2023 Water Sentinels Rios de Taos
Water Quality Sampling Report
Prepared under Quality Assurance Project Plan for Amigos Bravos' Water Sentinels Rios de Taos Water Monitoring Project

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Abstract

The Water Sentinels Ríos de Taos volunteer monitoring program tracks water quality across streams and rivers in Northern New Mexico to help communities better understand watershed health and identify areas needing attention.

During 2023, volunteers and partners monitored water quality at sites in the Rio Hondo, Rio Pueblo de Taos, Rio Fernando de Taos, Red River, Rio Grande, Rio Embudo, Pecos River, Jemez watershed, the Rio San Antonio, and the San Juan River. Samples were compared against standards established by the New Mexico Environment Department and guidance from the U.S. Environmental Protection Agency.

General findings include:

- Persistent high electrical conductivity in several rivers, especially near development or historic mining areas.
- Ongoing nutrient and E. coli concerns near wastewater discharges and livestock-impacted sites.
- Episodic low dissolved oxygen at several sites, which may affect aquatic life.

Long-term monitoring remains essential for identifying trends and supporting watershed restoration efforts.

Specific findings include:

- Elevated *E. coli* levels in portions of the upper Rio Fernando
- Recurring *E. coli* exceedances at Merris Spring (P1A)
- Elevated electrical conductivity and nitrate concentrations in the Ski Valley area
- Ongoing nutrient concerns associated with wastewater effluent in the Rio Pueblo watershed

Introduction

The Water Sentinels Ríos de Taos project was initiated in 2005 by the Sierra Club in response to concerns about limited water quality data in local watersheds. In partnership with Amigos Bravos, volunteers developed a monitoring plan approved by the New Mexico Environment Department (NMED). Sampling began in 2007 in the Rio Hondo, Rio Fernando, and Rio Pueblo watersheds. Over time, additional sites were added, including the Red River (2012), Rio Embudo (2021), Pecos River sites near Santa Fe, and other regional watersheds.

This report summarizes sampling performed in 2023 and builds on seventeen prior annual reports (2007–2023). Monitoring objectives include:

- Tracking long-term trends in surface water quality

- Identifying exceedances of state water quality standards
- Supporting community-based watershed stewardship
- Informing agencies and stakeholders about potential impairment risks

Water quality parameters were evaluated using New Mexico surface water standards (20.6.4 NMAC), EPA criteria, and established scientific guidelines where regulatory standards do not exist (Figure 1).

Figure 1: Water quality standards and guidelines

Surface Water

Parameter	Column1	Standard or Guideline
Temperature	Less than or equal to 23℃	Standard - 20.6.4 NMAC
pH	6.6-8.8	Standard - 20.6.4 NMAC
Dissolved Oxygen	Greater than or equal to 6	Standard - 20.6.4 NMAC
Electrical Conductivity	Less than or equal to 400µS/cm	Standard - 20.6.4 NMAC. Less than or equal to 500ms/cm in the Rio Fernando
E. coli	Less than or equal to 235 CFU/100ml	Standard - 20.6.4 NMAC. 410 in the Rio Hondo
Aluminum	Hardness of 100 - 3,420 µg/L acute; 1,370 µg/L chronic. Hardness of 200 - 8,840 acute; 3,540 chronic µg/L.	Standard - 20.6.4 NMAC. Depends on hardness. See (3) Table of Selected Values, pg. 49-50 20.6.4 NMAC
Phosphate	Less than 0.10	Standard - 20.6.4 NMAC. No standard on PS2 or the Rio Grande sites

Nitrate	No State Standard or EPA standard	Nitrate levels above 0.3 mg/L (equivalent to PPM) are indicative of pollution running off the land and into aquatic habitats. The Florida Department of Environmental Protection has developed numeric criteria for nutrients as targets to limit algal growth and maintain healthy surface waters. For clear water streams, their criterion for nitrate is 0.35 milligrams NOx-N per liter.
Ammonia	EPA Standard	Based on a one-hour average, typically around (17 mg/L) TAN at pH 7 and 20°C. and a chronic criterion (30-day) of 1.9 mg/L TAN (at pH 7 and 20°C) Total Ammonia Nitrogen (TAN) criteria are dependent on pH and temperature, as higher levels increase toxicity.

Nitrates and phosphates were measured at many sites. New Mexico does not set segment-specific nitrate criteria for surface waters, but the drinking water standard is 10 mg/L. In surface waters, nitrate levels as low as about 0.3 mg/L can promote algal blooms and lower pH, indicating possible pollution runoff. Nitrogen compounds may also occur naturally, including up to 0.5 mg/L in rainfall, but common sources include fertilizers, animal waste, and human waste. For comparison, the Florida Department of Environmental Protection sets a nitrate target of 0.35 mg/L for clear streams to control algal growth. The 2025 NPDES permit for the Taos Waste Water Treatment Plant allows a maximum 30-day average nitrate discharge of 11 mg/L.

EPA (2013) freshwater aquatic-life guidance for total ammonia nitrogen (TAN) recommends a 1-hour acute limit of 17 mg/L and a 30-day chronic limit of 1.9 mg/L at pH 7 and 20°C, with limits varying by temperature, pH, and species. New Mexico standards in NMAC 20.6.4 include these criteria. The Taos Waste Water Treatment Plant ammonia limits are a 30-day average of 3.75 mg/L and a daily maximum of 5.62 mg/L.

The New Mexico Environment Department phosphate standard for most Upper Rio Grande segments is 0.1 mg/L. The Taos plant's phosphate discharge limit is a 30-day average of 4 mg/L.

Aluminum concentrations in natural waters vary widely based on water chemistry. Near-neutral waters typically contain 1–50 µg/L dissolved aluminum, while acidic or organic-rich waters may reach 500–1,000 µg/L, and extremely acidic mine-impacted waters can reach up to 90,000 µg/L. New Mexico standards use hardness-based acute and chronic limits. At hardness 100 mg/L, standards are 3,420 µg/L (acute) and 1,370 µg/L (chronic); at hardness 200 mg/L, limits are 8,840 µg/L (acute) and 3,540 µg/L (chronic).

Acute criteria address short-term toxicity (96 hours or less) and are assessed from single grab

samples. Chronic criteria address longer-term effects such as impaired growth, disease, and reduced reproduction; compliance is based on average results from multiple samples, and exceedances are allowed no more than once every three years.

Methods

Surface water sampling was conducted from May - November 2023 across the upper Rio Grande watershed. Sampling included:

- 5 sites – Rio Hondo
- 5 sites – Rio Pueblo de Taos
- 4 sites – Rio Fernando de Taos
- 4 sites – Red River
- 6 sites – Rio Grande
- 6 sites – Rio Embudo
- 4 sites – Pecos River
- 2 sites – Jemez watershed
- 3 sites – San Juan River
- 4 sites – Rio San Antonio

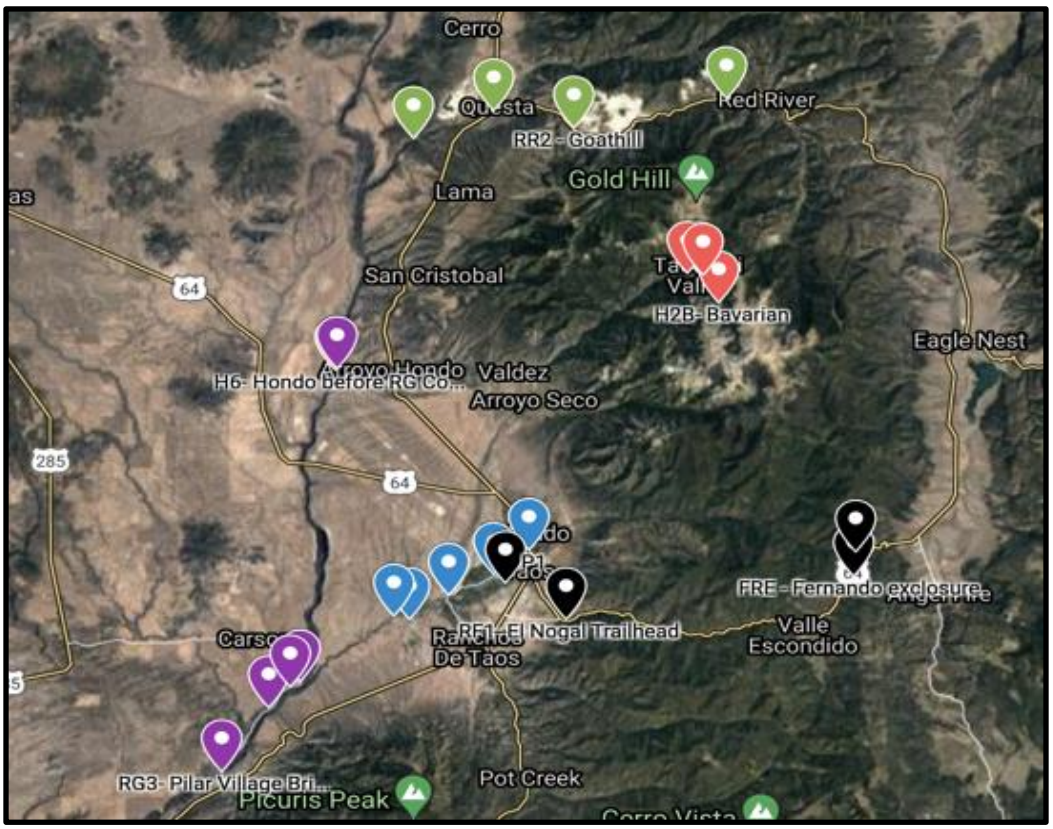
All sampling followed the NMED-approved Quality Assurance Project Plan for Amigos Bravos.

