

NPDES PERMIT NO. NM0030457

FACT SHEET

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

APPLICANT

Doña Ana County Utilities Department
Salem Wastewater Treatment Plant
845 N. Motel Blvd.
Las Cruces, NM 88007

ISSUING OFFICE

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DATE PREPARED

April 22, 2024

PERMIT ACTION

Proposed reissuance of the current permit issued on February 15, 2019, with an effective date of April 1, 2019, and an expiration date of March 31, 2024.

RECEIVING WATER – BASIN

Rio Grande - Segment 20.6.4.101 of the 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
PFAS	Per-and Polyfluoroalkyl Substances
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
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

I. CHANGES FROM THE PREVIOUS PERMIT

Changes from the permit previously issued January 15, 2014, with an effective date of February 1, 2014, and an expiration date of January 31, 2019, are:

- A. Added PFAS language and reporting requirements.
- B. Added e-reporting requirements implementing the e-Reporting Rule.
- C. Critical Dilution (CD) changed to 100% after an updated 4Q3 flow from the receiving water.
- D. TRC limits have changed from 19 ug/L to 11 ug/L.
- E. WET monitoring testing requirements have changed.
- F. BOD₅ and TSS sampling type has been changed from 3-hour composite to Grab samples.

II. APPLICANT LOCATION AND ACTIVITY

The plant site is located at 2800 B.B. Romig Drive, Salem, in Doña Ana County, New Mexico.



Under the Standard Industrial Classification (SIC) Code 4952, the applicant operates a municipal wastewater treatment plant with a design capacity of 0.20 million gallons per day (MGD) serving a population of approximately 705. The effluent from the treatment plant is discharged into the Rio Grande in Segment 20.6.4.101 of the Rio Grande Basin. The discharge is located at Latitude 32° 41' 36" North, Longitude 107° 12' 30" West.

The wastewater treatment process is as follows:

Raw sewage from approximately 250 homes is collected in a lift station located northeast of the plant and pumped to the entrance works. Influent wastewater comes into the treatment plant

through a manual bar screen, a manual grit chamber and Parshall flume. Then, the raw wastewater flows through to one of two sequencing batch reactors (SBR's) basins for biological treatment. The process consists of an anoxic and aerated filling phase. An aeration phase followed by a settling phase, then lastly an idle/ decant phase. The decant passes through an equalization basin, thence to ultraviolet (UV) disinfection. The effluent is then discharged to the Rio Grande. Sludge is pumped to 4 drying beds before disposal at the Las Cruces Landfill.

III. RECEIVING STREAM STANDARDS

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC, effective for EPA purposes on February 8, 2023). The facility discharges into Rio Grande in Segment 20.6.4.101 NMAC of the Lower Rio Grande River Basin NMAC. Designated uses of this segment are irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat, and primary contact.

IV. EFFLUENT CHARACTERISTICS

The EPA Permit Application Form 2A was received July 20, 2018. A quantitative description of the discharge(s) described in the EPA Permit Application Form 2A is presented below:

Parameter	Max.	Avg.
	(mg/l unless noted)	
Flow, million gallons/day (MGD)	0.057	0.031
Temperature, winter	24.9°C	16.6°C
Temperature, summer	37.4°C	27.5°C
pH, minimum, standard units (s.u.)	7.17	N/A
pH, maximum, standard units (s.u.)	7.95	N/A
Fecal (#bacteria/100 ml)	73.00	1.31
Biochemical Oxygen Demand (BOD)	5.80	2.15
Total Suspended Solids (TSS)	4.80	2.16
Ammonia (NH ₃)	2.20	2.03
Chlorine, Total Residual (TRC)	N/A	N/A
Dissolved Oxygen (DO)	6.37	6.05
Total Kjeldahl Nitrogen (TKN)	4.00	3.63
Nitrate plus Nitrite Nitrogen	11.70	10.97
Oil & Grease	21.60	20.03
Phosphorus (total)	9.00	8.53
Total Dissolved Solids (TDS)	720	666

All pollutants reported in the DMR since 2020 were in compliance with the current NPDES permit. Because the facility's design flow is less than 1.0 MGD, the Expanded Effluent Testing Data (Part D of the application) is not required to be reported.

