NPDES PERMIT NO. NM0029629
FACT SHEET

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

APPLICANT

Anthony Water & Sanitation District WWTP
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DATE PREPARED

September 13, 2021

PERMIT ACTION

Proposed reissuance of the current NPDES permit issued February 21, 2018, with an effective date of March 1, 2018, and an expiration date of February 28, 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
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 litter (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
MQL	Minimum quantification level
O&G	Oil and grease
POTW	Publically 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 February 21, 2018, with an effective date of March 1, 2018, and an expiration date of February 28, 2023.

A. TRC limit is changed from 19µg/L to 11µg/L for chronic protection with a 100% effluent.

B. Discharges from the facility may enter Rio Grande in the water body Segment 20.6.4.101 with a low flow (4Q3) of 0 cfs. Previous permit identified critical low flow (4Q3) as 1.06 cfs.

C. Added monitoring requirements for Gross Alpha (pCi/L) based on RP analysis to cause ot contribute to violations of state WQS.

D. Added influent data reporting requirements for BOD and TSS on DMRs

II. APPLICANT LOCATION and ACTIVITY

As described in the application, the facility is located at 1155 N. Fourth Street in Anthony, Dona Ana County, New Mexico.

Under the SIC Code 4952, the discharge is from a POTW with a design flow capacity of 1.3 MGD. The Anthony Water and Sanitation District WWTP serves a residential population of approximately 9,850.

Flow from the City of Anthony enters the wastewater treatment plan (WWTP) from a variety of lift stations. An instantaneous flow measuring device is located on the influent pipe as it enters the facility. The headworks consists of an in-channel cylindrical fine screen with wash compactor; manually cleaned bypass bar screen; and a vortex grit removal chamber with a grit pump to grit concentrator and classifier. Grit and screenings are placed in a container and taken to a landfill for disposal as a municipal solid waste. Before exiting the headworks, a 12-inch Parshall flume is used to measure the screened and de-gritted sewage flow with a level transmitter flowmeter.

Flow from the headworks is then split between two identical concentric main plant structures. The main plant structures each have eight basins in series. The first basin is an anaerobic selector to facilitate some biological phosphorus removal and serves to control filamentous bacteria. Next are a series of 7 basins which alternate aerobic, anoxic, aerobic, anoxic, aerobic, anoxic, then aerobic. Cycling between aerobic and anoxic conditions aides in nitrogen removal. Mixers in the anaerobic and anoxic basins keeps the solids suspended and the contents moving but provides no oxygenation. Air for the aeration basins is provided through in-line diffusers on the bottom of the aeration basins. Blowers provide the air for the aeration system.

Flow from the final aeration basin enters the circular, centrally located secondary clarifier via an 18-inch influent line. Solids are allowed to settle in this unit and returned to the anaerobic basin

through a return activated sludge (RAS) line. When Mixed Liquor Suspended Solids (MLSS) levels get relatively high, sludge is wasted to an aerated sludge holding tank, integral to the main plant structure. The clarifier trough is skirted with baffles to prevent floating material from exiting the unit. A sweep arm scum removal system is employed to collect the foam off the surface and deposit it into a scum box. The scum box contents are drained into the sludge holding tank. Scrappers are used on the bottom of this unit to move sludge to the center of the clarifier. Effluent from the clarifier flows by gravity in the from the launder trough to a 16-inch clarifier effluent line.

Flow from the two secondary clarifiers travel by gravity to the disinfection unit. Disinfection at this facility is accomplished through three banks of ultraviolet (UV) lamps located in the effluent channel. An automatic mechanical/chemical cleaning system is used to clean the quartz sleeves. After the disinfection unit, effluent flow measurement takes place. An in-channel 12-inch Parshall flume exists, but no electronic flow measurement takes place. Flow then travels by gravity through an in-pipe, instantaneous flow measuring device before entering the effluent pump station. From the effluent pump station, effluent either flows by gravity to the outfall (flows less than 1,000 gpm) or is pumped and leaves the WWTP and enters the Rio Grande through a 3-mile-long discharge pipe.

Waste activated sludge (WAS) is pumped from the secondary clarifier to an aerated sludge holding basin integral to the main plant structure. The contents are aerated and mixed prior to going to the sludge feed pumps. A floating decant pump is also present in the sludge holding basin and pumps clear decant into the anaerobic selector. Sludge feed pumps draw out of the sludge holding basins then the sludge is pumped through an instantaneous flow measuring device where the sludge continues to the sludge dewatering screw press and into a roll off sludge container. When the roll off sludge container is full, sludge is transferred to a special waste landfill in Sunland Park for final disposal.

