NPDES PERMIT NO. NM0030724
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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DATE PREPARED

June 26, 2023

PERMIT ACTION

Renewal of a permit previously issued on May 23, 2018, with an effective date of July 1, 2018, and an expiration date of June 30, 2023.

RECEIVING WATER – BASIN

Ephemeral arroyo in NMAC Segment 20.6.4.97, then to San Pedro Creek Segment No. 20.6.4.125 of the Rio Grande watershed.

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
DO	Dissolved oxygen
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FWS	United States Fish and Wildlife Service
mg/l	Milligrams per liter
ug/l	Micrograms per liter
lbs	Pounds
MG	Million gallons
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
PFAS	per- and poly- fluoroalkyl substances
POTW	Publicly owned treatment works
RP	Reasonable potential
SS	Settleable solids
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
USGS	United States Geological Service
WLA	Waste Load 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 May 23, 2018, with an effective date of July 1, 2018, and an expiration date of June 30, 2023, are as follow:

1. Additional Outfall location, Outfall 002: Latitude $35^0$12'26" N, Longitude: $106^0$18"43" W has been established.
2. pH limit range is changed from 6 - 9 s.u. to 6.5 to 9 s.u. based on the current NMWQS.
3. EPA has included the PFAS monitoring requirements based on the memo from EPA headquarters addressing PFAS discharges in NPDES Permits and through the Pretreatment Program and Monitoring Programs.
4. Added influent BOD_5 and TSS monitoring and reporting requirements
5. Monitoring requirement for daily maximum flow when discharging has been included in the draft permit.
6. Sanitary Sewer Overflows (SSOs), bypass and anticipated bypass events shall be electronically reported to EPA per 40 CFR 127.26(f).

II. APPLICANT LOCATION and ACTIVITY

As described in the application, the facility (Latitude 35° 12' 26" N and Longitude 106° 18' 43" W) is located at 138 Paa-Ko Drive, in the City of Sandia Park, Bernalillo County, New Mexico. Under the SIC code 4952, the applicant operates a privately owned wastewater treatment plant. The facility has a design flow capacity of 0.13 MGD providing sanitary services for approximately 950 residents. The WWTP primarily consists of 22,000 gallon-tank for storing influent in case of emergency up to 12 hours, screening/grid, anoxic basin, membrane bioreactor (MBR), an ultraviolet (UV) disinfection unit, and an effluent lined pond. A Facility inspection conducted on September 1, 2022, found the facility is using chlorine as primary disinfection method. Inspection report finding states "Changes have been made to the facility's final treatment process, the UV disinfection unit. The system was originally designed for UV disinfection, however due to cost and supply chain issues, has been replaced with a chlorine disinfection system." As a result, wastewater leaving the MBR is disinfected by chlorine disinfection.

The facility uses the NPDES discharge permit only during winter months when the golf course is closed. Furthermore, the discharge from this facility is intermittent and only occurs for a few days during the month when wastewater from the impoundment pond(s) must be discharged.

The effluent is pumped from the plant at 138 Paa-Ko Drive to the Tennis Court Pond (Latitude: 35^0 12'25" W, Longitude: 106^0 18" 41.6" N). The treated effluent from the WWTP is discharged to a 6-million-gallon lined retention pond. There is no overflow or outfall built into the retention pond. When water is needed at the golf course, water can be pumped from the holding pond to the golf course pond. The gulf course pond is also supplied with ground water to supplement irrigation needs for the golf

course grounds. There is an overflow pipe in the golf course pond which allows discharges from Outfall 001 to an unnamed ephemeral tributary of San Pedro Creek. A flow meter was installed at outfall 001, however, the meter was removed at the time of NMED inspection due to a previous storm event blowout.

Any discharge from the golf course pond would not accurately reflect the discharge from the wastewater treatment plant as it is greatly diluted with groundwater, and chemicals may be introduced to the water from irrigation activities (i.e., pesticides, herbicides, etc.) Furthermore, the overflow is integrated with stormwater culverts before it reaches outfall 001. This necessitated the need to eliminate pumping effluent to the golf course and change the outfall location from the golf course pond site to the retention pond site.

