NPDES PERMIT NO. NM0030279
FACT SHEET

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

APPLICANT

Village of Bosque Farms
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ISSUING OFFICE

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DATE PREPARED

November 28, 2017

PERMIT ACTION

Renewal of a permit previously issued August 30, 2012, with an effective date of October 1, 2012, and an expiration date of September 30, 2017.

RECEIVING WATER – BASIN

Rio Grande – Rio Grande Basin

DOCUMENT ABBREVIATIONS

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

4Q3	Lowest four-day average flow rate expected to occur once every three-years
BAT	Best available technology economically achievable
BCT	Best conventional pollutant control technology
BPT	Best practicable control technology currently available
BMP	Best management plan
BOD	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CBOD	Carbonaceous biochemical oxygen demand (five-day unless noted otherwise)
CD	Critical dilution
CFR	Code of Federal Regulations
cfs	Cubic feet per second
COD	Chemical oxygen demand
COE	United States Corp of Engineers
CWA	Clean Water Act
DMR	Discharge monitoring report
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FCB	Fecal coliform bacteria
FWS	United States Fish and Wildlife Service
mg/l	Milligrams per liter
ug/l	Micrograms per liter
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
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	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

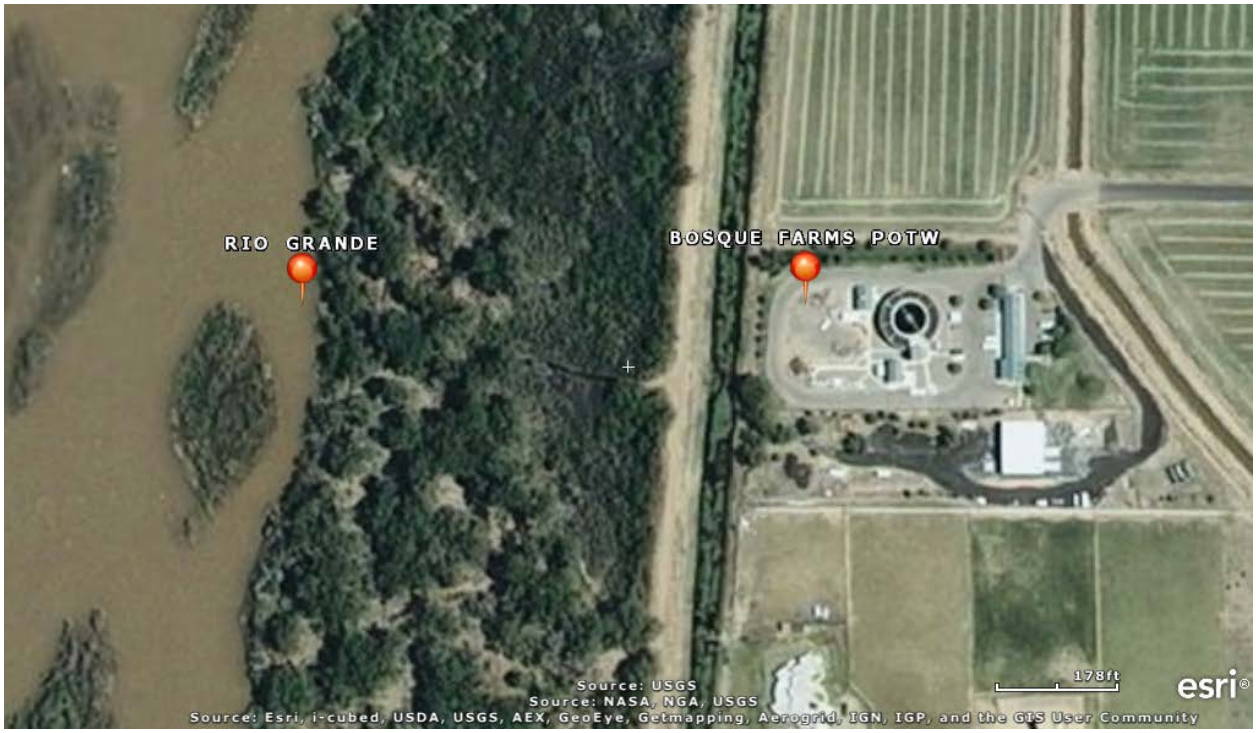
Changes from the previous permit issued August 30, 2012, with an effective date of October 1, 2012, and an expiration date of September 30, 2017, are:

A. Electronic DMR reporting requirements have been included in the modified permit.
B. Language on the Sufficiently Sensitive Methods has been established in the proposed permit.
C. BOD and TSS 7-Day Max loading has been corrected from 187.1 lbs/day to 187.7 lbs/day.