Samples were kept on ice and processed within an 8-hour holding time by accredited laboratories. Field parameters measured included:

- pH
- Temperature
- Dissolved oxygen
- Electrical conductivity

Laboratory analyses included nutrients, *E. coli*, metals, hardness, and other parameters as described for each site.

Figure 2: Map of Taos, NM area water sampling locations.



Green = Red River, Red = Rio Hondo, Purple = Rio Grande, Blue = Rio Pueblo, and Black = Rio Fernando.

Figure 3: Map of Rio Embudo area sampling locations.

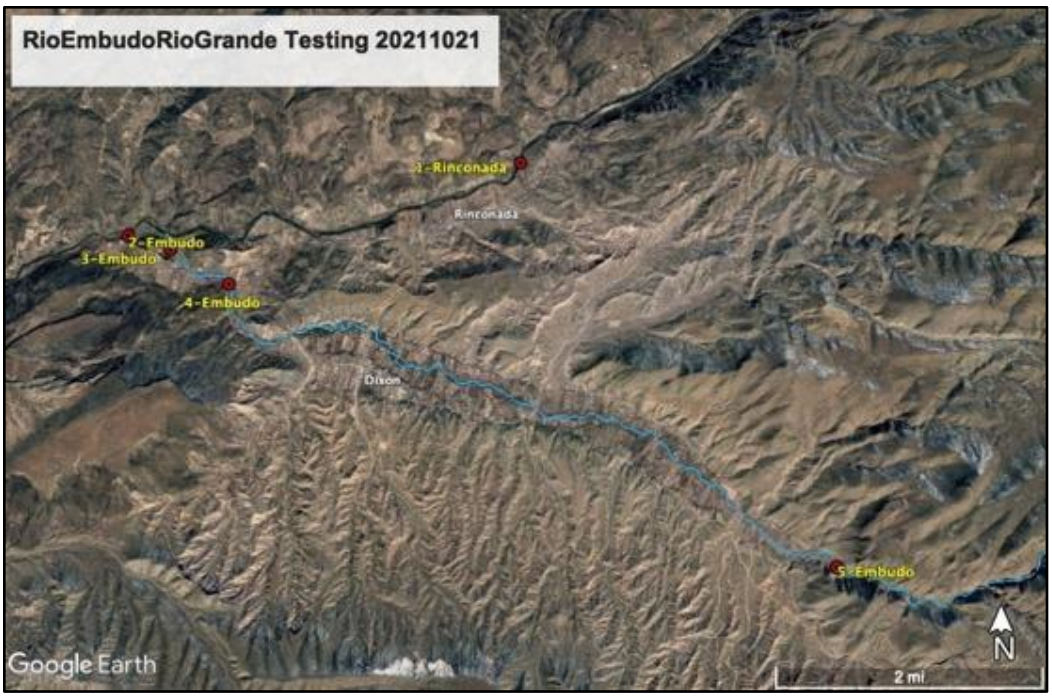


Figure 4: Map of Pecos River sampling locations.

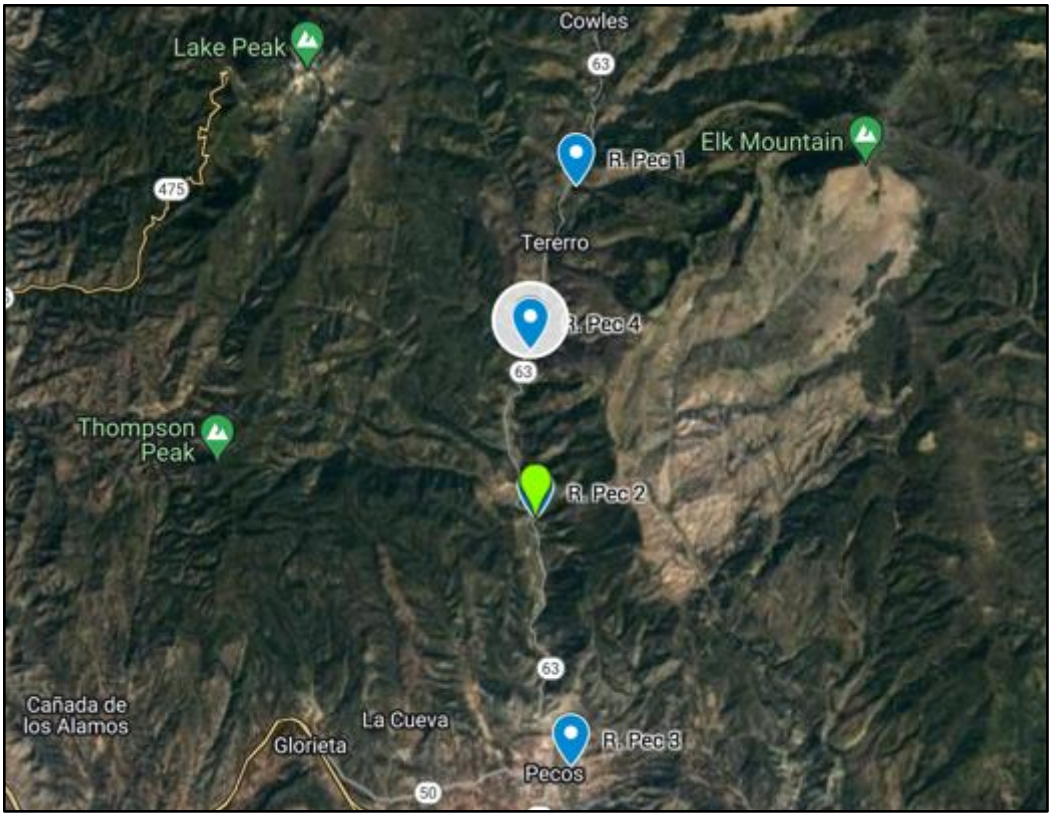


Figure 5: Map of San Juan River sample locations.

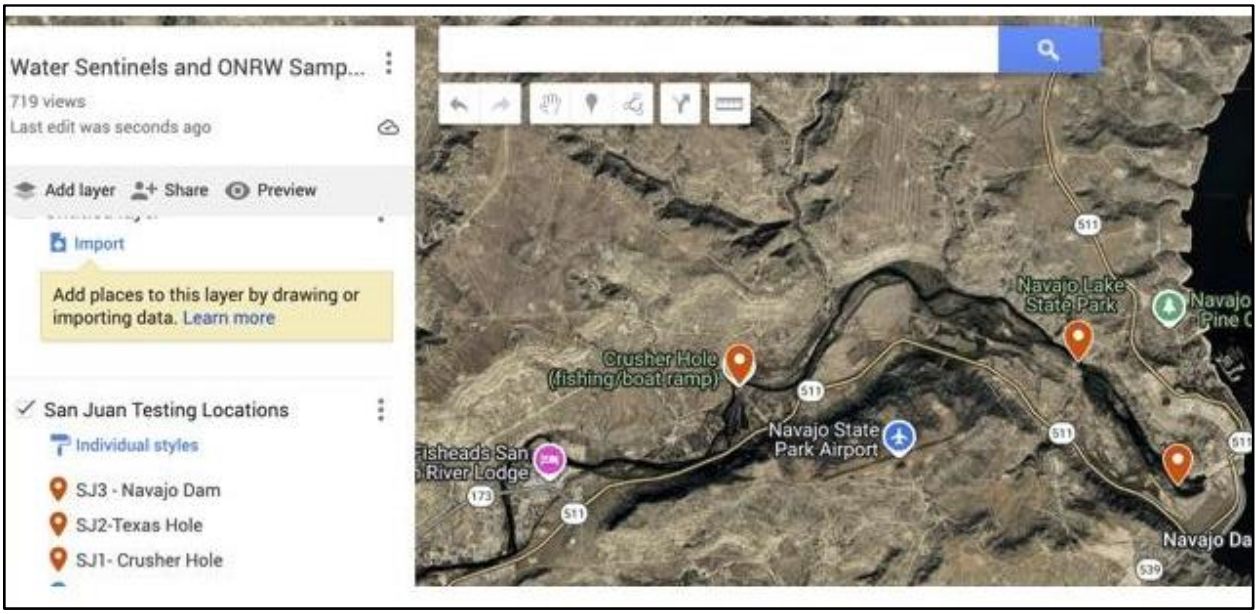


Figure 6: Map of Rio San Antonio sample locations.

