

NPDES PERMIT NO. NM0029351

FACT SHEET

FOR THE DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
(NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

APPLICANT

City of Espanola
Espanola Wastewater Treatment Facility
405 N. Paseo de Onate
Espanola, NM 87532

ISSUING OFFICE

U.S. Environmental Protection Agency
Region 6
1201 Elm Street
Dallas, Texas 75270

PREPARED BY

Quang Nguyen
Environmental Engineer
NPDES Permits & Technical Branch (6WQ-P)
Water Division
VOICE: 214-665-7238
FAX: 214-665-2191
EMAIL: Nguyen.Quang@epa.gov

DATE PREPARED

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PERMIT ACTION

Proposed reissuance of the current NPDES permit issued September 27, 2017, with an effective date of November 1, 2017, and an expiration date of October 31, 2022.

RECEIVING WATER – BASIN

Rio Grande – Rio Grande Basin

DOCUMENT ABBREVIATIONS

In the document that follows, various abbreviations are used. They are as follows:

4Q3	Lowest four-day average flow rate expected to occur once every three-years
BAT	Best available technology economically achievable
BCT	Best conventional pollutant control technology
BPT	Best practicable control technology currently available
BMP	Best management plan
BOD	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CBOD	Carbonaceous biochemical oxygen demand (five-day unless noted otherwise)
CD	Critical dilution
CFR	Code of Federal Regulations
cfs	Cubic feet per second
COD	Chemical oxygen demand
COE	United States Corp of Engineers
CWA	Clean Water Act
DMR	Discharge monitoring report
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FCB	Fecal coliform bacteria
F&WS	United States Fish and Wildlife Service
mg/l	Milligrams per liter (one part per million)
ug/l	Micrograms per liter (one part per billion)
MGD	Million gallons per day
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMIP	New Mexico NPDES Permit Implementation Procedures
NMWQS	New Mexico State Standards for Interstate and Intrastate Surface Waters
NPDES	National Pollutant Discharge Elimination System
ML	Minimum quantification level
O&G	Oil and grease
POTW	Publicly owned treatment works
RP	Reasonable potential
SIC	Standard industrial classification
s.u.	Standard units (for parameter pH)
SWQB	Surface Water Quality Bureau
TDS	Total dissolved solids
TMDL	Total maximum daily load
TRC	Total residual chlorine
TSS	Total suspended solids
UAA	Use attainability analysis
UV	Ultraviolet light
USFWS	United States Fish & Wildlife Service
USGS	United States Geological Service
WLA	Wasteload allocation
WET	Whole effluent toxicity
WQCC	New Mexico Water Quality Control Commission
WQMP	Water Quality Management Plan
WWTP	Wastewater treatment plant

As used in this document, references to State shall mean either State of New Mexico and/Santa Clara Pueblo.

I. CHANGES FROM THE PREVIOUS PERMIT

There are changes from the permit previously issued September 27, 2017, with an effective date of November 1, 2017, and an expiration date of October 31, 2022:

- Monitoring requirements removal for Chrysene, Hexachlorobenzene, Selenium, 3,3'-Dichlorobenzidine, Dibenzo(a,h)anthracene and Indeno(1,2,3-CD)Pyrene (see page 15 for details).

II. APPLICANT LOCATION and ACTIVITY

As described in the application, the facility is located at 308 Lower San Pedro Rd, Espanola, Rio Arriba County, New Mexico. Under the Standard Industrial Classification Code 4952, the applicant operates a POTW with a design flow of 2.0 MGD serving a population base of 10,100 people. Influent wastewater comes into the treatment plant at the entrance works, passing through mechanical bar screens and an aerated grit tank where the grit slurry is sent to a cyclone for grit removal. Wastewater from the aerated grit tank is sent from a splitter box via influent lift pumps to one of two separate clarifier/aeration basins. One set is the original aeration basin/clarifier designated as north/south and the second set is the newer systems designated east/west system. Treated effluent flow from both systems combine and are sent to the ultraviolet bacteria control building, metered and discharged through Outfall 001 to the Rio Grande.

All four clarifiers; north/south and east/west, introduce the return activated sludge (RAS) to the front of each aeration basin where it combines with the flow from the primary clarifiers. Waste activated sludge (WAS) and scum are removed and sent to the thickening centrifuges. Sludge is extracted from and sent to thickening/ dewatering centrifuges. Combined digested sludge from both systems is sent to the drying beds.

The discharge from Outfall 001 of the wastewater treatment plant is to the Rio Grande, which is within the exterior boundaries of the Pueblo of Santa Clara's reservation. The Outfall 001 is located on the Rio Grande at Latitude 35° 59' 10.5" North, Longitude 106° 04' 29.4" West.

III. EFFLUENT CHARACTERISTICS

A quantitative description of the discharge(s) described in the EPA Permit Application Form 2A received on April 04, 2022, and addenda received on June 01, 2022, August 17, 2022, and August 24, 2022, are presented in Tables 1 and 2 below:

TABLE 1: Effluent Data

Parameter	Max	Avg
	(mg/l unless noted)	
Flow, MGD	1.11	0.703
Temperature, winter	13.0° C	12.0° C
Temperature, summer	26.0° C	25.0° C
pH, minimum, standard units (su)	6.85	---
pH, maximum, standard units (su)	7.63	---
CBOD ₅	12.97	5.18
TSS	20.8 mg/L	4.75 mg/L
Ammonia (NH ₃ -N)	0.156 ug/L	0.052 ug/L
TRC	<3 ug/L	<3 ug/L
DO	6.86 mg/L	5.04 mg/L
Total Kjeldahl Nitrogen (TKN)	7.97 mg/L	4.39 mg/L
Nitrate plus Nitrite Nitrogen	28.9 mg/L	24.1 mg/L
Oil & Grease	ND	ND
Phosphorus	6.32 mg/L	4.64 mg/L
TDS	813 mg/L	741 mg/L
Fecal coliform	1263 cu/100ml	6.42 cu/100ml

The facility is required to sample and report all the priority pollutants identified in Part D, Expanded Effluent Testing Data of Form 2A. From that list, the following pollutants were either tested above MQLs or were tested at levels above EPA MQL and reported as being non detect. When a pollutant was tested at a detection level that was greater than the EPA MQL then for screening purposes that pollutant was assumed to have a concentration at that detection level.

TABLE 2: Expanded Effluent Data

Parameter (Pollutants Greater than MQL)	Max	Avg
	(ug/l unless noted)	
Zinc	55	53.48
3,3'-Dichlorobenzidine	ND	ND
Barium	27.9	23.67
Dibenzo(a,h)anthracene	ND	ND
Mercury	0.0299	0.0162
Chrysene	ND	ND
Hexachlorobenzene	ND	ND
Selenium	ND	ND
Indeno(1,2,3-CD)Pyrene	ND	ND
Arsenic	6.2	5.84
Beryllium	1	0.35
Copper	6.6	6.24
Lead	0.25	0.18
Nickel	2.4	2.35
Selenium	1	0.86
Silver	0.25	0.23
Thallium	0.12	0.1

A summary of the last 36 months of available pollutant data (i.e., January 2019 through January 2022) taken from DMRs indicates number exceedances of permit limits are in parentheses for pH (1) and E. coli bacteria (2).

IV. REGULATORY AUTHORITY/PERMIT ACTION

In November 1972, Congress passed the Federal Water Pollution Control Act establishing the NPDES permit program to control water pollution. These amendments established technology-based or end-of-pipe control mechanisms and an interim goal to achieve “water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water”; more commonly known as the “swimmable, fishable” goal. Further amendments in 1977 of the CWA gave EPA the authority to implement pollution control programs such as setting wastewater standards for industry and established the basic structure for regulating pollutants discharges into the waters of the United States. In addition, it made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions. Regulations governing the EPA administered NPDES permit program are generally found at 40 CFR §122 (program requirements & permit conditions), §124 (procedures for decision making), §125 (technology-based standards) and §136 (analytical procedures). Other parts of 40 CFR provide guidance for specific activities and may be used in this document as required.

It is proposed that the permit be reissued for a 5-year term following regulations promulgated at 40 CFR §122.46(a). The previous permit has an expiration date of October 31, 2022. The application was received on April 04, 2022. The facility, also, submitted addenda on June 01, 2022, August 17, 2022, and August 24, 2022. The permit is administratively continued until this draft permit is issued.

V. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

A. OVERVIEW of TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Regulations contained in 40 CFR §122.44 require that NPDES permit limits are developed that meet the more stringent of either technology-based effluent limitation guidelines, numerical and/or narrative water quality standard-based effluent limits, or the previous permit.

Technology-based effluent limitations are established in the proposed draft permit for TSS, CBOD₅ and percent removal for each. Water quality-based effluent limitations are established in the proposed draft permit for ammonia, E. coli bacteria, DO, TRC and pH.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated at 40 CFR §122.44 (a) require technology-based effluent limitations to be placed in NPDES permits based on ELGs where applicable, on BPJ in the absence of

guidelines, or on a combination of the two. In the absence of promulgated guidelines for the discharge, permit conditions may be established using BPJ procedures. The EPA establishes limitations based on the following technology-based controls: BPT, BCT, and BAT. These levels of treatment are:

BPT - The first level of technology-based standards generally based on the average of the best existing performance facilities within an industrial category or subcategory.

BCT - Technology-based standard for the discharge from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and O&G.

BAT - The most appropriate means available on a national basis for controlling the direct discharge of toxic and non-conventional pollutants to navigable waters. BAT effluent limits represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

The facility is a POTW's that has technology based ELG's established at 40 CFR Part 133, Secondary Treatment Regulation. Pollutants with ELG's established in this Chapter are pH, CBOD₅, TSS, and percent removal for each pollutant (i.e., CBOD₅ and TSS). The CBOD₅ limits of 25 mg/l for the 30-day average, 40 mg/l for the 7-day average and 85% percent (minimum) removal are found at 40 CFR §133.102(a). The TSS limits of 30 mg/l for the 30-day average, 45 mg/l for the 7-day average and 85% percent (minimum) removal are found at 40 CFR §133.102(b). ELG's for pH are between 6-9 s.u. and are found at 40 CFR §133.102(c). Regulations at 40 CFR §122.45(f)(1) require all limited pollutants in permits to have limits expressed in terms of mass such as pounds per day. When determining mass limits for POTW's, the plant's design flow is used to establish the mass load. Mass limits are determined by the following mathematical relationship:

Loading in lbs/day = pollutant concentration in mg/l * 8.345 lbs/gal * design flow in MGD

30-day average CBOD₅ loading = 25 mg/l * 8.345 lbs/gal * 2 MGD

30-day average CBOD₅ loading = 417 lbs

30-day average TSS loading = 30 mg/l * 8.345 lbs/gal * 2 MGD

30-day average TSS loading = 500 lbs

7-day average CBOD₅ loading = 40 mg/l * 8.345 lbs/gal * 2 MGD

7-day average CBOD₅ loading = 667 lbs

7-day average TSS loading = 45 mg/l * 8.345 lbs/gal * 2 MGD

7-day average TSS loading = 751 lbs

A summary of the technology-based limits for the facility having 2.0 MGD design flow is in Table 3.

TABLE 3: Technology-based Effluent Limits

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS			
	lbs/Day		mg/l (unless noted)	
Parameter	30-Day Avg.	7-Day Avg.	30-Day Avg.	7-Day Avg.
Flow	N/A	N/A	Measure MGD	Measure MGD
CBOD ₅	417	667	25	40
CBOD ₅ , % removal	---	---	≥ 85% (*1)	---
TSS	500	751	30	45
TSS, % removal	---	---	≥ 85% (*1)	---
pH	N/A	N/A	6.0 – 9.0 standard units	

Footnotes:

*1 Percent removal is calculated using the following equation: (average monthly influent concentration – average monthly effluent concentration) ÷ average monthly influent concentration.

C. WATER QUALITY BASED LIMITATIONS

1. General Comments

Water quality-based requirements are necessary where effluent limits more stringent than technology-based limits are necessary to maintain or achieve federal or state water quality limits. Under Section 301(b)(1)(C) of the CWA, discharges are subject to effluent limitations based on federal or state WQS. Effluent limitations and/or conditions established in the draft permit are in compliance with applicable State WQS and applicable State water quality management plans to assure that surface WQS of the receiving waters are protected and maintained, or attained.

2. Implementation

The NPDES permits contain technology-based effluent limitations reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations and/or conditions are included in the NPDES permits. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other available toxicity information to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

3. Tribal Water Quality Standards

Discharge from the wastewater treatment plant is to the Rio Grande within the exterior boundaries of the Pueblo of Santa Clara's reservation. After flowing for approximately 5 miles through the Pueblo of Santa Clara reservation, the discharge reaches the Pueblo of San Ildefonso, where after approximately 6.5 further miles within San Ildefonso waters; thence, the discharge reaches State of New Mexico waters in Segment No. 20.6.4.114 of the Rio Grande.

The general and specific stream standards are provided in the "Water Quality Code of the Pueblo of Santa Clara" (PSCWQC), revised November 5, 2002, and approved by the EPA April 7, 2006. The designated uses of the receiving waters, the Rio Grande, are marginal coldwater fishery, livestock and wildlife, primary contact, warmwater fishery, groundwater recharge and irrigation.

The Pueblo of San Ildefonso does not currently have EPA approved water quality standards. In the absence of approved water quality standards, compliance with PSCWQC standards is expected to also be protective of Pueblo of San Ildefonso waters.

The State of New Mexico has designated the following uses for Stream Segment No. 20.6.4.114, the Rio Grande: marginal coldwater aquatic life, livestock watering, wildlife habitat, warmwater aquatic life, irrigation, primary contact, and public water supply on the main stem of the Rio Grande. The 2022-2024 State of New Mexico CWA §303(d) / §305(b) Integrated Report identifies the Segment is impaired due to Aluminum (Total Recoverable), Gross Alpha (adjusted), Turbidity, Temperature, Polychlorinated Biphenyls (PCBs), Selenium (total Recoverable), and Mercury-Fish Consumption Advisory.

In accordance with the PSCWQC, the permit must be developed to allow the maintenance and attainment of livestock and wildlife, groundwater recharge and primary contact. The EPA has also considered the downstream effects of the discharge on the State of New Mexico designated uses for the Rio Grande in Waterbody Segment Code No. 20.6.4.114 of the Rio Grande Basin.

4. Permit Action - Water Quality-Based Limits

Regulations promulgated at 40 CFR §122.44(d) require limits in addition to, or more stringent than effluent limitation guidelines (technology based). State WQS that are more stringent than effluent limitation guidelines are as follows:

a. BACTERIA

The E. coli limits (i.e. monthly geometric mean of 126 colonies/100 ml, and a single sample maximum of 235 colonies/100 ml) in the previous permit will be continued in the draft permit. The E. coli monitoring frequency requirement in the previous permit also remains in the draft permit.

b. Dissolved Oxygen

The Pueblo of Santa Clara WQS criterion applicable to the marginal coldwater fishery designated use is at least 6 mg/L for dissolved oxygen. As a part of the permitting process, EPA used the LA-QUAL water quality model, which is a steady-state one-dimensional model which assumes complete mixing within each modeled element, to develop permit parameters for the protection of the Pueblo of Santa Clara surface water WQS for DO (i.e., 6 mg/L). Primarily based on the City of Espanola Wastewater Treatment Plant's design flow of 2 MGD (0.0876 m³/s) and the receiving water critical flow of 9.582 m³/s (218.7 MGD), various CBOD₅ factors including CBOD₅ Secondary Treatment Standards were considered and simulated to achieve the DO criterion. A complete characterization of Rio Grande River (i.e., water quality and hydrodynamic data) was not available. Where data were not available, estimates and assumptions are made. The following is a summary of model inputs.

- The City of Espanola Wastewater Treatment Plant's design flow is 0.0876 m³/sec (2 MGD). The discharge location provided in the permit application is located at Latitude 35° 59' 10.5" N (35.9862), and Longitude -106° 04' 29.4" W (-106.0748). Other effluent parameters provided in the permittee's application and applied in the model include Ammonia (Avg: 0.05 ug/L), DO (Avg: 5.04 mg/L), effluent temperature (25 C), and effluent Nitrate plus Nitrite Nitrogen (Avg: 24.1 mg/L). E. Coli (Avg: 10 CFU/100ml) was assumed since no data available.
- The critical low flow of Rio Grande River receiving stream is approximately 9.582 m³/sec (218.7 MGD). Other parameters applied in the model include ambient temperature (11.61°C), DO (Avg: 8.9 mg/L), salinity (Avg: 0.15), Nitrate plus Nitrite Nitrogen (Avg: 0.1 mg/L) and E. Coli of 10 CFU/100ml.
- The EPA used the EPA GeoPlatform based web mapping application (WATERS GeoViewer 2.0) to estimate the average elevation of the study area and average width of Rio Grande River. The average elevation at the outfall is approximately 1704 meter (5592 feet). The receiving stream average depth of 59 feet (18 meters) and average width of 40 meters (131.2 feet) at the critical flow conditions were assumed since no data is available. The studied Rio Grande River segment length is approximately 18.5 kilometers (11.5 miles).