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC, July 24, 2020). The facility discharges into the Rio Grande in Waterbody Segment No. 20.6.4.101 of the Rio Grande Basin. The designated uses of this receiving water are irrigation, livestock watering, wildlife habitat, marginal warmwater aquatic life, and primary contact.

The discharge location is as follows:

Outfall 001: Latitude 32° 01' 23" North, Longitude 106° 38' 54" West.

III. EFFLUENT CHARACTERISTICS

A quantitative description of the discharge(s) described in the EPA Permit Application Form 2A received August 24,2022 are presented below in Table 1.

POLLUTANT TABLE – 1

Parameter	Max. (mg/l unless noted)	Avg. (mg/l unless noted)
Flow, million gallons/day (MGD)	0.98	0.577
Temperature, winter	20.6° C	18° C
Temperature, summer	31.3.0° C	24.7° C
pH, minimum, standard units (s.u.)	7.2 s.u.	N/A
pH, maximum, standard units (s.u.)	7.8 s.u.	N/A
Biochemical Oxygen Demand, (BOD)	23.6	3.8
Fecal coliform (bacteria/100 ml) E. Coli	142000	626
Total Suspended Solids (TSS)	20	6.1
Ammonia (as N)	17	7.6
Chlorine (total residual) Note: Chlorine not in use as disinfectant	N/A	N/A
Dissolved Oxygen	5.4	5.0
Total Kjeldahl Nitrogen (TKN)	123	20
Nitrate Plus Nitrite Nitrogen	0.56	0.40
Phosphorus (Total)	3.1	N/A
Total Dissolved Solids (TDS)	6440	1,482
Hardness (as CaCO3)	400	291
Antimony, Total	ND	ND
Arsenic, Total	0.0072	0.0028
Beryllium, Total	ND	ND
Cadmium, Total	ND	ND
Chromium, Total	0.007	0.003
Copper, Total	0.0021	0.0009
Lead, Total	ND	ND
Mercury, Total	ND	ND

Nickel, Total	0.0021	0.0009
Selenium, Total	ND	ND
Silver, Total	ND	ND
Thallium, Total	ND	ND
Zinc, Total	0.0027	0.011
Cyanide, Total Recoverable	ND	ND
Cyanide, Total	ND	ND
Phenol, Total Recoverable	ND	ND
Acrolein	ND	ND
Benzene	ND	ND
Bromoform	ND	ND
Carbon tetrachloride	ND	ND
Chlorobenzene	ND	ND
Chlorodibromomethane	ND	ND
Chloroethane	ND	ND
2-chloro-ethylvinyl ether	ND	ND
Aluminum, Dissolved	5.5	1.8
Aluminum, Total Recoverable	5.7	1.9
Antimony, Dissolved	ND	ND
Arsenic, Dissolved	0.0072	0.0028
Barium, Dissolved	0.15	0.079
Beryllium, Dissolved	ND	ND
Boron, Dissolved	0.47	0.36
Cadmium, Dissolved	ND	ND
Chloride	880	489
Chromium Trivalent, Dissolved	ND	ND
Chromium Hexavalent, Dissolved	ND	ND
Chromium, Dissolved	ND	ND
Cobalt, Dissolved	ND	ND
Copper, Dissolved	0.002	0.0008
Iron, Total	3.7	1.3
Lead, Dissolved	ND	ND
Manganese, Dissolved	0.19	0.08
Mercury, Dissolved	ND	ND
Molybdenum, Dissolved	ND	ND
Molybdenum, Total Recoverable	0.008	0.0048
Nickel, Dissolved	0.0021	0.0009
Selenium, Dissolved	ND	ND
Selenium, Total Recoverable	ND	ND

*N/A – not applicable

*ND – Non-Detect

A summary of the last 36 months of available pollutant data from March 1, 2018, through September 13, 2022, taken from DMRs shows no exceedances of permit limits for pH, TRC, and BOD_5.

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 the 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 existing permit expires February 28, 2023. The application was received on August 24, 2022. The existing permit will be administratively continued until this permit is issued.