II. APPLICANT LOCATION and ACTIVITY

As described in the application, the facility is located at 1355 Desmet Road, Bosque Farms, Valencia County, New Mexico. Under the SIC Code 4952, the applicant operates a publically owned treatment works (POTW) with a design flow of 0.5 MGD providing sanitary services for approximately 4,100 residents.

PLAT OF BOSQUE FARMS POTW



Construction of the WWTP was completed in 1999. Since construction of the WWTP, nearly all of the residents of the village have abandoned their septic systems to protect the groundwater. Joint efforts from the village and town have been underway since 2014 to pursue funding for a WWTP expansion. Neither design nor construction have been fully obtained, so no scheduled implementation can be provided. If funds become available during the next permit term, the village will expand its WWTP capacity and will notify the EPA as required. The village continues to utilize its' sludge disposal site. However, the village has been investigating the

possibility of transitioning to a dewatering process using a container filter, that uses passive filtration and porous support plates to achieve cake solids permissible for landfill disposal. If the village pursues this change, the dewatered sludge would be sent to the Valencia Regional Landfill instead of the Village's Sludge Disposal Site. Leachate from the dewatering process will be returned to the headworks via a drain for additional treatment. Closure of the site will be in accordance with its' current Ground Water Discharge Permit (DP-122) issued by the New Mexico Environment Department in 2017, which has an expiration date of February 9, 2022.

The most recent inspection was conducted on February 3, 2015. Recordkeeping and reporting received an overall rating of unsatisfactory. The inspection report requested that the permittee produce a pollution prevention plan as required. In addition, the report also requested that the permittee replace its' inoperable totalized flow meter and get approval for NetDMR to start submitting electronic DMRs. It was noted that the facility had no inventory list available. Operations and maintenance received and overall rating of marginal. The report stated that only two people had access to the facility's emergency procedures but that it would be beneficial for all staff to know the procedures with dealing with an emergency situation. Furthermore, training, which is part of the pollution prevention plan, may also be warranted for other employees of the WWTP. The facility had no written inventory of spare parts and it was requested that the rubber on the skimmer arm of the clarifier be replaced which was, at the time, a repeat finding. . Suspended particles were also found entering the UV system, which can lead to inadequate treatment of the effluent. Flow measurement received an overall rating of unsatisfactory as a result of the inoperable totalizing meter. Laboratory received an overall rating of marginal. The report mentioned that the permittee was not conducting duplicate analyses with each batch of samples, but should be doing so in about 10% of its' samples to determine precision as a part of its' Quality Control program.

The WWTP is designed for a hydraulic load of 0.5 MGD. The Village has an ordinance that requires installation, maintenance and inspection of grinder pumps, grease traps and sand traps. Sand traps are required for car washes, schools, day care facilities, commercial laundries and laundromats. Grinder pumps are connected to each residence as well as commercial facilities throughout the village. The grinder pumps provide primary debris removal prior to the WWTP. Influent enters an anaerobic selector unit. The anaerobic selector unit is covered and odors are allowed to be vented to a biofilter odor compost bed. The contents in the anaerobic selector unit are mixed before moving to the aeration basin. The aeration basin is aerated using diffused air in the bottom of the tank from one of three air blowers. The aeration basin has concrete baffles to extend the aeration time and surrounds the secondary clarifier. A scum skimmer arm removes floatables from the clarifier and places them into the scum pit that eventually goes to the sludge storage basin. Ultraviolet (UV) light is used for disinfection. Two banks with three lights each can be alternated for maintenance. The UV system is cleaned with an automatic wiper system. Immediately after the UV system, effluent flow is measured using a 6-inch Parshall flume and a secondary ultrasonic flow totalizer.