V. 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.

The application was received on December 7, 2023, and a revised version received on December 9, 2023. It is proposed that the permit be issued for a 5-year term following regulations promulgated at 40 CFR §122.46(a). The previous permit expired on March 31, 2024. The existing permit is administratively continued until this permit is issued.

VI. 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 requires 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 BOD₅, TSS and percent removal for each. Water quality-based effluent limitations are established in the proposed draft permit for *E. coli* bacteria, pH and TRC.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. General Comments

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.

2. Effluent Limitations:

The facility is a POTW that has technology-based ELG's established at 40 CFR Part 133, Secondary Treatment Regulation. Pollutants with ELG's established in this Chapter are BOD₅, TSS and pH. BOD₅ limits of 30 mg/l for the 30-day average and 45 mg/l for the 7-day average and 85% percent (minimum) removal are found at 40 CFR §133.102(a). TSS limits; also 30 mg/l for the 30-day average and 45 mg/l for the 7-day average, 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). The draft permit establishes new limits for percent removal for both BOD₅ and TSS. Since these are technology-based there is no compliance schedule provided to meet these limits. Compliance is required on the permit effective date.

Regulations at 40 CFR §122.45(f)(1) require all pollutants limited in permits to have limits expressed in terms of mass such as pounds per day. When determining mass limits for POTWs or similar, the plant’s design flow is used to establish the mass load. Mass limits are determined by the following mathematical relationship:

$$\text{Loading in lbs/day} = \text{pollutant concentration in mg/l} * 8.345 \text{ lbs/gal} * \text{design flow in MGD}$$

$$\text{TSS/BOD}_5 \text{ loading (lbs/day)} = 30 \text{ mg/l} * 8.345 \text{ lbs/gal} * 0.2 \text{ MGD} = 50 \text{ lbs/day}$$

$$\text{TSS/BOD}_5 \text{ loading (lbs/day)} = 45 \text{ mg/l} * 8.345 \text{ lbs/gal} * 0.2 \text{ MGD} = 75 \text{ lbs/day}$$

A summary of the technology-based limits for the facility is:

Effluent Characteristic	Discharge Limitation			
	lbs/day, unless noted		mg/l, unless noted	
Parameter	30-day Avg	7-day Avg	30-day Avg	7-day Max
BOD ₅	50	75	30	45
BOD ₅ , % removal ¹	≥ 85	N/A	N/A	N/A
BOD ₅ , influent	Report	N/A	N/A	N/A
TSS	50	75	30	45
TSS, % removal ¹	≥ 85	N/A	N/A	N/A
TSS, influent	Report	N/A	N/A	N/A
pH	N/A	N/A	6.0 to 9.0 s.u.	

¹ % removal is calculated using the following equation: [(average monthly influent concentration – average monthly effluent concentration) ÷ average monthly influent concentration] * 100.

3. Pretreatment Regulation

The facility is not subject to the full pretreatment program pursuant to 40 CFR 403.8.

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. State Water Quality Standards

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC approved by EPA and effective for CWA purposes on February 9, 2023). The facility discharges into the Rio Grande in segment number 20.6.4.101 of the Rio Grande River Basin which has designated uses of irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat and primary contact. Since the 4Q3 is zero, applicable criterion must be met at point of discharge.

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

State WQS for *E. coli* bacteria, listed in 20.6.4.900.D NMAC for primary contact, require the monthly geometric mean to be 126 colony forming units (cfu)/100 ml or less; single sample 410 cfu/100 ml or less. EPA has included these limitations and monitoring requirements for *E. coli* similar to the last permit. Bacteria may be reported as either cfu/100 ml or most probable number (MPN). This draft permit will include a 30-day average loading limit as established in the TMDL of 9.55×10^8 cfu/day.

b. pH

The pH range, 6.6 to 9.0 su., for marginal warmwater aquatic life criterion pursuant to 20.6.4.900.H NMAC. This limitation is more stringent than the technology-based effluent one; EPA establishes this limitation in this permit.