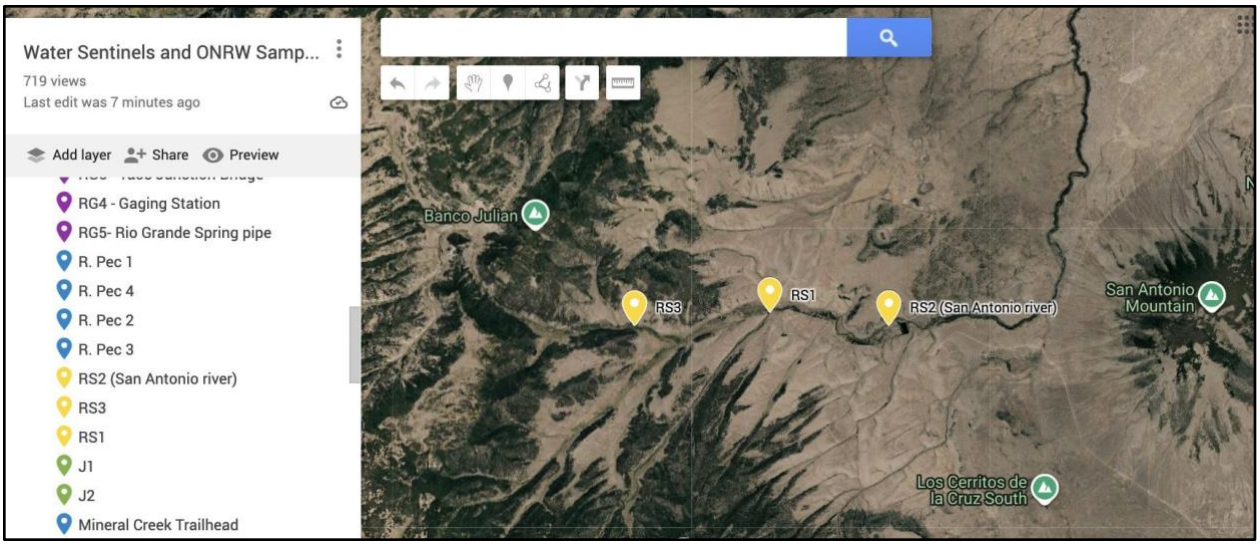


Figure 7: Map of Jemez Watershed sample locations.

J1 = East Fork of the Jemez River, and J2 = Rio San Antonio.

Results

Water quality standard exceedances and interesting results for each sampling date and river are stated below. The full sampling results for 2023 can be found in Appendix C. Streamside readings of temperature, DO, pH, and electrical conductivity are taken at all sites. Parameters analyzed by a lab vary and are shown in this section or in Appendix C.

Rio Hondo

Date	Site / Location	Parameter	Result / Observation
11-Jul-23	H2B,H2B3, H2C, H2E and H6	Nitrate	Detectable at all sites, including locations where it is not typically observed. Ranged from 0.21 – 1.54mg/L
16-Aug-23	Children's Center (H2C)	Electrical Conductivity	1,286 µS/cm (significantly above water-quality standards)

16-Aug-23	H2B	Nitrate	0.35 mg/L (not usually at detectable limits at this site)
4-Oct-23	H2E	Electrical Conductivity	1,772 µS/cm
8/16/23	H2E	Nitrate	0.39 mg/L (not usually at detectable limits at this site)
4-Oct-23	H2E	Nitrate	1.54 mg/L

Parameters sampled for that were not above water quality standards or shown in the above tables included: temperature, pH, dissolved oxygen, phosphate, ammonia, and total suspended solids.

Rio Pueblo de Taos

Taos Wastewater Treatment Plant Results

Date	**Electrical Conductivity (µS/cm)**	**Phosphate (mg/L)**	**Nitrate (mg/L)**
7/11/23	842	2.14	5.28
8/16/23	801	3.09	1.16
10/4/23	752	2.54	1.17
Standard Notes	Exceeds standard of 400 µS/cm in other segments	Elevated above standards for other segments of 0.1mg/L. The Taos WWTP's phosphate discharge limit is a 30-day average of 4 mg/L.	Elevated above guidance of 0.35mg/L for surface water quality in Florida State standards. (NPDES) permit for the Taos Wastewater Treatment Plant (Taos WWTP) allows a maximum 30-day average nitrate discharge of 11 mg/L.

Remaining Rio Pueblo sites

Date	**Site / Location**	**Parameter**	**Results**	**Standard/Guideline**	**Notes**
16-Aug-23	MS1/P1A	*E. coli*	727 CFU/100 mL	235 CFU/100 mL	Exceeded standards
16-Aug-23	MS1/P1A	Electrical Conductivity	466	400 µS/cm	Exceeded standards

7/11/23	P1	Electrical Conductivity	1,815	400 µS/cm	Exceeded standards
16-Aug-23	P1	Electrical Conductivity	1,984	400 µS/cm	Exceeded standards
4-Oct-23	P4	E. coli	325.5	235 CFU/100 mL	Exceeded standards
16-Aug-23	PS3	Electrical Conductivity	532	400 µS/cm	Exceeded standards
16-Aug-23	PS3	Nitrate	0.38	0.35 mg/L	Elevated above guidance of 0.35mg/L for surface water quality in Florida State standards
4-Oct-23	PS3	pH	8.9	6.6-8.8	Exceeded standards

Parameters sampled for that were not above water quality standards or shown in the above tables included: temperature, dissolved oxygen, and ammonia.

Rio Fernando de Taos

Date	Site / Location	Parameter	Results	Standard/Guideline	Notes
16-Aug-23	FRE	*E. coli*	387.3 CFU/100 mL	235 CFU/100 mL	Exceeded standards
4-Oct-23	F1	pH	9.91	6.6-8.8	Exceeded standards
4-Oct-23	FLJ	pH	9.75	6.6-8.8	Exceeded standards
7/11/23	FRE	Dissolved Oxygen	5.5 ppm	>=6	Exceeded standards
7/11/23	FRE	Electrical Conductivity	554 µS/cm	400 µS/cm	Exceeded standards
7/11/23	F1	Electrical Conductivity	674 µS/cm	400 µS/cm	Exceeded standards
7/11/23	F1	Electrical Conductivity	598 µS/cm	400 µS/cm	Exceeded standards
16-Aug-23	F4	Electrical Conductivity	778 µS/cm	400 µS/cm	Exceeded standards
16-Aug-23	F4	Electrical Conductivity	700 µS/cm	400 µS/cm	Exceeded standards

Parameters sampled for that were not above water quality standards or shown in the above tables included temperature, phosphates, nitrates, and ammonia.

Red River

2023 results from the Red River displayed high pH levels and slightly elevated electrical conductivity several times. The standard for electrical conductivity is 400 µS/cm and the standard range for pH is 6.6-8.8.

Site	Date	pH (Standard is 6.6-8.8)	Electrical Conductivity (µS/cm)
RR1	7/11/23	9.35	288
RR1	8/16/23	10.70	209
RR2	7/11/23	9.63	320
RR2	8/16/23	10.37	253
RR3	7/11/23	8.68	443
RR3	8/16/23	9.77	296
RR3	10/4/23	8.36	404
RR4	7/11/23	8.71	447
RR4	8/16/23	9.53	323

Hardness ranged from 145.5 to 279.8 ppm. Aluminum concentrations were within applicable standards for observed hardness levels. Aluminum and hardness values are displayed in the table below

Red River Site	Date	Hardness (ppm)	Recovered Aluminum (µg/L)	Exceedance (yes/no)
RR1	7/11/23	145.5	88	No
RR1	8/16/23	162.3	193	No
RR1	10/4/23	-	-	-
RR2	7/11/23	190.3	383	No
RR2	8/16/23	190.3	436	No
RR2	10/4/23	240.6	447	No
RR3	7/11/23	268.7	277	No
RR3	8/16/23	190.3	455	No
RR3	10/4/23	279.8	379	No

RR4	7/11/23	223.8	35	No
RR4	8/16/23	257.5	187	No
RR4	10/4/23	-	-	-

Figure 5: Aluminum and hardness values for the Red River in 2023. Standards table excerpts:

- Hardness = 220 ppm: 10,100 µg/L acute; 4,030 µg/L chronic
- Hardness = 200 ppm: 8,840 µg/L acute; 3,540 µg/L chronic
- Hardness = 100 ppm: 3,420 µg/L acute; 1,370 µg/L chronic

Parameters sampled for that were not above water quality standards or shown in the above tables included temperature, dissolved oxygen, phosphates, nitrates, and ammonia.

