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*James C. Kenney*  
Cabinet Secretary

*Jennifer J. Pruett*  
Deputy Secretary

April 15, 2019

Dear Administrator Wheeler and General Semonite:

On behalf of the New Mexico Environment Department (NMED), enclosed please find our comments on the proposed rulemaking by the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (ACOE) defining the scope of waters federally regulated under the Clean Water Act, Docket ID No. EPA-HQ-OW-2018-0149. See 84 FR 4154 (February 14, 2019).

Thank you for the opportunity to comment.

Sincerely,

A handwritten signature in black ink, appearing to read "JaC Kenney".

James C. Kenney  
Cabinet Secretary

cc: Donald Welsh, Executive Director, Environmental Council of the States (ECOS)  
John Verheul, Assistant General Counsel, NMED  
Shelly Lemon, Surface Water Quality Bureau Chief, NMED

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*“Water is the most critical resource issue of our lifetime and our children's lifetime. The health of our waters is the principal measure of how we live on the land.”*

*- Luna Leopold, Hydrologist*

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## Introduction

New Mexico is home to high mountains, expansive plains and plateaus, river gorges, and broad valleys. Land surface elevations in New Mexico vary from just under 3,000 feet above sea level at the Texas border in the southeastern portion of the State to just over 13,000 feet in the northern mountains. New Mexico is the fifth largest of the fifty states, with a total area of 121,607 square miles. Of this, approximately 34% is Federal land, 12% is State land, 10% is Native American land, and 44% is privately owned.<sup>1</sup> New Mexico is also one of the driest states, averaging less than twenty inches of annual precipitation which ranges from less than eight inches in desert valleys to over thirty inches in the mountains. Statewide, the annual average precipitation is much less than evaporation from open water surfaces.<sup>2</sup> About half of annual precipitation is received during the summer months with brief but intense summer storms, commonly referred to as “monsoons.” Much of the winter precipitation falls as snow in the high mountains and as snow or rain at lower elevations.

A little less than 7% of New Mexico’s streams and rivers are perennial, with the remaining 93% being intermittent or ephemeral (Table 1; Figure 1). Furthermore, many perennial and intermittent waters are “interrupted” (i.e., not continuous) or go subsurface as they flow downstream such that the surface connection to proximate jurisdictional waters (“traditionally navigable waters” and “tributaries”) is lost. Ephemeral and intermittent waters may be the headwaters or major tributaries of perennial streams in New Mexico, however ephemeral and intermittent segments may also occur at any point along the waterbody.

**Table 1. Summary of New Mexico’s Surface Water Resources**

Topic	Value
State population <sup>1</sup>	2,088,070
Population dependent on surface water for drinking water <sup>2</sup>	878,765
State surface area	121,607 mi <sup>2</sup>
Total miles of perennial non-tribal rivers/streams <sup>3</sup>	6,362 miles
Total miles of non-perennial non-tribal rivers/streams <sup>3,4</sup>	88,810 miles
Number of significant public lakes/reservoirs <sup>5</sup>	196
Acres of significant public lakes/reservoirs <sup>3,5</sup>	89,042 acres
Acres of freshwater wetlands <sup>6</sup>	845,213 acres

1 United States Census Bureau July 1, 2017, estimate.

2 Tally is based on population served by drinking water systems that use surface water or groundwater under the direct influence of surface water.

3 Derived by NMED IT staff based on flowlines lengths and waterbody areas in the USGS National Hydrography Dataset (NHD) Plus V2 (USGS 2012). Includes both public and private non-tribal stream

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1 Bureau of Land Management. 2016. New Mexico Land Ownership Dataset. New Mexico State Office. Santa Fe, NM.

2 Bureau of Reclamation. 1976. New Mexico State Resources Assessment for Planning Purposes. United States Department of the Interior.

miles.

4 Flowline segments assigned FCode 46003 (intermittent) and 46007 (ephemeral) in NHD were tallied to determine total non-perennial mileage. Assessment Units in NM's Integrated List (Appendix A) include a subset of the overall non-perennial stream mileage, typically waters with permits or other significant land use concerns.

5 Includes significant publicly-owned high-altitude natural lakes, playa lakes, and sink holes as well as lakes and reservoirs in NHD Plus V2 (2012), compared to 2014 satellite images for acreage accuracy.

6 USFWS National Wetlands Inventory (<http://www.fws.gov/wetlands/Data/State-Downloads.html>), plus riparian wetland acres.

Western states, like New Mexico, are dependent upon and more attuned to the scarcity and management of water due to the dry landscape. No natural resource has greater significance for the future of the arid West than water. The existence of many interstate water compacts that deliver and restrict water use between western states is a testament to that fact. In addition, environmental conditions in the arid West result in unique circumstances and waterbodies, such as localized monsoonal downpours, ephemeral arroyos, cienegas<sup>3</sup>, effluent-dependent streams, playa lakes, and other man-made reservoirs, waterways, and water conveyance structures, which may not be relevant or important east of the Mississippi River but are critical water resources that play an important role in the water quality of arid states. Water in the arid West not only attracts millions of people who live, work, and recreate near these waters, but it also supports thriving and diverse aquatic and wildlife communities and maintains drinking water resources for millions of people – when the water is clean.

The impact of climate change on diminishing water resources should be acknowledged in the proposed rule because the science shows that these changes will lead to further problems and uncertainties. As temperatures increase and precipitation patterns shift (including the timing of that precipitation), communities and wildlife alike will feel the strain of diminishing water resources. More frequent droughts and shifting precipitation patterns lower water levels in rivers, lakes, and streams, leaving less water to dilute pollutants. Likewise, more frequent and more powerful storms increase polluted runoff from urban and agricultural areas, which transports pollutants from the landscape to nearby waterways.<sup>4</sup> These changes will stress aquatic ecosystems and dramatically impact communities throughout the U.S., especially in the Southwest – threatening public health, weakening economies, and decreasing the quality of life in many places.

Water management is complex and a lack of connectivity or perennality today is not a feature that Southwestern states, and New Mexico in particular, can rely upon to define a “water of the U.S.” – it is so much more than that. New Mexico's diverse waters collect rain water and snowmelt, recharge aquifers, provide important ecological and hydrological connections, support an amazing variety of wildlife and aquatic life, maintain drinking water resources, and also help promote agriculture by providing vital irrigation water.