c. 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 criteria, the permit must contain an effluent limit for that pollutant. All applicable facilities are required to fill out appropriate sections of the Form 2A, to apply for an NPDES permit or reissuance of an NPDES permit. The new form is applicable not only to Publicly Owned Treatment Works (POTWs), but also to facilities that are similar to 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 minor and does not need to fill out the expanded pollutant testing section Part D of Form 2A. The facility is designated as a minor discharger; the toxic pollutants from Part D are not evaluated.

ii. Critical Conditions

Critical conditions are used to establish certain permit limitations and conditions. The State of New Mexico WQS allows a mixing zone for establishing pollutant limits in discharges. Both the NMWQS and NMIP establish a critical low flow designated as 4Q3, as the minimum average four consecutive day flow which occurs with a frequency of once in three years. The draft permit establishes a critical dilution based on the 4Q3 provided by NMED of 0 cfs. Per NMED sustained flow in the Rio Grande below Caballo reservoir is dependent on release from Caballo reservoir during the irrigation season; at other times of the year, there may be little or no flow.

For permitting purposes of certain parameters such as WET, the critical dilution of the effluent to the receiving stream is determined. The critical dilution, CD, is calculated as:

$CD = Q_e / (F \cdot Q_a + Q_e)$, where:

Q_e = facility flow (0.2 MGD/0.3 cfs)

Q_a = critical low flow of the receiving waters (0 MGD/0 cfs)

F = fraction of stream allowed for mixing (1.0)

$$\begin{aligned} CD &= 0.2 \text{ MGD} / [(1.0) (0) + 0.2] \\ &= 1 \\ &= 100\% \end{aligned}$$

d. TRC

The facility uses UV to treat bacteria. Consistent with all POTWs in the State of NM; however, TRC limitations are placed in permits to provide discharge limitations in the event chlorine is used as backup bacteria disinfection treatment and/or cleaning and disinfection of process equipment. The previous permit established water quality-based effluent limitations for TRC of 19 $\mu\text{g/l}$ but for wildlife habitat, criteria for TRC is 11 $\mu\text{g/L}$ pursuant to 20.6.4.900G NMAC will be established in this draft permit.

e. PFAS (Per- and Polyfluoroalkyl Substances)

As explained at <https://www.epa.gov/pfas>, PFAS are a group of synthetic chemicals that have been in use since the 1940s. PFAS are found in a wide array of consumer and industrial products. PFAS manufacturing and processing facilities, facilities using PFAS in production of other products, airports, and military installations can be contributors of PFAS releases into the air, soil, and water. Due to their widespread use and persistence in the environment, most people in the United States have been exposed to PFAS. Exposure to some PFAS above certain levels may

increase risk of adverse health effects.¹ EPA is collecting information to evaluate the potential impacts that discharges of PFAS from wastewater treatment plants may have on downstream drinking water, recreational and aquatic life uses.

Although the New Mexico Water Quality Standards do not include numeric criteria for PFAS, the 2022 New Mexico Water Quality Standards narrative criterion supply guidance including: 20.6.4.7(E)(2) NMAC states: “**Emerging contaminants**” refer to water contaminants that may cause significant ecological or human health effects at low concentrations. Emerging contaminants are generally chemical compounds recognized as having deleterious effects at environmental concentrations whose negative impacts have not been fully quantified and may not have regulatory numeric criteria.

20.6.4.7(T)(2) NMAC states: “**Toxic pollutant**” means those pollutants, or combination of pollutants, including disease-causing agents, that after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will cause death, shortened life spans, disease, adverse behavioral changes, reproductive or physiological impairment or physical deformations in such organisms or their offspring.

Since PFAS chemicals are persistent in the environment and may lead to adverse human health and environmental effects, the draft permit requires that the facilities conduct influent, effluent, and biosolids sampling for PFAS according to the frequency outlined in the permit.

