

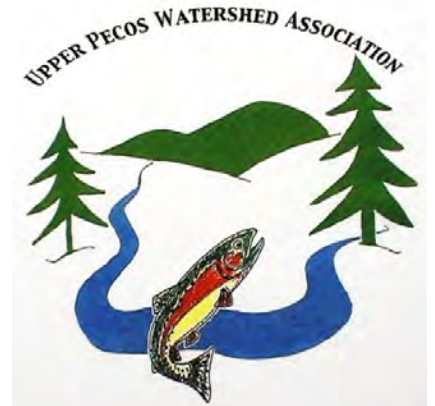
NOMINATION OF THE WATERS OF THE UPPER PECOS WATERSHED AS OUTSTANDING NATIONAL RESOURCE WATERS



Petitioners:



Village of Pecos New Mexico



NOMINATION OF THE WATERS OF THE UPPER PECOS WATERSHED AS OUTSTANDING NATIONAL RESOURCE WATERS

Petitioners: San Miguel County, the Village of Pecos, the New Mexico Acequia Association, Molino de la Isla Organics LLC, and the Upper Pecos Watershed Association

I. INTRODUCTION AND BACKGROUND

“Agua es vida,” and the waters of New Mexico’s Upper Pecos Watershed sustain and enrich the lives and livelihoods of all who live, work, and recreate there. These waters are among New Mexico’s most outstanding aquatic resources for people, plants, and animals alike. For centuries, the watershed has supported thriving ecosystems and communities. For generations, the Upper Pecos supported the Pecos Pueblo peoples and to this day remains culturally significant to their descendants. The Upper Pecos supports a rich tradition of farming and ranching and other traditional uses, all of which depend on clean water. Thanks in part to a long history of respect and stewardship among those who call the area home, most of the waters of the Upper Pecos remain clean and healthy. The high-quality waters of the Upper Pecos also support numerous plants and animals, including New Mexico’s state fish — the Rio Grande Cutthroat Trout — and are significant attributes of state Special Trout Waters, the Pecos Wilderness, and the designated Wild and Scenic portion of the Pecos River.

The Upper Pecos Watershed is the lifeblood of nearby communities and ecosystems. It draws visitors from across New Mexico and out of state to enjoy its scenic beauty and abundant outdoor recreation opportunities. Many seek solitude in the rugged forests and canyons of the surrounding Wilderness and National Forest areas. Others gather to picnic or fish at the U.S. Forest Service Dalton Fishing/Day Use area, or camp at one of the nearby campgrounds. Popular recreational activities range from hiking, biking, and camping to fishing, horseback riding, and more. Lodging and other local businesses depend on the health of the Upper Pecos Watershed to attract visitors. Recreation in the Upper Pecos is vital to local economies, and helps diversify the state’s economy overall, creating more opportunities for individuals, families, and communities — including future generations — to thrive right here in New Mexico.¹

Despite its extraordinary recreational, ecological, economic, and cultural significance, the Upper Pecos Watershed is facing new challenges, both imminent and long-term. Impacts from roads and extractive industries threaten the high-quality upstream waters. Degradation of once-pristine upstream waters would also impede efforts to restore and manage the more polluted waters downstream. The ever-increasing effects of climate change exacerbate these threats. Thus, we must do everything we can today to protect the current health of the watershed and boost its long-term adaptive capacity and resilience.

One of the most effective ways to deliver on the promise of clean water and resilient watersheds for present and future generations is to designate our cleanest, most treasured waters as Outstanding National Resource Waters (“ONRWs”). The federal Clean Water Act’s antidegradation policy — specifically its ONRW provisions — allows for the protection of a

¹ Berrens, et al., Economic and Community Benefits of Protecting New Mexico’s Inventoried Roadless Areas at 68 (2006) *available at* www.sustainable-economy.org [hereinafter Berrens et. al. 2006]; U.S. Forest Serv., Landscape Scale Assessment for the Pecos River Headwaters Watershed (2004) [hereinafter USFS 2004].

State's highest quality, most valued surface waters in perpetuity. New Mexico water quality standards also recognize ONRW protection as a key component of the State's antidegradation policy, and afford maximum water quality protection to ONRWs.² The state standards provide that "no degradation shall be allowed" within a designated ONRW,³ but allow certain pre-existing and traditional land-use activities, such as grazing and acequia operations, to continue.⁴

Designating New Mexico's qualifying waters, such as the waters of the Upper Pecos Watershed, as ONRWs under the Clean Water Act (CWA, 33 U.S.C. § 1251 et seq.) and the New Mexico Water Quality Act (§§ 74-6-1 et seq., NMSA 1978) serves as a keystone of the State's efforts to achieve the objectives not only of the CWA,⁵ but also of Governor Michelle Lujan Grisham's January 2019 Executive Order ("EO") on climate change.⁶ The EO states that it is "imperative for New Mexico to act to protect our citizens and our economy from the damages of climate change impacts," especially in light of federal rollbacks; and mandates that all state Agencies "shall evaluate the impacts of climate change on their programs and operations and integrate climate change mitigation and adaptation practices into their programs and operations."⁷ The New Mexico Climate Strategy, prepared by the Governor's Interagency Climate Change Task Force, acknowledges this imperative, providing that the New Mexico Environment Department ("NMED") "will identify more Outstanding National Resource Waters ("ONRWs") to further protect special, exceptional, or undamaged waters."⁸

ONRW designations are not new to New Mexico. The New Mexico Water Quality Control Commission ("WQCC") has previously designated three ONRWs in the state: (1) the Rio Santa Barbara (2004); (2) the waters of the Valle Vidal (2005); and (3) all perennial waters within U.S. Forest Service Wilderness Areas in New Mexico (2010). Together, these ONRWs protect 1.4 million acres of watersheds, 700 miles of perennial rivers and streams, 29 lakes, and 5,400 acres of wetlands in the state. Indeed, portions of the Pecos River and its tributaries — those within the Pecos Wilderness — are already designated as ONRWs.⁹

Petitioners San Miguel County, the Village of Pecos, the New Mexico Acequia Association, Molino de la Isla Organics LLC, and the Upper Pecos Watershed Association (collectively "Petitioners"), now propose to augment these protections by nominating as Outstanding National Resource Waters ("ONRWs") all surface waters of the Pecos River and its tributaries (named and unnamed), including perennial, intermittent, and ephemeral streams and wetlands in the Upper Pecos Watershed, that span from the U.S. Forest Service Dalton Fishing/Day Use area, approximately six miles north of the Village of Pecos (via NM Highway 63), upstream to the boundary of the Pecos Wilderness.

² § 20.6.4.8(A)(3) NMAC (2018).

³ §§ 20.6.4.8(A)(3)(a)-(e) NMAC (2018).

⁴ § 20.6.4.8(A)(4) NMAC (2018).

⁵ 33 U.S.C. § 1251(a) ("[T]o restore and maintain the chemical, physical, and biological integrity of the Nation's waters.").

⁶ N.M. Exec. Order No. 2019-003, Executive Order on Addressing Climate Change and Energy Waste Prevention, (January 29, 2019) https://www.governor.state.nm.us/wp-content/uploads/2019/01/EO_2019-003.pdf.

⁷ Id., at Directive 3.

⁸ New Mexico Interagency Climate Change Task Force, New Mexico Climate Strategy at 25 (Nov. 2019) available at https://www.climateaction.state.nm.us/documents/reports/NMClimateChange_2019.pdf.

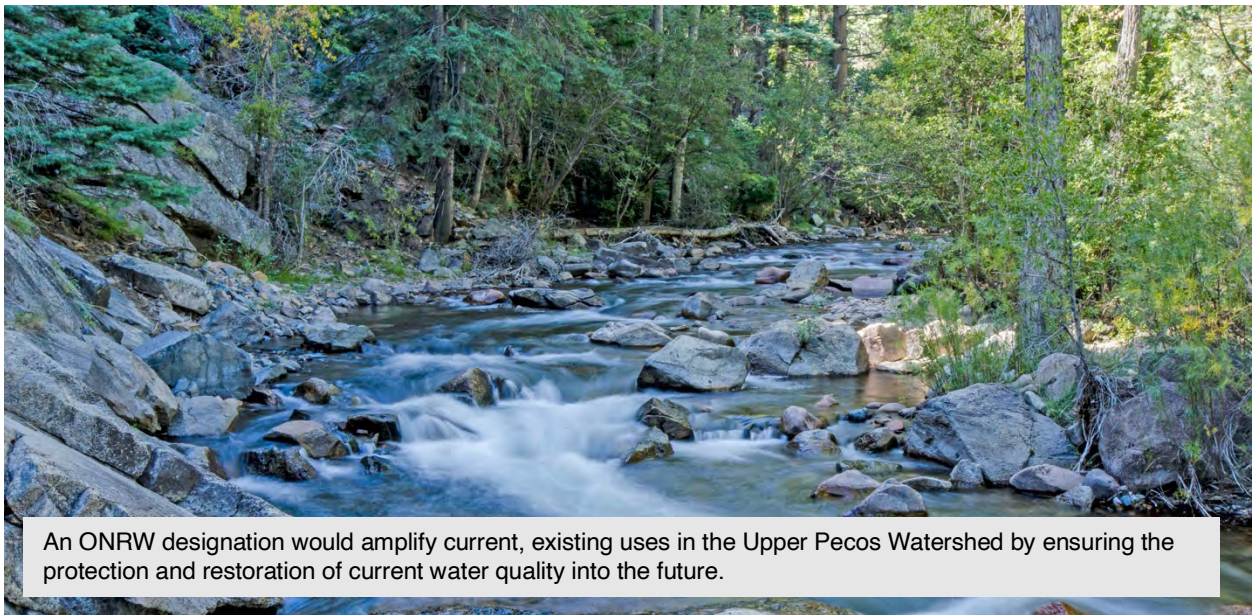
⁹ § 20.6.4.9(D)(3) NMAC (2018).

The New Mexico Acequia Association, San Miguel County, and the Village of Pecos have all passed resolutions to join the Upper Pecos Watershed Association as Petitioners in nominating these waters as ONRWs. Each of these resolutions (see Appendix A) provides valuable insight into the sincere importance of the nominated waters to Petitioners.

ONRW designation would amplify — not limit — current, existing uses in the Upper Pecos Watershed by ensuring the protection and restoration of current water quality into the future. Those whose lives and livelihoods are inexorably linked to the Upper Pecos have long been good stewards. An ONRW designation for the Upper Pecos would help ensure that the watershed continues to flourish in harmony with thriving, resilient ecosystems and communities for generations to come.



The Upper Pecos supports a tradition of farming and ranching uses, all of which depend on clean water.