Furthermore, there were signs of pond overflows and discharges from outfall 001. During rain events, pumping from the pond for irrigation stops, which caused the water level in the pond to rise. It is believed the discharges occurred during one or more of these rain events. At the time of NMED's site inspection, the Grounds Manager provided an irrigation chart that illustrates irrigation rates during rain events. Sampling of these discharges did not occur as required in the Part I. C. of the permit.

Due to the potential for discharges at the original outfall location, the current facility discharges are both at the original Outfall 001 and the new Outfall 002 as shown below:

Outfall 001: Latitude 35° 12' 23.26" N and Longitude 106° 19' 4.39" W

Outfall 002: Latitude $35^0$12'26" N, Longitude: $106^0$18"43" W

A map of the facility location is shown below:

Map of Facility Location

III. EFFLUENT CHARACTERISTICS

Parameter	Max	Avg
	mg/l unless noted	
Flow, million gallons/day (MGD)	0.13	0.017
Nitrate/Nitrite	8.4	8.4
Kjeldahl Nitrogen	9.9	9.9
BOD5	5.6	3.5
Ammonia as (N)	<1	<1
TRC	<11	<11
Dissolved Oxygen	5	5
Oil & Grease	<9.88	<9.88
Phosphorus	6.0	6.0
Temperature, ^{o}F, Summer	75.9	75.9
Temperature, ^{o}F, Winter	51.20	51.20
Fecal Coliform, MPN/100	30.90	5.02
Total Dissolved Solids	1220	1220
pH	7	7
TSS	< 4	<4

IV. REGULATORY AUTHORITY/PERMIT ACTION

In November 1972, Congress passed the Federal Water Pollution Control Act establishing the NPDES permit program to control water pollution. These amendments established technology-based or end-of-pipe control mechanisms and an interim goal to achieve “water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water”; more commonly known as the “swimmable, fishable” goal. Further amendments in 1977 of the CWA gave EPA the authority to implement pollution control programs such as setting wastewater standards for industry and established the basic structure for regulating pollutants discharges into the waters of the United States. In addition, it made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions. Regulations governing

the EPA administered the 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 current permit has an expiration date of June 30, 2023. The permittee submitted an application on March 27, 2023. The application was deemed administratively incomplete on April 5, 2023. Additional permit application was received on April 18, 2023 and was deemed administratively complete on April 19, 2023.

V. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

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

Regulations contained in 40 CFR §122.44 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, 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. EPA establishes limitations based on the following technology-based controls: BPT, BCT, and BAT.

2. Effluent Limitation Guidelines

The facility is a private domestic WWTP. Using Best Professional Judgement (BPJ), the technology-based ELG's established at 40 CFR Part 133, Secondary Treatment Regulation, which apply to the same type of treatment plants when publicly owned, are used to establish technology-based effluent limitations for this permit. Pollutants with ELG's established are BOD, TSS and pH. BOD 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).

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:

Loading in lbs/day = pollutant concentration in mg/l * 8.345 (lbs)(l)/(mg)(MG) * design flow in MGD

30-day average BOD/TSS loading = 30 mg/l * 8.345 (lbs)(l)/(mg)(MG) * 0.13 MGD = 32.55 lbs/day
7-day average BOD/TSS loading = 45 mg/l * 8.345 (lbs)(l)/(mg)(MG) * 0.13 MGD = 48.82 lbs/day

A summary of the technology-based limits for the facility is in Table 1.

Table 1:

Parameter	30-day Avg, lbs/day, unless noted	7-day Max, lbs/day, unless noted	30-day Avg, mg/l, unless noted	7-day Max, mg/l, unless noted
Effluent BOD_5	32.55	48.82	30	45
Influent BOD_5	Report	---	Monitor Only	---
BOD_5, % removal[1]	≥ 85	---	---	---
Effluent TSS	32.55	48.82	30	45
Influent TSS	Report	---	Monitor Only	---
TSS, % removal[1]	≥ 85	---	---	---
pH	NA	NA	6.0 to 9.0 s.u.	6.0 to 9.0 s.u.

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

WQS 20.6.4.11.E(1) NMAC “Mixing zones are not allowed for discharges to lakes, reservoirs, or playas; these effluents shall meet all applicable criteria set under Subsection F of 20.6.4.13 NMAC, 20.6.4.97 through 20.6.4.899 NMAC and 20.6.4.900 NMAC at the point of discharge.”

