upstream pollution.

California is downstream from a number of other states. The CWA has provided an essential baseline that ensures that Californians are not responsible for addressing a disproportionate amount of pollution for which they do not have any control. Dramatic changes to the section 404 program can also have downstream effects. The fill of upstream wetlands can result in changes in magnitude to downstream flows. The CWA provides an important backstop to ensure that wetlands across the nation are afforded basic protections. It is not clear whether all states upstream of California have sufficient existing state authority to regulate and control pollutants to the same degree as required by the CWA. Even if they have that authority, it is not guaranteed that they will exercise that authority.

Conclusion

All of the foregoing comments highlight the fatal flaws of the Proposed Rule. If the Agencies choose to proceed with the Proposed Rule, we recommend that they make revisions to account for climatic differences by making regionally appropriate modifications. We recommend that the Agencies recognize the connectivity among waters by maintaining jurisdiction over the broadest scope of waters consistent with a significant nexus analysis. Failure to do so could lead to a loss of quality and quantity of waters of the United States and hamstringing the ability of the Agencies to fulfill the objective of the CWA. At a minimum the Agencies need to conduct further analysis to fully understand the magnitude of the changes and consequences the Proposed Rule would inflict.

Thank you for considering these comments. If you have any questions regarding this submittal, please contact Serena Liu at serena.liu@waterboards.ca.gov or (916) 341-5177.

Sincerely,



Eileen Sobeck
Executive Director

cc: (via Electronic Mail)
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