### **State and Federal Relationship**

The purpose of the Clean Water Act (CWA) is to “restore and maintain the chemical, physical, and biological integrity of the Nation's waters,” but this stated objective does not confer federal jurisdiction over all waters located within the boundaries of the United States. Although the CWA was historically

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3 <https://www.env.nm.gov/wp-content/uploads/2017/07/WAP-Arid-Land-Cienegas-NM-2018-Final-for-Printing.pdf>

4 <https://www.americanrivers.org/threats-solutions/clean-water/stormwater-runoff/>

interpreted comprehensively to protect smaller, less significant waters, these protections were put into question following two Supreme Court Cases in 2001 (SWANCC) and 2006 (Rapanos). The Supreme Court decisions made clear that the jurisdictional scope of the CWA is something more than traditional navigable waters, but something less than all waters.

The stated objectives of the proposed 2019 WOTUS Rule are to find a balance between federal and state waters, preserve state sovereignty, meet the objectives of the CWA, and provide clarity and predictability for implementation. The CWA specifies that Congress intended to protect the primary rights and responsibilities of states over water quality and the allocation and protection of land and water resources. State authority pursuant to their “waters of the state” jurisdiction affords states the right to protect the quality of waters within their borders; this jurisdiction generally extends beyond the limits of federal jurisdiction.

While New Mexico recognizes the Agencies’ emphasis on the rights and responsibilities of states under the guise of cooperative federalism, Section 101(b) of the CWA also states that it is a policy of Congress “to support and aid research relating to the prevention, reduction, and elimination of pollution, and to provide Federal technical services and financial aid to State and interstate agencies and municipalities in connection with the prevention, reduction, and elimination of pollution.” Section 101(g) further states “Federal agencies shall co-operate with State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources.” As currently written, the proposed rule is not sufficiently protective of waters in New Mexico and will require the State to expend significant and currently unallocated resources to ensure waters of the state are sufficiently protective of human health and the environment.

As an arid state that relies on the CWA to help protect limited but precious water resources, the proposed 2019 WOTUS Rule is very troubling for New Mexico because it leaves the vast majority of New Mexico’s surface waters federally unprotected (Figure 1). Besides the obvious beneficial uses such as aquatic life and recreation, New Mexico’s surface waters also play an important cultural role in the State. Many pueblos and tribes in New Mexico use and protect their surface waters for cultural uses. Cultural uses may relate to a wide range of connections, including spiritual relationships, language, songs, stories, sacred places, the plants and animals associated with water, drinking water, and recreational or ceremonial purposes. Additionally, in northern New Mexico, acequias – or community-operated irrigation ditches – have been operating for centuries. Acequia water use and acequia-related cultural values are at risk due to increasing urbanization pressures and impacts from land use change on actual water use, water quality, and riparian vegetation.<sup>5</sup> At least one state’s highest court has recognized the importance of cultural practices involving water.<sup>6</sup>

It is important to remember that the passing of the CWA is one of our nation’s great successes. Waters that fifty years ago were thick with pollutants from point and nonpoint sources now support thriving recreational and economic activities and improved ecological conditions for aquatic and wildlife. The broad policy of ensuring protection for nearly all waters was a benefit to all Americans. Our quality of life has improved as a result. We should continue this broad effort to protect our precious water resources to ensure clean water for current and future generations.

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5 <https://lasacequias.org/>

6 See *In re Gen. Adjudication of All Rights to Use Water in Gila River Sys. & Source*, 201 Ariz. 307, 318–19, 35 P.3d 68, 79–80 (2001).

## Comments

### Comment 1 - The proposed rule is not based on hydrologic science and therefore EPA cannot claim it is protective of public health or the environment.

New Mexico asserts that any new proposal must be grounded in science. First, in New Mexico, and the Southwest in general, ephemeral and intermittent streams are fundamental to maintaining water quality and overall watershed function. They transport water, nutrients and sediment throughout watersheds and provide important ecological and hydrologic connections, when functioning properly. Furthermore, individual ephemeral or intermittent streams cannot be scientifically isolated because the cumulative effects of these streams impact the hydrological, biogeochemical and ecological functioning of a watershed. Therefore, the proposed rule is not based in science.

Second, the Agencies failed to explain, or even address, how the scientific conclusions reached in the 2015 reports *Economic Analysis of the EPA-Army Clean Water Rule* and *Technical Support Document for the Clean Water Rule: Definition of Waters of the United States* are no longer valid. The proposed 2019 WOTUS Rule appears to simply disregard the analyses in these documents with no explanation. Given that the Agencies did not address these reports in the proposed rule, the public was denied the benefit of the Agencies' conclusions regarding their lack of significance.

### Comment 2 - The proposed rule does not account for the impacts of climate change on the hydrologic cycle and therefore EPA cannot claim it is protective of public health or the environment.

First, in the southwestern United States, clean water, wildlife habitat, and jobs are being adversely impacted due to drought and wildfire caused by climate change.<sup>7,8</sup> With a warming climate, more and more of New Mexico's waters are drying up. As waters become stressed by drought, overuse, groundwater mining, and climate change, many perennial and intermittent streams and springs will fade. Currently, many major "rivers" and "tributaries" in the State are not entirely perennial (e.g., the Rio Grande, Canadian River, Rio Puerco, Rio Galisteo, Dry Cimarron, Ute Creek, Rio Hondo, etc.) — with a warming climate these waters will likely diminish and the need for clean water will strain these systems even further. However, the proposed rule does not account for the reality that climate change impacts the hydrologic cycle, thus the Agencies cannot scientifically conclude that public health or the environment are protected by this rule. To the contrary, the available science indicates the rule is less protective of the hydrologic cycle and therefore less protective of public health and the environment.