An ONRW designation would amplify current, existing uses in the Upper Pecos Watershed by ensuring the protection and restoration of current water quality into the future.

II. REQUIREMENTS AND CRITERIA FOR NOMINATION

The requirements for nominating an ONRW are contained in § 20.6.4.9 NMAC (2018) as follows:

- A. Procedures for nominating an ONRW:** Any person may nominate a surface water of the state for designation as an ONRW by filing a petition with the commission pursuant to the guidelines for water quality control commission regulation hearings. A petition to designate a surface water of the state as an ONRW shall include:
- (1) a map of the surface water of the state, including the location and proposed upstream and downstream boundaries;
 - (2) a written statement and evidence based on scientific principles in support of the nomination, including specific reference to one or more of the applicable ONRW criteria listed in Subsection B;
 - (3) water quality data including chemical, physical or biological parameters, if available, to establish a baseline condition for the proposed ONRW;
 - (4) a discussion of activities that might contribute to the reduction of water quality in the proposed ONRW;
 - (5) any additional evidence to substantiate such a designation, including an analysis of the economic impact of the designation on the local and regional economy within the state of New Mexico and the benefit to the state; and
 - (6) affidavit of publication of notice of the petition in a newspaper of general circulation in the affected counties and in a newspaper of general statewide circulation.
- B. Criteria for ONRWs:** A surface water of the state, or a portion of a surface water of the state, may be designated as an ONRW where the commission determines that the designation is beneficial to the state of New Mexico, and;
- (1) the water is a significant attribute of a state special trout water, national or state park, national or state monument, national or state wildlife refuge or designated wilderness area, or is part of a designated wild river under the federal Wild and Scenic Rivers Act; *or*
 - (2) the water has exceptional recreational or ecological significance; *or*
 - (3) the existing water quality is equal to or better than the numeric criteria for protection of aquatic life and contact uses and the human health-organism only criteria, and the water has not been significantly modified by human activities in a manner that substantially detracts from its value as a natural resource.

§ 20.6.4.9 NMAC (2018) (emphasis added).

III. NOMINATION OF THE UPPER PECOS WATERSHED AS AN ONRW

SECTION 1: MAPS OF THE PROPOSED DESIGNATION

This petition nominates all named and unnamed surface waters of the Pecos River and its tributaries in the Upper Pecos Watershed that span from the U.S. Forest Service Dalton Fishing/Day Use area, approximately six-miles north of the Village of Pecos, upstream to the Wilderness boundary as an ONRW. The nominated waters include 14.11 miles of the mainstem of the Pecos River and all perennial, intermittent, and ephemeral streams, wetlands, and tributaries (named and unnamed).¹⁰

The southern end of the nominated area, the U.S. Forest Service Dalton Fishing and Day Use area, is six-miles north of the Village of Pecos on NM Highway 63. The northern end, at the Pecos Wilderness boundary near Jack's Creek, is approximately 13 road-miles and 14.1 river-miles north of Dalton via Highway 63. The nominated area includes six-miles of the Pecos River that is already designated as a Wild and Scenic River, pursuant to the Wild and Scenic Rivers Act.¹¹ The tables and maps below illustrate the nominated area in detail.

Table 1: Stream Miles in Proposal.

STREAM MILES IN PROPOSAL			
Stream Type	Named Tributaries	Unnamed Tributaries	Total
Perennial	55.55	0.12	55.67
Intermittent	9.64	0.00	9.64
Ephemeral	4.89	109.72	114.61
Lake/Marsh Centerline	0.12	0.00	0.12
All Types	70.20	109.83	180.04

Table 2: Total Acres and Miles.

TOTALS	
Total acreage in proposal	51,820
Total mileage in proposal	180.04
Acres of wetlands	698.00

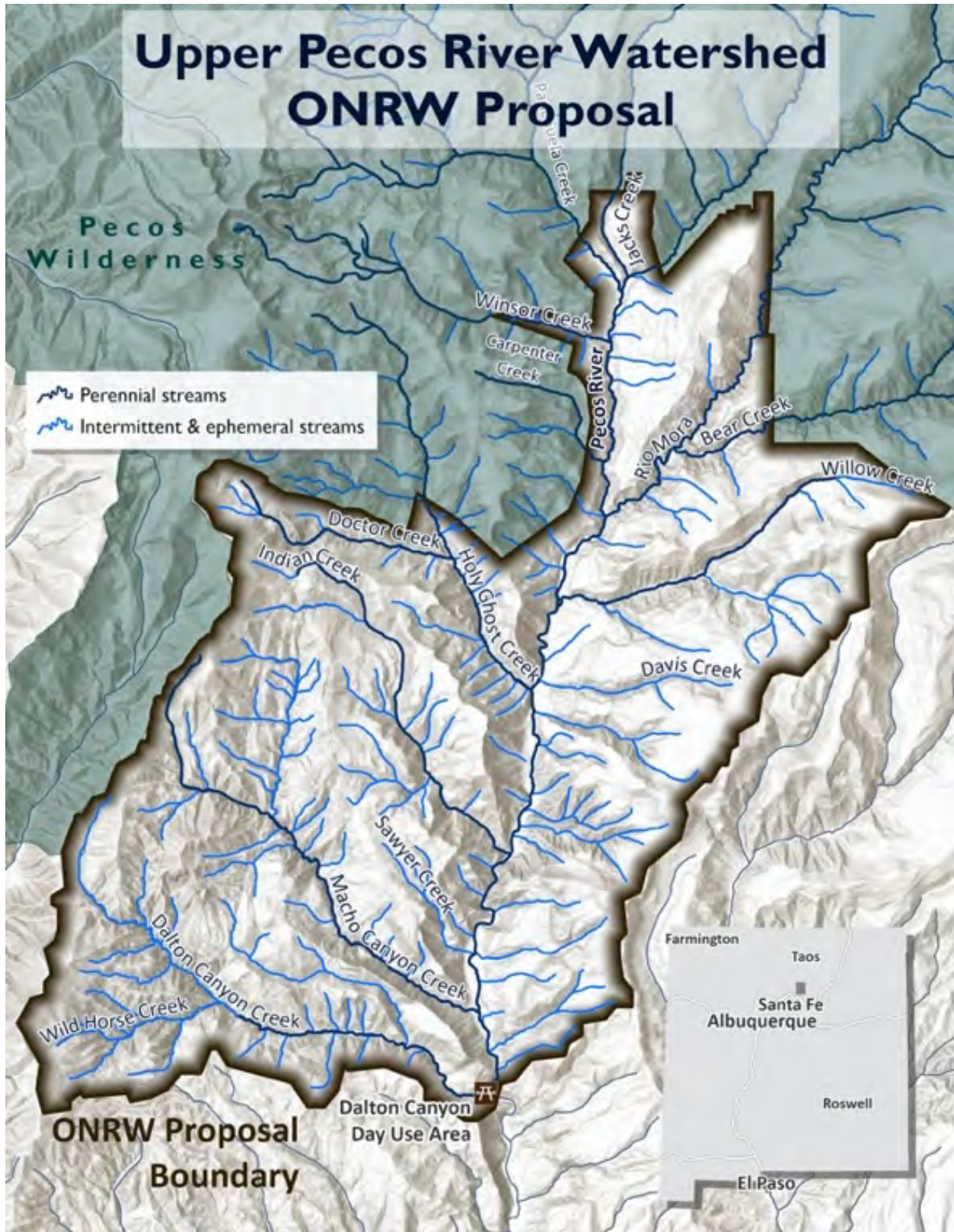
Table 3: Proposed and Protected Miles.

STREAM	Proposed Pecos Watershed ONRWs	Miles already protected as ONRWs inside wilderness
Bear Creek	1.70	6.28
Carpenter Creek	0.32	2.27
Dalton Canyon Creek	9.09	
Davis Creek	2.86	
Doctor Creek	3.67	
Holy Ghost Creek	3.30	3.87
Indian Creek	6.62	
Jacks Creek	1.36	5.79
Macho Canyon Creek	8.11	
Panchuela Creek	1.07	6.58
Pecos River	14.11	14.14
Rio Mora	5.41	14.00
Sawyer Creek	2.21	
Wild Horse Creek	2.69	
Willow Creek	5.92	
Winsor Creek	1.77	4.39
TOTAL	70.20	57.34

¹⁰ Some of these tributaries include sections that are already designated as ONRWs under § 20.6.4.9(D)(3)(b) NMAC (2018) ("Waters Classified as ONRWs"). This petition nominates and identifies the mileage of the sections of the listed tributaries that are not yet designated as ONRWs.

¹¹ 16 U.S.C. § 1271, *et seq.*

Map 1 of the Nominated Area: Perennial, Intermittent, and Ephemeral Streams.



**Upper Pecos River Watershed
ONRW Proposal**

Pecos Wilderness

Wetlands (USFWS)

ONRW Proposal Boundary

Dalton Canyon Day Use Area

Creeks and Rivers: Pecos River, Rio Mora, Bear Creek, Willow Creek, Davis Creek, Holy Ghost Creek, Sawyer Creek, Macho Canyon Creek, Dalton Canyon Creek, Wild Horse Creek, Indian Creek, Doctor Creek, Winsor Creek, Carpenter Creek, Pecos Creek.

Inset Map Labels: Farmington, Taos, Santa Fe, Albuquerque, Roswell, El Paso.

SECTION 2: SUPPORT FOR THE DESIGNATION

To be designated as an ONRW, the nominated waters must meet at least one of the three criteria in § 20.6.4.9(B) NMAC (2018), provided that the WQCC deems such a designation beneficial to the State.

The Upper Pecos Watershed ONRW nomination is justified on the basis of all three of the criteria for ONRW designation. The nominated waters hold exceptional ecological and recreational significance, and also hold profound community and cultural significance for those who live, work, and recreate in the Upper Pecos. Subsections 2.1 through 2.4, below, detail how the nominated waters meet each of the three criteria set forth in the water quality standards, and describe their cultural and community significance.

2.1 Exceptional Recreational and Ecological Significance

All of the nominated waters hold exceptional recreational and ecological significance.

2.1.1 Recreational Significance

Recreational opportunities in the waters of the Upper Pecos draw people from across New Mexico and the United States, and provide a significant boost to local and state economies.¹² Annually, there are thousands of visitors to the campgrounds in the nominated area. Multi-generational family gatherings near the river — whether at campgrounds or day-use areas, such as the Dalton site — are popular among local users.¹³ Recreational activities in the Upper Pecos include camping, hiking, horseback riding, hunting, fishing, bird-watching, photography, backpacking, bike riding, and rafting. Several local outfitters lead seasonal excursions into the wildlands surrounding the Upper Pecos.