The purpose of this monitoring and reporting requirement is to better understand potential discharges of PFAS from this facility and to inform future permitting decisions, including the potential development of water quality-based effluent limits on a facility-specific basis. EPA is authorized to require this monitoring and reporting by CWA § 308(a), which states:

“SEC. 308. (a) Whenever required to carry out the objective of this Act, including but not limited to (1) developing or assisting in the development of any effluent limitation, or other limitation, prohibition, or effluent standard, pretreatment standard, or standard of performance under this Act; (2) determining whether any person is in violation of any such effluent limitation, or other limitation, prohibition or effluent standard, pretreatment standard, or standard of performance; (3) any requirement established under this section; or (4) carrying out sections 305, 311, 402, 404 (relating to State permit programs), 405, and 504 of this Act—

(A) the Administrator shall require the owner or operator of any point source to (i) establish and maintain such records, (ii) make such reports, (iii) install, use, and maintain such monitoring equipment or methods (including where appropriate, biological monitoring methods), (iv) sample such effluents (in accordance with such methods, at such locations, at such intervals, and in such manner as the Administrator shall prescribe), and (v) provide such other information as he may reasonably require;”

¹ EPA, *EPA’s Per- and Polyfluoroalkyl Substances (PFAS) Action Plan*, EPA 823R18004, February 2019. Available at: https://www.epa.gov/sites/production/files/2019-02/documents/pfas_action_plan_021319_508compliant_1.pdf

EPA notes that there is currently not an analytical method approved in 40 CFR Part 136 for PFAS. As stated in 40 CFR § 122.44(i)(1)(iv)(B), in the case of pollutants or pollutant parameters for which there are no approved methods under 40 CFR Part 136 or methods are not otherwise required under 40 CFR chapter I, subchapter N or O, monitoring shall be conducted according to a test procedure specified in the permit for such pollutants or pollutant parameters. Therefore, the draft permit specifies that until there is an analytical method approved in 40 CFR Part 136 for PFAS, monitoring shall be conducted using Method 1633. The Adsorbable Organic Fluorine CWA wastewater method 1621 can be used in conjunction with Method 1633, if appropriate. This is consistent with the December 5, 2022 USEPA Memorandum, *Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs*, from Radhika Fox.²

In October 2021, EPA published a PFAS Strategic Roadmap³ that described EPA's commitments to action for 2021 through 2024. This roadmap includes a commitment to issue new guidance recommending PFAS monitoring in both state-issued and federally-issued NPDES permits using EPA's recently published analytical Method 1633. In anticipation of this guidance, EPA has included PFAS monitoring in the draft permit using analytical Method 1633⁴.

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). Sample frequency is based on the NMIP for design flow between 0.1 and 0.5 MGD. Sample type for this draft permit for BOD₅ and TSS will be grab to be consistent with the NMIP.

Parameter	Frequency	Sample Type
Flow	Daily	Totalized meter
pH	5/week	Instantaneous Grab
BOD ₅ /TSS	2/month	Grab
% Removal	Once/month	Calculation
TRC	5/week	Instantaneous Grab
E. coli Bacteria	2/month	Grab
PFAS	3/Permit Term	Grab

Electronic Reporting Rule

Discharge Monitoring Report (DMR) results shall be electronically reported to EPA per 40 CFR 127.16. To submit electronically, access the NetDMR website at https://usepa.servicenow.com/oeca_icis?id=netdmr_homepage. Until approved for Net

² The memo is available at <https://www.epa.gov/newsreleases/epa-issues-guidance-states-reduce-harmful-pfas-pollution>.

³ EPA's October 2021 PFAS Strategic Roadmap can be found at: <https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024>.

⁴ For more information on Method 1633, see <https://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas>.

DMR, the permittee shall request temporary or emergency waivers from electronic reporting. To obtain the waiver, please contact: U.S. EPA - Region 6, Water Enforcement Branch, New Mexico State Coordinator (6EN-WC), (214) 665-6468. If paper reporting is granted temporarily, the permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA and copies to NMED as required (See Part III.D.IV of the permit). Reports shall be submitted monthly.

Sufficiently Sensitive Analytical Methods (SSM)

The permittee must use sufficiently sensitive EPA-approved analytical methods (SSM) (under 40 CFR part 136 or required under 40 CFR chapter I, subchapters N or O) when quantifying the presence of pollutants in a discharge for analyses of pollutants or pollutant parameters under the permit. In case the approved methods are not sufficiently sensitive to the limits, the most SSM with the lowest method detection limit (MDL) must be used as defined under 40 CFR 122.44(i)(1)(iv)(A). If no analytical laboratory is able to perform a test satisfying the SSM in the region, the most SSM with the lowest MDL must be used after adequate demonstrations by the permittee and EPA approval.