Second, climate change is stressing already depleted or mined groundwater systems resulting in decreased groundwater recharge. More severe or sustained droughts are and will stress water resources and force increasing competition for water resources among the agricultural, energy, metropolitan, and ecological sectors. Climate change is contributing to water scarcity in the Southwest, but it is also impacting *water quality* in the region. As temperature and precipitation patterns affect the abundance, type, and distribution of water, vegetation cover, and wildfire in watersheds — all of which alter water chemistry — changes in flood magnitude and duration, sediment and other pollutant loads, physical habitat and biological communities will likely occur.

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7 <https://www.demos.org/sites/default/files/publications/UpdatedNMFULLReport.pdf>

8 <https://aces.nmsu.edu/pubs/research/economics/TR45/welcome.html>

Comment 3 - The proposed rule does not address the impact of the wastewater treatment unit exemption under the Resource Conservation and Recovery Act.

The federal Resource Conservation and Recovery Act (RCRA) exempts wastewater treatment units (WWTU) from regulation under RCRA if, in addition to a number of other conditions, those units discharge effluent pursuant to a NPDES permit. 42 U.S.C. § 6903(27).

Under the proposed 2019 WOTUS Rule, many facilities currently discharging pursuant to a NPDES permit would no longer be required to have such a permit due to the jurisdictional change in the waters to which they discharge. As a result, these facilities may be subject to regulation under RCRA for the first time, are likely to not have performed an analysis of whether they are subject to RCRA, and would likely be in noncompliance with RCRA as a result. Given that a number of these facilities are industrial or municipal facilities that have not contemplated regulation as a RCRA treatment, storage or disposal facility (TSDF), this could present an additional economic hardship on these facilities in New Mexico and around the U.S.

Further, if the industrial or municipal facilities are discharging into an ephemeral stream in New Mexico and that ephemeral stream is no longer a WOTUS, these newly regulated TSDFs may also be deemed as land disposing of waste – or hazardous waste – pursuant to the implications of WOTUS.

The proposed rule does not account for the legal or economic implications related to RCRA. The WOTUS/RCRA implication is significant for the NPDES permit holders in New Mexico and necessitates both clarification and consultation from the Agencies with the states, tribes, industry, and the public prior to finalization.

Comment 4: Eliminating jurisdiction for all ephemeral waters is inconsistent with scientific principles and the objectives of the CWA.

As proposed, ephemeral waters would no longer have federal CWA protections despite the scientific fact that they feed into traditionally navigable waters (TNWs) and other jurisdictional waters. Moreover, ephemeral waters have been shown by EPA to have important ecological and hydrological scientific significance in the arid and semi-arid Southwest.<sup>9</sup>

Excluding all ephemeral waters from CWA protections, regardless of their significant nexus to downstream TNWs, will drastically and adversely impact the quality of the nation's waters, particularly in the arid Western states such as New Mexico. In the arid Southwest, ephemeral streams are estimated to constitute up to 90-plus percent of all surface waters.

Ephemeral waters are ecologically and hydrologically significant in arid and semi-arid watersheds. Ephemeral flows recharge aquifers where water can be stored for current and future drinking water supplies, but unpolluted surface water is critical to clean drinking water supplies. Ephemeral waters also transport significant amounts of sediment and nutrients, as well as pollutants, to downstream TNWs.

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<sup>9</sup> Levick, L., J. Fonesca, D. Goodrich, M. Hernandez, D. Semmens, J. Stromberg, R. Leidy, M. Scianni, D.P. Guertin, M. Tluczek, and W. Kepner. 2008. The Ecological and Hydrological Significance of Ephemeral and Intermittent Streams in the Arid and Semi-arid American Southwest. U.S. Environmental Protection Agency and USDA/ARS Southwest Watershed Research Center, EPA/600/R-08/134, ARS/233046, 116 pp.

Without CWA protections for ephemeral waters, TNWs will be negatively impacted by uncontrolled sediment, nutrients, industrial and other pollutants from upstream ephemeral sources. TNWs in New Mexico include the Canadian River, Cimarron River, Pecos River, Rio Chama, Rio Grande, San Juan River, and Navajo Lake. The ACOE attempted to designate the entire stretch of the Gila River that flows through New Mexico as a TNW, but this designation was challenged and to date remains unresolved.

The Santa Fe River is a prime example of the impact this proposed exclusion poses on numerous ephemeral waters in New Mexico and throughout the Southwest. The Santa Fe River is 46 miles long and is a direct tributary to the Rio Grande in northern New Mexico (Figure 2). The entire Santa Fe River watershed covers approximately 285 square miles. Santa Fe, the oldest continuously inhabited state capital in the United States, has depended on the river since it was established in the 1600s. Native Americans have lived along the river and depended on it for thousands of years. Today, the river provides approximately 40 percent of the City's water supply and is a vital water resource for aquatic life, wildlife, irrigation, recreation, and cultural uses.

Historically, the Santa Fe River flowed at least intermittently, but in the 1880s two municipal water supply reservoirs were built in the upper watershed to impound water for a growing population. In addition, more and more wells along the river lowered the water table, reducing or eliminating springs that previously sustained the river. Currently, the river flows perennially near its headwaters, but as it flows downstream the river becomes intermittent, then ephemeral, and then effluent-dominated. The intermittent and perennial segments support wetlands, ponds, and an adjacent nature preserve maintained by The Nature Conservancy. From the ephemeral segment downstream to the Cochiti Pueblo boundary the Santa Fe River is perennial, but effluent-dominated due to the City of Santa Fe's NPDES-permitted wastewater treatment plant discharge. This segment of the river also supports adjacent wetlands and springs and a CWA Section 319-funded nature preserve. The final stretch of river to the confluence with the Rio Grande is on tribal land where cultural uses of the river are important. Cultural uses may relate to a wide range of connections, including spiritual relationships, language, songs, stories, sacred places, the plants and animals associated with water, drinking water, and recreational or ceremonial purposes.

The Santa Fe River is one of many rivers in the Southwest where human-caused or human-influenced impacts related to groundwater pumping, stormwater controls, hardscaping in urban areas, impoundments, and climate change directly impact the hydrologic status of the river, causing a previously perennial or intermittent stream to evolve into an ephemeral stream. Due to human-caused impacts (i.e., increased ephemerality due to human actions), the proposed rule would eliminate water quality protections and consequent stormwater and point source discharge requirements under the NPDES program, dredge or fill permit requirements under the CWA Section 404 program, and potentially eliminate CWA watershed restoration and other funding for City, County, or State water quality improvement projects.