The waters of the Upper Pecos are particularly renowned for trout fishing. Many fly fishermen use the area, with the New Mexico Department of Game and Fish (“NMDGF”) listing 140,835 angler days per year for the mainstem of the Pecos River from the Village of Pecos upstream to Cowles Campground.¹⁴ Almost the entire nominated stretch of the mainstem of the Pecos River is included in this section. In addition, the NMDGF reports that there are up to 10,000 more angler days per year in eight of the mainstem’s nominated, named tributaries.¹⁵ Data was only available for eight of the fifteen named tributaries, so this number is likely much higher. Fly fishing guides have named the Upper Pecos number six (out of eleven) of the top-rated, best places to fly fish in New Mexico.¹⁶ Within the Pecos Canyon, the Pecos River is among New Mexico’s best cold-water fisheries.¹⁷ Indeed, one of the designated uses of the Pecos is “high

¹² Berrens et. al. 2006; USFS 2004.

¹³ U.S. Forest Serv., Final Pecos Wild and Scenic River Management Plan at 7 (July 2003) *available at* <https://www.rivers.gov/documents/plans/pecos-plan.pdf>.

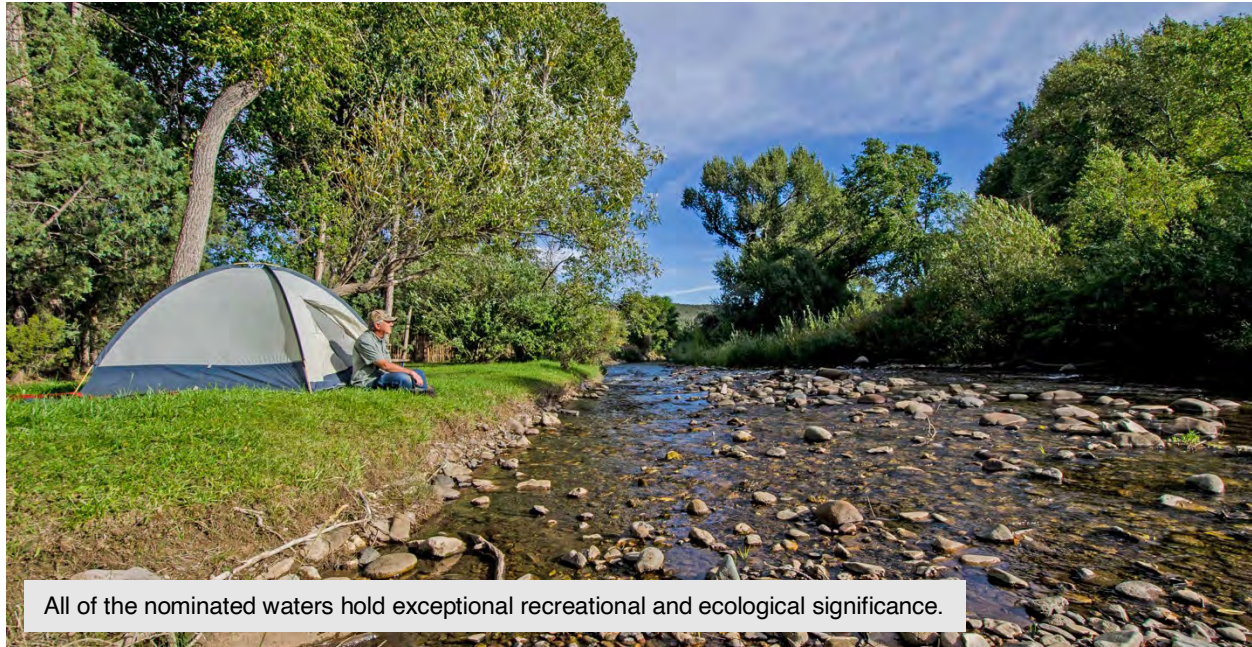
¹⁴ See Appendix B (reporting fishing days, as provided by Eric Frey, N.M. Dep’t of Game & Fish (January 21, 2020)).

¹⁵ *Id.*

¹⁶ Guide Recommended Fishing Tips, *11 Best Places to Fly Fish in New Mexico*, <https://guiderecommended.com/fly-fish-new-mexico/> (last visited Apr. 9, 2020).

¹⁷ Upper Pecos Watershed Ass’n, *Pecos River Habitat and Riparian Restoration at Mora Recreation Area (2012 & 2013)* <https://pecoswatershed.org/projects/completed-projects/mora-recreation-area/> (last visited Apr. 9, 2020).

quality, cold-water fisheries.”¹⁸ The exceptional recreational significance of the nominated waters is also tied to their economic significance.¹⁹



2.1.2 Ecological Significance

The nominated waters are also of exceptional ecological significance. For one, the waters of the Upper Pecos support a diverse array of wildlife species, including Rocky Mountain bighorn sheep, elk, mule deer, mountain lions, bobcats, and golden eagles. The following endangered or threatened species are also likely to occur in the nominated area:

Wildlife and Fish

- Mexican Spotted Owl: Threatened (Federally listed, Critical Habitat designated)
- Peppercorn Chub: Threatened (State listed, Under review federally)
- Rio Grande Cutthroat Trout: (Candidate species for listing)

Plants

- Holy Ghost Ipomopsis: Endangered (Federally listed, State listed)

The Holy Ghost ipomopsis (*Ipomopsis sancti-spiritus*) was listed as Endangered in 1994 by the U.S. Fish and Wildlife Service. At the time, its distribution was limited to a two-mile section of Holy Ghost Canyon, and it was extremely susceptible to extinction as a result. To combat this threat, recovery efforts have included establishing experimental planning sites along nominated creeks, including: Winsor Creek, Panchuela Creek and Indian Creek; in addition to new sites along Holy Ghost Creek. Efforts to recover the species have demonstrated positive results and have enjoyed significant community support. ONRW designation would similarly aid the Holy

¹⁸ U.S. Forest Serv., Final Pecos Wild and Scenic River Management Plan at 10 (July 2003) available at <https://www.rivers.gov/documents/plans/pecos-plan.pdf>.

¹⁹ See *infra*, Section 5.1.

Ghost ipomopsis by providing a safeguard against any inappropriate disturbance to the species' habitat that could undermine recovery efforts and lead to its extinction.

ONRW designation would help ensure that healthy populations of the area's flora and fauna continue to thrive, and provide vital added protections for endangered or threatened species and their habitat.

The Pecos River is also a productive fishing stream and is home to one of few remaining populations of New Mexico's native cutthroat trout. There are only a limited number of locations in New Mexico drainages that support genetically pure populations of this species. Within the nominated stretches of waters, these include:

- Jack's Creek (from Highway 63 to the Wilderness boundary)
- Macho Creek, including the North Fork of Macho Creek, and Tributary #1
- Dalton Creek
- Pecos River
- Rio Mora (and an unnamed tributary)
- Rio Valdez
- Rito del Padre
- Rito los Esteros
- Rito Maestas

The NMDGF also plans to restore Rio Grande cutthroat trout ("RGCT") populations to Cow Creek and Willow Creek.

ONRW designation serves as a protective "backstop" to the RGCT's further population depletion that can assist in the species' conservation and recovery and, thereby, decrease the likelihood that federal Endangered Species Act ("ESA") listing might become necessary. This potential to avoid the federal listing of one of New Mexico's native trout species — and its State fish — makes ONRW designation of these waters of especially great ecological significance to the State.



2.2 Significant Attributes

The nominated waters satisfy the “significant attributes” designation criterion in § 20.6.4.9(B)(1) in at least three ways: (1) the nomination includes waters that are a significant attribute of a Wild and Scenic River (the Pecos River); (2) the nomination includes waters that are a significant attribute of state Special Trout Waters; and (3) while the nominated waters do not fall within a designated wilderness area, they are a significant attribute of a designated wilderness area due to their interconnectedness with upstream waters within the Pecos Wilderness.

2.2.1 Significant Attribute of a Wild and Scenic River

Over 20 miles of the Pecos River (specifically, 20.5 miles) — from Davis Creek near the town of Tererro, upstream to the headwaters — are designated Wild and Scenic (specifically, “Wild” or “Recreational”) pursuant to the Wild and Scenic Rivers Act, 16 U.S.C. § 1271, et seq. (“WSRA”).²⁰ The 13.5-mile Wild portion is entirely within the Pecos Wilderness, and these waters were designated as Wilderness ONRWs in 2010. The Recreational segment downstream, just outside the Wilderness boundaries, spans 7-miles of the mainstem of the Pecos River. This 7-mile Recreational Wild and Scenic stretch is in the currently nominated segment of the Upper Pecos River — and encompasses just under half of the total 14.11-mile length of the nominated mainstem stretch.

The Wild and Scenic stretch of the Pecos River is thus a significant fraction of the nominated stretch of the mainstem. This significance goes both ways — the nominated stretch of the mainstem of the Pecos is *also* a significant fraction of the Wild and Scenic designated segment overall (and especially of the Recreational segment). The nominated waters comprise nearly one-third of the entire Wild and Scenic stretch of the Pecos, and almost *all* of the section designated as Recreational. To be classified as “Wild,” “Scenic,” or “Recreational” under the WSRA, these stretches of the Pecos River must “possess *outstandingly remarkable* scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values.”²¹ This requirement of “*outstandingly remarkable*” values (“ORVs”) resembles and reinforces the ONRW designation criterion of “*exceptional* recreational or ecological significance,”²² as discussed above. The U.S. Forest Service included this stretch of the Pecos River in the Wild and Scenic River system based on its scenic, recreational, and cultural/historic values.²³ These same values support ONRW designation of the nominated waters for their exceptional recreational and ecological significance²⁴ and their community and cultural significance.²⁵

While the two designations share similar, mutually reinforcing criteria, ONRW designation would complement and strengthen — rather than duplicate — water quality protections for the Wild and Scenic designated portion of the Pecos River; particularly in the Recreational segment that encompasses six-miles of nominated waters. While the Wild segment is accessible only by trail, the Recreational section contains cabins and other modifications along the shoreline, and a paved road that parallels the river. This more heavily used area would benefit from water

²⁰ 16 U.S.C. § 1274(a)(110); *see also* U.S. Forest Serv., *supra* n. 18.

²¹ U.S. Forest Serv., *supra* n. 18. at 1 (quoting PL 90-542 (1968)) (emphasis added).

²² § 20.6.4.9 NMAC (2018) (emphasis added).

²³ U.S. Forest Serv., *supra* n. 18.

²⁴ *See supra*, Section 2.1.

²⁵ *See infra*, Section 2.4.

quality-based protections to help ensure that it retains its “outstandingly remarkable” recreational values and “exceptional” recreational and ecological significance for years to come.