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, effective as of April 23, 2022, for purposes of State implementation and approved by EPA for Clean Water Act Purposes on January 19, 2023). The discharge is to receiving water to an unnamed arroyo and thence to the San Pedro Creek Segment No. 20.6.4.125 of the Rio Grande watershed. The unnamed arroyo is an ephemeral arroyo in NMAC Segment 20.6.4.97. The designated uses of 20.6.4.97 include livestock watering, wildlife habitat, limited aquatic life and secondary contact. The designated uses of the San Pedro Creek Segment No. 20.6.4.125 are coldwater aquatic life, irrigation, livestock watering, wildlife habitat 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. pH

The 20.6.4.97 NMAC applies to the Paa-Ko Communities Sewer Association permit. The designated uses for 20.6.4.97 NMAC are as follows: livestock watering, wildlife habitat, limited aquatic life and secondary contact. The use specific criteria in 20.6.4.900 NMAC are applicable to the designated uses. The pH limits applicable to 20.6.4.97 NMAC receiving water are 6.5 – 9 s.u. pH limits of 6-9 s.u. in the previous permit will be changed to pH limits of 6.5 – 9 based on the current NMWQS.

b. Bacteria

The E. coli bacteria limits applicable to 20.6.4.97 NMAC receiving water are 548 cfu/100 ml (monthly average), 2507 cfu/100 ml (daily maximum). The E. coli bacteria limits of 548 cfu/100 ml (monthly average), 2507 cfu/100 ml (daily maximum) in the previous permit will remain in the draft permit.

c. Toxics

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 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 FRL.

The facility is designated as a minor and does not need to fill out the expanded pollutant testing section Table C and D of Form 2A. There are no toxics that need to be placed in the draft permit except for TRC and PFAS described below.

d. TRC

A Facility inspection conducted on September 1, 2022, found the facility is using chlorine as primary disinfection method. Inspection report finding states "Changes have been made to the facility's final treatment process, the UV disinfection unit. The system was originally designed for UV disinfection, however due to cost and supply chain issues, has been replaced with a chlorine disinfection system." TRC of 11 µg/l (for wildlife habitat; 20.6.4.900.J NMAC) is established in the draft permit. The

previous permit established water quality-based effluent limitations for TRC of 11 µg/l and that limit will be continued in the draft permit.

e. DO

The low flow or 4Q3 of the receiving stream which was provided by NMED is zero (0). No modeling to evaluate the biochemical oxygen demand of the discharge was conducted. Since 4Q3 is zero, the discharge must meet end-of-pipe criteria.

f. Per- and Poly- Fluoroalkyl substances (PFAS)

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. 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 for toxic substances at 20.6.4.13(F)(1) NMAC states:

"Except as provided in 20.6.4.16 NMAC, surface waters of the state shall be free of toxic pollutants from other than natural causes in amounts, duration, concentrations, or combinations that affect the propagation of fish or that are toxic to humans, livestock or other animals, fish or other aquatic organisms, wildlife using aquatic environments for habitation or aquatic organisms for food, or that will or can reasonably be expected to bioaccumulate in tissues of fish, shellfish and other aquatic organisms to levels that will impair the health of aquatic organisms or wildlife or result in unacceptable tastes, odors or health risks to human consumers of aquatic organisms."

The 2022 New Mexico Water Quality Standards includes a narrative criteria for monitoring of emerging contaminants at 20.6.4.13(F) that states

"Emerging Contaminants Monitoring: The department may require monitoring, analysis and reporting of emerging contaminants as a condition of a federal permit under Section 401 of the federal Clean Water Act."

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 once per permit term influent, effluent, and sludge sampling for PFAS the first full calendar year after the effective date of the authorization to discharge under 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;"

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 Draft Method 1633.

In October 2021, EPA published a PFAS Strategic Roadmap 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 draft analytical method 1633. The draft Adsorbable Organic Fluorine CWA wastewater method 1621can be used in conjunction with draft method 1633, if appropriate.

Draft Method 1633 is currently a single lab-validated method. EPA anticipates the method will be multi-lab validated in 2023. If the PFAS monitoring requirement begins before Draft Method 1633 is multi-lab validated, the current single-lab validated Draft Method 1633 shall be used at that time, and then the multi-lab validated Draft Method 1633 shall be used once it is available.

5. 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 determined from the table 9, page 34 of the NMIP, as shown in

Table 2.