The proposed rule should be revised to recognize and maintain the jurisdictional status of ephemeral waters that have a nexus to a downstream TNW. In New Mexico and other arid states, all waters are precious resources that must be protected, regardless of when or how long they flow.

Comment 5: Severing federal jurisdiction for perennial and intermittent waters upstream of ephemeral features is inconsistent with scientific principles and the objectives of the CWA.

The preamble to the proposed rule states: “To implement the proposed tributary definition, the agencies would consider the upstream extent of a tributary to be the point at which the feature ceases to contribute perennial or intermittent flow to a traditional navigable water or territorial sea.” The preamble also states: “...a perennial or intermittent stream that flows into a non-jurisdictional ephemeral feature would not meet the definition of ‘tributary’ if the perennial or intermittent flow does not reach a traditional navigable water or territorial sea; the ephemeral feature would sever federal jurisdiction for such perennial and intermittent streams as it does not convey surface water year-round or continuously for extended periods of time to a traditional navigable water or territorial sea.” Therefore, in order to be protected under the proposed rule, a surface water must abut or have a continuous (i.e., uninterrupted) hydrologic surface connection to a jurisdictional water; contribute perennial or intermittent flow to a jurisdictional water; or must be close enough to be flooded by a jurisdictional water in a typical year. Perennial and intermittent waters that are located upstream of an ephemeral segment will lose all federal protections under this proposal.

Unlike the humid environments and dendritic watersheds of the eastern U.S., in many western states ephemeral segments of streams are not always in the headwaters of a watershed. Severing jurisdiction for perennial and intermittent waters upstream of an ephemeral feature will leave important water resources in New Mexico unprotected. Approximately 57% of the New Mexico’s intermittent and perennial streams are located upstream of an ephemeral water body and would not receive CWA protections under the proposed rule, including many sources of drinking water (“source waters”). One of many examples of this situation is Tijeras Arroyo in Albuquerque, New Mexico’s largest city.

Tijeras Arroyo, also known as Tijeras Creek, is located in Bernalillo County, New Mexico and is one of the largest arroyos in Albuquerque. Tijeras Arroyo is jurisdictional under the 1988 rule and 2008 Rapanos Guidance and has a documented significant nexus to the Rio Grande. Furthermore, Tijeras Arroyo is the subject of a Watershed Restoration Action Strategy under the CWA Section 319 nonpoint source program, a Total Maximum Daily Load (TMDL) for nutrients under CWA Section 303(d), several CWA Section 404 permits, and is included in the Municipal Separate Storm Sewer System (MS4) permit for the Albuquerque/Bernalillo County area under CWA Section 402.

Tijeras Arroyo originates from springs in the Sandia and Manzano Mountains and flows perennially for 15 miles through Tijeras Canyon and the foothills of Albuquerque. Tijeras Arroyo quickly becomes ephemeral and winds for 11 miles through developed and undeveloped areas of Albuquerque, including Kirtland Air Force Base, before entering the Rio Grande. Under the proposed rule, the entire stream from headwaters to the Rio Grande would lose CWA protections even though there are 15 miles of perennial stream and Tijeras Arroyo is a major tributary to the Rio Grande.

The rule must be revised to clearly state that all intermittent and perennial waters are jurisdictional by rule, regardless of whether or not they flow through an ephemeral feature.

Comment 6: The proposed rule does not account for the cumulative adverse scientifically-demonstrated effects of unregulated discharges on downstream TNWs.

One of the many important findings of EPA's 2015 report, *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence* is that "the scientific literature unequivocally demonstrates that streams, regardless of their size or frequency of flow, are connected to downstream waters and strongly influence their function." In New Mexico, ephemeral tributaries contribute up to 76% of the stormflow in the Rio Grande after a storm event. Where pollutants can be mobilized, ephemeral stormflows will deliver the pollutants to downstream waters. The cumulative impact of these ephemeral stormflows is undoubtedly detrimental to downstream water quality.

One of many examples in New Mexico where cumulative effects are tangible is on the Pajarito Plateau (Figure 2). Many ephemeral streams that run through and adjacent to the Los Alamos National Laboratory (LANL) on the Pajarito Plateau are contaminated with pre-CWA ("legacy") pollutants. These ephemeral streams flow directly to the Rio Grande adjacent to the Buckman Direct Diversion, the surface water intake for the City of Santa Fe and Santa Fe County's drinking water supply. If these ephemeral streams lose federal protections, their cumulative impact on the Rio Grande and downstream water supplies could be significant and threaten human health and the environment. Under the proposed rule, the scope of LANL's individual NPDES stormwater permit would be severely diminished, natural ephemeral streams may be considered point source discharges, and long-term cleanup efforts would be impacted as pollutants flow into ephemeral streams and subsequently to the Rio Grande. The proposed rule must take a watershed approach to protecting water quality to account for cumulative impacts, including cumulative impacts from ephemerals, on downstream waters.

Comment 7: Eliminating federal jurisdiction for interstate waters will have devastating impacts on important western waters.

The proposed rule removes interstate waters as a separate category of waters of the U.S. Interstate waters without any connection to TNWs would lose federal jurisdiction. Federal jurisdiction is critical because of the Agencies' function as federal partners who can help mitigate and manage water quality impacts from upstream states. The Agencies' role as co-regulators is critical to water quality issues that cross state and tribal boundaries and provides consistency to help resolve conflicts or water quality issues that may arise between states and/or tribes. An example of an interstate water in New Mexico that could be impacted by this change is the Gila River.

The Gila River is a desert river, flowing 649 miles from southwestern New Mexico to Yuma, Arizona where it joins the Colorado River. The Gila River originates in the Nation's first designated wilderness area, the Gila Wilderness, and is rich in biological diversity and cultural history.

Although the Gila is one of the longest rivers in the West, it typically goes dry before it gets to the Colorado River due to large irrigation diversions, groundwater mining, and sustained drought. Some segments of the Gila River in Arizona have been designated as TNWs, however continuous surface connection is difficult to demonstrate along many segments of the river. Additionally, the ACOE has attempted to designate the entire stretch of the Gila River that flows through New Mexico as a TNW, but this designation has been challenged and to date remains unresolved.