The model results show no excursion of the receiving stream DO standard of 6 mg/L when the CBOD₅ limits of 25 mg/l for monthly average and 40 mg/l for 7-day average were applied (see graph with 25/40 mg/L CBOD₅ in Appendix 1; other detail information is available upon request).

The model results are based on the assumptions and default values as explained and presented above. Should these conditions change, the model should be updated to provide a more accurate assessment of the water quality within the receiving water body.

The CBOD₅ limits (i.e., 30-day average of 25 mg/l and 7-day average of 40 mg/L) and DO limits (i.e., 2 mg/L minimum) in the previous permit will be continued in the draft permit.

c. pH

The pH limits (i.e., 6.6 to 8.8 su's for any single sample) in the previous permit will be continued in the draft permit.

d. TOXICS

i. General Comments

The CWA in Section 301 (b) requires that effluent limitations for point sources include any limitations necessary to meet water quality standards. Federal regulations found at 40 CFR §122.44 (d) state that if a discharge poses the reasonable potential to cause an in-stream

excursion above a water quality criterion, the permit must contain an effluent limit for that pollutant.

All applicable facilities are required to fill out appropriate sections of the Form 2A, 2S or 2E, to apply for an NPDES permit or reissuance of an NPDES permit. The new form is applicable not only to POTWs, but also to facilities that are like POTWs, but which do not meet the regulatory definition of “publicly owned treatment works” (like private domestics, or similar facilities on Federal property). The forms were designed and promulgated to “make it easier for permit applicants to provide the necessary information with their applications and minimize the need for additional follow-up requests from permitting authorities,” per the summary statement in the preamble to the Rule. These forms became effective December 1, 1999, after publication of the final rule on August 4, 1999, Volume 64, Number 149, pages 42433 through 42527 of the FRL. The facility is designated as a major and tested all the pollutants on the expanded pollutant list on Form 2A. Arsenic, Copper, Zinc, Lead, Nickel, Silver, Mercury, Beryllium, Thallium and Barium were found above minimum MQL. These pollutants will be evaluated for RP to cause or contribute to WQS exceedances. In addition, previous limited and monitored parameters (Chrysene, Hexachlorobenzene, Selenium, 3,3'-Dichlorobenzidine, Dibenzo(a,h)anthracene and Indeno(1,2,3-CD)Pyrene) are evaluated as well.

Effluent limitations and/or conditions established in the draft permit are in compliance with Pueblo of Santa Clara Water Quality Code. Data from the following sources are used to calculate initial dilution, in-stream waste concentrations, and effluent limitations.

There is a USGS Station (USGS08313000) in Rio Grande at Otowi Bridge near San Ildefonso Pueblo. The station is approximately 9.5 miles downstream of the facility. The EPA used its data from 2011 to 2021 to derive the critical low flow or 4Q3 and harmonic mean flow. The critical low flow or 4Q3 is 339.7 cfs (219.6 MGD). Long term harmonic mean flow which is used for human health calculations is 779.6 cfs (503.9 MGD). Since the USGS Station is downstream of the facility, the low flow will be adjusted by subtracting the facilities long term average flow, 1.31 cfs (0.703 MGD) resulting in an adjusted low flow of 338.4 cfs (218.7 MGD).

CD is calculated as follows:

$$CD = Q_e / [Q_e + Q_a]$$

Where:

CD = Critical dilution

Q_a = Critical low flow of receiving stream-4Q3 (218.7 MGD)

Q_e = Wastewater Treatment Plant design flow (2 MGD)

Therefore,

$$CD = 2 / [2 + 218.7]$$

$$CD = 0.009 \text{ or } 0.9\%$$

Based on the low critical dilution, it is the professional judgment of the permit writer that there will be no impact on the State of New Mexico portion of the Rio Grande, 11.5 miles below the

point of discharge. The State of New Mexico WQS will not be further evaluated for impacts due to toxics.

In the absence of specific implementation procedures, EPA has made the following interpretation of the PSCWQC allowance of a mixing zone in determining compliance with PSCWQC standards. Part H of Section III of the PSCWQC allows a mixing zone no greater than 1/3 of the cross-sectional area at or above 4Q3 conditions of the receiving stream. The EPA interprets this to mean that chronic toxicity shall be based on 1/3 of the 4Q3, acute toxicity shall be at end-of-pipe (no dilution) and for human health considerations, 1/3 of the harmonic 4Q3 (long term average) shall be used for ingestion of fish.

The following steady state complete mixing zone model:

$$C_d = [(FQ_a * C_a) + (Q_e * C_e)] / (FQ_a + Q_e)$$

Where:

- C_d = Instream pollutant concentration
- C_e = Reported pollutant concentration
- C_a = Ambient stream concentration, if available
- Q_e = Wastewater treatment plant design flow in MGD (municipal facilities) (2.0 MGD)
- F = Fraction of stream allowed for mixing, as applicable.
 - = 0.333 for chronic aquatic life and human health criteria
 - = 1.00 for all others
- Q_a = Critical low flow of receiving stream, 4Q3 (218.7 MGD)
 - = Long term harmonic low flow (503.9 MGD)
- 2.13 = Statistical multiplier, an estimate of the 95th percentile for either a single available effluent concentration, or a geometric mean of effluent data concentration, as discussed in the EPA Region 6 document titled Effluent Variability Policy, dated September 17, 1991, or the most current revision thereof.

For acute aquatic life screening, criteria apply end-of-pipe, with no dilution, so $C_d = C_e * 2.13$

For chronic aquatic life screening:

$$\begin{aligned} C_d &= [(FQ_a * C_a) + (Q_e * C_e * 2.13)] / (FQ_a + Q_e) \\ C_d &= [(0.333 * 218.7 * 0) + (2.0 * C_e * 2.13)] / [(0.333 * 218.7) + 2.0] \\ C_d &= 0.057 * C_e \end{aligned}$$

For irrigation, ground-water recharge, domestic, municipal and industrial water supply and livestock and wildlife screening:

$$\begin{aligned} C_d &= [(FQ_a * C_a) + (Q_e * C_e * 2.13)] / (FQ_a + Q_e) \\ C_d &= [(1.0 * 218.7 * 0) + (2.0 * C_e * 2.13)] / [(1.0 * 218.7) + 2.0] \\ C_d &= 0.019 * C_e \end{aligned}$$

For human health screening:

$$C_d = [(FQ_a * C_a) + (Q_e * C_e * 2.13)] / (FQ_a + Q_e)$$

$$C_d = [(0.333 * 503.9 * 0) + (2.0 * C_e * 2.13)] / [(0.333 * 503.9) + 2.0]$$

$$C_d = 0.025 * C_e$$

PSCWQC presents some acute and chronic toxicity standards as a function of hardness. Hardness for the receiving waters was previously reported as 100 mg/l. The following are the mathematical hardness dependent standards, and the resulting standard:

PSCWQC Acute standards are defined as:

Zinc	= $e(0.8473[\ln(\text{hardness})] + 0.8618)$	= 114.61 ug/l
Nickel	= $e(0.846[\ln(\text{hardness})] + 2.253)$	= 467.3 ug/l
Lead	= $e(1.273[\ln(\text{hardness})] - 1.46)$	= 64.58 ug/l
Copper	= $e(0.9422[\ln(\text{hardness})] - 1.7408)$	= 12.90 ug/l
Silver	= $e(1.72[\ln(\text{hardness})] - 6.6825)$	= 2.93 ug/l

PSCWQC Chronic standards are defined as:

Zinc	= $e(0.8473[\ln(\text{hardness})] + 0.8699)$	= 116.48 ug/l
Nickel	= $e(0.846[\ln(\text{hardness})] + 0.554)$	= 51.85 ug/l
Copper	= $e(0.8545[\ln(\text{hardness})] - 1.7428)$	= 8.60 ug/l
Lead	= $e(1.273[\ln(\text{hardness})] - 4.705)$	= 2.52 ug/l

Some of the metals in the PSCWQC are based on dissolved concentrations, receiving stream mean hardness and total suspended solids values. The following formulae convert metals reported in total form to dissolved form if criteria are in dissolved form.

$$K_p = (K_{po}) * (TSS)^a$$

Where:

- K_{po} = Linear Partition Coefficient (in Table 4 below)
- Alpha (a) = Values can found in Table 4 below
- TSS = Total suspended solids concentration found in receiving stream (previously reported as 140 mg/l), or in the effluent for intermittent stream.