Parameter	Frequency	Sample Type
Flow	Daily	Totalized Meter
pH	5/week	Instantaneous Grab
BOD Effluent	2/month	Grab
BOD Influent	1/Month	Grab
TSS	2/month	Grab
TSS Influent	1/Month	Grab
% Removal	1/month	Calculation
TRC (if necessary)	5/week	Instantaneous Grab
E. coli Bacteria	2/month	Grab

However, influent BOD/TSS shall be monitored monthly by grab sample based on BPJ.

D. WHOLE EFFLUENT TOXICITY

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. Based on the nature of the discharge, a privately owned sanitary wastewater treatment facility equivalent to a POTW, the design flow of 0.13 MGD, and the nature of the receiving water, ephemeral with the

critical dilution of 100%, the NMIP directs the WET test to be a 48-hour acute test using *Daphnia pulex* at once per two years. First WET test shall be completed in the first year; second and third ones are in the third and fifth years, respectively. During the current permit term, the permittee only discharged from December 2023 through March 2023. The permittee performed WET Test only during the fifth year (April 11, 2023). Results of the WET test show that the effluent did not induce acute toxicity to the *Daphnia pulex.* Not enough data is available to determine RP. Therefore, continued WET monitoring is continued in the draft permit.

The proposed permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests based on a 0.75 dilution series. These additional effluent concentrations shall be 32%, 42%, 56%, 75%, and 100%. The low-flow effluent concentration (critical low-flow dilution) is defined as 100% effluent. Discharges shall be limited and monitored by the permittee as specified in Table 3.

Table 3:

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
WET Testing (48hr Static Renewal)[1]	30-day Avg Min	48hr Minimum	Frequency	Type
Daphnia pulex	Report	Report	Once per two years[2]	Grab

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.

[2] The test shall take place between November 1 and April 30. This permit does not establish requirements to automatically increase the WET testing frequency after a test failure, or to begin a toxicity reduction evaluation (TRE) in the event of multiple failures. However, upon failure of any WET test, the permittee must report the results to EPA and NMED, Surface Water Quality Bureau, in writing, within 5 business days of notification of the test failure. EPA and NMED will review the test results and determine the appropriate action necessary, if any.

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 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.

Sludge testing information will be retained by the permittee for a minimum of five (5) years as required in the record keeping requirements section of Part IV.

244 dry metric tons of sludge are generated at the facility in a year. Sludge is transported via truck off-site, approximately 2000-4000 gallons per month. The mailing address and disposal site of the sewage sludge are respectively at the following locations:

Bosque Farms Pumping
PO Box 10595
Albuquerque, NM 87184
Off State Rd6, 6 miles West of Los Lunas
Los Lunas, NM

B. WASTEWATER POLLUTION PREVENTION REQUIREMENTS

The permittee shall institute or continue programs directed towards pollution prevention. The facility shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility.

C. INDUSTRIAL WASTEWATER CONTRIBUTIONS

The treatment plant has no non-categorical Significant Industrial User's (SIU) and no Categorical Industrial User's (CIU). Since there are no significant non-domestic users, the permit will not apply conditions directly to any user, impose conditions on one or more users, issue separate permits, or require separate applications from users of this treatment works. (See 40 CFR 122.44(m))

D. OPERATION AND REPORTING

The applicant is required to operate the treatment facility at maximum efficiency at all times; to monitor the facility's discharge, if any, on a regular basis; and report the results quarterly. Reporting requirements and the requirement of using EPA-approved test procedures (methods) for the analysis and quantification of pollutants or pollutant parameters are contained in 40 CFR 122.41(l) and 40 CFR

122.21 (e), respectively. All Discharge Monitoring Reports (DMRs) shall be electronically reported. The monitoring results will be available to the public.

The 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. EPA regulations at 40 CFR 127.26(f) require that all NPDES permits issued on and after Monday, December 21, 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 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 region 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 the region. The permittee must sign and certify all submissions in accordance with the requirements of Part III of this permit (“Signatory Requirements”).

VII. TMDL REQUIREMENTS

San Pedro Creek to Paa-Ko Outfall in the Rio Grande Basin (20.6.4.125 NMAC) was not assessed in the 2022 – 2024 303(d) list but was last assessed in 2016 and is listed in the 2014-2016 State of New Mexico Clean Water Act §303(d) list of impaired waters with no additional information/requirement on TMDL at this time. Designated use(s) of coldwater aquatic life is not being supported. The permit has a standard reopener clause that would allow the permit to be changed if at a later date additional requirements on new or revised TMDLs are completed.

