NPDES PERMIT NO. NM0030503
FACT SHEET

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

APPLICANT

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ISSUING OFFICE

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PERMIT ACTION

Proposed reissuance of the current National Pollutant Discharge Elimination System (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

Cieneguilla Creek, thence to Eagle Nest Lake, thence to the Cimarron River, thence to the Canadian River in Water Quality Segment number 20.6.4.309 of the Canadian River 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 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 September 27, 2017, with an effective date of November 1, 2017, and an expiration date of October 31, 2022, include:

1. Update TP and TN loading limits at 90% percentile.
2. E-reporting language.
3. Sufficiently sensitive methods language.
4. Updated critical dilution.
5. Updated compliance and reporting schedule to mirror TP and TN phased limits established in the TMDL.
6. Updated Dissolved Oxygen minimum.
7. Sanitary Sewer Overflows (SSOs), bypass and anticipated bypass events shall be electronically reported to EPA per 40 CFR 127.26(f).
8. Added 1/month influent data reporting requirements for BOD_5 and TSS.
9. Added 1/month monitoring requirements for TSS and BOD_5 effluent.

II. APPLICANT LOCATION and ACTIVITY

Under the Standard Industrial Classification (SIC) Code 4952, the applicant currently operates a publicly owned treatment works (POTW). The facility is located at 67 Darrell Benjamin Road, Angel Fire, in Colfax County, New Mexico. The treatment facility is a sequential batch reactor (SBR) system with ultra-violet (UV) disinfection. The facility has two lagoons that store wastewater prior to discharge either to the receiving stream or to a land application area. The facility has a design flow capacity of 0.50 million gallons per day (MGD). The single outfall of the facility is located on Cieneguilla Creek at:

Latitude 36° 24' 17" North, Longitude 105° 17' 00" West

Effluent samples must be collected at a location after the last treatment unit and prior to commingling with the water of receiving stream.

III. RECEIVING STREAM STANDARDS

The general and specific stream standards are provided in "New Mexico State Standards for Interstate and Intrastate Surface Waters," (NM WQS), 20.6.4 NMAC, as amended through January 19, 2023.

The designated uses of the receiving waters, Cieneguilla Creek, are domestic water supply, high quality coldwater aquatic life, primary contact, irrigation, livestock watering, wildlife habitat, and public water supply.

IV. EFFLUENT CHARACTERISTICS

The facility submitted an application dated March 14, 2022. The following is a summarization of effluent characteristics.

Parameter	Avg. Monthly (mg/l unless noted)	Max. Daily (or single Data)
Flow, million gallons/day (MGD)	0.206	0.226
pH, minimum, standard units (su)	N/A	6.63 su
pH, maximum, standard units (su)	N/A	8.80 su
Biochemical Oxygen Demand, 5-day (BOD)	4.12	14.00
Fecal Coliform (cfu/100 ml)	7.35	1209.80
Total Suspended Solids (TSS)	2.57	13.00
Nitrogen	16.54 lbs/day	25.50 lbs/day
Dissolved Oxygen	4.66	8.42
Phosphorus	1.48	7.14

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.

It is proposed that the permit be reissued for a 5-year term following regulations promulgated at 40 CFR §122.46(a). The existing NPDES permit was initially issued September 27, 2017, with an effective date of November 1, 2017, and an expiration date of October 31, 2022.

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 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 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.
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 BOD, TSS, and percent removal for each. BOD 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). In the 2012 permit issuance, to ensure the facility maintained current BOD levels, EPA established BOD effluent limitations as 20 mg/I for 7-day maximum and 15 mg/I for monthly average. These limits will be maintained in the proposed permit.

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, 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 BOD_5 = 15 mg/L * 8.345 lbs/gal * 0.5 MGD
30-day average BOD_5 = 62.59 lbs/day

Loading value of 62.5 lbs/day will be maintained from the previous permit

7-day average BOD_5 = 20 mg/L * 8.345 lbs/gal * 0.5 MGD
7-day average BOD_5 = 83.45 lbs/day

Loading value of 83.3 lbs/day will be maintained from the previous permit

TSS Limits are based on a TMDL established in 2004.

Technology-Based Effluent Limits - 0.5 MGD design flow (*).