Evaluating dissolved values in streams only, the following relationships are used:

$$\text{Fraction of Metal Dissolved } (C/C_t) = 1 / [1 + (K_p * TSS * 10^{-6})]$$

$$C_r = C_t * [\text{Fraction of Metal Dissolved } (C/C_t)]$$

$$C_r = C_t * \{1 / [1 + (K_p * TSS * 10^{-6})]\}$$

Where:

C_t = Effluent Metal Concentration in total form

C_r = Dissolved concentration, the value used in acute and chronic screening

TABLE 4: Linear Partition Coefficients for Priority Metals in Streams and Lakes (Delos et.al, 1984) \1

METAL	STREAMS		LAKES	
	K _{po}	a	K _{po}	a
Arsenic	0.48×10^6	-0.73	0.48×10^6	-0.73
Copper	1.04×10^6	-0.74	2.85×10^6	-0.9
Lead	2.80×10^6	-0.8	2.04×10^6	-0.53
Nickel	0.49×10^6	-0.57	2.21×10^6	-0.76
Silver	2.39×10^6	-1.03	2.39×10^6	-1.03
Zinc	1.25×10^6	-0.7	3.34×10^6	-0.68
Mercury \2	2.90×10^6	-1.14	1.97×10^6	-1.17

Footnotes:

- \1 Delos, C. G., W. L. Richardson, J. V. DePinto, R. B., Ambrose, P. W. Rogers, K. Rygwelski, J. P. St. John, W. J. Shaughnessey, T. A. Faha, W. N. Christie. Technical Guidance for Performing Waste Load Allocations, Book II: Streams and Rivers. Chapter 3: Toxic Substances, for the U. S. Environmental Protection Agency.(EPA 440/4 84 022).
- \2 PSCWQC only lists mercury in total recoverable and not dissolved form, no partition coefficient is needed.

TABLE 5: Dissolved Effluent Concentration In Streams

METAL	Effluent Conc. (Total) (ug/L)	K _{po}	Alpha (a)	K _p	C/C _t	Dissolved Value in Streams, C _r , ug/L
Arsenic	5.84	0.48×10^6	-0.73	13018.7	0.354	2.07
Copper	6.24	1.04×10^6	-0.74	26847.17	0.21	1.31
Lead	0.18	2.80×10^6	-0.8	53734.8	0.117	0.0212
Nickel	2.35	0.49×10^6	-0.57	29302.39	0.196	0.46
Silver	0.234	2.39×10^6	-1.03	14719.26	0.327	0.0767
Zinc	53.48	1.25×10^6	-0.7	39320.62	0.154	8.22
Mercury	0.016	2.90×10^6	-1.14	10370.79	0.408	0.00659

Additional chemical specific limitations are required to protect the designated uses. They are summarized in the tables 6 to 9.

TABLE 6: Acute Toxicity Screening (Not dependent on facility flow)

Pollutant	Pollutant C _e or C _r , ug/l	C _d ug/l	Acute Aquatic Criteria, ug/l	Does RP exist?
Barium/2	27.9	59.427	---	No
3,3'-Dichlorobenzidine	ND	ND	---	No
Dibenzo(a,h)anthracene	ND	ND	---	No
Chrysene	ND	ND	---	No
Hexachlorobenzene	ND	ND	---	No
Indeno(1,2,3-CD)Pyrene	ND	ND	---	No

Arsenic/ <u>1</u>	2.07	4.41	340	No
Copper/ <u>1</u>	1.31	2.79	12.90	No
Lead/ <u>1</u>	0.0212	0.045	64.58	No
Nickel/ <u>1</u>	0.46	0.98	467.3	No
Silver/ <u>1</u>	0.0766	0.163	2.93	No
Zinc/ <u>1</u>	8.22	17.51	114.61	No
Beryllium/ <u>2</u>	0.353	0.752	130	No
Mercury/ <u>2</u>	0.016	0.034	2.4	No
Selenium/ <u>2</u>	0.86	1.83	20	No
Thallium/ <u>2</u>	0.1	2.13	---	No

Footnotes:/1 Dissolved form/2 Total form**Table 7: Chronic Toxicity Screening (2.0 MGD Design Flow)**

Pollutant	Pollutant Ce or Cr, ug/l	Cd ug/l	Chronic Aquatic Criteria, ug/l	Does RP exist?
Barium/ <u>2</u>	27.9	1.59	---	No
Arsenic/ <u>1</u>	2.07	0.12	150	No
Copper/ <u>1</u>	1.31	0.07	8.6	No
Lead/ <u>1</u>	0.0212	0.001	2.52	No
Nickel/ <u>1</u>	0.46	0.026	51.85	No
Zinc/ <u>1</u>	8.22	0.468	116.48	No
Silver/ <u>1</u>	0.0767	0.004	---	No
Beryllium/ <u>2</u>	0.353	0.02	5.3	No
Mercury/ <u>2</u>	0.016	0.0009	0.012	No
Selenium/ <u>2</u>	0.86	0.049	2	No
Dibenzo(A,H)Anthracene	ND	ND	---	No
3,3 Dichlorobenzidine	ND	ND	---	No
Hexachlorobenzene	ND	ND	---	No
Indeno(1,2,3-CD)Pyrene	ND	ND	---	No
Thallium/ <u>2</u>	0.1	0.0057	---	No
Chrysene	ND	ND	---	No

Footnotes:/1 Dissolved form/2 Total form**Table 8: Human Health Screening (2.0 MGD Design Flow)**

Pollutant	Pollutant Ce/ <u>1</u> , ug/l	Cd ug/l	Human Health Criteria, ug/l	Does RP exist?
Barium	27.9	0.7	---	No
Arsenic	5.84	0.15	20.5	No
Copper	6.24	0.16	1000	No
Nickel	2.35	0.06	4600	No
Lead	0.18	0.0005	---	No
Zinc	53.48	1.34	5000	No
Silver	0.234	0.006	---	No
Beryllium	0.353	0.009	---	No
Chrysene	ND	ND	0.049	No
Selenium	0.86	0.02	11,000	No
Mercury	0.016	0.0004	0.051	No

Thallium	0.1	0.0025	6.3	No
Dibenzo(A,H)Anthracene	ND	ND	0.049	No
3,3 Dichlorobenzidine	ND	ND	0.077	No
Hexachlorobenzene	ND	ND	0.00077	No
Indeno(1,2,3-CD)Pyrene	ND	ND	0.049	No

Footnotes:

\1 PSCWQC Human health standards are not expressed in dissolved concentrations, so concentrations are reported as total.