Rio Grande

July 11, 2023:
Dissolved oxygen values were below standards at all sites except RG2, measuring approximately 5 ppm. Electrical conductivity was elevated at RG3 and RG4 (1,789 µS/cm and 1,764 µS/cm, respectively). Nutrient concentrations were below detection limits at the three sites analyzed.

August 16, 2023:
Sites RIN-1 and RG6 were additionally analyzed for nitrate, phosphate, and ammonia. Site RG3 showed a measurable nitrate concentration of 0.20 mg/L. Dissolved oxygen remained below standards at RG5 and RG6 (5 ppm).

October 4, 2023:
Dissolved oxygen remained below standards at RG3, RG4, and RG5 (5 ppm, 4 ppm, and 5 ppm, respectively).

Rio Embudo

July 11, 2023:
Sites RE-3 and RE-4 recorded dissolved oxygen levels of 5 ppm. Electrical conductivity was slightly elevated at all sites except RE-2. Total dissolved solids (TDS) ranged from 144 to 357. Site RE-6 showed measurable but low nitrate (0.2 mg/L) and ammonia (0.027 mg/L) concentrations.

August 16, 2023:
Site RE-3 was additionally analyzed for nitrate and phosphate. Electrical conductivity remained slightly elevated at RE-3, RE-4, and RE-5.

October 4, 2023:
No measurements exceeded water-quality standards.

Pecos River

Four sites were sampled on July 10, August 15, and September 11, 2023. Metals measured at detectable levels included iron (0.2–3.1 mg/L), magnesium (2.9–4.4 mg/L), aluminum (0.05–2.5 mg/L; hardness 92–160 mg/L), barium (0.028–0.071 mg/L), and manganese (0.006–0.028 mg/L). Lead, vanadium, and zinc were detected at RPec1 and RPec2 on August 15.

July 10, 2023:
Metals results are summarized in Figure 6. Site RPec3 displayed elevated electrical conductivity (1,984 µS/cm).

August 15, 2023:
Aluminum at RPec2 measured 2,500 µg/L. With a hardness of 160 mg/L, applicable standards fall between hardness-adjusted limits listed in 20.6.4 NMAC for hardness values of 100 and 200 mg/L. Lead, vanadium, and zinc were detected at RPec1 and RPec2 at low concentrations. Radiation levels at RPec2 ranged from 4.5 to 4.9 pCi/L, below the national drinking water standard of 15 pCi/L (Figure 7).

September 11, 2023:
No measurements exceeded water-quality standards. Aluminum at RPec2 returned to typical levels (160 µg/L). Radiation measurements at RPec3 ranged from 1.4 to 5.1 pCi/L (Figure 7).

November 16, 2023: Samples were taken at Rpec-1 and Rpec-4 only. All parameters measured were within water quality standards. Radiation was not measured.

	7/10/23				8/15/23				9/11/23				11/16/23	
	RPec1	**RPec2**	**RPec3**	**RPec4**	**RPec1**	**RPec2**	**RPec3**	**RPec4**	**RPec1**	**RPec2**	**RPec3**	**RPec4**	**RPec1**	**RPec4**
Boron	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Calcium	59	47	32	40	56	55	37	40	54	44	33	38	32	40
Iron	0.26	0.18	0.1	0.14	0.4	3.1	0.12	0.14	0.07	0.2	0.2	0.21	-	-
Magnesium	3.3	3.5	2.9	3.2	3.5	4.4	3.3	3.4	3.2	3	2.9	3.1	3	3.3

Aluminum	0.23	0.15	0.08	0.12	0.018	2.5	0.09	0.11	0.05	0.16	0.16	0.25	<0.05	0.05
Antimony	<0.001	<0.001	<0.001	<0.001	0.33	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	0.032	0.041	0.025	0.03	0.034	0.071	0.028	0.031	0.032	0.039	0.028	0.034	0.024	0.029
Beryllium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.020	<0.001	<0.001	<0.001	<0.001
Cobalt	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001
Copper	<0.01	<0.01	<0.01	<0.01	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Lead	<0.001	<0.001	<0.001	<0.001	0.002	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.013	0.008	0.014	0.023	0.018	0.11	0.019	0.023	0.006	-	0.028	0.035	0.004	0.011
Molybdenum	-	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Nickel	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	-	-	-	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Silver	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Thallium	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Uranium	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	-	-	-	-	0.004	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	-	-	-	-	0.02	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	-	-	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Figure 6: Metals results on the Pecos River in 2023.

	8/15/23				**9/11/23**			
(pCi/L)	**RPec1**	**RPec2**	**RPec3**	**RPec4**	**RPec1**	**RPec2**	**RPec3**	**RPec4**
Gross Alpha with TH-230 Reference	0.8	4.5	<0.6	0.6	<0.9	<0.7	1.4	0.6
Gross Alpha with U-nat Reference	0.9	4.9	<0.6	0.6	<1.0	<0.7	1.4	0.6
Gross Beta with cs-137 Reference	1.4	4.5	1.7	<1.5	<1.7	<1.6	4.9	3
Gross Beta with sr/Y-90 Reference	<1.5	4.9	1.8	<1.7	<1.7	<1.7	5.1	3.2

Figure 7: Radiation results in the Pecos River in 2023.

Jemez Watershed (East Fork of the Jemez and the Rio San Antonio)

May 11, 2023: Sites J1 and J2 showed elevated electrical conductivity at 1,172 µS/cm and 1845 µS/cm respectively .

August 7, 2023: Site J1 and J2 dissolved oxygen level measured at 5 ppm. *E. coli* and aluminum were measured and both within water quality standards.

October 23, 2023: The dissolved oxygen level 5.5 ppm at J1 and 3.5 at J2. *E. coli* and aluminum were measured and both within water quality standards.

San Juan River

May 12, 2023: No measurements exceeded water-quality standards.

June 22, 2023: Iron, magnesium, potassium, sodium, aluminum, barium, copper, manganese, and nickel were consistently detected but remained below concerning levels (Figure 8). Gross Alpha 600/00-02 radiation measurements at all three sites were well below the national standard of 15 pCi/L (Figure 9). pH values exceeded standards at SJ1 and SJ2 (8.95 and 9.15, respectively). Phosphate was measurable at all three sites but remained below the standard (<0.1 mg/L). Nitrate was measurable at SJ2 and SJ3 but below the 0.3 mg/L guideline.

September 25, 2023: Metals remained detectable but not at concerning levels (Figure 8). Site SJ2 again exceeded the pH standard (9.11). Phosphate at SJ1 slightly exceeded the standard at 0.105 mg/L. Nitrate was detectable at all three sites but remained below the 0.3 mg/L guideline.

San Juan Metals 2023	**6/22/23**			**9/25/23**		
Units = mg/L	**SJ1**	**SJ2**	**SJ3**	**SJ1**	**SJ2**	**SJ3**
Iron	0.115	0.055	<0.100	0.065	0.055	0.067
Magnesium	5.51	5.38	5.58	5.44	5.51	5.47
Potassium	2.16	2.02	2.21	2.1	2.02	2.13
Sodium	16.1	14.3	14.8	13.5	13.8	13.6
Aluminum	0.129	0.0889	0.0825	0.0661	0.06	0.0681
Barium	0.073	0.07	0.0713	0.0705	0.0682	0.0705
Copper	0.002	0.002	0.0019	0.0016	0.0013	0.0015
Manganese	0.0126	ND	0.0266	0.0032	0.0046	0.002
Nickel	0.0023	0.0024	0.0022	0.0012	0.0012	0.0012
Antimony	ND	ND	ND	ND	ND	ND
Arsenic	ND	ND	ND	ND	ND	ND
Beryllium	ND	ND	ND	ND	ND	ND
Cadmium	ND	ND	ND	ND	ND	ND
Chromium	ND	ND	ND	ND	ND	ND
Cobalt	ND	ND	ND	ND	ND	ND
Lead	ND	ND	ND	ND	ND	ND
Selenium	ND	ND	ND	ND	ND	ND
Silver	ND	ND	ND	ND	ND	ND
Thallium	ND	ND	ND	ND	ND	ND
Vanadium	ND	ND	ND	ND	ND	ND
Zinc	ND	ND	ND	ND	ND	ND
Mercury	ND	ND	ND	ND	ND	ND

Figure 8: Metals results in the San Juan River in 2023.