E. WHOLE EFFLUENT TOXICITY REQUIREMENTS

Procedures for implementing WET terms and conditions in NPDES permits are contained in the NMIP. Table 11 (page 42) of the NMIP outlines the type of WET testing for different types of discharges. Because of the immediate receiving water, an intermittent stream (4Q3 = 0), the CD is 100%, the Table 11 of the NMIP directs the WET test to be a 7-day chronic test using *Ceriodaphnia dubia* and *Pimephales promelas* at a once per permit term during the first year. According to the NMIP, when a test frequency is one time a year, the test should occur in winter or springtime when most sensitive juvenile life forms are likely to be present in receiving water and colder ambient temperatures might adversely affect treatment processes. This will generally be defined as between November 1 and April 30. If the chronic test pass, 48-hr acute tests shall be completed using *Daphnia pulex* for remaining term of permit at once per year as a new requirement in this draft permit as required by the NMIP.

The draft 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 32%, 42%, 56%, 75%, and 100%. The low-flow effluent concentration (critical low-flow dilution) is defined as 100% effluent.

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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 into the Rio Grande in segment number 20.6.4.101 of the Rio Grande River Basin. Discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	DISCHARGE MONITORING	MONITORING REQUIREMENTS	
Whole Effluent Toxicity Testing (7 Day Static Renewal) (*1)	VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<i>Ceriodaphnia dubia</i>	Report	1 st year	24-hr Composite

<i>Pimephales promelas</i>	Report	1 st year	24-hr Composite
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EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING	MONITORING REQUIREMENTS	
Whole Effluent Toxicity Testing (*1) (48-hr Acute Test)	VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<i>Daphnia pulex</i> (years: 2 nd , 3 rd , 4 th , 5 th)	Report	Once/Year	24-hr Composite

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

VII. 303(d) LIST/TMDL REQUIREMENTS

According to the “2024-2026 State of New Mexico 303(d) List for Assessed Stream and River Reaches,” the assessment unit NM-2101_10, Rio Grande (Leasburg Dam to one mile below Percha Dam), in WQS referenced in 20.6.4.101 NMAC, is not supporting for primary contact use. The probable cause is E. coli., effluent limitations for E. coli are established based on the TMDL for the main stem of the Lower Rio Grande (from the international boundary with Mexico to Elephant Butte Dam), June 11, 2007. The limit for E. coli on draft permit will be maintained at the effluent limit 126 cfu/100ml with a waste load allocation of 9.55 x 10⁸ cfu/day as per the TMDL directs.

VIII. ANTIDEGRADATION

The NMAC, Section 20.6.4.8 “Antidegradation Policy and Implementation Plan” sets forth the requirements to protect designated uses through implementation of the State water quality standards. The limitations and monitoring requirements set forth in the proposed permit are developed from the State 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 requirements and the limits are protective of the assimilative capacity of the receiving waters, which is protective of the designated uses of that water, NMAC Section 20.6.4.8.A.2.

IX. ANTIBACKSLIDING

The proposed permit is consistent with the requirements to meet antibacksliding 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. No less stringent effluent limitations are proposed in this permit renewal.

X. ENDANGERED SPECIES CONSIDERATIONS

According to the most recent county listing available at USFWS, Southwest Region 2 website, <http://www.fws.gov/endangered/>, three species in Doña Ana County are listed as endangered.

The Least tern (*Sterna antillarum*), Southwestern willow flycatcher (*Empidonax traillii extimus*) and the Sneed pincushion cactus (*Coryphantha sneedii* var. *sneedii*).

According to a report updated on April 2024 for Dona Ana County, NM obtained from <http://ecos.fws.gov/ipac> U , there are four endangered (E) and threatened (T) species: Least tern (E), Southern Willow Flycatcher (E), Yellow-billed Cuckoo (T) and Sneed Pincushion Cactus (E). All species, except Southern Willow Flycatcher (endangered bird), were listed in the previous permit with determination of “no effect”. According to the report, there are no designated critical habitats for all the species downstream from the discharging facility.