V. DRAFT PERMIT RATIONALE AND CONDITIONS

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

Regulations contained in 40 CFR §122.44 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 and BOD_5. Water quality-based effluent limitations are established in the proposed draft permit for *E. coli* bacteria, 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. POTWs have technology based ELGs established at 40 CFR 133, Secondary Treatment Regulation. Pollutants with ELGs established in this Chapter are BOD, TSS and pH. BOD_5 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 (a). 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). ELGs 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 pollutants limited in permits to have limits expressed in terms of mass such as pounds per day. When determining mass limits for POTWs or WWTPs, the plant's design flow is used to establish the mass load. Mass limits are determined by the following mathematical relationship:

1.3 MGD Design Flow

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

30-day average BOD_5/TSS loading = 30 mg/L * 8.345 lbs/gal * 1.3 MGD
30-day average BOD_5/TSS loading = 325 lbs/day
7-day average BOD_5/TSS loading = 45 mg/L * 8.345 lbs/gal * 1.3 MGD
7-day average BOD_5/TSS loading = 488 lbs/day

A summary of the technology-based limits for Anthony Water & Sanitation District is:

Final Effluent Limits – 1.3 MGD design flow.

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
BOD_5	325	488	30	45
BOD_5, % removal, minimum	≥ 85% (*1)	---	---	---
TSS	325	488	30	45

TSS, % removal, minimum	≥ 85% (*1)	---	---	---
pH	NA	NA	6.0 - 9.0 s.u. (*2)	

*1. Percent removal is calculated using the following equation: [(average monthly influent concentration – average monthly effluent concentration) ÷ average monthly influent concentration] x 100
*2. See Section V.C.4.b below.

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 the 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 April 23, 2022). The facility discharges into the Rio Grande in Waterbody Segment No. 20.6.4.101 of the Rio Grande Basin. The designated uses of this receiving water are irrigation, livestock watering, wildlife habitat, marginal warmwater aquatic life, and primary contact.

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

For primary contact, WQS require *E. coli* of 126 cfu (or MPN)/100 mL monthly geometric mean and 410 cfu (or MPN)/100 ml daily maximum pursuant to 20.6.900.D NMAC.

b. pH

The NMWQS criteria applicable to marginal warmwater aquatic life designed use require pH to be between 6.6 to 9.0 s.u. These limits were established in the current permit and are maintained in the draft permit.

c. Boron

The receiving stream is listed impaired for dissolved Boron as established in the 2022-2024 State of New Mexico 303(d) list. Monitoring for Boron established in the current permit will be maintained in the draft permit. No WLA has been assigned to the facility.

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 and 2S, 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 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 Federal Register.

Effluent data submitted in Form 2A by the permittee are used to analyze the RP, including 4Q3 and harmonic mean flow, provided by NMED are utilized in the RP analysis. For applicable pollutants with numerical standards in 20.6.4.900.J NMAC, the pollutants (in Tables C & D) having test results above the MQLs/WQS are analyzed for RP in the attached Appendix A. For RP calculation purpose, averaged value of data set is utilized in the RP and ML values are used for those results reported with less than or "ND" at the ML levels. All the reasonable potentiated parameters below were reported with "ND" (unless noted) at different ML. Attached Appendix A shows RPs still exist for Gross Alpha (pCi/L). The EPA proposes monitoring for these parameters at once/ six months in this permit draft.

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 zero low flow 4Q3 provided by SWQB and NMED.

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 = Qe/ (FQa + Qe), where:

Qe = facility flow (1.3 MGD)
Qa = critical low flow of the receiving waters (0 MGD/0 cfs)
F = fraction of stream allowed for mixing (1.0)

Critical Dilution 2 = 1.3 MGD/ [(1.0) (0) + 1.3]
= 1.0
= 100%

iii. TRC

The application indicates that the facility uses ultraviolet (UV) light for bacteria control. However, the facility chlorinates their reuse water hence TRC limitations and monitoring will be continued in the draft permit.

Pursuant to 20.6.4.900.J NMAC, Criteria for TRC are 19 µg/L and 11 µg/L for acute and chronic aquatic life, respectively. The current permit established a limit of 19 µg/L, which at a critical dilution of 59% is the more stringent value. The critical dilutions determined in the above section labelled (ii) is used in conjunction with the chronic criteria with zero seasonal low flow and no dilution is 11 µg/L. This TRC limit will be in the draft permit.