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS lbs/Day	DISCHARGE LIMITATIONS lbs/Day	DISCHARGE LIMITATIONS mg/L (unless noted)	DISCHARGE LIMITATIONS mg/L (unless noted)
Parameter	30-Day Avg.	7 7-Day Avg.	30-Day Avg.	7-Day Avg.
Flow	N/A	N/A	M Measure MGD	Measure MGD
BOD_5, effluent	62.5	83.3	15	20
BOD_5, % removal, minimum	---	---	≥ 85% (*)	---
BOD_5, influent	---	---	Report	---

TSS, effluent	125	129	30	45
TSS, % removal, minimum	---	---	≥ 85% (*)	---
TSS, influent	Report	---	Report	---
pH	N/A	N/A	6.0 s.u. minimum	9.0 s.u. maximum

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

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 the PSWQS, 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. Water Quality Standards

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC approved 2022). The facility discharges into Cieneguilla Creek, thence to Eagle Nest Lake, thence to the Cimarron River, thence to the Canadian River in Water Quality Segment number 20.6.4.309 of the Canadian River Basin. The designated uses are domestic water supply, irrigation, high quality coldwater aquatic life, livestock watering, wildlife habitat, primary contact; and public water supply.

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. pH

To protect “High Quality Coldwater” designated use, the State of New Mexico stream segment specific WQS require pH to be between 6.6 and 8.8 s.u. NMWQS (20.6.4.212 NMAC and 20.6.4.900 NMAC). Limit of 6.6 to 8.8 s.u. will be maintained from the current permit.

b. Bacteria

New Mexico stream segment specific WQS for primary contact require *E. coli* of 126 cfu/100 mL monthly geometric mean and 410 cfu/100 ml daily maximum, end-of-pipe.

Previously, limitations for E. Coli were assigned as part of an approved TMDL requiring Total Maximum Daily Loads. As a result, the draft permit will maintain the *E. coli* bacteria limits of 126 cfu/100 mL monthly geometric average and 235 cfu/100 mL day daily maximum.

c. Dissolved Oxygen

The State of New Mexico WQS criterion applicable to the high quality coldwater aquatic life 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 State of New Mexico surface water WQS for DO (i.e., 6 mg/L). Primarily based on the Angel Fire Wastewater Treatment Plant's design flow of 0.5 MGD (0.022 m^3/s) and the receiving water critical flow of 0.27 cfs m^3/s (0.0076 m^3/s), various BOD_5 factors including BOD_5 Secondary Treatment Standards were considered and simulated to achieve the DO criterion. A complete characterization of Cieneguilla Creek (i.e., water quality and hydrodynamic data) was not available. Assumptions were made when there was no data. The following is a summary of model inputs.

The Angel Fire Wastewater Treatment Plant's design flow is 0.5 MGD (0.022 m^3/sec). The discharge location provided in the permit application is located at Latitude 36° 23' 17" N (33.4), and Longitude -105° 17' 00" W (-105.3). Other effluent parameters provided in the permittee's application and applied in the model include fecal coliform (1209 MPN/100ml). Facility effluent temperature (Avg: 25^{o}C), and ammonia (Avg: 1.0 mg/L) were assumed since no data were available. NMED provided the following information. The critical low flow of Cieneguilla Creek receiving stream is approximately 0.27 cfs (0.0076 m^3/sec). Other parameter applied in the model includes ambient E. Coli of 222 MPN/100ml. Nitrate plus Nitrite Nitrogen (Avg: 3 mg/L), temperature (20 ^{o}C), DO (Avg: 8 mg/L), and receiving stream average depth (0.15 meters) at critical conditions were assumed since no data available. EPA used the State of New Mexico's OpenEnviroMap to estimate the average elevation of the study area, segment length and average width of Cieneguilla Creek. The average elevation is approximately 2559 meter (8397 feet). The average width of Cieneguilla Creek at critical conditions was assumed approximately 1 meter, and the studied Cieneguilla Creek segment length is approximately 12 kilometers (7.46 miles).

The model results show an excursion of the receiving stream DO standard of 6 mg/L when the BOD_5 limits of 30 mg/l for monthly average and 45 mg/l for 7-day maxima were applied (see graph with 30/45 mg/L BOD_5 in Appendix XXX; other detail information is available upon request). Various BOD_5 and DO factors were considered and simulated to achieve the DO criterion; EPA believes the optimal levels of BOD_5 and DO are 15/20 and 4.8 mg/L, respectively (see attached graph with 15/20 BOD_5 in Appendix XXX). The reported effluent BOD_5 in form 2A are 4.12 mg/L (avg.) and 14 mg/L (max.); which are below the 15/20 levels. The water quality-based BOD_5 limits of 20 mg/L (for monthly average) and 15 mg/L (for 7-day maxima) in the previous permit remain in the draft permit. However, EPA establishes a new water

quality-based limits for DO of 4.8 mg/L (minimum) in the draft permit, previously 4.5 mg/L (minimum).