The proposed rule should keep interstate waters as a separate jurisdictional category of WOTUS to

provide consistency and help resolve conflicts and water quality issues that may arise between states and/or tribes.

Comment 8: The proposed rule does not take into account a scientific analysis of its effects on wetlands.

Similar to perennial streams that lose federal protections because they are upstream of an ephemeral segment, “adjacent wetlands” would also lose federal protections under the proposed rule if they do not abut or have a direct hydrologic surface connection to a jurisdictional water. Saint Mary's University of Minnesota's Geospatial Services, with input from the New Mexico Environment Department (NMED), created a model to evaluate the extent of federally protected wetlands and other surface waters.<sup>10</sup>

The model uses three different analysis scenarios from “most restrictive” to “very restrictive” to “less restrictive.” The most restrictive scenario limits CWA protections to directly adjacent and perennial (i.e., permanent) surface waters. The very restrictive scenario limits protections to adjacent and perennial/intermittent waters. The less restrictive scenario offers protections to adjacent wetlands, perennial, intermittent and ephemeral waters, and ditches or channelized streams. The model analyzed three different watersheds in the United States, one of which was the Cimarron River watershed in New Mexico.

The Cimarron River Watershed drains approximately 1,049 square miles in northwestern New Mexico and flows into the Canadian River, which is designated as a TNW currently protected under the CWA. Annual precipitation ranges from 30 inches in the higher elevation alpine forests to 15 inches in the semiarid grasslands at lower elevations.

The results of this case study show that by narrowing the scope of federal jurisdiction under the “most” and “very” restrictive scenarios, the number of wetlands protected by the CWA are *substantially* decreased, leading to a potential loss of benefits provided by wetlands such as flood control and attenuation, pollution control, wildlife habitat, and recreation. The Cimarron Watershed model looked at 5,200 wetlands covering 20,000 acres. Model results indicate that the very restrictive scenario would remove protections from 3,600 acres and the most restrictive scenario would remove protections from 14,000 acres, approximately 70 percent of total wetland acreage. Beyond this modeling exercise, the Ute Park Fire severely burned approximately 58 square miles in the Cimarron Watershed and through the Cimarron River valley in June 2018. The wildfire burned through this special trout water and clogged drinking water intakes for several downstream communities. In addition, post-fire flooding and debris flows wreaked havoc in several rural communities and individual households. It can be concluded that the most restrictive scenario, which is consistent with the proposed rule, would have deleterious effects to watershed protection and restoration efforts in this watershed.

The proposed rule should be revised to clearly state that all intermittent and perennial segments of rivers and streams and their adjacent wetlands are jurisdictional by rule, regardless of whether or not they are upstream of an ephemeral feature. Adjacent wetlands have a strong influence on the chemical, physical, and biological integrity of nearby waters. “Adjacent” should be defined as “bordering, continuous, or neighboring” (this could be further defined by distance or connection). Wetlands that are separated by dikes, barriers, or similar structures should be considered adjacent and jurisdictional. In western states such as New Mexico, these “separated” wetlands are certainly not isolated and

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10 <https://www.arcgis.com/apps/Cascade/index.html?appid=f3de6b30c0454c15ac9d3d881f18ae33>

profoundly influence nearby waters and downstream tributaries and TNWs.

Comment 9: Clarifying the definition for intermittent/seasonal flow.

Intermittent is defined in the proposed rule as “surface water flowing continuously during certain times of a typical year, not merely in direct response to precipitation, but when the groundwater table is elevated, for example, or when snowpack melts.” It is uncertain what “certain times” of a typical year means and how far the surface water has to flow to be “continuous.” The Agencies are soliciting comment on an alternate definition that would change the focus of the proposed definition from intermittent flow occurring during certain times of the year to “seasonal flow.”

Defining “seasonal flow” or “at least seasonally” also could prove challenging. Stream gage data may be required to document the seasonal nature of flow. There are many streams and watersheds that do not have flow data or nearby, comparable data. The U.S. Geological Survey operates the most extensive stream gaging network, but for many western streams the records are incomplete or interrupted, thus the period of record may not be representative of a “typical year.” Typical year is defined in the proposed rule as “the normal range precipitation over a rolling 30-year period for a particular geographic area, excluding times of drought or extreme flooding.” The Agencies also propose to use a “watershed-scale basis” as the geographic area in defining typical year. It is unclear why the 30<sup>th</sup> and 70<sup>th</sup> percentiles were used to define typical year and what scientific basis was used to establish these boundaries, what other data would be used to document flow in a typical year when no gage data are available or the dataset is incomplete or not representative, and what geographic area would be applied and how that will effect implementation given data and monitoring resources are not distributed equally in any given area. Additionally, the appropriate geographic area for such a definition may intersect and cross state borders, potentially introducing another level of uncertainty if neighboring states disagree on appropriate boundaries or scales for a regionalized “typical year” definition. New Mexico supports the concept of regionalization to recognize critical differences related to essential ecological and hydrological linkages within a watershed, however New Mexico encourages the Agencies to work with states to advance this concept as the proposed rule is further developed.

Similarly, the phrase “generally occurs at the same time in a typical year” does not recognize the scientific impacts related to climate change. The timing of seasonal snowpacks, snowmelt, and monsoonal rains is shifting as the climate becomes warmer and drier in the Southwest. In this regard, it is unclear how severe or extended periods of drought would be considered in determining what constitutes a “seasonal flow.” Further, drought-caused flow anomalies can last for more than a single year. The proposed rule should include perennial, intermittent and ephemeral waters that have a nexus to a downstream TNW because controls on seasonality and streamflow are scientifically complex.

Comment 10: Clarifying effluent-dominated and effluent-dependent waters.

By their very nature, effluent-dominated and effluent-dependent waters have a significant nexus to downstream TNWs. Eliminating protections and requirements for wastewater treatment plant discharges is likely to negatively impact water quality in the receiving waters, downstream waters, and aquifer recharge zones, thus impacting beneficial uses such as domestic and public water supply, irrigation, livestock watering, and recreation.