Table 9: Irrigation, Ground Water, Livestock and Wildlife Screening

Pollutant	Ce or Cr \3 mg/l	Cd \4 mg/l	Irrigation mg/l	Ground Water mg/l	Livestock & Wildlife mg/L	Does RP exist?
Barium\2	0.0279	5.3×10^{-4}	---	2	---	No
Nitrate\2	24.1	0.46	---	10.0	---	No
Lead, D \1	0.0000212	4.03×10^{-7}	5.0	0.015	.1	No
Arsenic, D \1	0.00207	3.93×10^{-5}	0.10	0.01	0.2	No
Selenium, T\2	0.00086	1.63×10^{-5}	0.13	0.05	0.002	No
Copper, D \1	0.00131	2.49×10^{-5}	0.20	1.0	0.5	No
Zinc, D, \1	0.00822	1.56×10^{-4}	2.0	---	25.0	No
Beryllium, T\2	0.000353	6.7×10^{-6}	---	0.004	---	No
Mercury, T\2	0.000016	3.04×10^{-7}	---	0.002	1.2×10^{-5}	No
Nickel, D, \1	0.00046	8.74×10^{-6}	---	0.1	---	No
Silver, D, \1	0.0000767	1.46×10^{-6}	---	0.1	---	No
Thallium, T\2	0.01	1.9×10^{-4}	---	0.002	---	No
Dibenzo(A,H)Anthracene	ND	ND	---	---	---	No
3,3 Dichlorobenzidine	ND	ND	---	---	---	No
Hexachlorobenzene	ND	ND	---	---	---	No
Indeno(1,2,3-CD)Pyrene	ND	ND	---	---	---	No
Chrysene	ND	ND	---	---	---	No

Footnotes:

\1 Dissolved form

\2 Total form

\3 If pollutant is dissolved, then Cr determined in metal linear partition coefficient section determined above

The preliminary toxic analysis shows no RPs exist. Permit limitations/monitoring requirements are not required for chemical specific pollutants for the protection of irrigation, ground-water recharge, domestic, municipal, and industrial water supply and livestock and watering standards. In addition, Chrysene, Mercury, Hexachlorobenzene, Selenium, 3,3'-Dichlorobenzidine, Dibenzo(a,h)anthracene and Indeno(1,2,3-CD)Pyrene do not exhibit a reasonable potential to exceed numerical limits for acute and chronic toxicity or human health limits. An analysis of the previous permit documents reveals that the monitoring requirements for those pollutants were based on higher than acceptable MQL's. The nature of the discharge, primarily sanitary waste with no industrial wastewater, in concert with the high dilution afforded by the receiving waters, made the inclusion of monitoring requirements unusual. Based on this, EPA proposes to remove monitoring requirements for Chrysene, Mercury, Hexachlorobenzene, Selenium, 3,3'-

Dichlorobenzidine, Dibenzo(a,h)anthracene and Indeno(1,2,3-CD)Pyrene in the draft permit. This proposed change is consistent with the 40 CFR 122.44(l)(2)(i)(B), allowing a reissued permit to contain less stringent effluent limitations than the previous permit.

Under PSCWQC, marginal coldwater fishery designated uses require effluent limits for TRC be less than or equal to 3 ug/l (daily maximum end-of-pipe). The TRC limits (i.e., daily maximum of 3 ug/l) in the previous permit will be continued in the draft permit.

For marginal coldwater fishery designated uses protection, ammonia standards are required to be based on Appendix A of the PSCWQC, calculated as a function of pH and temperature. The Ammonia limit (i.e., 30-day average of 2.2 mg/l) in the previous permit will be continued in the draft permit.

OTHER WATER QUALITY SCREENING

PSCWQC requires that all waters shall be free from objectionable oils, scum, foam, grease, and other floating materials and suspended substances of a persistent nature resulting from other than natural causes including but not limited to visible films of oil, globules of oil, grease or solids in or on the water, or coatings on stream banks.

Floatable are prohibited from discharge.

D. MONITORING FREQUENCY FOR LIMITED PARAMETERS

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity, 40 CFR §122.48(b), and to assure compliance with permit limitations, 40 CFR §122.44(i)(1). The discharge is on Tribal land; however, EPA has adopted a common guideline of monitoring frequency for both Tribal and State of New Mexico facilities. The policy is contained in the NMIP. Technology based pollutants; Frequency of once per week is established for CBOD₅, TSS, and CBOD₅/TSS percent removal from the previous permit will be continued in the draft permit. Flow is proposed to be monitored daily when discharging by totalizing meter. Sample type for CBOD₅ and TSS are 6-hour composite which is the same as the previous permit.

Water quality-based pollutant; Monitoring frequency for DO and E. coli shall be once per week by grab sample from the previous permit will be continued in the draft permit. The pollutant pH, and TRC shall be monitored daily using grab samples, which is which is the same as the previous permit. Total ammonia shall be monitored once per week. Sample type for total ammonia is by 6-hour composite.

E. WHOLE EFFLUENT TOXICITY LIMITATIONS

The PSCWQC state that “Biomonitoring testing following current EPA test methods shall be used to determine compliance with the narrative criteria.” Appendix 2 shows that no RP to cause WET impacts in the last permit term. Based on the WET Recommendation shown in Appendix 2, no WET limits will be established in the proposed permit. Previously it was shown that the

CD for the discharge is 0.9%. If it is determined that a facility is to receive chronic biomonitoring requirements at a critical dilution of 10% or less, then an acute-to-chronic ratio of 10:1 may be used to allow acute biomonitoring in lieu of chronic. This will result in a higher critical dilution by decreasing the ratio between the amounts of effluent and receiving water used as well as a reduction in the cost per biomonitoring test for the permittee.

The WET test requirement in the previous permit will be continued in the draft permit. The permittee shall continue to conduct a 48-hour acute test using *Daphnia pulex* and *Pimephales promelas* at a once per quarter frequency for the first year of the permit. If all WET tests pass during the first year, then the permit may allow a frequency reduction to once per six months for *Daphnia pulex* and once per year for *Pimephales promelas*. Any failure shall re-establish all tests for both the affected species to once per quarter for the remainder of the permit. Both test species shall resume monitoring at a once per three months frequency on the last day of the permit.

The proposed permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests based on a 0.75 dilution series. These additional effluent concentrations shall be 4%, 5%, 7%, 9%, and 12%. The low-flow effluent concentration (critical low-flow dilution) is defined as 9 % effluent.

During the period beginning the effective date of the permit and lasting through the expiration date of the permit, the permittee is authorized to discharge from Outfall 001 - the discharge to the Rio Grande of the treatment system aeration basin. Discharges shall be limited and monitored by the permittee as specified in Table 10 below:

Table 10: Whole Effluent Toxicity Limitations

WHOLE EFFLUENT TOXICITY TESTING (48-Hr Acute Static Renewal/ NOEC) *1	VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<i>Daphnia pulex</i>	Report	Once/Quarter	24-Hr Composite
<i>Pimephales promelas</i>	Report	Once/Quarter	24-Hr Composite

Footnotes:

*1 Monitoring and reporting requirements begin on the effective date of this permit. See Part II, Whole Effluent Toxicity Testing Requirements for additional WET monitoring and reporting conditions.

F. EFFLUENT TESTING FOR APPLICATION RENEWAL

In addition to the parameters identified in this fact sheet, EPA designated major POTW's are required to sample and report other parameters listed in tables of the EPA Form 2A and WET testing for its permit renewal. The minimum pollutant testing for NPDES permit renewals specified in Form 2A requires three samples for each of the parameters being tested. Current practice is to obtain the three samples over a short time frame, sometimes within two weeks during the permit renewal testing process. To obtain a meaningful snapshot of pollutant testing for permit renewal purposes, the draft permit shall require that the testing for Tables A.12, B.6, and Part D of EPA Form 2A, or its equivalent if modified in the future, during the second, third and fourth years after the permit effective date. This testing shall coincide with any required WET testing event for that year. The permittee shall report the results as a separate attachment

in tabular form sent to the Permitting Section Chief of the Water Division within 60 days of receipt of the lab analysis and shall also be reported on the NPDES permit renewal application Form 2A or its equivalent/replacement.

VI. FACILITY OPERATIONAL PRACTICES

A. SEWAGE SLUDGE

The permittee shall use only those sewage sludge disposal or reuse practices that comply with the federal regulations established in 40 CFR Part 503 "Standards for the Use or Disposal of Sewage Sludge." The EPA may at a later date issue a sludge-only permit. Until such future issuance of a sludge-only permit, sludge management and disposal at the facility will be subject to Part 503 sewage sludge requirements. Part 503 regulations are self-implementing, which means that facilities must comply with them whether or not a sludge-only permit has been issued. Part IV of the draft permit contains sewage sludge permit requirements.

B. WASTEWATER POLLUTION PREVENTION REQUIREMENTS

The permittee shall institute programs directed towards pollution prevention. The permittee will institute programs to improve the operating efficiency and extend the useful life of the treatment system.

C. INDUSTRIAL WASTEWATER CONTRIBUTIONS

The application form listed no non-categorical Significant Industrial User's (SIU) and no Categorical Industrial User's (CIU). The EPA has tentatively determined that the permittee will not be required to develop a full pretreatment program. However, general pretreatment provisions have been required. The facility is required to report to EPA, in terms of character and volume of pollutants any significant indirect dischargers into the POTW subject to pretreatment standards under §307(b) of the CWA and 40 CFR Part 403.