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. This permit reissuance is for an existing discharger that is not expanding, so anti-degradation requirements do not apply.

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 mass loading requirements of the previous permit for BOD and TSS. The remaining pollutants concentration limits are as restrictive as the previous permit.

X. ENDANGERED SPECIES CONSIDERATIONS

According to the most recent county listing available at US Fish and Wildlife Service (USFWS), https://ipac.ecosphere.fws.gov/location/AVCD73ORAVCTLHRPLB6QB26O2I/resources, eight species in Bernalillo County are listed as endangered (E) or threatened (T). Three species are birds and include the Southwestern Willow Flycatcher (Empidonax traillii extimus) (E), the Yellow-billed Cuckoo (Coccyzus americanus) (T), and the Mexican spotted owl (Strix occidentalis lucida) (T). Two mammalian species includes New Mexico meadow jumping mouse (Zapus hudsonius luteus) (E) and Mexican Wolf (Canis lupus baileyi). One aquatic specie includes Rio Grande silvery minnow (Hybognathus amarus) (E). Two flowering plants includes Pecos Sunflower (Helianthus paradoxus) (T) and Zuni Fleabane (Erigeron rhizomatous) (T).

Three of these species were not mentioned in the previous permit. These species include Mexican Wolf, Pecos Sunflower, and Zuni Fleabane.

Mexican Wolf -also known as the lobo, is a subspecies of gray wolf native to southeastern Arizona and southern New Mexico in the United States, and northern Mexico. It is the smallest of North America's gray wolves. It is the most endangered gray wolf subspecies in North America, having been extirpated in the wild during the mid-1900s through a combination of hunting, trapping, poisoning and digging pups from dens.

As of 2023, there are 241 wild Mexican wolves, and 380 in captive breeding programs, a large improvement over the 11 individuals that were released in Arizona in 1998.

The permit does not authorize activities that may cause destruction of the Mexican Wolf, and issuance of the permit will have no effect on this species.

Pecos Sunflower -The Pecos sunflower is an annual species that must re-establish populations of adult plants each year from seed produced during previous years' reproductive efforts. Habitats with suitable alkaline soils and perennially wet hydrologic conditions for all of the life functions of the Pecos sunflower are typically small areas around springs and ponds. Therefore, populations tend to grow in crowded patches of dozens or even thousands of individuals. The loss or alteration of wetland habitat continues to be the main threat to the Pecos sunflower. There is evidence these habitats have been historically, and are presently being, reduced or eliminated by aquifer depletion, and severely impacted by agricultural activities and encroachment by exotic plants. The lowering of water tables through aquifer withdrawals for irrigation and municipal use, diversion of water from wetlands for agriculture

and recreational uses, and wetland filling for conversion to dry land uses destroy or degrade desert wetlands. There are three sites in the Fort Stockton-Balmorhea area, 11 in the Dexter to Roswell area, eight in the Santa Rosa area, one along the lower Rio San Jose, and two in the Grants area. The issuance of this permit is found to have no effect on the habitat of this species.

Zuni Fleabane –is a rare species of flowering plant in the family Asteraceae known by the common names Zuni fleabane and rhizome fleabane. It is native to western New Mexico and eastern Arizona in the United States. It is a perennial herb up to 45 cm (18 inches) tall, with a rhizome and large network of clumped, fibrous roots topped with a branching caudex. It produces one or more erect, rough-haired stems up to about 45 centimeters (18 inches) in maximum height. It grows in selenium-rich sandstone substrates that originate in the Baca and Chinle Formations. It occurs in barren outcrops of eroding red or grayish rock that may have slopes of up to 40 degrees.

All known Zuni fleabane population sites occur on public lands. The known sites occur on lands managed by the U.S. Forest Service in the Cibola National Forest and Bureau of Land Management. Zuni fleabane is threatened by modification of its habitat due to mineral exploration and development. The distribution of Zuni fleabane is geologically associated with the distribution of uranium deposits in west-central New Mexico. Any significant development of these deposits would seriously jeopardize the Zuni fleabane. In addition, off-road vehicles activities are becoming increasingly more popular and a potential threat to the fragile habitat of this species. The permit does not authorize activities that may cause destruction of the Zuni fleabane habitat, and issuance of the permit will have no effect on this species.