San Juan River			

2023			
	6/22/23		
	SJ1	**SJ2**	**SJ3**
Gross Alpha 600/00-02(pCi/L)	<0.4	<0.4	0.7 +-0.2

Figure 9: Gross Alpha radiation levels on the San Juan River on June 22, 2023.

Rio San Antonio

May 26, 2023: The river was sampled at 4 locations for basic parameters only. Electrical conductivity was above standards at all sites, ranging from 645 µS/cm to 742 µS/cm. Dissolved oxygen was below the standard at site RS1.2, measuring 5.5 ppm.

Conclusion and Recommendations

This section summarizes parameters of concern by watershed. Rivers not mentioned here remained within water-quality standards during 2023 sampling. See Appendix C for all data collected. **Bold** font is used for recommendations of action for the New Mexico Environment Department.

Rio Hondo

Electrical conductivity exceedances have occurred since 2014 and increased after 2019, reaching 1,286–1,772 µS/cm in 2023. These values suggest elevated dissolved salts or contaminants, potentially linked to development in Taos Ski Valley. **Increased monitoring of construction activity is recommended.**

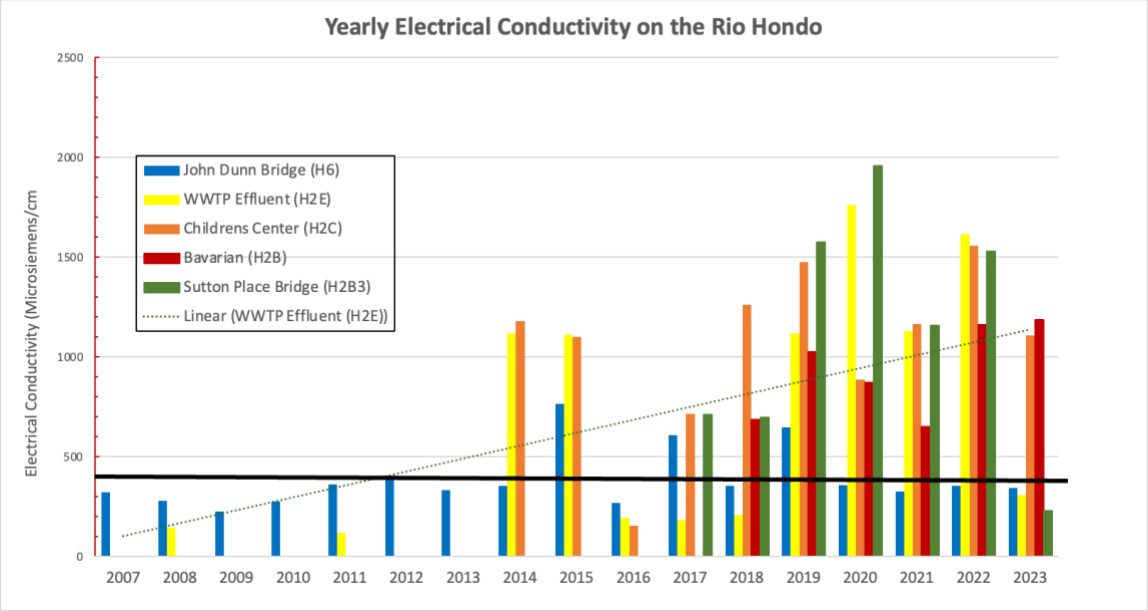


Figure 7: Electrical Conductivity (ms/cm) in the Rio Hondo from 2007 - 2023. The black line represents the NMED water quality standard of 400ms/cm.

Phosphate levels were extremely high in 2020–2021, reaching up to 47 times the standard below the ski valley wastewater treatment plant. Concentrations declined to below 0.20 mg/L in 2022–2023, indicating improvement. Monitoring will continue to confirm long-term stability.

Nitrate concentrations were elevated at multiple sites between 2018 and 2020, including Lake Fork Creek and downstream of the wastewater facility. Although levels declined after 2022, one effluent discharge measured 1.54 mg/L in October 2023. Amigos Bravos will compare these values with discharge monitoring reports and coordinate with the facility. **We recommend that NMED increase nutrient sampling at the wastewater effluent to at least once per year.**

Rio Fernando

Fred Baca Park historically shows elevated *E. coli*, conductivity, and dissolved oxygen issues. Recent data indicate improvement: dissolved oxygen exceeded standards only once in 2023. Wetland restoration by the Taos Land Trust, along with increased beaver activity and riparian vegetation, appears to be improving water quality and moderating temperatures.

Upper Rio Fernando sites continue to show elevated *E. coli* during cattle grazing periods, though exceedances were reduced in 2023 and occurred only once (October). Amigos Bravos will continue fencing and wetland restoration and welcomes collaboration with NMED on livestock-impact mitigation.

pH exceeded the acceptable range (6.6–8.8) at two sites in October. Monitoring will continue to determine whether these values correlate with other environmental conditions.

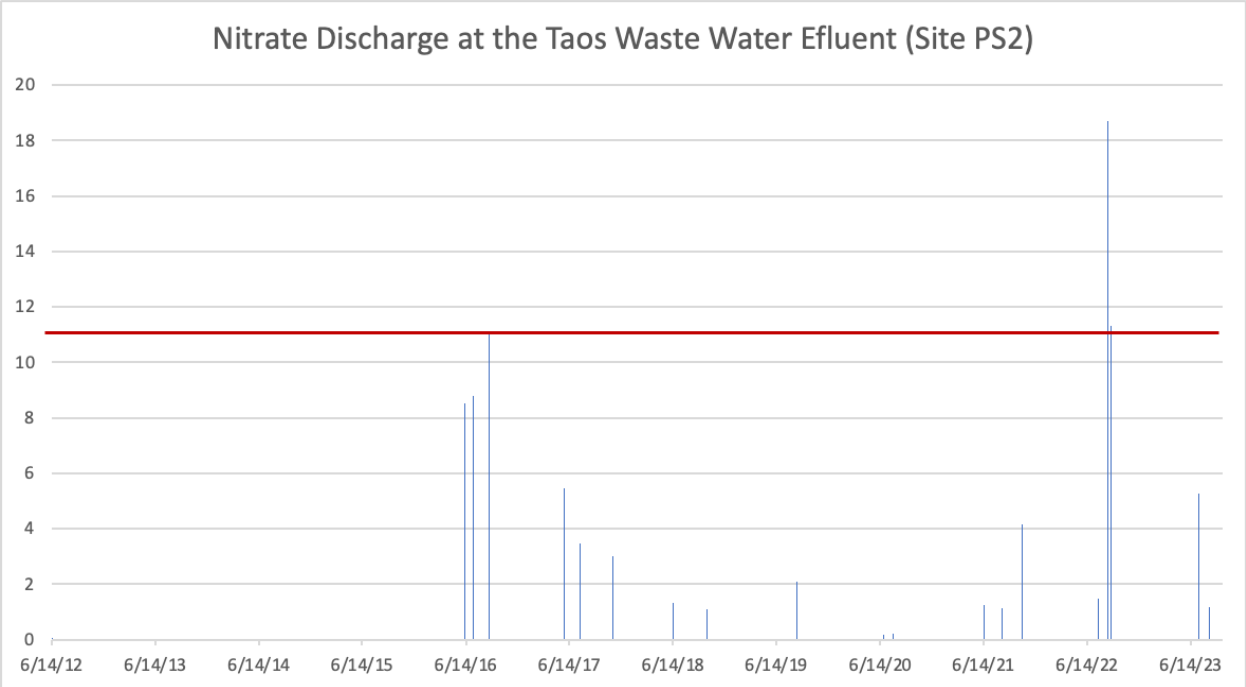
Rio Pueblo de Taos

Site P1A (Merris Spring) has documented septic contamination for more than 20 years. Microbial source tracking identified primarily human and bird sources. *E. coli* levels frequently exceed standards; in 2023 the highest value was 727 CFU/100 mL, roughly three times the limit. **Amigos Bravos plans to pursue a Section 319 grant in 2026 to replace and upgrade septic tanks in collaboration with NMED.**

Periodic *E. coli* exceedances also occur at upper Rio Pueblo sites and near the confluence with the Rio Fernando. Continued monitoring is planned to identify causes.