Moreover — and critically — the Wild and Scenic Rivers Act does not provide any water quality-based protections, such as designated uses, water quality criteria, or antidegradation requirements. But, surface waters designated as ONRWs are afforded the highest level of water quality-based protection under the New Mexico Water Quality Act’s Antidegradation Policy and Implementation Plan in § 20.6.4.8 NMAC (2018), and as Tier III waters in the NMED’s Water Quality Management Plan-Continuing Planning Policy. These water quality-based protections safeguard the Upper Pecos against new or increased pollution and degradation and also boost adaptive capacity and watershed resilience in the face of ever-increasing threats from climate change.



2.2.2 Significant Attribute of a Special Trout Water

Fishing on the Pecos River is of such high quality and popularity that a stretch of the nominated area includes state Special Trout Waters. Special Trout Water designations aim to enhance New Mexico’s unique angling opportunities and promote native trout conservation — some are managed to produce trophy-size trout, some to improve conservation of native trout, and others to enhance the overall trout population structure and density.²⁶ Regulations are tailored to each water, and can include reduced bag limits, catch-and-release for native Gila trout and Rio Grande cutthroat trout, or increased harvest for nonnative fish species.²⁷

²⁶ N.M. Dep’t of Game & Fish, 2019-2020 Fishing Rules & Info at 19–21, *available at* http://www.wildlife.state.nm.us/download/publications/rib/2019/fishing/2019_20-New-Mexico-Fishing-Rules-and-Info.pdf.

²⁷ *Id.*

The entire nominated area falls within a general “trout water area” according to the NMDGF in its 2019–2020 Fishing Rules and Information²⁸ and accompanying map.²⁹ Within that “trout water area,” the nominated area also includes the following state Special Trout Waters:

- Jack’s Creek from the waterfalls located 0.25 miles downstream of NM Hwy. 63 crossing upstream to its headwaters; and
- “Pecos Box” (from the Rio Mora confluence to Cowles)

An ONRW designation will complement management of these state Special Trout Waters, and of nearby Special Trout Waters with existing ONRW designations in the Pecos Wilderness. ONRW designation will also benefit downstream restoration efforts.



2.2.3 Significant Attribute of a Designated Wilderness Area

While none of the nominated area is within a designated wilderness (pursuant to the Wilderness Act of 1964, 16 U.S.C. 1131, *et seq.*), it is immediately adjacent to the Pecos Wilderness and is a vital component of that broader landscape.³⁰ The mainstem of the Pecos River is the nearest water body to the upstream wilderness boundaries of the nominated area. However, the headwaters of its tributaries *are* within the Pecos Wilderness.

²⁸ *Id.*

²⁹ N.M. Dep’t of Game & Fish, 2019 Fishing Waters Map (Special Trout Waters) *available at* <http://www.wildlife.state.nm.us/download/fishing/maps/Fishing-Waters-Map-RIB-2019-New-Mexico-DGF.pdf>.

³⁰ The nominated waters do not include waters within the Pecos Wilderness because those eligible waters were designated as Wilderness ONRWs in 2010. *See* § 20.6.4.9(D)(3)(b).

Fish and wildlife that travel across these wilderness boundaries from the tributaries and headwaters to the mainstem of the Pecos River within the nominated area do not distinguish wilderness areas from non-wilderness areas. Their dependence on high-quality downstream waters in the nominated area is deeply entwined with their dependence on high-quality waters upstream in the Pecos Wilderness. Such ecological and hydrological interconnectedness makes the nominated waters a significant attribute of the neighboring Pecos Wilderness area.

2.3 Water Quality Equal to or Better Than Specified New Mexico WQS Criteria

The entire nominated segment of the mainstem of the Pecos River meets all tested water quality parameters. Most of the fifteen named tributaries in the nominated segment also meet water quality standards. Three of the 15 named tributaries — Macho Canyon Creek, Dalton Canyon, and Willow Creek — exceed water quality standards for one water quality parameter: specific conductance.³¹ All three are in category 4A for overall attainment of water quality standards in the State of New Mexico Clean Water Act 303(d)/305(b) Integrated Report. This means they are impaired for one or more designated uses, but a Total Maximum Daily Load (“TMDL”) has already been completed for these waters. The Clean Water Act requires TMDLs to be developed for all waters identified on the 303(d) impaired waters list, in order to determine a pollution reduction target for those waters and allocate load reductions necessary to the pollutant source or sources. A TMDL is a calculation of the maximum amount of a pollutant allowed to enter a water body so that the water will meet, and continue to meet, water quality standards for a particular pollutant. To be listed in this category, all TMDLs must have been developed and approved by the U.S. Environmental Protection Agency such that, when implemented, they are expected to result in full attainment of the applicable water quality standard.³² Water quality is discussed further in Section 3 of this nomination, and all available water quality data for the nominated waters is included in Appendix C.

2.4 Community and Cultural Significance

The Pecos River also holds deep historical and cultural significance, both locally and nationally.

2.4.1 Pecos Pueblo

P’æ kilâ or Pecos Pueblo, which translates to “the place above the water,” is an ancestral pueblo for Pecos descendants at Jemez Pueblo. The **P’æ kish**, or the Pecos People, and the **Hemish**, or Jemez People, were kin — they were one Towa-speaking people at the time of the great migration from the Four Corners Region. For reasons unknown, the Pecos Clan branched off from the main Jemez group and took a southeastern migration route, eventually making their way down to the Pecos River Valley, which is said to be **Tòqk’ò P’æwâamu** or Corn Cob River Valley. The Pecos People built villages along the Pecos River Valley in the 1200s and 1300s, and by the 1450s they had constructed and settled in the one big village known as Pecos Pueblo. In the spring of 1541, the Spanish Exploration led by Francisco Vazquez de Coronado came upon the great Pueblo of P’æ kilâ, home to more than 2,000 people. The

³¹ See N.M. Env’t Dep’t, Clean Water Act 303(d)/305(b) Integrated Report, Appendix A at 266, 276, 291, available at <https://www.env.nm.gov/wp-content/uploads/sites/25/2018/03/Appendix-A-Integrated-List.pdf> (including Dalton Canyon (p. 266), Macho Canyon Creek (p. 276), and Willow Creek (p. 291)).

³² *Id.* at iii.

Spanish described it as the largest of the Pueblos, well-fortified and having a great number of very healthy people. The Pecos People were adept farmers, planting corn, beans, and squash along the floodplains of the Pecos River and Glorieta Creek, which is said to be **Wə́hə P'ə́wə́amu** or Squash River Valley. They procured big and small game, birds, fish, acorns, berries, seeds and medicinal plants along the far reaches of the headwaters of the Pecos River Valley, down to the toes of the Tecolote Mountains located at the south end of the valley. They established shrines or sacred places along the Sangre de Cristo Mountains, said to be **Gyûhlûbu**, or the Place to take down Game, and along the sacred waters of the Pecos River. The shrines or sacred places were put there to connect with the Holy Beings that lived there.

The encounter with the Spanish was the beginning of the decline for Pecos Pueblo. The once large and powerful Pueblo faced many hardships. Over three generations, the community lost 75 percent of its population. Pecos Pueblo suffered great losses from Spanish and Mexican encroachment, Comanche attacks, and diseases. The most devastating of all was a smallpox epidemic that swept through Pecos Pueblo. Contamination of the Pueblo's source of drinking water caused further sickness. The surviving Pecos People, which numbered less than 40 individuals made the difficult decision to seek refuge at the Pueblo of Jemez. On August 2, 1838, twenty-one **P'ə́ kish** arrived at Jemez Pueblo to humbly request their acceptance amongst their kin.

2.4.2 Jemez Pueblo

Today, the descendants of the Pecos Pueblo reside with the Hemish and are one with the people, pueblo and culture. Jemez Pueblo actively maintains the connection to Pecos Pueblo, and the Upper Pecos Watershed remains culturally significant today. At the beginning of each new year, a tribal consultation meeting involving the Park Superintendent, park staff, Pueblo of Jemez Leadership, Jemez Natural Resources Department, and the Pecos Eagle Society (a traditional religious society group originally from Pecos Pueblo), is held at the Pecos National Historical Park. The Second Lieutenant Governor for Jemez Pueblo also serves as the Pecos Pueblo Governor, a tribal leadership role created when Pecos and Jemez merged in 1838.

The Pecos Eagle Society returns to its aboriginal homelands at Pecos to perform ceremonial rites at shrines that exist even to this day. Also, on the first Sunday, on or after the second day of August each year, Jemez People go back home to Pecos Pueblo to celebrate the annual feast day for "Our Lady of the Angels of Porciúncula," the patron saint for Pecos Pueblo. A Catholic Mass is celebrated in the morning, followed by traditional dances and feasting. It is a joyous occasion honoring the patroness and commemorating their Pecos Ancestors who reside there. When songs are sung at the Pecos Feast Day dances in Jemez Pueblo on August 2nd of each year, the spirits of the Pecos Ancestors who reside at Pecos Pueblo are called upon to bring blessings to the Jemez people and all peoples who live on Mother Earth.

The Pecos people inhabited the Pecos River Valley, living in many 10 to 50 room structures that were distributed throughout a 40-mile area from Anton Chico, upstream to the area of the current Village of Pecos. By the 16th century, the Pecos peoples had come together to live in one large Pecos Pueblo dwelling with a population of 2,000 to 2,500 people. By the early 19th century, due to Spanish colonization and raids by Apache and Comanche tribes, the Pecos Pueblo population had been reduced to approximately 100 inhabitants. The Upper Pecos Watershed remains culturally significant to the descendants of Pecos Pueblo people.

2.4.3 Spanish Settlers and Land Grants

Starting in the mid 16th century, Spanish settlers arrived in the area and established land grants. The descendants of these settlers still live in the area today. The farming and ranching traditions and other traditional uses of the Upper Pecos Watershed depend on clean water for growing crops and raising livestock. One local organic farmer traces his family origins in the area back eight generations, and a local goat-herder traces his family history in the Upper Pecos back to 1663. Like many other area residents, they depend on this watershed to continue their long-standing traditional land use practices.

2.4.4 Acequias

Flowing into nearby acequias, the waters of the Upper Pecos are vital to local food and agriculture, economies, and communities. Established along with the Spanish and Mexican land grants, the acequias are also a vital part of the land-based culture of the Upper Pecos Watershed and the Pecos River. There are numerous acequias that depend on clean water from the Pecos River for irrigating traditional crops and for maintaining important cultural traditions. Most of the farmers who sell at local farmers' markets derive their water from acequias fed by the Pecos River.