This BOD_5 and DO limitation may be re-evaluated against the WQS in the next permit renewal process. 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.

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 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, 2S or 2E, to apply for an NPDES permit or reissuance of an NPDES permit. 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 and does not need to fill out the expanded pollutant testing. There are no toxics that need to be placed in the draft permit except for TRC as described below.

1. TRC

The facility uses UV unit to disinfect the effluent. In the event that the facility uses a chlorine-based product in the disinfection process or for treatment of equipment, TRC limit of 11 µg/l (NMWQS for wildlife habitat) is established. This limit was previously established and will be maintained in this permit reissuance.

(ii) Critical Conditions

Critical conditions are used to establish certain permit limitations and conditions. The State of New Mexico WQS allow a mixing zone for establishing pollutant limits in discharges. The state establishes 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. Based on information from the SWQB of the NMED low flow from the previous permit cycle (4.3 cfs) will be used in the renewal to calculate the CD.

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:

$CD = Qe/(F \cdot Qa + Qe)$, where:

Qe = facility flow (0.50MGD)
Qa = critical low flow of the receiving waters (.27 cfs or .174 MGD)
F = fraction of stream allowed for mixing (1.0)

CD = 0.50 MGD/[(1.0)(.174) + 0.50]
= 0.742
= 74% (rounded)

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 monitoring frequencies are based on BPJ, taking into account the nature of the facility and its design flow and the previous permit. Monitoring frequencies in the current permit are retained and a frequency of 2/Month is established for TP, TN, and DO. The testing of TRC is required only when a chlorine-contained chemical is applied to the system. Monitoring frequency for TSS and BOD_5 removal and influent is 1/month. Monitoring frequency for TSS and BOD_5 effluent is 2/month.

E. Whole Effluent Toxicity (WET) Testing

The discharge is to Cieneguilla Creek and the critical low flow (4Q3) of the stream in that segment is estimated to be 0.27 cubic feet per second (cfs). The design flow of the facility is 0.50 MGD. Therefore, the critical dilution of the discharge to the receiving stream is 74%. The facility is required to conduct chronic WET test annually with Ceriodaphnia dubia and Pimephales promelas and at an 74% critical dilution. There was no reasonable potential to exceed

VII. 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").

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.

VIII. 303(d) LIST

The current 2022-2024 State of New Mexico Integrated Clean Water 303(d)/305(b) Report shows that Cieneguilla Creek (Assessment Unit NM-2306.A._065) in Segment 20.6.4.309 NMAC is not supporting for high quality coldwater (due to sedimentation/siltation, turbidity, nutrients, and temperature) and primary contact. In 2004 a TMDL of 125 lbs/day was prescribed for TSS. In 2010 a TMDL prescribed a monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less.

The proposed permit retains loading limit for TSS and concentration limit for E. coli based on TMDL Waste Load Allocations (WLAs) assigned to Angel Fire discharge.

In September 2010, TMDLs for total nitrogen (TN) and total phosphorus (TP) were approved by the EPA for the Cimarron River Watershed-Canadian River to Headwaters, which includes the Cieneguilla Creek. TN is defined as the sum of Nitrate + Nitrite (N+N), and Total Kjeldahl Nitrogen (TKN). The EPA approved TMDLs allocated interim (Phase I) annual average effluent limitations for TP of 0.1 mg/l (0.42 lbs/day (pounds per day)) and TN of 3.0 mg/l (12.5 lbs/day) to the facility, and final effluent limitations (Phase "n") for TP of 0.06 mg/l (0.25 lbs/day) and TN of 0.56 mg/l (2.3 lbs/day). Angel Fire is currently participating in EPA's Compliance Advisor Program and has challenges with compliance. In addition, Angel Fire has a Clean Water Act State Revolving Fund grant/loan to upgrade their WWTP and is currently under construction to upgrade the WWTP. As a result, daily load limitations for this renewal were calculated using the 90^{th} percentile and resulted in TN limit of 22.84 lbs/day and a TP limit of 3.16 lbs/day.

EPA proposes to require the permittee to submit a TP/TN Reduction Plan which details how the permittee plans to meet the Phase "I" WLAs no later than 180 days from the effective date of the permit. By 180 days prior to the expiration date of the final permit, the permittee shall develop a Total Phosphorus/Total Nitrogen Reduction Plan which details how the permittee plans to meet the Phase "n" or final Wasteload Allocation.

In addition, EPA proposes to require Angel Fire to meet the Phase "I" limits no later than five years plus one day from the effective date of the permit. EPA will re-evaluate the data and review

available technology when EPA renews the permit in five years to determine if the facility will be subject to meet the final WLAs established in the TMDL.