All effluent-dominated and effluent-dependent waters should be jurisdictional under the CWA. Effluent by its very nature contributes potential pollutants to natural waters. However, in the arid West, effluent-dominated and effluent-dependent waters provide critical wildlife and aquatic habitat, and in some cases create wetlands, and help recharge aquifers for future use.

Comment 11: Accurate and complete data are integral to any proposal to revise the scope of the CWA.

Without accurate data, the impacts of the proposed rule are unknown and likely underestimated, especially in an arid state like New Mexico. The Agencies must ensure accurate and complete data are available before finalizing any proposed WOTUS rule.

Sufficient data are not available to implement the proposed rule, and available U.S. Geological Survey National Hydrography Dataset (NHD) geospatial datasets are inaccurate and therefore misleading. For New Mexico, there is no accurate dataset that distinguishes between ephemeral and intermittent waters, and most waters shown as intermittent in the NHD are actually determined to be ephemeral when a site evaluation is conducted. Therefore, any discussion of the impact of the proposed rule based on the NHD drastically underestimates the number of miles of ephemeral waters in New Mexico that would lose jurisdiction under the proposed rule.

An example of a watershed where this condition exists is the Rio Puerco watershed, the largest tributary to the Rio Grande in central New Mexico. In the NHD, the Rio Puerco is characterized as perennial in its upper portion and intermittent in its lower portion; however, the flow regime based on gage data for the Rio Puerco downstream of the perennial segment actually alternates between ephemeral and intermittent conditions. Therefore, the Rio Puerco is likely to lose federal jurisdiction. This would have huge water quality impacts on the Rio Grande.

The Rio Puerco basin drains portions of seven counties, encompassing approximately 7,350 square miles (4.7 million acres). Loss of federal protection would impact water quality in the most important surface water resource in New Mexico, the Rio Grande. While the Rio Puerco watershed contributes less than 10 percent of the total water flow to the Rio Grande, it is a primary source of sediment, contributing up to 80 percent of the sediment load including potential contaminants carried with the sediment.

Comment 12: Clarifying the CWA funding pursuant to the proposed rule.

The accelerated comment period made it difficult for New Mexico to fully evaluate and understand the potential consequences of the new proposal on existing CWA programs. Nevertheless, as described in the CWA, appropriated funds are allotted among the State and Interstate Water Pollution Control Agencies on the basis of the extent of the pollution problems in the respective States. The six components in the Section 106 State allotment formula selected to reflect the extent of the water pollution control problems in the United States are: (1) surface water area; (2) ground water use; (3) water quality impairment; (4) point sources; (5) non-point sources; and (6) population of urbanized areas.

The proposed rule would significantly reduce the number of waters that are federally protected under the CWA. In New Mexico, the elimination of federal jurisdiction for ephemeral waters could reduce the number of jurisdictional waters by 90 percent or more, with the potential to significantly impact surface

water area (#1), water quality impairment (#3), and point sources (#4) used in the funding allotment formula noted above. This raises the question of whether states with a larger number of jurisdictional waters will receive a greater percentage of EPA grant funds. Through Section 106, the State of New Mexico currently receives federal grants for water pollution control programs, such as water quality monitoring, assessment, watershed management (TMDLs), water quality standards, inspections, point source control, database management, quality assurance, and reporting. The proposed rule will disproportionately reduce the number of waters that are jurisdictional in New Mexico. It is unclear whether New Mexico will receive significantly less CWA grants that support water quality protection and improvement because there are significantly fewer jurisdictional waters in the State. It is also unclear whether this reduction in funding would apply to all CWA programs. New Mexico currently receives funding from Sections 104(b)(3), 106, 319, and 604(b) for various pollution control and water quality management programs. Any further reductions to grant funding will significantly reduce the effectiveness and success of these CWA programs in New Mexico.

New Mexico urges the Agencies to take the time necessary to fully understand the potential programmatic consequences to state CWA programs before proceeding to a final rule. The funding impacts for EPA grants to states and tribes should be clearly explained in the Preamble to the proposed rule. Congress and the Agencies must enhance and increase research, technical support, and financial aid to states and interstate agencies to insure prevention, reduction, and elimination of pollution in surface waters. Under the current Administration and certain previous Administrations, support for pollution control programs has been steadily weakened and funding has been repeatedly reduced to the detriment of these programs and consequently to the detriment of our nation's waters. States should be adequately funded by the federal government to fully implement federal programs as Congress directed.

#### Comment 13: Impacts of the proposed rule in states and tribes without NPDES primacy.

The proposal states "the agencies would not view the definition of 'waters of the United States' as conclusively determining which of the nation's waters warrant environmental protection; rather, the agencies interpret the definition as drawing the boundary between those waters subject to federal requirements under the CWA and those waters that States and Tribes are free to manage under their independent authorities." However, jurisdiction and its impacts cannot be simply reduced to shifting a line and redistributing resources. There is regulatory overlap between "waters of the state" and "waters of the U.S." and New Mexico has built its State programs and our cooperative relationship with the Agencies around that complicated overlap.

The proposed rule will likely create unintended programmatic consequences for New Mexico because the proposed rule assumes that all states have the resources to successfully implement water quality management and pollution control programs in their state. The Resource and Programmatic Assessment concludes that "[t]he Agencies assume that the proposed rule would not greatly affect NPDES permitted facilities" and solicits comments on this conclusion. Accordingly, New Mexico asserts that the proposed rule disproportionately impacts states that do not have authority for the NPDES program. New Mexico is one of three states without NPDES authority. States are a critical part of achieving our nation's environmental and public health goals and mandated responsibilities in an effective and efficient way. States that choose to implement federal programs should be adequately funded by the federal government to do so. EPA should have sufficient resources to financially support states in the implementation of federal statutes and programs, yet federal support continues to decline. Furthermore, New Mexico should invest State resources (either directly or through fees or other

methods) sufficient to implement a successful program, yet State revenues have not been available or sufficient to support a successful program and, due to the relatively small number of permits in the State, the magnitude of fees to support a successful program would likely cause substantial economic impacts to many New Mexico communities.