Acequias are known for their cultural connections to the river — not only because they divert water to sustain agricultural traditions — but also in their empirical and cultural knowledge about the river and its respective waterways that are under their care. Intricate customs and traditions unique to each acequia persist in each of the traditional villages along the Pecos River. These traditions include communal work of keeping the ditches clean and flowing with clean water and the immense challenge of working together to share water in times of scarcity. Their collective approach to water management and their unique role in water governance make acequias a vital cultural asset to the region that is inextricably tied to the waters of the Upper Pecos Watershed.

The New Mexico Acequia Association is a statewide, membership based organization of acequias dedicated to protecting water and revitalizing agricultural traditions. The organization is governed by a federation of acequias, the Congreso de las Acequias, which unanimously supported protection of the Upper Pecos River via ONRW designation by resolution in their most recent statewide conference (see Appendix A).

2.4.5 Molino de la Isla Organics LLC

Petitioner Molino de la Isla Organics LLC is an organic farm created to promote and to protect the acequias of Nuevo Mexico through organic agriculture, regional marketing and consumer education for the socio-economic benefit of the community. Molino de las Isla Organics grows crops that are irrigated by water from the Pecos River. The farm serves as only one example of many that rely on the clean water the Pecos River Watershed provides.

2.4.6 National Context

The Pecos River is an iconic river of the United States and is often referenced in literature, movies, and on television shows. It is a major tributary of the Rio Grande. The phrase “West of the Pecos” or “this side of the Pecos” is a common saying used to divide the country

geographically. Today, the rich history and rugged beauty of the Pecos draws visitors from across the U.S, and internationally.

2.4.7 The Village of Pecos

The Village of Pecos is in San Miguel County, New Mexico. The population was 1,392 at the 2010 census, and has been growing much faster than in other parts of San Miguel County, partly because the Village is within commuting distance of the state’s capitol at Santa Fe. The Village was built along the Pecos River, which flows from the north out of the Santa Fe National Forest. Notable locations nearby include: Pecos National Historical Park, Glorieta Pass, the Pecos Benedictine Monastery, and Lisboa Springs Trout Hatchery. The Village also serves as an important entry point for hunting, fishing, hiking and camping in the Pecos Wilderness.

A report from the Pecos Sub-Area Plan states that residents in the Pecos area see “forests, mountains, rivers, and streams,” “camping, fishing, and hunting,” “greenery” and the “Pecos National Historical Park” as major strengths and assets of the Pecos area of San Miguel County.³³ Residents also mentioned the importance of the tourist economy in the area, and identified campgrounds as an important asset — listing Jack’s Creek, in particular — as the “premier campground in Pecos Valley.”³⁴

Residents’ “hopes and dreams” for the Pecos sub-area of San Miguel County include “that Pecos becomes a more prosperous community, stays clean and quiet ...,” gains a “stronger, growing tourism economy,” and places a “focus on resources.”³⁵

2.4.8 San Miguel County

Residents of San Miguel County have ranked economic diversification and environmental protection among the top three issues of importance “for the future of San Miguel County.”³⁶ Trash cleanup and historic preservation are also high on the list.³⁷ ONRW designation for the nominated waters would boost efforts related to all of these issues.

San Miguel County residents value the protection of natural resources in their long-term home, both for themselves and for future generations. Seventy-percent of respondents to a survey conducted by the County indicated that they do not anticipate leaving San Miguel County, and an additional ten-percent stated that they anticipate staying at least another 5 to 10 years.³⁸ “Challenges and opportunities” identified over the next ten years included a need to enforce regulations, or otherwise address dumping of toxic materials and polluting of natural resources in the area.³⁹

³³ Architectural Research Consultants, Inc., San Miguel County, New Mexico: Pecos Subarea Plan (Draft) at II-4 (Sept. 11, 2018) *available at* <http://cms6.revize.com/revize/sanmiguelcounty/Pecos%20subarea%20plan.pdf>.

³⁴ *Id.* at II-4, II-5.

³⁵ *Id.* at II-5, II-6.

³⁶ Architectural Research Consultants, Inc., San Miguel County Comprehensive Plan Update: Report on Community Conversations and Community Survey (Draft) at 1-31 and 1-32 (Dec. 5, 2017) *available at* <http://cms6.revize.com/revize/sanmiguelcounty/San%20Miguel%20County%20Comprehensive%20Plan%20Update%2012.7.2017.pdf>.

³⁷ *Id.* at 1-32.

³⁸ *Id.* at 1-31.

³⁹ *Id.* at 1-9.

Preserving the cultural and environmental values and resources of the area for future generations was a priority issue for many residents, as were fracking and contamination of potable water, and river/acequia clean-up.⁴⁰ And, the top three industries that residents wanted to see expand in San Miguel County were all related to environmental protection and economic diversification values: renewable energy, tourism, and outdoor recreation.⁴¹



The Pecos River holds deep historical and cultural significance.

SECTION 3: BASELINE WATER QUALITY DATA AND COMPARISON TO NUMERIC CRITERIA

The NMED is responsible for water quality in the state, with authority and responsibility delegated to the Surface Water Quality Bureau (“SWQB”) to monitor and protect surface water quality. The SWQB monitored water quality in the Pecos River Headwaters as part of the Upper Pecos River watershed survey between March and November of 2001, and again between April and December of 2010. Available water quality data is summarized below, and included in Appendix C, to establish a baseline water quality condition and to satisfy the nominating criteria identified at § 20.6.4.9(B)(3) NMAC (2018). Water quality monitoring included measurements of a variety of chemical, physical, and biological parameters, such as:

- Basic field measurements: including dissolved oxygen (“DO”), temperature, pH, turbidity, salinity, and conductivity;

⁴⁰ *Id.* at 1-31–1-32.

⁴¹ Architectural Research Consultants, Inc., *supra* n. 36 at 1-33.

- Nutrients: including ammonia, nitrate+ nitrite, total kjehldal nitrogen, total organic carbon, and total phosphorus;
- Ions: including hardness, total dissolved solids (“TDS”), and total suspended solids (“TSS”);
- Total coliform and E. Coli;
- Dissolved metals: including aluminum, zinc, and lead;
- Total metals: including mercury and selenium;
- Habitat data: including channel dimensions and substrate characterizations; and
- Benthic macroinvertebrate populations and fish ecology.

All available water quality data for the nominated waters is presented in Appendix C. Based on the available water quality data, the existing, baseline water quality is equal to or better than the numeric water quality criteria for all of the mainstem of the Pecos River in the nominated stretch of waters, and almost all of the named tributaries. As stated in Section 2.3 of this nomination, three of the fifteen named tributaries — Macho Canyon Creek, Dalton Canyon, and Willow Creek — exceed water quality standards for one water quality parameter (specific conductance).⁴² In addition, the nominated waters are of exceptional recreational and ecological significance and are significant attributes of Special Trout Waters, a Wild and Scenic River, and of the Pecos Wilderness (even though located just outside of the wilderness boundaries). All of these characteristics indicate that human activity has not significantly modified the nominated waters in a manner that substantially detracts from their value as a natural resource. Thus, the nominated waters satisfy § 20.6.4.9(B)(3) NMAC (2018).

SECTION 4: ACTIVITIES THAT MIGHT CONTRIBUTE TO THE REDUCTION OF WATER QUALITY

A variety of ongoing and potential, future activities might contribute to a reduction of water quality in the nominated waters.

4.1 Potential Hard Rock Mining

More than forty-percent of stream reaches in western watersheds are contaminated by acid mine drainage and associated heavy metals. Acid mine drainage from mining activities have caused massive fish kills and the poisoning of migratory birds at many sites across the West. Hard rock mining has historically occurred in the Upper Pecos Watershed, and may occur in the future.

4.2 Development and Transportation

Increased sediment loading from roads and development can cause substantial water quality problems. The relationship between road building in formerly undisturbed areas and increased sediment yield in streams is well established.⁴³ A nine-year study by the Forest Service in California found that stream sediment increased 80% with road building in a previously pristine

⁴² N.M. Env’t Dep’t, *supra* n. 31.

⁴³ Loomis, J. B., *Economic Benefits of Pristine Watersheds*, American Wilderness Alliance (1988) [hereinafter Loomis 1988].

watershed.⁴⁴ When more area in a watershed is covered by impervious surfaces, runoff quantity and velocity increases, which results in increased erosion and loading of sediment and other contaminants such as metals, PCBs, etc. that are attached to sediment. Any increase in river sediment affects inflow of oxygen, increases water temperature, and negatively impacts food availability. Not only do these factors decrease fish populations and increase fish stress but also, such conditions degrade the fishing experience. Boaters have expressed similar concerns over water clarity and its negative effect on recreation.⁴⁵ In addition, increased sediment loading in a stream can contribute to increased conductivity. A rapid or larger-than-normal increase in conductivity, in turn, can adversely affect aquatic organisms if they don't have the time or capacity to adapt.

4.3 Increased Recreational Use Without Proper Management

Recreation is an essential part of what makes the Pecos a Wild and Scenic River and a deserving candidate for ONRW designation. But, in order to ensure this exceptional recreational significance for future generations, recreation in the Upper Pecos Watershed must be properly managed and accompanied by robust water quality protections. Poorly managed recreational use of a watershed can lead to increased erosion and other water quality issues, such as E. coli loading.

4.4 Waste Disposal

Illegal dumping of trash and construction waste is a threat to water quality across much of New Mexico, including the nominated waters.

4.5 Wildfires

A devastating wildfire burned through Pecos Canyon in 2013, spanning over 500 acres and forcing evacuations in the area. Whether caused by lightning, downed power lines, or other sources, wildfires can lead to soil erosion when they burn through forests. Soil erosion, in turn, can reduce water quality. Climate change exacerbates the threat of wildfires, and is expected to continue to do so throughout the Southwest, in particular.⁴⁶

4.6 Climate Change

As our climate warms, our rivers and streams also warm. High stream temperature is the most common water impairment in the State of New Mexico, and it is especially dangerous to aquatic life. Hotter water does not hold as much oxygen, thus reducing the amount of dissolved oxygen available for fish. In addition, hotter climates can result in lower flows, which can result in a concentration of pollutants in rivers and streams. Climate change also affects the global hydrologic cycle, and thus the quality, quantity, and timing of streamflows.⁴⁷ Erosion is expected

⁴⁴ *Id.* (citing Pearce (1987)).

⁴⁵ *Id.*

⁴⁶ U.S. Global Change Research Program, Impacts, Risks, and Adaptation in the U.S.; Fourth National Climate Assessment, Vol. II at Ch. 25: Southwest, Key Message 2: Ecosystems (2018) *available at* <https://nca2018.globalchange.gov/chapter/25/>.