In the perennial arroyo receiving discharge from the Taos Wastewater Treatment Plant, electrical conductivity and nitrate levels have generally improved since 2011. However, nitrate spikes in 2021–2022 reached as high as 18.7 mg/L, exceeding drinking-water thresholds and approaching permit limits. Levels decreased in 2023, but limited sampling (three times annually) may miss periodic spikes. **Closer monitoring of discharge levels is recommended.**

Figure 8: Nitrate (mg/L) discharge at the Taos Waste Water Treatment Plant from 2007 - 2023

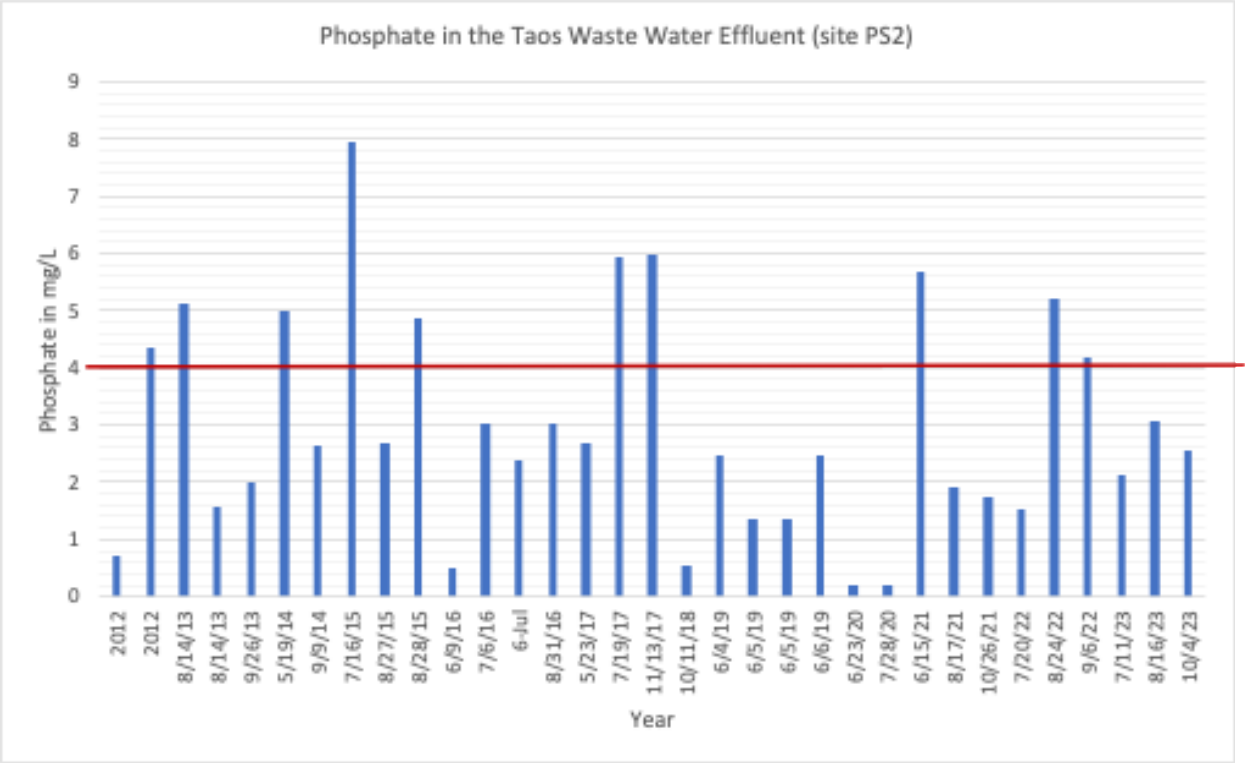


The maximum allowable 30 day average discharge according to their 2025 NPDES Permit number NM0024066 is 11 mg/L (red line on the graph).

Phosphate concentrations reached 3.09 mg/L in 2023, well above surface-water standards though below the permit's 30-day average limit. We recommend that NMED more closely monitor wastewater outflow and ensure compliance with permit requirements. **We suggest**

that the NMED more closely monitor the Waste Water Treatment plant outflow and hold them accountable to standards applied in their 2025 permit.

Figure 9: Phosphate (mg/L) discharge at the Taos Waste Water Treatment Plant from 2012 - 2023.



The maximum allowable 30 day average discharge according to their 2025 NPDES Permit number NM0024066 is 4 mg/L (red line on the graph).

Red River

Site RR3 (Bridge by Hwy 522) has exceeded aluminum chronic criteria at least twice since 2013, including very high values in 2019 and 2020. The site exceeded the chronic criteria for aluminum 4 years in a row from 2013 - 2017 and again in 2019, 2020 and 2022.**We recommend that NMED conduct additional sampling and list the river as impaired for aluminum.**

Concerns remain regarding the difference between pre-2010 and current aluminum standards. **Further evaluation by the NMED is needed to determine whether current criteria adequately protect designated uses.**

Rio Embudo

Low dissolved oxygen and mildly elevated conductivity suggest possible nutrient impacts. Additional nutrient sampling is planned.

Pecos River

Measured gross alpha and beta radiation levels were below national standards but detectable (up to 5.1 pCi/L), with the highest readings at RPec2 and RPec3. **We recommend that NMED include radiation sampling at these sites when feasible.**

Metals detected in 2023 included iron, magnesium, aluminum, barium, and manganese. Most were within expected ranges, but an aluminum spike of 2.5 mg/L at Dalton Campground suggests possible contamination and warrants continued monitoring.

Electrical conductivity exceeded standards at multiple sites, with one measurement reaching 1,984 µS/cm (6.6 times above the standard). These locations are near the historic Terrero Mine. **We recommend frequent sampling for conductivity, metals, and hardness-dependent aluminum criteria at these sites.**

SAMPLE-#	DATE-	COLLECTION-TIME	TEMP,-C.	pH	DISSOLVED-OXYGEN	ELECTRICAL-CONDUCTIVITY	Salinity	TDS	PHOSPHATE	E.-COLI	NITRATE	AMMONIA	HARDNESS	TOTAL-SUSPENDED-SOLIDS	ALUMINUM
-	-	-	-	-	ppm	µS/cm	-	-	mg/L	COLONIES /100ML	mg/L	mg/L	ppm	mg/L	(total)µg/L
STANDARD	**-**	**-**	**<=23**	**6.6-8.8**	**>=6**	**<=500/400/300**	**-**	**-**	**<0.1**	**235**	**None**	**None**	**None**	**Reporting-Limit:-1**	**Hardness-=-100:-3,421-acute;-1,370-chronic-ug/l**
Rio-Fernando	**-**	-	**<=23**	**6.6-8.8**	**>=6**	**<=500**	**-**	**-**	**<0.1**	**235**	**None**	**None**	-	-	-
F1	7/11/23	AM	13.60	8.43	7.0	674	-	-	-	18.2	-	-	-	-	-
F1	8/16/23	AM	14.00	8.37	8.0	598	-	-	-	-	-	-	-	-	-
F1	10/4/23	AM	11.00	9.91	*7.0*	-	-	-	-	129.6	-	-	-	-	-
F4	7/11/23	PM	20.70	7.93	10.0	778	-	-	-	178.9	-	<0.10	-	-	-
F4	8/16/23	AM	18.90	7.63	8.0	700	-	-	<0.20	47.5	<0.20	<0.10	-	-	-
FLJ	7/11/23	AM	13.00	8.05	6.0	394	0.20	278.00	-	201.4	-	-	-	-	-
FLJ	8/16/23	AM	11.30	7.98	8.0	455	-	-	<0.20	27.2	<0.20	<0.10	-	-	-
FLJ	10/4/23	AM	9.40	9.75	8.0	370	-	-	-	44.1	-	-	-	-	-
FRE	7/11/23	AM	17.80	8.22	5.5	544	-	-	-	209.8	-	-	-	-	-
FRE	8/16/23	AM	13.80	7.79	8.0	278	-	-	-	387.3	-	-	-	-	-
FRE	10/4/23	AM	-	7.2	10.0	-	-	-	-	13.5	-	-	-	-	-
Rio-Pueblo															-
STANDARD	**-**	**-**	**<=23**	**6.6-8.8**	**>=6**	**<=400**	**-**	**-**	**<0.1**	**235**	**None**	**None**	-	-	-
Blank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P1	7/11/23	AM	14.30	7.97	6.0	1,815	-	-	<0.20	25.6	<0.20	-	-	-	-
P1	8/16/23	AM	15.00	7.97	8.0	1,984	-	-	-	-	-	-	-	-	-
P1	10/4/23	AM	9.30	8.40	9.5	213	-	-	-	44.3	-	-	-	-	-
P4	7/11/23	AM	15.80	8.11	10.0	278	-	-	<0.20	146.7	<0.20	-	-	-	-
P4	8/16/23	AM	16.10	8.19	9.0	379	-	-	-	-	-	-	-	-	-
P4	10/4/23	AM	9.60	8.52	7.5	361	-	-	-	325.5	-	-	-	-	-
Blank	8/16/23	-	-	-	-	-	-	-	<0.20	-	<0.20	<0.10	-	-	-
PS3	7/11/23	AM	15.90	8.24	12.0	348	-	-	<0.20	118.7	<0.20	<0.10	-	-	-
PS3	8/16/23	AM	17.90	8.28	10.0	532	-	-	0.38	62.4	0.21	-	-	-	-
PS3	10/4/23	AM	10.00	8.90	-	472	0.20	337.00	<0.20	93.3	<0.20	<0.10	-	-	-
PS4	7/11/23	-	-	-	-	-	-	-	<0.20	-	<0.20	-	-	-	-
MS1/P1A	7/11/23	AM	14.80	8.01	9.0	223	-	-	<0.20	209.8	<0.20	<0.10	-	-	-
MS1/P1A	8/16/23	AM	16.90	7.82	-	466	-	-	-	727	-	-	-	-	-
MS1/P1A	10/4/23	AM	9.80	8.30	8.0	328	-	-	-	156.5	-	-	-	-	-
Rio-Pueblo															-
STANDARD	**-**	**-**	**<=24**	**6.6-8.8**	**>=6**	**Standard**	**-**	**-**	**Standard**	**235**	**None**	**None**	**None**	**-**	**None**
RP---Blank	10/4/23	AM	-	-	-	-	-	-	-	-	-	-	-	-	-
PS2	7/11/23	AM	19.30	7.81	6.0	842	-	-	2.14	35.00	5.28	<0.10	-	-	-
PS2	8/16/23	9:45:00-AM	21.20	7.89	7.0	801	-	-	3.09	42.80	1.16	0.11	-	-	-