5. TMDL Requirements

The receiving water segment 20.6.4.101 NMAC for the Main Stem of the Lower Rio Grande (for the international boundary with Mexico to Elephant Butte Dam) from the 2022-2024 State of New Mexico 303(d) list for *E. coli*. The wasteload allocation for the Anthony Water and Sanitation District WWTP was incorporated into the draft permit as an *E. coli* 30-day average loading limit of 4.30 billion (1.0×10^9) cfu/day. The *E. coli* loading limit shall be calculated as follows:

[Flow in MGD x cfu/100 mL in effluent x 3.79×10^7] / 1.0×10^9

6. Other Requirements

N/A

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 EPA established the monitoring frequency based on Table 9 (page 34 of the NMIP) for design flow between 1.0 and 5.0 MGD and history compliance.

Parameter	Frequency	Sample Type
Flow	Daily	Totalized
pH	Daily	Instantaneous Grab
BOD_5	1/Week	6-hr Composite
TSS	1/Week	6-hr Composite
% Removal	1/Month	Calculation
TRC*	Daily	Instantaneous Grab
E. Coli Bacteria	1/Week	Grab
Toxics	1/six months	Grab

*When chlorine is used in the treatment process, including treatment units

E. WHOLE EFFLUENT TOXICITY LIMITATIONS

OUTFALL 001

In Section V.C.4.c.ii above; "Critical Conditions", it was shown that the critical dilution, CD, for the facility is 75 %, and the discharge is to a perennial receiving water. Based on the nature of the discharge; POTW, the design flow; greater than 1.0 MGD, the nature of the receiving water; perennial, and the critical dilution; 100%, There is no dilution is given for the WET testing. The NMIP directs the WET testing to be 7-day chronic tests using Ceriodaphnia dubia and Pimephales promelas once per quarter with a 100% critical dilution. WET limits are not being included in the proposed permit. The current permit established a requirement to conduct acute biomonitoring using *Daphnia pulex* and *Pimephales promelas*. The proposed permit is requiring chronic biomonitoring using *Ceriodaphnia dubia* and *Pimpephales promelas*.

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 as follows: These additional effluent concentrations must be 32%, 42%, 56%, 75%, 100%. The low-flow effluent concentration is defined as 100% 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 Rio Grande `of the treatment system aeration basin. The aeration basin receives process area wastewater, process area stormwater, and treated sanitary wastewater. Discharges shall be limited and monitored by the permittee as specified below:

WET Testing (7-day Static renewal)[1]	NOEC	Frequency	Sample type
Ceriodaphnia dubia	Report	Once/ Quarter	24-Hr Composite

Pimephales promelas	Report	Once/ Quater	24-Hr Composite

[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.

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.

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 specific requirements in the permit apply as a result of the design flow of the facility, the type of waste discharged to the collection system, and the sewage sludge disposal or reuse practice utilized by the treatment works. The permittee shall submit an Annual Sludge Status report in accordance with the NPDES Permit NM0029629, Parts I and Parts IV.

B. WASTE WATER 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 treatment plant has 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 the 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 E-REPORTING

The applicant is required to operate the treatment facility at maximum efficiency at all times; to monitor the facility's discharge on a regular basis; and report the results quarterly. The monitoring results will be available to the public.

VII. 303(d) LIST

The Rio Grande, from Anthony Bridge to NM192 bridge, is listed on the "2022-2024 State of New Mexico Integrated Clean Water Act Section 303(d) / 305(b) Report." The waterbody is classified as Category 4A with marginal warmwater aquatic life, irrigation, livestock watering, and wildlife habitat as fully supporting. Primary contact is listed as not supporting. *E. coli* is listed as a probable cause of impairment and a TMDL for the Main Stem of the Lower Rio Grande (for the international boundary with Mexico to Anthony Bridge) was approved by the EPA on June 11, 2007. The wasteload allocation for the Anthony Water and Sanitation District WWTP was incorporated into the draft permit as a loading limit. See Section V.C.5 above. Dissolved boron was listed in 2014 as not supporting for irrigation, a monitoring only schedule has been maintained in the draft permit.

The standard reopener language in the permit allows additional permit conditions if warranted by new or revised TMDLs.

VIII. ANTIDEGRADATION

The State of New Mexico has antidegradation requirements to protect existing uses through implementation of its WQS. The limitations and monitoring requirements set forth in the proposed draft are developed from the appropriate State WQS and are protective of those designated uses. Furthermore, the policy's set forth the intent to protect the existing quality of those waters, whose quality exceeds their designated use. This permit is not for a new discharger, but the permitted design flow has been increased for this permit issuance hence an antidegradation review is required. As a result of the antidegradation review, NMED-SWQB concludes that the proposed discharge will not result in "significant degradation" as defined in New Mexico's Antidegradation Policy Implementation Procedure and characterized by the baseline water quality evaluation. 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.