⁴⁷ U.S. Forest Serv., Water, Climate Change, and Forests: Watershed Stewardship for a Changing Climate at 12 (2010) *available at* https://www.fs.fed.us/pnw/pubs/pnw_gtr812.pdf.

to increase as a result of higher peak flows and reductions in ground cover from reduced snowpacks, as well as increased intensity and frequency of wildfires.⁴⁸ Sediment loads are thus expected to increase, affecting municipal water supplies and aquatic habitats.⁴⁹ Healthy watersheds, by contrast, can perform “ecosystem services” that boost resilience and adaptive capacity in the face of climate change. ONRW designation can thus help protect not only the waters of the Upper Pecos, but also all of the surrounding ecosystems and communities that rely on these high-quality waters and their ecosystem services, today and for future generations.

SECTION 5: ADDITIONAL INFORMATION SUPPORTING ONRW DESIGNATION

5.1 Economic Significance

One of the distinctive benefits of ONRW designation is the protective value it affords to native plant and animal life, as well as downstream water users, including municipalities. Much of the water in New Mexico flows from relatively intact forests and congressionally designated wilderness areas. The WQCC has recognized the high quality of these waters, stating in its 2000 report to Congress that the majority of waters determined to fully support designated uses “are in wilderness areas or in watersheds protected from anthropogenic impacts.”⁵⁰ Several small communities and larger municipalities rely on this water from the Upper Pecos Watershed, including Santa Fe, Las Vegas, and the Village of Pecos. Allowing degradation in the area, whether from hard-rock mining, recreational overuse, or otherwise, could adversely affect the drinking water for tens of thousands of inhabitants who live downstream and rely on water from the Upper Pecos Watershed for their daily needs. Watersheds — such as the Upper Pecos — purify the waters that flow from them at no cost to downstream municipalities. Such a valuable ecological service provides potentially significant nonmarket economic benefits and can save vast sums of money and bolster the adaptive capacity and resilience of area municipalities both ecologically *and* financially in the face of climate change.

The economic significance of the nominated waters is also tied to their exceptional recreational significance. Recreation is essential to local economies. For example, there are six lodging businesses and one store along the Pecos River (from Windy Bridge to Cowles) that depend on the recreating public. The Pecos Business Association (“PBA”), a New Mexico non-profit business league, also relies on healthy waters to attract visitors. Annually, recreation brings millions of dollars to the area surrounding the nominated waters (and to the state of New Mexico). In 2013, anglers alone spent \$28,912,139.00 towards fishing with destinations in San Miguel County, second only to Bernalillo County.⁵¹ Hunters spent \$18,379,145.00. That same year, anglers with fishing destinations in San Miguel County contributed 333 jobs, \$11,714,212.00 in labor income, \$20,520,632.00 to the state GDP, and \$2,305,642.00 in state

⁴⁸ *Id.* at 21

⁴⁹ *Id.*

⁵⁰ N.M. Dep’t of Game & Fish, Habitat Fragmentation and the Effects of Roads on Wildlife and Habitats at 8 (Jan. 2005) available at <http://www.wildlife.state.nm.us/download/conservation/habitat-handbook/project-guidelines/Effects-of-Roads-on-Wildlife-and-Habitats.pdf> (citing N.M. Water Quality Control Comm’n, Water Quality and Water Pollution Control in New Mexico: A Report Prepared for Submission to the Congress of the United States by the State of New Mexico Pursuant to Section 305(b) of the Federal Clean Water Act (2000)).

⁵¹ N.M. Dep’t of Game & Fish, The Economic Contributions of Fishing, Hunting, and Trapping in New Mexico in 2013: A Statewide and County-level Analysis at 14-15, Table 5 (2014) available at <http://www.wildlife.state.nm.us/download/publications/press-release/NMDGF-Economics-of-Fishing-Hunting-and-Trapping-Final.pdf>.

and local tax revenue.⁵² Hunters destined for San Miguel County contributed 232 jobs, \$7,728,633.00 in labor income, \$12,470,274 towards the state GDP, and \$1,309,733.00 in state and local tax revenue in 2013⁵³.

In San Miguel County in 2013, anglers enjoyed 118,814 fishing days, spent \$6,501,155.00, and contributed 77 jobs, \$1,901,595.00 in labor income, \$3,979,447.00 towards GDP, and \$696,685.00 in state and local tax revenue.⁵⁴ Hunters spent \$3,702,684.00 within San Miguel county in 2013, with over 10,576 hunting days, and contributed 38 jobs, \$918,914.00 in labor income, \$1,892,030.00 towards GDP, and \$284,963.00 in state and local tax revenue.⁵⁵ It is important to compare these 2013 San Miguel County-wide numbers with the Upper Pecos River specific numbers provided in Appendix B. While the Pecos-specific angler data provided by the NMDGF does not include 2013 numbers, in the years for which data is available, the numbers range from 83,000 to 140,000 angler days per year, indicating that the majority — if not almost all — of the San Miguel County angler days reported in 2013 are on the Pecos River.

Recreation along the Upper Pecos also helps boost and diversify New Mexico’s economy overall. Indeed, Governor Michelle Lujan Grisham and the New Mexico legislature have recognized the importance of outdoor recreation to economic development in New Mexico. In 2019, the legislature passed — and the Governor signed — Senate Bill 462, creating an Outdoor Recreation Division within the Economic Development Department, and an accompanying Outdoor Recreation Infrastructure Fund. ONRW designation to protect these recreationally significant waters of the Upper Pecos Watershed would complement this legislation.

The U.S. Forest Service has also recognized the exceptional recreational significance of the Upper Pecos Watershed. Recreation is an Outstandingly Remarkable Value (“ORV”) for which seven-miles of the Upper Pecos River have been designated under the WSRA.⁵⁶ The nominated waters span six-miles of this seven-mile “Recreational” stretch of the river.

All of the aforementioned recreational activities — and accompanying economic benefits — are intricately connected to the pristine waters that originate and flow through the Upper Pecos Watershed. This scarce natural resource is the foundation upon which all plant and animal life in the area ultimately depend. In nominating the waters of the Upper Pecos Watershed as ONRWs, the petitioners intend to ensure that all of the surface waters of the State inside the nominated area are managed so that their outstanding recreational values are protected for generations to come.

SECTION 6: AFFIDAVIT OF PUBLICATION OF NOTICE OF THE PETITION

[Forthcoming]

⁵² *Id.* at 16, Table 6.

⁵³ *Id.* at 21, Table 11.

⁵⁴ *Id.* at 54, Tables A49 and A50.

⁵⁵ *Id.*

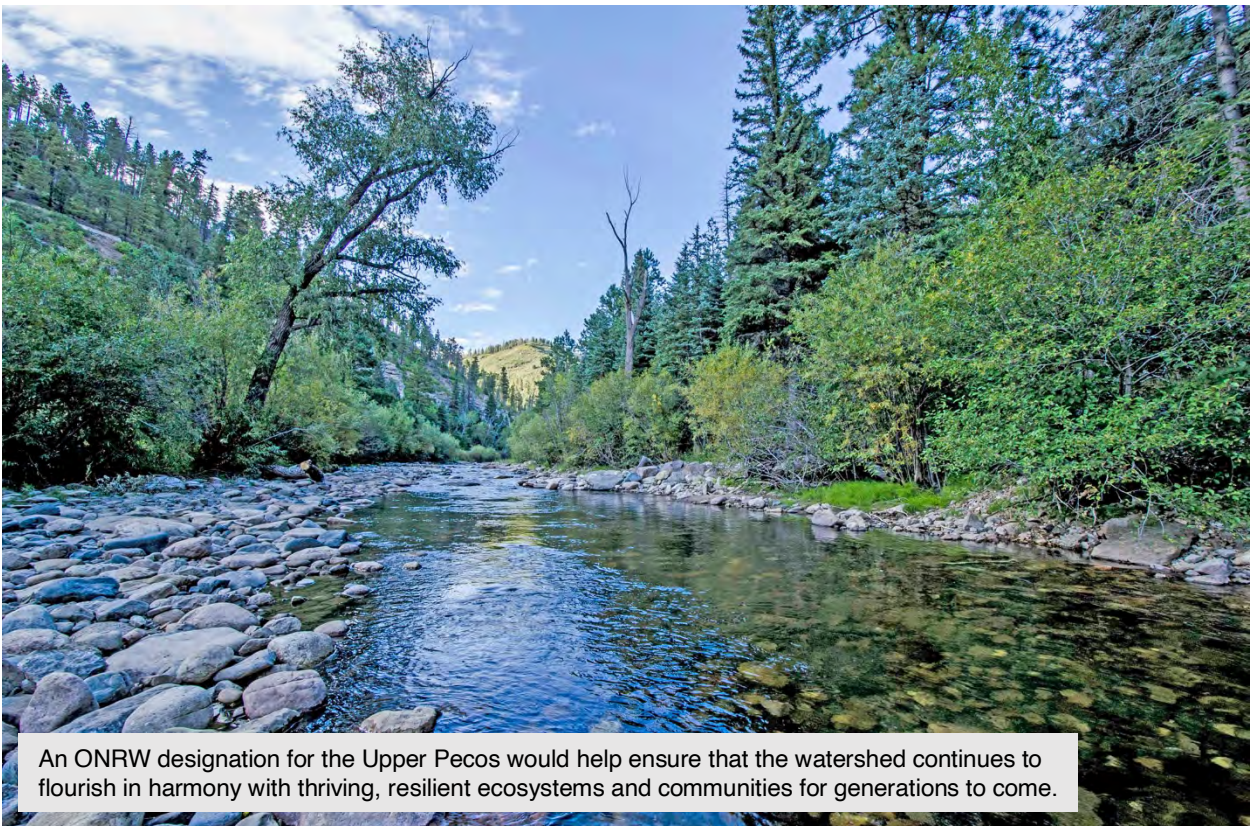
⁵⁶ *See infra*, Section 2.2.1.

LIST OF APPENDICES

Appendix A: Resolutions Passed by Petitioners New Mexico Acequia Association, Village of Pecos, and San Miguel County in Support of Petition to Designate the Nominated Waters as ONRW

Appendix B: New Mexico Department of Fish and Game Angler Use Data for Pecos River and Eight Tributaries, from the Village of Pecos to Cowles

Appendix C: Water Quality Data from NMED



An ONRW designation for the Upper Pecos would help ensure that the watershed continues to flourish in harmony with thriving, resilient ecosystems and communities for generations to come.