PS2	10/4/23	10:00:00-AM	16.80	8.29	9.0	752	0.40	537.00	2.54	71.70	1.17	<0.10	-	-	-
ASMT-PUEB	7/11/23	AM	-	-	-	-	-	-	<0.20	-	<0.20	-	-	-	-
ASMT-PUEB-	8/16/23	AM	-	-	-	-	-	-	<0.20	-	<0.20	<0.10	-	-	-
ASMT-PUEB-	10/4/23	AM	-	-	-	-	-	-	<0.20	-	<0.20	<0.10	-	-	-
Rio-Hondo	-														
STANDARD	**-**	**-**	**<=23**	**6.6-8.8**	**>=6**	**<=400**	**-**	**-**	**<0.1**	**410**	**None**	**None**	**None**	**-**	**None**
H2B---Blank	7/11/23	AM	-	-	-	-	-	-	-	-	-	-	-	-	-
Hondo---Blank	10/4/23	AM	-	-	-	-	-	-	<0.20	-	<0.20	<0.10	-	<-1	-
H2B	7/11/23	AM	7.20	7.18	9.0	1,502	-	-	<0.20	2	0.3	-	-	-	-
H2B	8/16/23	AM	8.60	8.56	9.0	326	-	-	-	-	-	-	-	-	-
H2B	10/4/23	AM	3.90	7.37	7.0	1,736	-	123.00	<0.20	<1	0.35	<0.10	-	-	-
H2B3	7/11/23	AM	8.90	8.18	10.0	244	-	-	<0.20	1	0.21	-	-	-	-
H2B3	8/16/23	AM	9.10	8.60	10.0	267	-	-	-	-	-	-	-	-	-
H2B3	10/4/23	AM	4.30	8.23	8.0	-	-	-	-	4.1	-	-	-	-	-
H2C	7/11/23	AM	9.40	8.10	10.0	266	-	-	<0.20	2	0.27	-	-	-	-
H2C	8/16/23	AM	8.90	8.45	9.0	1,286	-	-	-	3.1	-	-	-	-	-
H2C	10/4/23	AM	4.60	8.25	9.0	1,772	-	-	-	13.1	-	-	-	-	-
H2E	7/11/23	AM	11.00	7.97	9.0	259	-	-	<0.20	<1	0.36	-	-	-	-
H2E	8/16/23	AM	11.50	8.05	8.0	301	-	-	<0.20	-	0.39	-	-	7	-
H2E	10/4-/2023	10:00:00-AM	15.80	7.22	9.0	366	-	262.00	<0.20	2	1.54	<0.10	-	-	-
H6	7/11/23	AM	18.00	8.65	7.0	301	-	-	<0.20	111.2	0.24	-	-	-	-
H6	8/16/23	AM	17.90	8.56	7.0	343	-	-	-	98.7	-	-	-	-	-
H6	10/4/23	AM	10.50	8.60	9.0	390	-	-	-	31.3	-	-	-	-	-
ASTM-RH	7/11/23	AM	-	-	-	-	-	-	<0.20	-	<0.20	-	-	-	-
ASTM-RH---H2C	8/16/23	AM	-	-	-	-	-	-	0.20	-	0.20	-	-	0.1	-
ASTM-RH-	10/4/23	AM	-	-	-	-	-	-	<0.20	-	<0.20	<0.10	-	-	-
Red-River															-
STANDARD	**-**	**-**	**<=23**	**6.6-8.8**	**>=6**	**<=400**	**-**	**-**	**<0.1**	**235**	**None**	**None**	**None**	**-**	**Hardness-=-220:-10,071-acute;-4,035-chronic-ug/l**
RR-Blank----RR3	10/4/23	PM	-	-	-	-	-	-	-	-	-	-	-	-	-
RR1	7/11/23	AM	10.40	9.35	10.0	288	-	-	-	-	-	-	145.5	-	88.0
RR1	8/16/23	AM	13.40	10.70	9.0	209	-	-	-	24.1	-	-	162.3	-	193.0
RR2	7/11/23	AM	9.80	9.63	8.0	320	-	-	-	4.1	-	-	190.3	-	383.0
RR2	8/16/23	AM	11.70	10.37	9.0	253	-	-	-	-	-	-	190.3	-	436.0
RR2	10/4/23	PM	8.60	8.28	-	381	-	-	-	-	-	-	240.6	-	447.0
RR3	7/11/23	AM	10.90	8.68	7.0	443	-	-	-	-	-	-	268.7	-	277.0
RR3	8/16/23	AM	13.50	9.77	7.0	296	-	-	-	-	-	-	190.3	-	455.0
RR3-	10/4/23	PM	10.90	8.36	-	404	--	--	-	-	-	-	279.8	-	379.0
RR4	7/11/23	AM	13.10	8.71	9.0	447	-	-	-	7.2	-	-	223.8	-	35.0
RR4	8/16/23	AM	14.50	9.53	9.0	323	-	-	-	16	-	-	257.5	-	187.0
ASTM-RR	7/11/23	AM	-	-	-	-	-	-	<0.20	-	<0.20	<0.10	11.2	-	<0.005
ASTM-RR	8/16/23	AM	-	-	-	-	-	-	-	-	-	-	11.2	-	<0.005
Blank	10/4/23	AM	-	-	-	-	-	-	-	-	-	<0.10	<1.0	-	-
Rio-Grande															-