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. The proposed permit maintains the limitations of the previous permit for BOD, TSS, pH, and *E. coli*. Limitations for TRC are proposed to be more stringent than those included in the current permit. Any other changes to the permit represent requirements that are consistent with the States WQS and WQMP.

X. ENDANGERED SPECIES CONSIDERATIONS

According to the most recent county listing available at US Fish and Wildlife Service (USFWS), Information for Planning and Consultation (IPaC), https://ipac.ecosphere.fws.gov/, nine species in Dona Ana County are listed as candidate, threatened (T) or endangered (E). The Rio Grande Cutthroat Trout (*Oncorhynchus clarkii virginalis*) and Monarch Butterfly (*Danaus plexippus*) are listed as candidate species. The Mexican Spotted Owl (*Strix occidentalis lucida*) and Yellow-billed Cuckoo (*Coccyzus americanus*) are listed as threatened and lastly Yellow-billed Cuckoo (*Coccyzus americanus*), Southwestern Willow Flycatcher (*Empidonax traillii extimus*) northern aplomado falcon (*Falco femoralis septentrionalis*), Sneed pincushion cactus (Coryphantha *sneedii var. sneedii*) (E), Sacramento Prickly Poppy (*Argemone pleiacantha ssp. Pinnatisecta*) Mexican Wolf (*Canis lupus baileyi*) (E) and Todsen's Pennyroyal (*Hedeoma todsenii*) (E) are listed as endangered species for this county. Penasco Least Chipmunk (*Tamias minimus atristriatus*) and Wright's Marsh Thistle (*Cirsium wrightii*) are proposed to be listed as Endangered species for this county

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, the 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 EPA has received no additional information since the previous permit issuance which would lead to revision of its determinations.
2. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.
3. The EPA determines that Items 1 and 2 result in no change to the environmental baseline established by the previous permit, therefore, the EPA concludes that reissuance of this permit will have "no effect" on listed species and designated critical habitat.

XI. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

Section 106 of the national historic preservation act requires the EPA to take into account the effects of the facilities' undertakings on historic properties. The issuance of the permit should have no impact on historical and/or archeological sites. Although expansion and upgrades are planned in the issuance, there are no historical and archeological preservation nearby or the facility believes that its construction activities will not be impacted by any known historical and archeological preservation. The State Historic Preservation Officer concurred with the facility that no historic properties are affected and that the project may proceed.

XII. 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 the 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 the 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 EJScreen 2.1, 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 as the whole City of Anthony in New Mexico since this city shares borders with the state of Texas and a buffer could potentially include Texas in the EJScreen study. Seven EJ Indexes score for the state percentile of the facility were above the 80 percentile (80%), for PM2.5, Diesel PM, Air Toxics Cancer Risk, Respiratory HI, Traffic Proximity, Hazardous Waste Proximity and Wastewater Discharge. Furthermore, the ACS summary report indicates that 98% of the population in Anthony are of Hispanic descent and from the population that don’t speak English at home, 86% of them only speak Spanish. These results indicate that the percentage of Spanish speaking individuals is high and public participation may be affected, therefore the EPA will translate some documents to Spanish to help and motivate public participation in this NPDES permitting action.

XIII. 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.

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)

The EPA Permit Application received August 24, 2022 and found administratively complete on September 13, 2022.

B. 40 CFR CITATIONS

Citations to 40 CFR Sections 122, 124, 125, 133, 136.

C. STATE OF NEW MEXICO REFERENCES

New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, as approved October 27, 2020.

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

State of New Mexico Clean Water Act §303(d)/§305(b) Integrated List of Assessed Surface Waters, 2020-2022

E. MISCELLANEOUS CORRESPONDENCE

Application received for renewal of NPDES permit NM0029629 from Jose Terrones, Anthony water & Sanitation District on August 24, 2022.

Barbara Cooney NMED, emailed Aron Korir, EPA, with low flow 4Q3 and Ambient data information on September 13, 2022.

Clayton TenEyck, Molzen Corbin Water Resources., emailed Aron Korir, EPA with a consultation letter to state historic and preservation office following proposed improvements to the facility on November 6, 2022