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. Three additions have been made to the USFWS list of threatened and endangered species and critical habitat designation in the area of the discharge since prior issuance of the permit. The issuance of this permit is found to have no impact on the habitat of these species.

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 State WQS. There are no changes in concentration limits.

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

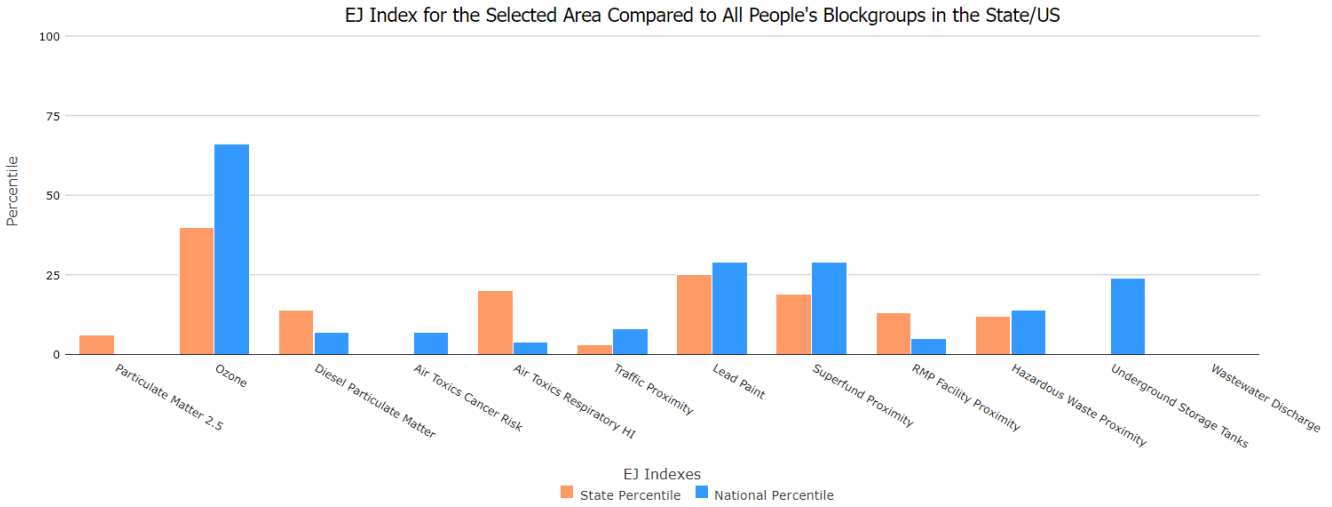
The reissuance of the permit should have no impact on historical and/or archeological sites since no construction activities are planned in the reissuance.

XII. 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 drawing a 3-mile radius at the proposed 001 discharge into the Tennis Court Pond. This facility discharges intermittently only during winter months when the golf course is closed. The population of the study area is 950, aged 5 and above. All twelve (12) Environmental Justice Indexes were well below the 80th percentile (80%). Furthermore, the ACS summary report indicates that 86% of the population in PAAKO Communities study area are white. Also, 90% of the population speak only English at home. These results indicate that all the percentiles are well below the 80 percentile and most of the population speak English at home. From the EJSCREEN guidelines and trainings, this area will not be a concern for Environmental Justice issues at this time.



XIII. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if NMWQS are promulgated or revised. In addition, if the State develops 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

None

XVI. COMPLIANCE HISTORY

The permittee discharged from December 2022 through March 2023. No violation was identified during the discharge period.

XVI. 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 of COE, to the Regional Director of FWS and to the National Marine Fisheries Service prior to the publication of that notice.

XVII. FINAL DETERMINATION

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

XVIII. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. APPLICATION(s)

The current permit has an expiration date of June 30, 2023. The permittee submitted an EPA Application Form 2A on March 27, 2023. The application was deemed administratively incomplete on April 5, 2023. Additional permit application was received on April 18, 2023, was deemed administratively complete on April 19, 2023.

B. 40 CFR CITATIONS

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, effective as of April 23, 2022, for purposes of State implementation and approved by EPA for Clean Water Act Purposes on January 19, 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.