Appendix A: Resolutions Passed by Petitioners New Mexico Acequia Association, Village of Pecos, and San Miguel County in Support of Petition to Designate the Nominated Waters as ONRW

New Mexico Acequia Association Resolution

Resolution 2019-03

Opposing a Proposed Mining Operation in the Pecos Watershed and Supporting Strong Measures to Protect Water Quality

WHEREAS, on June 6, 2019 the Santa Fe National Forest announced that it had received a Plan of Operations from Comexico LLC (“Comexico”), the American subsidiary of New World Cobalt, an Australian company, to conduct mineral exploration on previously identified deposits in the Pecos/Las Vegas Ranger District;

WHEREAS, the New Mexico Energy Minerals and Natural Resources Department (EMNRD) has received an application from Comexico for mineral exploration in the Jones Hill area in the Pecos River Watershed;

WHEREAS, the Pecos River Watershed provides critical water resources to downstream communities, including municipal, domestic, and agricultural users and provides clean water to the numerous agriculturally and culturally significant acequia systems;

WHEREAS, the Pecos River is one of the longest, in-state originating rivers affecting communities from the headwaters near Pecos to the Gulf of Mexico,

WHEREAS, in 1991, runoff from a previous mine near the proposed Comexico site(s) sent toxic metals into the Pecos River, killing nearly 10,000 trout in the nearby fish hatchery;

WHEREAS, on January 28, 2019, the State Engineer ordered a moratorium in perpetuity on permitting and drilling new wells near the old mine site to protect human health because groundwater near the old mine is contaminated with several toxic metals;

WHEREAS, the cost of remediation of the old mine has cost New Mexico \$28 million;

WHEREAS, many farmers and ranchers who rely on acequias for irrigation water would suffer hardship from contamination if toxic metals were washed into the Pecos River from the Comexico mining sites or from mine tailings;

WHEREAS, clean water is essential for the health and wellbeing of acequia communities, including families, children, elders, and pregnant women, along the Pecos River for livestock, small-scale farming and ranching, organic gardening, and recreation,

WHEREAS, Outstanding National Resource Water (ONRW) protections outlined in the state water quality standards prohibit increased pollution to waters, do not affect existing uses traditional uses, and specifically exempt acequia operations from any additional requirements: "Acequia operation, maintenance, and repairs are not subject to new requirements because of ONRW designation." 20.6.2.A(3)(e) NMAC;

WHEREAS, farming and ranching traditions and other traditional uses depend on clean water and an ONRW can help to protect water quality and it should be implemented in such a way to

protect communities from polluting industries while ensuring that farming and livestock operations are not adversely affected,

WHEREAS, the Mining Act of 1872 has not been updated to effectively protect natural resources and does not allow public lands agencies to prohibit mining to protect clean water and for this reason it is widely considered to be outdated;

WHEREAS, the state mining regulations do not require notice to acequias of mining applications, the NMAA requested a hearing by the Mining and Minerals Division of EMNRD to consider the effects of the Comexico application on some fifty-five downstream acequias, the request for hearing was granted, and the hearing will be scheduled in the coming months;

NOW, THEREFORE, BE IT RESOLVED that the New Mexico Acequia Association opposes the proposed Comexico mining operations in the Pecos River Watershed;

BE IT FURTHER RESOLVED that the NMAA will commit to working with the New Mexico Acequia Commission and local acequias to conduct education and outreach to acequia parciantes about the potential impacts of mining on the Pecos River Watershed and on their farms and ranches and to provide comment and testimony in the regulatory process;

BE IT FURTHER RESOLVED that the NMAA supports a petition by San Miguel County and the Village of Pecos to pursue Outstanding National Resource Water (ONRW) protections for the threatened portion of the Pecos River and associated tributaries;

BE IT FURTHER RESOLVED that NMAA supports reform of the 1872 Mining Act including recent legislation such as the Hardrock Mining and Reform Act of 2019 introduced by Senator Udall and Senator Heinrich and the Hardrock Leasing and Reclamation Act of 2019 introduced by Representative Grijalva;

BE IT FURTHER RESOLVED that copies of this resolution will be forwarded to San Miguel County, the Village of Pecos, Cow Creek Regional Acequia Association, the Mining and Minerals Division of the NM Energy, Minerals, and Natural Resources Department, the NM Environment Department, NM State Legislative leadership, the New Mexico Acequia Commission, and Governor Michelle Lujan Grisham.

Village of Pecos Resolution

Resolution 2019-126

Resolution in support of Protecting Our Local Watershed from Future Degradation through Outstanding National Resource Water (ONRW) Protections and in support of Petitioning the New Mexico Water Quality Control Commission to Officially Designate the Pecos River as an ONRW.

Whereas, the Pecos River Watershed provides clean water to the communities of San Miguel County, including municipal, domestic, and agricultural users and provides clean water to the numerous ancient and agriculturally and culturally significant acequia systems; and,

WHEREAS, clean water is essential for the health and wellbeing of San Miguel County residents;

WHEREAS, many residents and visitors depend on the Pecos River Watershed for recreational activities such as fishing, camping, swimming, and hiking; and,

WHEREAS, the local economy is dependent on clean water to support recreation-based economic activities; and,

WHEREAS, Outstanding National Resource Water (ONRW) protections outlined in the state water quality standards prohibit new and increased pollution to waters; and,

WHEREAS, Outstanding National Resources Water (ONRW) protections protect and do not inhibit traditional and historic uses of the river; and,

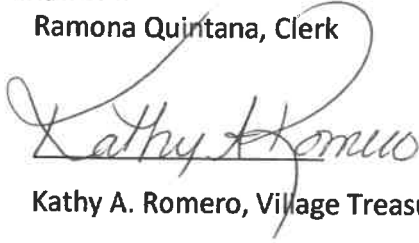
Now THEREFORE, BE IT RESOLVED BY THE VILLAGE OF PECOS that the village supports pursuing Outstanding National Resource Water (ONRW) protections for the upper portion of the Pecos River and associated tributaries.

BE IT FURTHER RESOLVED THAT, the Village will join with other interested parties in petitioning the New Mexico Water Quality Control Commission to designate the Pecos River as a n Outstanding National Resource Water (ONRW).

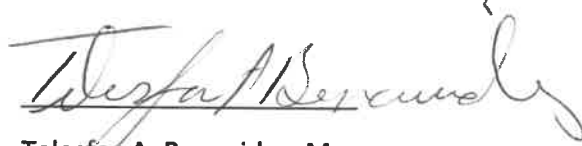
ATTEST:



Ramona Quintana, Clerk



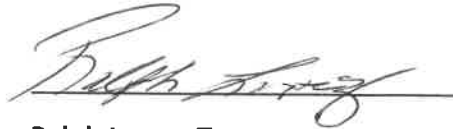
Kathy A. Romero, Village Treasurer/Accountant



Telesfor A. Benavidez, Mayor



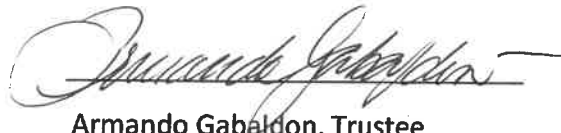
Herman Gallegos, Mayor Pro-Tem



Ralph Lopez, Trustee



Brian Sandoval, Trustee



Armando Gabaldon, Trustee



San Miguel County Resolution

Board of County Commissioners

County of San Miguel
State of New Mexico

SAN MIGUEL COUNTY
Pages: 2

I Hereby Certify that this Instrument was filed for record 11/14/2019 01:09:55 PM and was duly recorded as Instrument No. 201903571 of the Records of San Miguel County, NM.

Witness My Hand and Seal Of Office
Geraldine E. Gutierrez

Deputy _____

County Clerk, San Miguel, NM



Resolution 11-12-19-ONRW

Maria L. Martinez
Chairman - District 4

Harold M. Garcia
Vice-Chair - District 1

Janice C. Varela
Commissioner - District 2

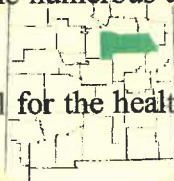
Max O. Trujillo
Commissioner - District 3

Chris A. Najar
Commissioner - District 5

Vidal Martinez, Ed.D.
County Manager

RESOLUTION IN SUPPORT OF PROTECTING OUR LOCAL WATERSHED FROM FUTURE DEGRADATION BY PETITIONING THE NEW MEXICO WATER QUALITY CONTROL COMMISSION TO DESIGNATE THE PECOS RIVER AS AN OUTSTANDING NATIONAL RESOURCE WATER.

WHEREAS, the Pecos River Watershed provides critical water resources to the communities of San Miguel County, including municipal, domestic, and agricultural users and provides clean water to the numerous ancient and agriculturally and culturally significant acequia systems;



WHEREAS, clean water is essential for the health and wellbeing of San Miguel County residents;

WHEREAS, many residents and visitors depend on the Pecos River Watershed for recreational activities such as fishing, camping, swimming, and hiking;

WHEREAS, the local economy is dependent on clean water to support recreation-based economic activities;

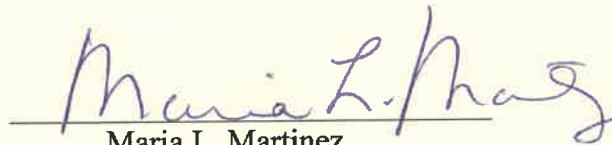
WHEREAS, Outstanding National Resource Water protections outlined in state water quality regulations prohibit new and increased pollution to waters designated as an Outstanding National Resource Water;

WHEREAS, Outstanding National Resource Water protections protect and do not inhibit traditional and historic uses of waters designated as an Outstanding National Resource Water;

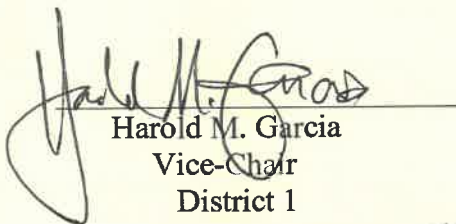
NOW, THEREFORE, BE IT RESOLVED BY SAN MIGUEL COUNTY that the County supports pursuing Outstanding National Resource Water protections for the Pecos River and associated tributaries from Dalton Canyon upstream.

BE IT FURTHER RESOLVED THAT, the County will join with other interested parties in petitioning the New Mexico Water Quality Control Commission to designate the upper portion of the Pecos River and associated tributaries as an Outstanding National Resource Water.

Passed and Approved on this 12 day of ~~November~~ 2019, by the Board of Commissioners of San Miguel County, New Mexico.