STANDARD	**-**	**-**	**<=24**	**6.6-8.8**	**>=6**	**None**	**-**	**-**	**None**	**235**	**None**	**None**	**None**	**-**	**None**
Pilar---Blank	10/4/23	AM	12.90	8.01	296.0	5	-	-	<0.20	-	<0.20	<.10	-	-	-
RG2	7/11/23	AM	20.80	8.50	7.0	299	-	-	<0.20	-	<0.20	-	-	-	-
RG2	8/16/23	AM	18.70	8.32	9.0	233	-	-	-	-	-	-	-	-	-
RG2	10/4/23	AM	12.60	8.19	9.0	293	-	-	-	2	-	-	-	-	-
RIN-1	7/11/23	AM	18.89	7.51	5,0	149	0.10	121.00	<0.20	8.4	<0.20	<0.10	117.5	-	40.0
RIN-1	8/16/23	AM	17.94	7.86	6.0	288	-	-	<0.20	8.4	<0.20	-	-	-	-
RIN-1	10/4/23	AM	12.72	8.39	10.0	300	-	-	-	12.1	-	-	-	-	-
RG3	7/11/23	AM	18.60	8.42	5.0	1,789	-	-	-	7.5	-	-	-	-	-
RG3	8/16/23	AM	20.00	8.07	6.0	263	-	-	-	4.1	-	-	-	-	-
RG3	10/4/23	AM	12.90	8.01	5.0	296	-	-	<0.20	11	0.2	<0.10	-	-	-
RG4	7/11/23	AM	18.70	8.50	5.0	1,764	-	-	-	9.7	-	-	-	-	-
RG4	8/16/23	AM	19.20	8.06	6.0	325	-	-	-	9.4	-	-	-	-	-
RG4	10/4/23	AM	13.60	8.36	4.0	295	-	-	-	3	-	-	-	-	-
RG5-	7/11/23	AM	14.80	8.38	5.0	403	-	-	-	3	-	-	-	-	-
RG5-	8/16/23	AM	15.90	7.97	5.0	394	-	-	-	5.2	-	-	-	-	-
RG5-	10/4/23	AM	13.10	8.31	4.0	390	-	-	-	185	-	-	-	-	-
RG6	7/11/23	AM	18.50	8.38	5.0	181	-	-	<0.20	7.2	<0.20	<0.10	-	-	-
RG6	8/16/23	AM	19.10	8.05	5.0	268	-	-	<0.20	2	<0.20	-	-	-	-
RG6	10/4/23	AM	12.40	8.37	6.0	300	-	-	-	4	-	-	-	-	-
Dixon---blank	10/4/23	AM	-	-	-	-	-	-	-	-	-	-	-	<1	-
Rio-Embudo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STANDARD	-	-	**<=23**	**6.6-8.8**	**>=6**	**<=400**	**-**	**-**	**<0.1**	**235**	**None**	**None**	-	-	-
Emb-Blank	8/16/23	-	-	-	-	-	-	-	0.20	-	0.20	-	-	-	-
RE-2-	7/11/23	AM	18.89	7.83	6.0	203	0.00	144.00	-	-	-	-	-	-	-
RE-2-	8/16/23	AM	17.70	8.03	8.0	309	-	-	-	-	-	-	-	-	-
RE-2-	10/4/23	AM	12.20	8.29	4.0	-	-	-	-	21.3	-	-	-	-	-
RE-3	7/11/23	AM	14.23	7.55	5.0	463	0.20	357.00	<0.20	123.6	<0.20	<0.10	313.3	-	25.0
RE-3	8/16/23	9:46:00-AM	15.78	7.68	8.0	487	-	-	<0.20	-	<0.20	-	-	-	-
RE-3	10/4/23	AM	10.44	8.5	5.0	380	0.20	272.00	-	52.1	-	-	-	-	-
Blank)	7/11/23	AM	-	-	-	-	-	-	-	-	-	-	-	-	-
RE-4	7/11/23	AM	15.38	7.36	5.0	459	0.20	357.00	-	76.7	-	-	-	-	-
RE-4	8/16/23	AM	16.44	7.57	10.0	479	-	-	-	-	-	-	-	-	-
RE-4	10/4/23	AM	11.89	8.25	8.0	-	-	-	-	101.4	-	-	-	-	-
RE-5	7/11/23	AM	16.44	7.3	6.0	432	0.20	269.00	-	-	-	-	-	-	-
RE-5	8/16/23	AM	17.11	7.38	8.0	477	-	-	-	-	-	-	-	-	-
RE-6	7/11/23	AM	16.38	7.65	6.0	407	0.20	307.00	<0.20	71.7	0.2	0.027	296.6	-	27.0
RE-6	8/16/23	AM	18.72	7.78	8.0	387	-	-	-	40.4	-	-	-	-	-
RE-6	10/4/23	AM	10.94	8.54	7.0	352	0.20	251.00	-	21.8	-	-	-	3	-
Pecos-River	**-**	**-**	**<=20.0**	**6.6-8.8**	**>=6**	**<=300**	-	-	**<0.1**	**235**	**None**	**None**	**None**	**Limit:-1**	**3,421-acute;-1,370-**
STANDARD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPEC-1	7/10/23	PM	13.30	7.68	8.0	328	-	-	<0.1	-	0.1	<0.05	160	-	230.0
RPEC-2	7/10/23	PM	15.60	7.53	8.0	292	-	-	<0.1	-	0.05	<0.05	-	-	150.0
RPEC-3	7/10/23	PM	17.90	7.76	7.0	1,984	-	-	<0.1	-	0.1	<0.05	92	-	80.0
RPEC-4	7/10/23	PM	18.00	7.6	6.0	235	-	-	<0.1	-	0.1	<0.05	110	-	120.0
RPEC-1	8/15/23	PM	12.90	7.8	7.0	316	-	-	<0.1	47.1	<0.05	<0.05	160	-	18.0
RPEC-2	8/15/23	PM	14.90	7.71	7.0	319	-	-	0.141	61.3	<0.05	<0.05	160	-	2,500.0

RPEC-3	8/15/23	PM	19.80	7.99	7.0	224	-	-	<0.1	9.7	0.07	<0.05	110	-	90.0
RPEC-4	8/15/23	PM	20.80	7.99	8.0	250	-	-	<0.1	50.4	<0.05	<0.05	110	-	110.0
RPEC-1	9/11/23	PM	12.10	7.96	8.0	311	-	-	<0.1	209.8	<0.05	<0.05	150	-	50.0
RPEC-2	9/11/23	PM	13.60	7.71	8.0	379	-	-	<0.1	142.1	<0.05	<0.05	160	-	160.0
RPEC-3	9/11/23	PM	15.50	7.92	8.0	206	-	-	<0.1	63.8	0.06	<0.05	94	-	160.0
RPEC-4	9/11/23	PM	18.60	7.74	7.0	258	-	-	<0.1	133.4	<0.05	<0.05	110	-	25.0
RPEC-1	11/16/23	9:30	1.00	7.8	9.6	226	-	-	<0.100	1	0.18	<0.05	93	155	<0.05
RPEC-4	11/16/23	10:32	5.50	7.4	8.1	262	-	-	<0.100	4.1	0.05	<0.05	110	180	0.1
Jemez-River	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STANDARD	-	-	**<=23**	**6.6-8.8**	**>=6**	**<=400**	**-**	**-**	**<0.1**	**235**	**None**	**None**	-	-	-
J1	5/11/23	AM	9.50	8.21	6.0	1,172	-	-	-	-	-	-	-	-	-
J2	5/11/23	AM	8.40	8.01	9.0	1,845	-	-	-	-	-	-	-	-	-
J1	8/7/23	PM	16.10	8.51	5.0	227	-	-	-	15.8	-	-	44	-	90.0
J2	8/7/23	PM	15.40	8.51	5.0	302	-	-	-	85.7	-	-	52	-	110.0
J1	10/23/23	AM	7.11	-	5.5	215	-	-	-	3.1	-	-	29	-	160.0
J2	10/23/23	AM	5.83	8.33	3.5	281	-	-	-	10.9	-	-	38	-	110.0
San-Juan-River	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STANDARD	-	-	**<=23**	**6.6-8.8**	**>=6**	**<=400**	**-**	**-**	**<0.1**	**235**	**None**	**None**	-	-	-
SJ1	5/12/23	PM	12.00	9.03	8.0	277	0.10	196.00	-	-	-	-	-	-	-
SJ2	5/12/23	PM	13.60	8.4	5.0	367	0.20	260.00	-	-	-	-	-	-	-
SJ3	5/12/23	AM	9.50	8.16	4.5	276	0.10	195.00	-	-	-	-	-	-	-
SJ1	6/22/23	PM	8.90	8.95	11.0	296	0.10	210.00	0.186	2	<0.020	-	29.6	310	129.0
SJ2	6/22/23	PM	10.30	9.15	10.0	315	0.10	225.00	0.0993	<1	0.054	-	29	170	889.0
SJ3	6/22/23	PM	11.30	8.66	12.0	320	0.10	227.00	0.0647	<1	0.076	-	31.2	160	83.0
SJ1	9/25/23	AM	7.60	8.2	6.0	247	0.10	174.00	0.105	-	0.105	-	29.1	160	661.0
SJ2	9/25/23	PM	11.20	9.11	7.0	259	0.10	176.00	<0.0500	-	0.059	-	31	170	69.0
SJ3	9/25/23	AM	7.30	7.99	7.5	245	0.10	183.00	<0.0500	-	0.152	-	30	150	68.0
v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STANDARD	-	-	**<=23**	**6.6-8.8**	**>=6**	**<=400**	**-**	**-**	**<0.1**	**235**	**None**	**None**	-	-	-
RS1	5/26/23	AM	9.50	7.86	-	717	0.00	-	-	-	-	-	-	-	-
RS1.2	5/26/23	AM	9.60	7.85	5.5	708	0.00	-	-	-	-	-	-	-	-
RS2	5/26/23	PM	9.90	7.83	6.0	742	0.00	-	-	-	-	-	-	-	-
RS3	5/26/23	PM	8.50	7.96	6.0	645	0.00	-	-	-	-	-	-	-	-