No additional limitations are required to address 303(d) concerns and if at a later time the segment is determined to be impaired, and/or a TMDL is done, or a TMDL is completed, the standard reopener clause will allow additional limitations to be placed in the permit.

IX. 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. No expansion of the treatment plant or increase in pollutant loadings apply to this permit reissuance. 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.

X. ANTIBACKSLIDING

The proposed permit has deleted effluent limitation for aluminum based on new information as discussed above.

XI. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

The reissuance of the permit should have no impact on historical and/or archeological sites. Upgrades to the facility are planned, however construction will occur on previously disturbed land. No new land will be disturbed.

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 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 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 at the proposed 001 discharge, 4-miles line buffer downstream of Angel Fire WWTP. The highest EJ Screen score for the facility was at the 73 percentile (73%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. The 2016-2022 ACS Report indicates that the total population impacted is 833 and the total Hispanic population around the study area is currently 23%. From the results only five (5) individuals are linguistically isolated speaking only Spanish. Therefore, Angel Fire is not considered to be discharging in a potential EJ community and no enhanced outreach is necessary at this time.

XIII. ENDANGERED SPECIES CONSIDERATIONS

Four species are listed in the area as Endangered or Threatened, according to the most recent U.S. Fish & Wildlife Service, (USFWS), Information, Planning, and Conservation System (IPaC) website. They are Mexican Spotted Owl, Piping Plover, Southwestern Willow Flycatcher, and New Mexico Meadow Jumping Mouse. Based on the following discussion, EPA has determined that the reissuance of this permit will have *no effect* on these federally listed threatened or endangered species.

Mexican Spotted Owls (*Strix occidentalis lucida*) have dark eyes. They are an ashy-chestnut brown color with white and brown spots on their abdomen, back and head. Their brown tails are marked with thin white bands. They lack ear tufts. Young owls less than 5 months old have a downy appearance. Females are larger than males. The primary threats to its population in the U.S. (but likely not in Mexico) have transitioned from timber harvest to an increased risk of stand-replacing wildland fire. Recent forest management now emphasizes sustainable ecological function and a return toward pre-settlement fire regimes, both of which are more compatible with maintenance of spotted owl habitat conditions than the even-aged management regime practiced at the time of listing.

The **Southwestern Willow Flycatcher** (*Empidonax traillii extimus*) breeds in dense riparian habitats in southwestern North America, and winters in southern Mexico, Central America, and northern South America. Its breeding range includes far western Texas, New Mexico, Arizona, southern California, southern portions of Nevada and Utah, southwestern Colorado, and possibly extreme northern portions of the Mexican States of Baja California del Norte, Sonora, and Chihuahua. The subspecies was listed as endangered effective March 29, 1995. Approximately 900 to 1100 pairs exist.

The **New Mexico Meadow Jumping Mouse** (*Zapus hudsonius luteus*) is endemic to New Mexico, Arizona and a small area of southern Colorado. The jumping mouse is grayish-brown on the back, yellowish-brown on the sides, and white underneath. The species is about 4 to 10 inches in total length, with elongated feet and an extremely long, bicolored tail. The jumping mouse is a habitat specialist. It nests in dry soils, but uses moist, streamside, dense riparian/wetland vegetation up to an elevation of about 8,000 feet. The jumping mouse is generally nocturnal, but occasionally diurnal. It is active only during the growing season of the grasses and forbs on which it depends. During the growing season. The jumping mouse accumulates fat reserves by consuming seeds. Preparation for hibernation seems to be triggered

by day length. The jumping mouse hibernates about 9 months out of the year, longer than most other mammals.

The **Piping Plover** (*Charadrius melodus*) finds that the migratory bird winters in the warmer Gulf Coast and Caribbean area, then migrates to northern areas such as New Mexico for breeding. The species makes nests in sandy point bars of streams and alkali flats. Threats to the species in New Mexico are due to damming and channelization of rivers and disruption by other wildlife.

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. There is no designated critical habitat in the area of the discharge since prior issuance of the permit.

2. EPA has received no additional information since the previous permit issuance which would lead to revision of its determinations.

3. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

3. EPA determines that Items 1 and 3 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.

XIV. 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.

XV. FINAL DETERMINATION

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

XVI. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. Application(s)

EPA Application Form 2A received by EPA on March 14, 2022.

B. State of New Mexico References

New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, as amended through January 19, 2023.

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

US EPA Approved TMDL for the Cimarron River Watershed, September 3, 2010

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