D. OPERATION AND REPORTING

The applicant is required to always operate the treatment facility at maximum efficiency. The U.S. EPA promulgated a final rule in 2015 to modernize Clean Water Act reporting for municipalities, industries, and other facilities by converting to an electronic data reporting system. This final rule requires regulated entities to electronically report certain data required by the NPDES permit program instead of filing paper reports. The rule also requires that certain data be entered into EPA's national data system by NPDES Authorized States, Tribes, Territories, and Federal regulators. Regulations at 40 CFR 127.26(f) require that all NPDES permits issued on and after Monday, 21 December 2015 contain permit conditions requiring electronic reporting consistent with EPA electronic reporting regulations. These reports must contain the minimum set of NPDES program data identified in Appendix A, 40 CFR part 127.

After December 21, 2016, the permittees are required to submit discharge monitoring reports (DMRs), including majors and minor POTWs/POTWS-like, and Sewage Sludge/Biosolids Annual Program Report.

By 21 December 2025 or an alternative deadline established under 40 CFR 127.24 (e) or (f), the following reports must be submitted electronically (unless EPA directs otherwise, or the permittee received a waiver from electronic reporting): Pretreatment Program Annual Reports, and Sewer Overflow/Bypass Event Reports and Anticipated Bypass Notices.

The permittee may seek a waiver from electronic reporting to continue submitting reports on paper. To obtain an electronic reporting waiver, a permittee must first submit an electronic reporting waiver request to EPA Region 6. The waiver request should contain the following details: Facility name; NPDES permit number; Facility address; Name, address and contact information for the owner, operator, or duly authorized facility representative; and Brief written statement regarding the basis for claiming a waiver.

The EPA will either approve or deny this electronic reporting waiver request within 120 days. Permanent waivers from electronic reporting are only available to facilities owned or operated by members of religious communities that choose not to use certain technologies. The duration of a temporary waiver may not exceed 5 years, which is the normal period for an NPDES permit term. If a permittee wishes to continue coverage under a waiver from electronic reporting, they must re-apply for a new temporary waiver before the expiration of their existing waiver, even if this NPDES permit is administratively continued. Approved electronic reporting waivers are not transferrable, whether permanent or temporary, are not transferrable and the facility will need to re-apply for a waiver upon any change in facility ownership.

Permittees with an approved and effective electronic reporting waiver must use the forms or formats provided by EPA. The permittee must sign and certify all submissions in accordance with the requirements of Part III of this permit (“Signatory Requirements”).

VII. 303(d) LIST

As of this time, Tribes are not required to maintain a 303(d) List for Assessed River/Stream Reaches Requiring Total Maximum Daily Loads (TMDLs). A reopener clause however is included in the permit allowing the incorporation of more stringent requirements of a TMDL established for the receiving stream. Modification or revocation and reissuance of the permit shall follow regulations listed at 40 CFR Part 124.5.

VIII. ANTIDegradation

The PSCWQC, Subpart A of Section II, Anti-degradation Policy and Implementation Plan, sets forth the requirements to protect designated uses through implementation of the Pueblo water quality standards. The limitations and monitoring requirements set forth in the proposed permit are developed from the Pueblo water quality standards and are protective of those designated uses. Furthermore, the policy sets forth the intent to protect the existing quality of those waters, whose quality exceeds their designated use. The permit limits are protective of the assimilative

capacity of the receiving waters, which is protective of the designated uses of that water, per PSCWQC.

IX. ANTIBACKSLIDING

The proposed permit is consistent with the requirements to meet anti-backsliding provisions of the Clean Water Act, Section 402(o) and 40 CFR §122.44(l)(i)(A), which state in part that interim or final effluent limitations must be as stringent as those in the previous permit, unless material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation. The proposed permit maintains the mass loading requirements of the previous permit for CBOD₅ and TSS. The pollutants pH and E. coli are identical with the previous permit. The draft permit proposes to remove monitoring requirements for Chrysene, Mercury, Hexachlorobenzene, Selenium, 3,3'-Dichlorobenzidine, Dibenzo(a,h)anthracene and Indeno(1,2,3-CD)Pyrene. The monitoring requirement removal for these pollutants does not violate anti-backsliding provisions of CWA because the monitoring requirements for those pollutants in the previous permit were based on higher than acceptable MQL's. In addition, the submitted effluent data do not exhibit a reasonable potential to exceed numerical limits for acute and chronic toxicity or human health limits.

X. ENDANGERED SPECIES CONSIDERATIONS

According to the most recent county listing available at USFWS, Southwest Region 2 website, <https://ecos.fws.gov/ecp/report/species-listings-by-current-range-county?fips=35039>, six species in Rio Arriba County are listed as endangered (E) or threatened (T). They are the Jemez Mountains salamander (E) (*Plethodon neomexicanus*), the Yellow-billed Cuckoo (T) (*Coccyzus americanus*), the Southwestern willow flycatcher (E) (*Empidonax traillii extimus*), the Mexican spotted owl (T) (*Strix occidentalis lucida*), New Mexico meadow jumping mouse (E) (*Zapus hudsonius luteus*), and Canada Lynx (T) (*Lynx Canadensis*). All species were listed in the previous permit with determination of "no effect". According to the report, there are no critical habitats for all the species downstream from the discharging facility.

In accordance with requirements under section 7(a)(2) of the Endangered Species Act, EPA has reviewed this permit for its effect on listed threatened and endangered species and designated critical habitat. After review, EPA has determined that the reissuance of this permit will have "no effect" on listed threatened and endangered species nor will adversely modify designated critical habitat. EPA makes this determination based on the following:

- 1) In the previous permit issued September 27, 2017, EPA made a "no effect" determination for federally listed species. The EPA has received no additional information since then which would lead to a revision of that "no effect" determination. The EPA determines that this reissuance will not change the environmental baseline established by the previous permit, and therefore, EPA concludes that reissuance of this permit will have "no effect" on the listed species and designated critical habitat.

- 2) No additions have been made to the critical habitat designation in the area of the discharge since prior issuance of the permit.
- 3) The EPA has not received any additional information since the previous permit issuance which would lead to revision of its determinations.
- 4) The draft permit is no less stringent from the previous permit. It is consistent with the States WQS and does not allow facility to increase pollutant loadings.
- 5) The EPA determines that items 1 thru 4 results in no change to the environmental baseline established by the previous permit, therefore, EPA concludes that reissuance of this permit will have “no effect” on listed species and designated critical habitat.

XI. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

The reissuance of the permit should have no impact on historical and/or archeological sites since no construction activities are planned in the reissuance.

XII. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if State Water Quality Standards are promulgated or revised. In addition, if the State amends a TMDL, this permit may be reopened to establish effluent limitations for the parameter(s) to be consistent with that TMDL. Modification of the permit is subject to the provisions of 40 CFR §124.5.

XIII. VARIANCE REQUESTS

No variance requests have been received.

XIV. ENVIRONMENTAL JUSTICE

Executive Order 13985, Advancing Racial Equity and Supporting for Underserved Communities through the Federal Government signed on January 20, 2021, directs each federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities.” The EPA strives to enhance the ability of overburdened communities to participate fully and meaningfully in the permitting process for EPA-issued permits, including NPDES permits. “Overburdened” communities can include minority, low-income, tribal, and indigenous populations or communities that potentially experience disproportionate environmental harms and risks. As part of an agency-wide effort, the EPA Region 6 will consider prioritizing enhanced public involvement opportunities for EPA-issued permits that may involve activities with significant public health or environmental impacts on already overburdened communities. For more information, please visit <http://www.epa.gov/ejscreen>.

As part of the Permit development process, the EPA conducted a screening analysis to determine whether this Permit action could affect overburdened communities. The EPA used a nationally consistent geospatial tool that contains demographic and environmental data for the United States at the Census block group level. This tool is used to identify Permits for which enhanced outreach may be warranted.

The study area was chosen at the proposed 001 discharge, 9-miles downstream of Rio Grande River and a buffer of 3-miles around the river. The EJ Screen score for the facility provided in the Appendix 3 was at the 74th percentile (74%ile), and this is below the 80%ile cut-off for engaging in enhanced outreach around the availability of the Draft Permit for review and comment. Therefore, the City of Espanola WWTP is not considered to be discharging in a potential EJ community and no enhanced outreach is necessary at this time.

XV. CERTIFICATION

The permit is in the process of certification by the Tribal agency following regulations promulgated at 40 CFR124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers and to the Regional Director of the U.S. Fish and Wildlife Service prior to the publication of that notice. In addition, the draft permit will also be sent to New Mexico and the Pueblo of San Ildefonso as downstream states for their review.