Currently, New Mexico does not have the capacity to fill the considerable gaps created by the proposed rule. The premise that all states are capable of addressing water quality issues in their state is false. Not all states can implement a robust and successful water quality program without significant federal assistance. Congress and the Agencies must enhance financial aid to States to implement federal programs. EPA should provide assurance that funding will go directly to states and tribes with a demonstrated financial need. Financial support for pollution control programs has been steadily weakened and funding has been repeatedly reduced to the detriment of these programs and consequently to the detriment of our nation's waters. This issue must be addressed in the financial impact report for the proposed rule and in the Preamble.

Comment 14 – The proposed rule will likely have unintended consequences to federal lands, federal facilities, designated waters of importance, and threatened or endangered species.

It is unclear whether the federal preemption doctrine would play a role in state-federal interactions, especially as it relates to federal lands in the west. For instance, when assigning waste-load allocations in a TMDL or when a federally permitted facility is discharging to a newly non-jurisdictional water, there is uncertainty regarding what federal agencies will be required to do versus what they may voluntarily do, and what recourse New Mexico may have if it disagrees. New Mexico is home to several national laboratories including Los Alamos National Laboratory and Sandia National Laboratories as well as multiple military bases such as Kirtland Air Force Base, Cannon Air Force Base, Holloman Air Force Base, and White Sands Missile Range. Activities impacting surface water quality at all these facilities would likely lose CWA jurisdiction under the proposed rule.

Further, since the vast majority of New Mexico's waters may no longer be subject to protection under the CWA based upon the 2019 proposed revisions to the rule, it is unclear how this will impact various resources in New Mexico such as threatened and endangered species, designated Outstanding National Resource Waters (ONRWs), streams and wetlands in National Monuments and National Forests, and source water streams that supply drinking water for tens of thousands of New Mexicans. Many threatened and endangered species in New Mexico exist in watersheds that will no longer be jurisdictional (e.g., the Gila River watershed – Gila trout, Gila chub, Gila topminnow; the Mimbres River watershed - Chiricahua leopard frog; the Jemez River watershed – Jemez salamander; the Black River watershed – Texas hornshell, etc.). In addition, many ONRWs will lose federal protections under the proposed rule (e.g., Gila wilderness, Aldo Leopold wilderness, portions of the Valle Vidal, Blue Range wilderness, White Mountain wilderness, etc.). Furthermore, many important streams and wetlands on federal lands may lose federal protections as demonstrated by St. Mary's University story map that explores the potential implications of moving to a narrower regulatory definition.

Due to the Agencies' decision to not extend the comment period for this proposed rule, New Mexico was unable to evaluate many issues in detail, let alone consider the numerous questions posed throughout the proposed rule, to provide a fully complete analysis and understanding of the potential impacts the proposed rule will have on the State's CWA programs. New Mexico encourages the Agencies to use the feedback provided as a starting point for dialogue with New Mexico and other states as the

proposed rule is further developed.

Comment 15 - The economic analysis underestimates the costs and impacts to states, tribes and industry.

First, states must be adequately funded by the federal government to implement federal programs as Congress directed. Congress and federal agencies must enhance and increase research, technical support, and financial aid to states and interstate agencies to insure prevention, reduction, and elimination of pollution in surface waters. Under the current Administration and certain previous Administrations, support for pollution control programs steadily weakened and funding is continually reduced to the detriment of these programs, and consequently to the detriment of our nation's waters. The proposed rule does not clarify the impact of federal funds to states and tribes should the proposal become final rule.

Currently, New Mexico's surface water quality programs are linked to or authorized by federal programs. New Mexico is not authorized to administer the CWA Section 402 NPDES permitting program nor the CWA Section 404 Dredge or Fill permitting program. State legislation and regulations are required for New Mexico to implement a surface water discharge permitting program and/or a dredge or fill permitting program to cover waters that would no longer be jurisdictional under the proposed 2019 WOTUS Rule.

While NMED is interested in taking primacy for the NPDES program, adopting and implementing such a program takes resources. Recurring state and federal funds need to be identified to support New Mexico's permitting programs because permit fees would be unlikely to cover the costs of these programs if the proposed rule were enacted. New Mexico has approximately 120 individual NPDES permits, and approximately half of those permits are municipalities, therefore establishing a costly fee structure would likely cause economic hardship to many New Mexico communities.

Second, the Agencies failed to explain, or even address, how the economic conclusions reached in the 2015 reports *Economic Analysis of the EPA-Army Clean Water Rule* and *Technical Support Document for the Clean Water Rule: Definition of Waters of the United States* are no longer valid. The proposed 2019 WOTUS Rule appears to simply disregard the analyses in these documents with no explanation. Given that the Agencies did not address these reports in the proposed rule, the public was denied the benefit of the Agencies' conclusions regarding their lack of significance.

Third, the proposed rule does not account for the economic implications related to RCRA. The WOTUS/RCRA implication is significant for the NPDES permit holders in New Mexico and necessitates both clarification and consultation from the Agencies with the states, tribes, industry and the public prior to finalization.

Fourth, decreased water quality due to climate change will increase the cost of maintaining and improving drinking water infrastructure because the dirtier the water is coming in to the treatment plant the harder and more expensive it is to clean. Municipalities will likely need to invest in water treatment infrastructure and other costly technologies, such as desalination, to provide clean, safe water for drinking.

Fifth, the proposed rule does not take into account the recreational economy impacts associated with

poorer water quality, influencing lake and river recreation as well as the many rafting companies in New Mexico that depend on clean water for their business.<sup>11</sup> The Outdoor Industry Association, a trade organization, says that in New Mexico the sector supports 99,000 jobs, creates nearly \$10 billion in consumer spending every year and contributes \$623 million in state and local tax revenue. The state Department of Game and Fish reports there are 160,000 anglers who fish in New Mexico, spending \$268 million, and 87,600 hunters, who spend \$345 million, on their activities annually.

Comment 16 - Despite being one of the most impacted states under this proposed rule, NMED was not consulted by the Agencies until recently.