According to the Final Recovery Plan for southern willow flycatcher, the bird breeds in a relatively dense riparian tree and shrubs associated with river, swamp and other wetlands. “Destruction and modification of riparian habitats have been caused mainly by: reduction or elimination of surface and subsurface water due to diversion and groundwater pumping; changes in flood and fire regimes due to dams and stream channelization; clearing and controlling vegetation; livestock grazing; changes in water and soil chemistry due to disruption of natural hydrologic cycles; and establishment of invasive nonnative plants.” No riparian habitat alterations are expected to be associated with reissuance of this permit. The discharge from the facility is required to protect applicable water quality standards, and the discharge itself ensures water will be available to wildlife in the area. EPA has determined reissuance of the permit will not affect the Southwestern Willow Flycatcher.

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. The scope of the Federal Action is limited to the effects of authorizing the discharge and does not include the permittee’s decision to cease discharging. 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. The flycatcher has been added to the USFWS list of threatened and endangered species; but there is no critical habitat designation in the area of the discharge since prior issuance of the permit. EPA has concluded that reissuance of the permit for this existing discharge would have no effect.
2. EPA has received no additional information since the previous permit issuance which would lead to revision of its determinations.
3. The draft permit is consistent with the States WQS and does not increase pollutant loadings.
4. EPA determines that Items 1, thru 3 result 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 if new information which is not available to EPA prior to the final decision of the permit becomes available during the life of the permit. New information may include, but is not limited to, revised/new State Water Quality Standards, amended/new EPA approved TMDL, information/conditions obtained during government-to-government consultations, e.g., consultation pursuant to the ESA, and substantial changes of treatment process. Modification of the permit is subject to the provisions of 40 CFR §124.5.

XIII. 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>.

For fiscal year 2024, the NPDES Section is trying a new approach, conducting community meetings with overburdened communities in New Mexico and embedding Environmental Justice (EJ) early in the Permitting process. The focus is on enabling overburdened communities to have full and meaningful access to the permitting process. This effort will emphasize on communities that have an 80% percentile or higher for the Wastewater Discharge EJ Index. This will help Region 6 NPDES permit writers and managers decide early in the permitting process when and how to conduct an EJ analysis for an EPA-issued permit and what, if any, permit terms or other actions may be appropriate to address EJ concerns.

Salem WWTP was one of the facilities in which the community had an EJ Index for Wastewater Discharge of 82% percentile ($\geq 80\%$ percentile). The NPDES Section coordinated a virtual early engagement with the community of Salem on March 26, 2024. Pre-registered stakeholders for this virtual meeting included representatives from NMED, Amigos Bravos, New Mexico State University, an engineering consultant, and a non-profit organization called Empower New Mexico. During the virtual meeting, Region 6 discussed the objectives, the community of concern, water quality of the receiving waters and how communities can keep involved during and after the permitting process. The EPA received comments from the permittee during this virtual meeting about new permit conditions (PFAS) that the draft permit will include as part of the new permit conditions.

XIV. VARIANCE REQUESTS

No variance requests have been received.

XV. CERTIFICATION

The permit is in the process of certification by the State Agency following regulations promulgated at 40 CFR 124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service and to the National Marine Fisheries Service prior to the publication of that notice.

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 Form 2A received December 19, 2023.

B. STATE OF NEW MEXICO REFERENCES

New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, as amended through February 2023.

Procedures for Implementing National Pollutant Discharge Elimination System Permits in New Mexico, March 15, 2012.

State of New Mexico 303(d) List for Assessed Stream and River Reaches, 2022-2024.

U.S. EPA-Approved; Total Maximum Daily Load (TMDL) for the Main Stem of the Lower Rio Grande (from the International Boundary with Mexico to Elephant Butte Dam), June 11, 2007.

Minor Municipal; SIC 4951: NPDES Compliance Evaluation Inspection; Salem Wastewater Treatment Plant: NM0030457: April 4, 2023.