XVI. FINAL DETERMINATION

The public notice describes the procedures for the formulation of final determinations.

XVII. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. APPLICATION(s)

EPA Application Forms 2A and 2S were submitted to EPA April 04, 2022. Additional information was submitted to EPA on June 01, 2022, August 17, 2022 and August 24, 2022.

B. 40 CFR CITATIONS

Sections 122, 124, 125, 133, 136

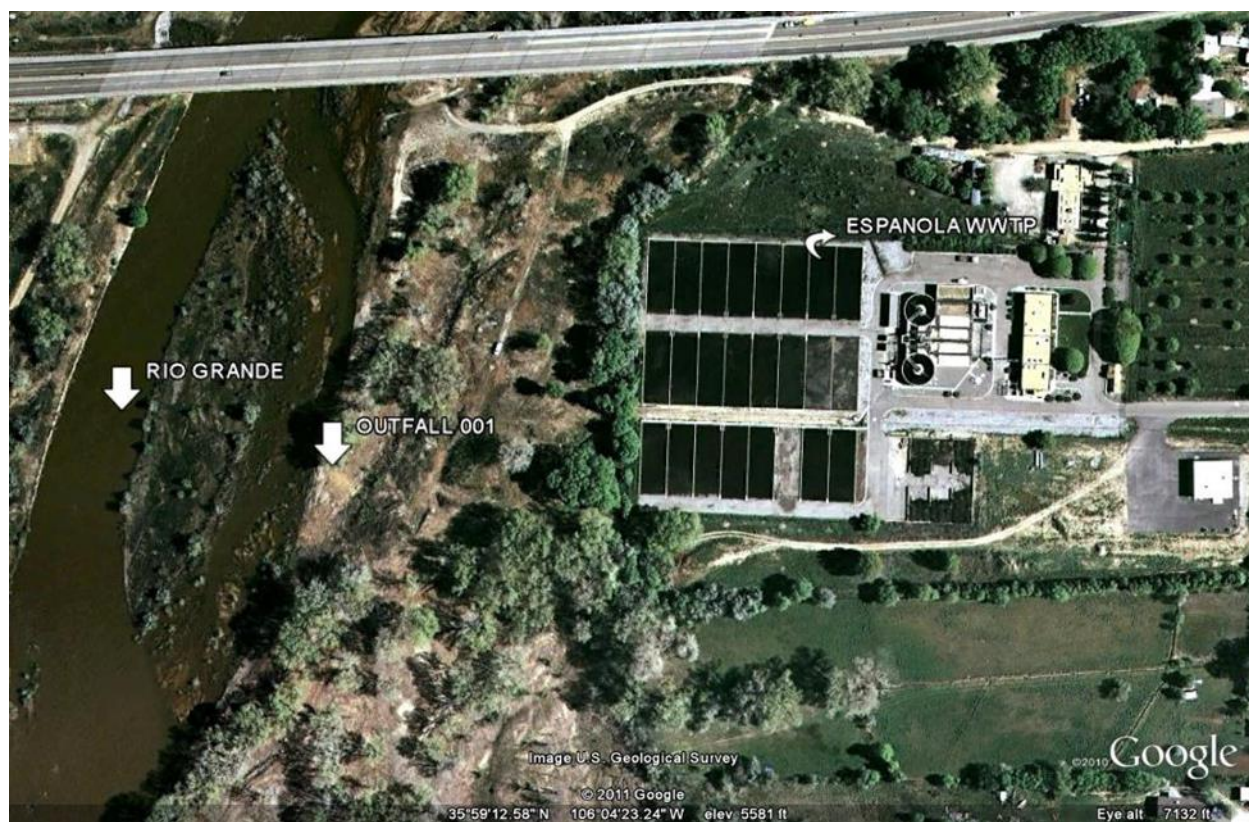
C. PUEBLO OF SANTA CLARA REFERENCES

Water Quality Code of the Pueblo of Santa Clara” (PSCWQC), revised November 5, 2002, approved by EPA April 7, 2006.

D. STATE OF NEW MEXICO REFERENCES

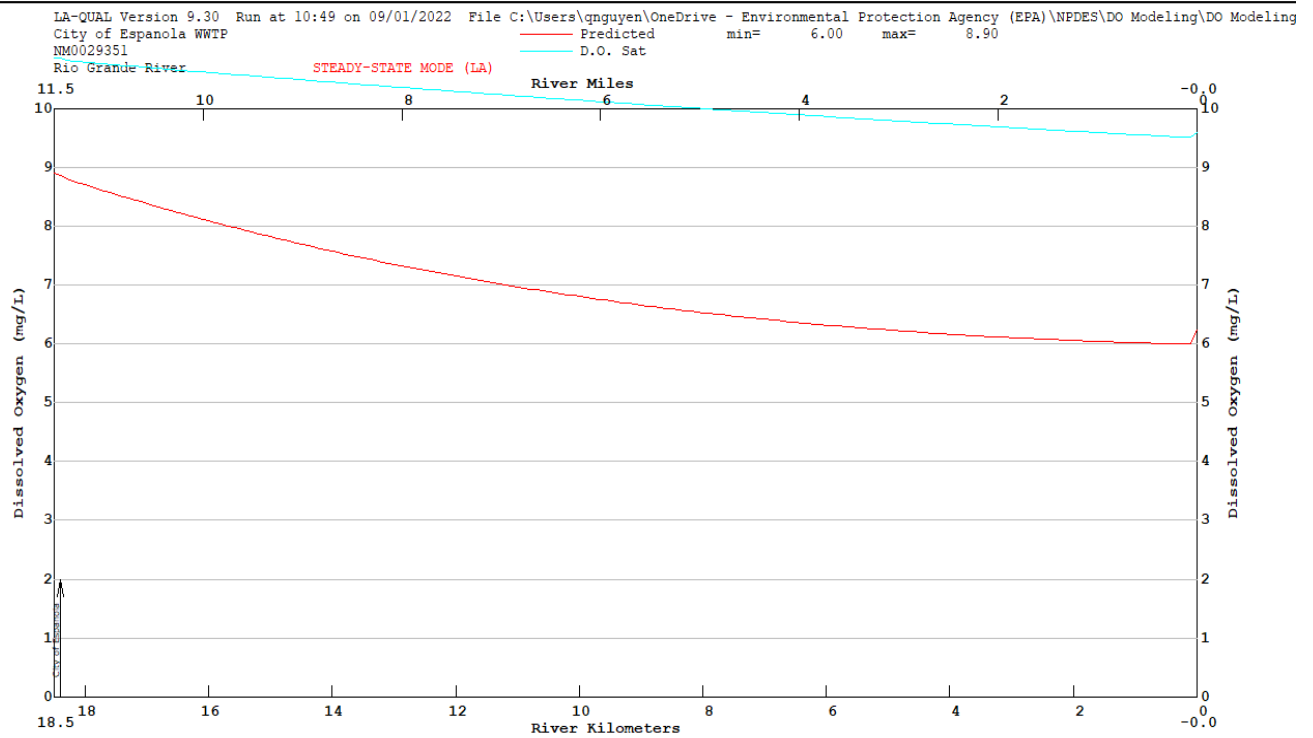
State of New Mexico CWA §303(d) / §305(b) Integrated Report, 2022 -2024.

Procedures for Implementing National Pollutant Discharge Elimination System Permits in New Mexico, March 2012.