The Agencies claim that they are, “embracing cooperative federalism and working collaboratively with states, local government, and tribes to implement laws that protect human health and the environment” by enhancing shared accountability and increasing collaboration through joint governance and working with impacted stakeholders.<sup>12,13</sup> The Agencies conducted an initial Federalism consultation briefing in April 2017 with state and local government officials regarding “waters of the U.S.” but NMED was not included in that briefing despite that NMED is the state agency in New Mexico that is responsible for water quality pursuant to the federal CWA and New Mexico Water Quality Act. Furthermore, NMED was not represented at the December 2017 webinar for governmental partners. While NMED was on several national “listening sessions” regarding the step 1/step 2 rulemaking process, these sessions were explanatory in nature – not consultations.

The Agencies did not meet or consult with NMED in developing the proposed rule. Since the vast majority of New Mexico’s waters may no longer be subject to protection under the CWA based upon the 2019 proposed revisions to the rule, NMED urges the Agencies to use the feedback provided here as a starting point for dialogue with New Mexico as the proposed rule is further developed.

#### **CLIMATE CHANGE-RELATED RESOURCES:**

NOAA National Climate Assessment – Southwest

(<https://nca2014.globalchange.gov/report/regions/southwest>)

National Climate Assessment Report – Assessment of Climate Change in the Southwest United States

(<https://www.climas.arizona.edu/sites/default/files/pdf2013sw-nca-color-finalweb.pdf>)

High Country News – Climate report details deep hits to the southwest

(<https://www.hcn.org/articles/climate-change-the-fourth-national-climate-assessment-details-deep-hits-to-the-southwest>)

National Park Service Series: Climate Change in the Southwest

(<https://www.nps.gov/articles/climate-change-in-the-southwest-potential-impacts.htm>)

EPA – Climate Impacts in the Southwest

(<https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-southwest.html>)

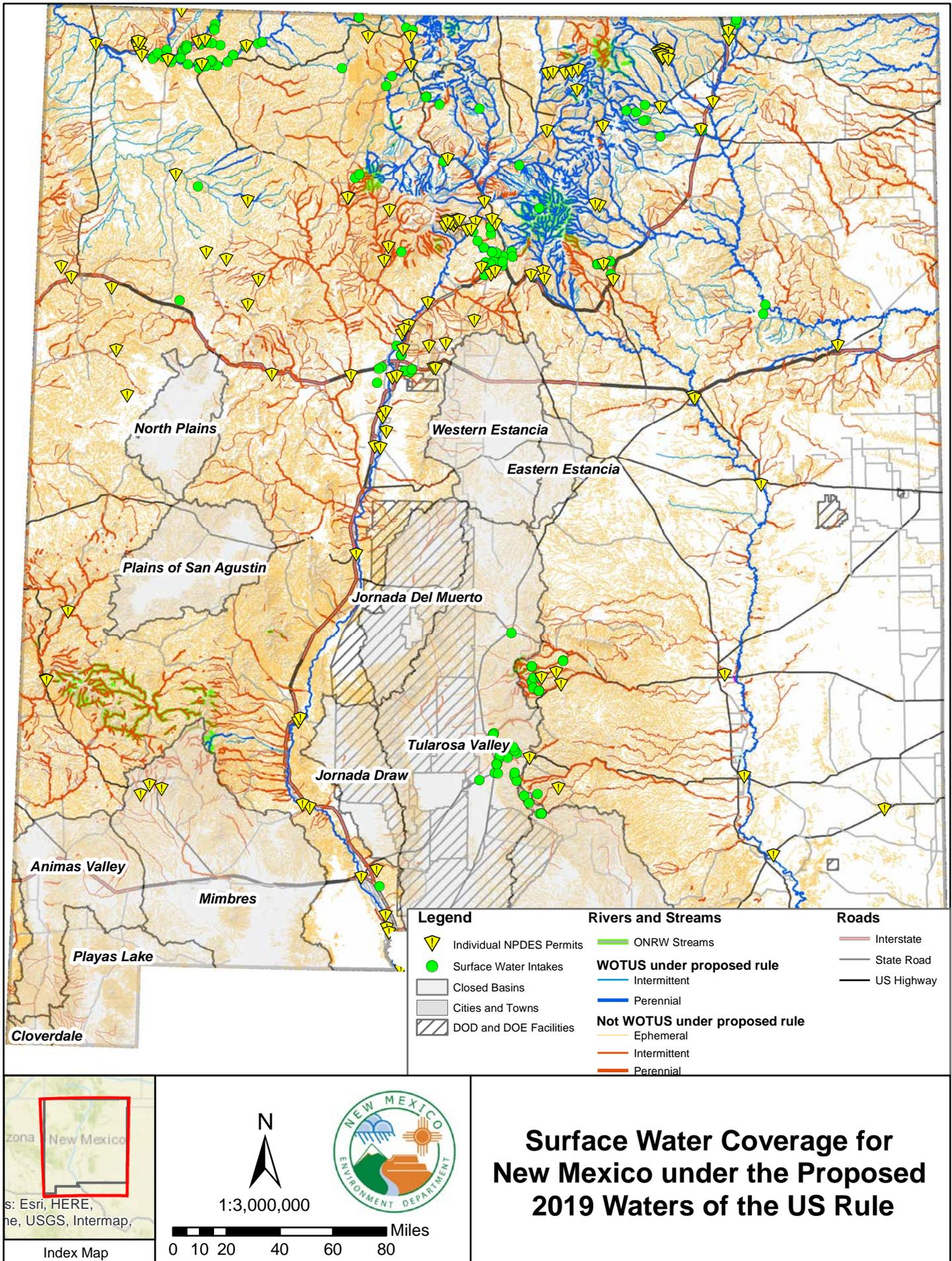
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11 See “Resources” at the end of this section for Climate Change-related websites.

12 <https://www.epa.gov/home/cooperative-federalism-epa>

13 <https://www.epa.gov/wotus-rule/federalism-consultation>

**Figure 1. New Mexico Surface Water Coverage Under the Proposed 2019 WOTUS Rule**



Scale: 1:3,000,000

0 10 20 40 60 80 Miles

**Surface Water Coverage for New Mexico under the Proposed 2019 Waters of the US Rule**

**Figure 2. Santa Fe and Los Alamos Coverage Under the Proposed 2019 WOTUS Rule**