Maria L. Martinez
Chair
District 4



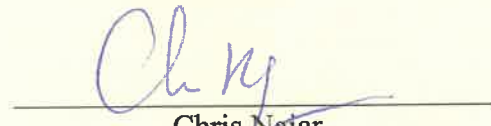
Harold M. Garcia
Vice-Chair
District 1



Janice Varela
Commissioner
District 2

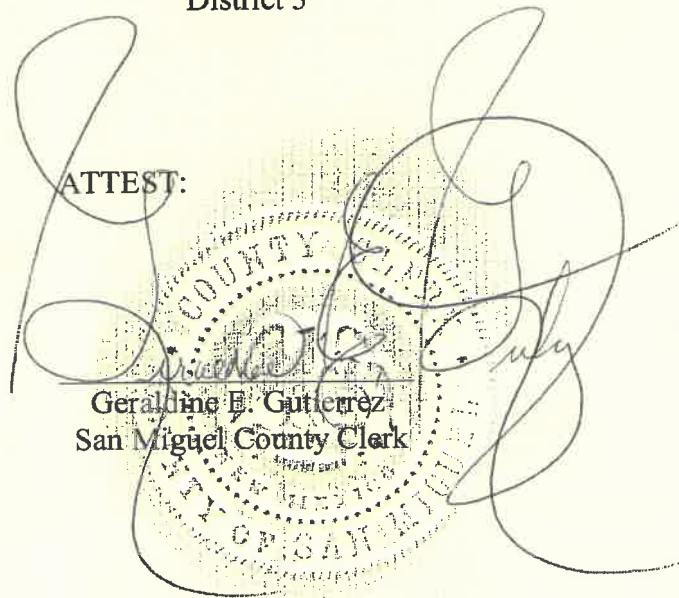


Max O. Trujillo
Commissioner
District 3



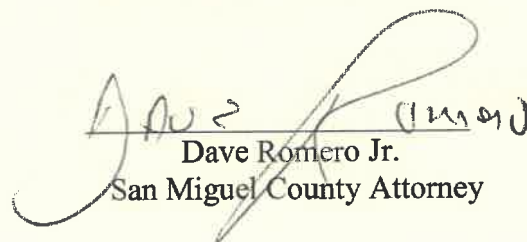
Chris Najar
Commissioner
District 5

ATTEST:



Geraldine E. Gutierrez
San Miguel County Clerk

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY:



Dave Romero Jr.
San Miguel County Attorney

Appendix B: New Mexico Department of Fish and Game Angler Use Data for Pecos River and Eight Tributaries, from the Village of Pecos to Cowles

PECOS RIVER (COWLES TO VILLAGE OF PECOS)

Use and Harvest by Water		
dgf_water_name	Year	SumOfT_days
PECOS RIVER (COWLES TO VILLAGE OF PECOS)	1997-98	95179
PECOS RIVER (COWLES TO VILLAGE OF PECOS)	1998-99	82987
PECOS RIVER (COWLES TO VILLAGE OF PECOS)	1999-00	120976
PECOS RIVER (COWLES TO VILLAGE OF PECOS)	2000-01	102572
PECOS RIVER (COWLES TO VILLAGE OF PECOS)	2001-02	142369
PECOS RIVER (COWLES TO VILLAGE OF PECOS)	2003-04	103489
PECOS RIVER (COWLES TO VILLAGE OF PECOS)	2007-08	108367
PECOS RIVER (COWLES TO VILLAGE OF PECOS)	2015-16	83743
PECOS RIVER (COWLES TO VILLAGE OF PECOS)	2016-17	133717
PECOS RIVER (COWLES TO VILLAGE OF PECOS)	2018-19	140835

INDIAN CREEK

Use and Harvest by Water		
dgf_water_name	Year	SumOfT_days
INDIAN CREEK	2001-02	47

HOLY GHOST CREEK

Use and Harvest by Water		
dgf_water_name	Year	SumOfT_days
HOLY GHOST CREEK	1997-98	1990
HOLY GHOST CREEK	1998-99	1310
HOLY GHOST CREEK	1999-00	859
HOLY GHOST CREEK	2000-01	700
HOLY GHOST CREEK	2001-02	847
HOLY GHOST CREEK	2003-04	2764
HOLY GHOST CREEK	2007-08	1500
HOLY GHOST CREEK	2015-16	590
HOLY GHOST CREEK	2016-17	601
HOLY GHOST CREEK	2018-19	1660

WILLOW CREEK

Use and Harvest by Water		
dgf_water_name	Year	SumOfT_days
WILLOW CREEK (Pecos Drainage)	1997-98	855
WILLOW CREEK (Pecos Drainage)	1998-99	4540
WILLOW CREEK (Pecos Drainage)	1999-00	224
WILLOW CREEK (Pecos Drainage)	2000-01	94
WILLOW CREEK (Pecos Drainage)	2001-02	216
WILLOW CREEK (Pecos Drainage)	2003-04	1121
WILLOW CREEK (Pecos Drainage)	2016-17	52

RIO MORA

Use and Harvest by Water		
dgf_water_name	Year	SumOfT_days
MORA (PECOS RIVER DRAINAGE)	1997-98	873
MORA (PECOS RIVER DRAINAGE)	1998-99	1540
MORA (PECOS RIVER DRAINAGE)	1999-00	353
MORA (PECOS RIVER DRAINAGE)	2000-01	1286
MORA (PECOS RIVER DRAINAGE)	2001-02	2169
MORA (PECOS RIVER DRAINAGE)	2003-04	588
MORA (PECOS RIVER DRAINAGE)	2007-08	855
MORA (PECOS RIVER DRAINAGE)	2015-16	1683
MORA (PECOS RIVER DRAINAGE)	2016-17	2732
MORA (PECOS RIVER DRAINAGE)	2018-19	963

WINSOR CREEK

Use and Harvest by Water		
dgf_water_name	Year	SumOfT_days
WINSOR CREEK	1997-98	636
WINSOR CREEK	1998-99	560
WINSOR CREEK	1999-00	514
WINSOR CREEK	2000-01	414
WINSOR CREEK	2003-04	738
WINSOR CREEK	2007-08	1449
WINSOR CREEK	2015-16	62
WINSOR CREEK	2016-17	422

PANCHUELA CREEK

Use and Harvest by Water		
dgf_water_name	Year	SumOfT_days
PANCHUELA CREEK	1997-98	80
PANCHUELA CREEK	1999-00	104
PANCHUELA CREEK	2000-01	308
PANCHUELA CREEK	2001-02	101
PANCHUELA CREEK	2003-04	682
PANCHUELA CREEK	2007-08	742
PANCHUELA CREEK	2015-16	211
PANCHUELA CREEK	2016-17	1093
PANCHUELA CREEK	2018-19	1410

BEAR CREEK

Use and Harvest by Water		
dgf_water_name	Year	SumOfT_days
BEAR CREEK	2000-01	93

JACK'S CREEK

Use and Harvest by Water		
dgf_water_name	Year	SumOfT_days
JACKS CREEK	1997-98	246
JACKS CREEK	1998-99	156
JACKS CREEK	1999-00	235
JACKS CREEK	2001-02	289
JACKS CREEK	2007-08	790
JACKS CREEK	2015-16	124
JACKS CREEK	2016-17	330
JACKS CREEK	2018-19	159

Appendix C: Water Quality Data from NMED

Part 1: Dalton Canyon Creek Chem Data

<https://westernlaw.org/wp-content/uploads/2020/04/1-Appendix-C-NMED-Water-Quality-Data-Upper-Pecos-2010-Chem-Data.xlsx>

Part 2: Dalton Canyon Creek Field Data

<https://westernlaw.org/wp-content/uploads/2020/04/2-Appendix-C-NMED-Water-Quality-Data-Upper-Pecos-2010-Field-Data.xlsx>

Part 3: Geomorphology Habitat 2010

<https://westernlaw.org/wp-content/uploads/2020/04/3-Appendix-C-NMED-Water-Quality-Data-Upper-Pecos-2010-Geomorph-Habitat.xlsx>

Part 4: Geomorphology Habitat 2014

<https://westernlaw.org/wp-content/uploads/2020/04/4-Appendix-C-NMED-Water-Quality-Data-Upper-Pecos-2014-Geomorph-Habitat.xlsx>

Part 5: Cave Creek Data

https://westernlaw.org/wp-content/uploads/2020/04/5-Appendix-C-NMED-Water-Quality-Data-BenthicTaxon_12-26-19_17_48_24.xlsx

Part 6: Fish Ecology Data 2000-2008

https://westernlaw.org/wp-content/uploads/2020/04/6-Appendix-C-NMED-Water-Quality-Data-FISH ECOLOGY REPORT_12-26-19_17_50_29-1.xlsx

Part 7: Field Data 2001-2007

<https://westernlaw.org/wp-content/uploads/2020/04/7-Appendix-C-NMED-Water-Quality-Data-Pecos-2001-2007-Field-Data.xlsx>

Part 8: Pecos River, Jack's Creek to Headwaters 2001-2007 Lab Data

<https://westernlaw.org/wp-content/uploads/2020/04/8-Appendix-C-NMED-Water-Quality-Data-Pecos-2001-2007-Lab-Data.xlsx>

Part 9: Holy Ghost Creek Data

<https://westernlaw.org/wp-content/uploads/2020/04/9-Appendix-C-NMED-Water-Quality-Data-Holy-Ghost-1305260.xls>

Part 10: Panchuela Creek Data

<https://westernlaw.org/wp-content/uploads/2020/04/10-Appendix-C-NMED-Water-Quality-Data-Panchuela-1305250.xls>

Part 11: Willow Lake to Headwaters

<https://westernlaw.org/wp-content/uploads/2020/04/11-Appendix-C-NMED-Water-Quality-Data-Pecos-abv-Willow-584647.xls>

Part 12: Pecos above Willow

<https://westernlaw.org/wp-content/uploads/2020/04/12-Appendix-C-NMED-Water-Quality-Data-Pecos-abv-Willow-2386622.xls>

Part 13: Pecos at Wilderness Boundary

<https://westernlaw.org/wp-content/uploads/2020/04/13-Appendix-C-NMED-Water-Quality-Data-Pecos-at-wilderness-boundary-309476.xls>

Part 14: Rio Mora above Pecos

<https://westernlaw.org/wp-content/uploads/2020/04/14-Appendix-C-NMED-Water-Quality-Data-Rio-Mora-abv-Pecos.xls>

Part 15: Willow above barrier

<https://westernlaw.org/wp-content/uploads/2020/04/15-Appendix-C-NMED-Water-Quality-Data-Willow-abv-barrier-1305279.xls>

Part 16: Willow below mine

<https://westernlaw.org/wp-content/uploads/2020/04/16-Appendix-C-NMED-Water-Quality-Data-Willow-blw-mine-1305275.xls>

Part 17: Winsor Data

<https://westernlaw.org/wp-content/uploads/2020/04/17-Appendix-C-NMED-Water-Quality-Data-Winsor.xls>