PLAT OF ESPANOLA WWTP

Appendix 1



Appendix 3



EJScreen Report (Version 2.0)



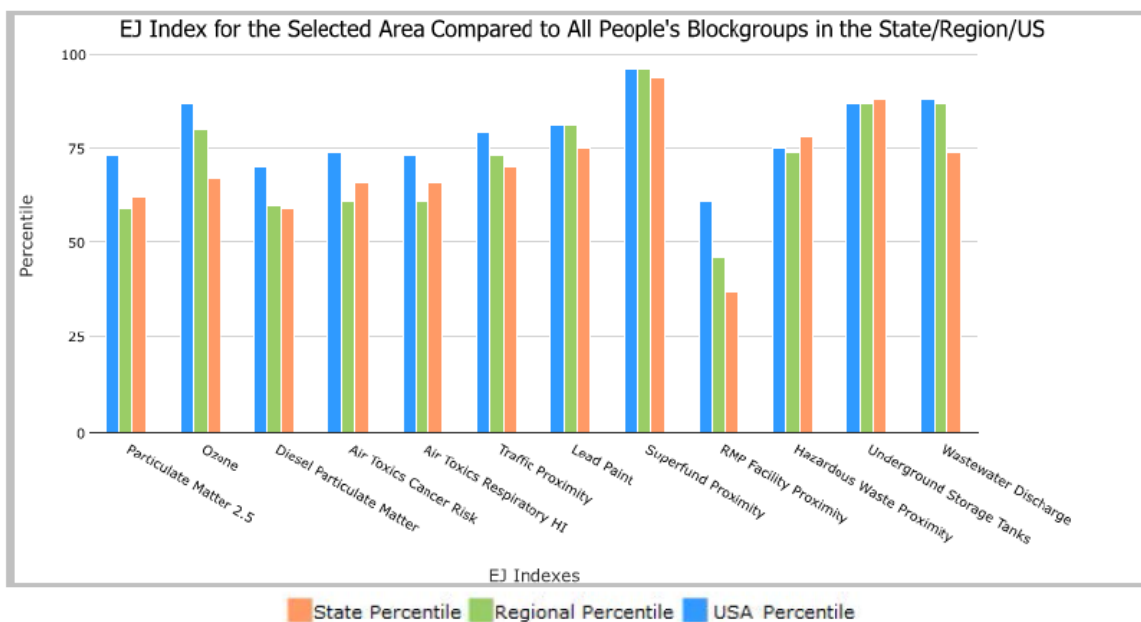
3 miles Ring around the Corridor, NEW MEXICO, EPA Region 6

Approximate Population: 19,563

Input Area (sq. miles): 83.47

City of Espanola WWTP

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
Environmental Justice Indexes			
EJ Index for Particulate Matter 2.5	62	59	73
EJ Index for Ozone	67	80	87
EJ Index for 2017 Diesel Particulate Matter*	59	60	70
EJ Index for 2017 Air Toxics Cancer Risk*	66	61	74
EJ Index for 2017 Air Toxics Respiratory HI*	66	61	73
EJ Index for Traffic Proximity	70	73	79
EJ Index for Lead Paint	75	81	81
EJ Index for Superfund Proximity	94	96	96
EJ Index for RMP Facility Proximity	37	46	61
EJ Index for Hazardous Waste Proximity	78	74	75
EJ Index for Underground Storage Tanks	88	87	87
EJ Index for Wastewater Discharge	74	87	88



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

Appendix 3 (cont'd)



EJScreen Report (Version 2.0)

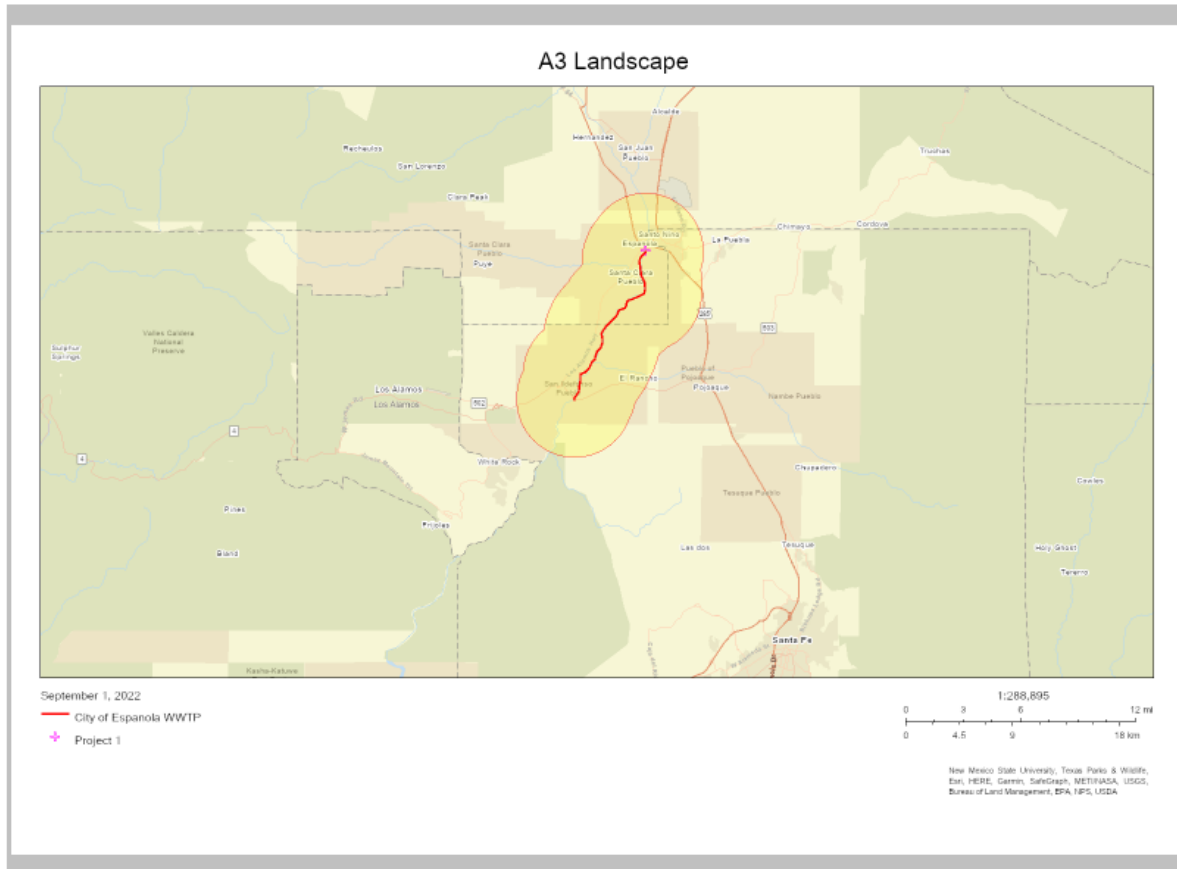


3 miles Ring around the Corridor, NEW MEXICO, EPA Region 6

Approximate Population: 19,563

Input Area (sq. miles): 83.47

City of Espanola WWTP



Sites reporting to EPA	
Superfund NPL	1
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	1

Appendix 3 (cont'd)



EJScreen Report (Version 2.0)



3 miles Ring around the Corridor, NEW MEXICO, EPA Region 6

Approximate Population: 19,563

Input Area (sq. miles): 83.47

City of Espanola WWTP

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Pollution and Sources							
Particulate Matter 2.5 ($\mu\text{g}/\text{m}^3$)	4.55	5.58	16	9.32	0	8.74	0
Ozone (ppb)	54.8	56.2	18	41.1	95	42.6	91
2017 Diesel Particulate Matter* ($\mu\text{g}/\text{m}^3$)	0.0893	0.208	35	0.219	<50th	0.295	<50th
2017 Air Toxics Cancer Risk* (lifetime risk per million)	17	20	60	32	<50th	29	<50th
2017 Air Toxics Respiratory HI*	0.2	0.24	60	0.37	<50th	0.36	<50th
Traffic Proximity (daily traffic count/distance to road)	250	480	49	470	57	710	52
Lead Paint (% Pre-1960 Housing)	0.16	0.18	64	0.16	68	0.28	49
Superfund Proximity (site count/km distance)	0.45	0.13	93	0.08	97	0.13	94
RMP Facility Proximity (facility count/km distance)	0.017	0.25	13	0.83	0	0.75	0
Hazardous Waste Proximity (facility count/km distance)	0.48	0.82	63	0.8	58	2.2	43
Underground Storage Tanks (count/km ²)	4.2	2.5	82	2	84	3.9	74
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.02	4.6	66	0.5	82	12	74
Socioeconomic Indicators							
Demographic Index	66%	52%	72	44%	78	36%	86
People of Color	86%	63%	79	52%	80	40%	86
Low Income	45%	41%	59	36%	67	31%	75
Unemployment Rate	3%	7%	33	5%	39	5%	39
Linguistically Isolated	3%	5%	52	6%	55	5%	63
Less Than High School Education	15%	14%	57	15%	57	12%	68
Under Age 5	7%	6%	64	7%	56	6%	65
Over Age 64	18%	17%	63	13%	76	16%	67

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's 2017 Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

For additional information, see: www.epa.gov/environmentaljustice

EJScreen is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJScreen documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJScreen outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.