Solids Management: Waste sludge is pumped from the secondary clarifier to an aerated thickener unit. The sludge is thickened with a polymer and allowed to settle by turning off aeration. After thickening solids are trucked by village personnel to a village-owned 240 acre fenced unlined sludge disposal facility located on an access road from Dalies Road, three miles

south of NM 6 in Valencia County. The facility does not have a leachate collection system. According to the permittee's representative, the facility's excavated detention ponds and earthen berms were designed for a 100-year storm event. Sludge is transferred first to an above ground open corrugated metal storage tank (nurse tank) then to an injection truck. Monthly, injection is to be alternated between one of 12 signed areas of the facility (one area signed for each month of the year). When not in use, the injection truck and equipment are stored in a covered metal building. The permittee maintains written manifest records and tracks sludge trips and percent solids.

The discharge from the facility is directly to the Rio Grande (Rio Grande from headwaters of Elephant Butte Reservoir to Alameda Bridge (Corrales Bridge), excluding waters of Isleta Pueblo) in water segment NMAC 20.6.4.105 of the Rio Grande Basin. Designated uses of the receiving water are irrigation, marginal warmwater aquatic life, livestock watering, public water supply, wildlife habitat and primary contact. The location of Outfall 001 is: Latitude 34° 49' 57.60" North, Longitude 106° 42' 45.32" West.

A summary of the last 24-months of available pollutant data: September, 2015 through September 2017, taken from DMRs shows one exceedance (461.1 cfu) of permit limits for E coli in April 2017.

III. EFFLUENT CHARACTERISTICS

The applicant tested pollutants consistent with the design flow of the facility as required by EPA Form 2A; the results of that testing is as follows:

POLLUTANT TABLE - 1

Parameter	Max (mg/l unless noted)	Avg (mg/l unless noted)
Flow, million gallons/day (MGD)	0.30	0.21
Temperature, winter, °C	25.30	15.50
Temperature, summer, °C	30.10	23.40
pH, minimum, standard units (su)	7.29	N/A
pH, maximum, standard units (su)	7.75	N/A
Biochemical Oxygen Demand, 5-day (BOD_5)	5.60	3.30
E. coli (#bacteria/100 ml)	1,120.00	40.50
Total Suspended Solids (TSS)	11	6.90
Ammonia (NH_3)	0	0
TRC	N/A	N/A
DO	1.87	1.60
Total Kjeldahl Nitrogen	2.80	2.30
Nitrate plus Nitrite Nitrogen	25.00	18.70
Oil & Grease	0.0	0.0
Phosphorus	1.40	0.80
Total Dissolved Solids	496.0	481.70

A review of DMR data shows that BOD exceeded limits in December 2010, with the 7-day average at 230 mg/l (45 mg/l limit) and the monthly average at 80.6 mg/l (limit 30 mg/l).

IV. REGULATORY AUTHORITY/PERMIT ACTION

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

The facility submitted a complete permit application March 29, 2017. It is proposed that the permit be reissued for a 5-year term following regulations promulgated at 40 CFR §122.46(a).

V. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

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

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

Technology-based effluent limitations are established in the proposed draft permit for TSS, BOD, and percent removal efficiency for each. 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

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. 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.

2. Effluent Limitation Guidelines

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, percent removal for each and pH. 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). 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 POTW's, the plant's design flow is used to establish the mass load. Mass limits are determined by the following mathematical relationship:
0.5 MGD Design Flow

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

30-day average BOD5/TSS loading = 30 mg/L * 8.345 lbs/gal * 0.5 MGD
30-day average BOD5/TSS loading = 125.1 lbs/day.
7-day average BOD5/TSS loading = 45 mg/L * 8.345 lbs/gal * 0.5 MGD
7-day average BOD5/TSS loading = 187.7 lbs/day.

TSS/BOD_5 loading (lbs/day) = 30 mg/l * 8.345 lbs/gal * 0.5 MGD = 125.1 lbs/day

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

Final Effluent Limits – 0.5 MGD design flow

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS lbs/day, unless noted		DISCHARGE LIMITATIONS mg/l, unless noted	
	30-Day Avg	7-Day Max	30-Day Avg	7-Day Max
Flow	N/A	N/A	Report	Report
BOD	125.1	187.7	30	45
BOD, % Removal, Minimum	≥ 85% (*1)	---	---	---
TSS	125.1	187.7	30	45
TSS, % Removal, Minimum	≥ 85% (*1)	---	---	---

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS lbs/day, unless noted		DISCHARGE LIMITATIONS MINIMUM	MAXIMUM
pH	N/A	N/A	6.0 su	9.0 su

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

C. WATER QUALITY BASED LIMITATIONS

1. General Comments

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

2. Implementation

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

3. State Water Quality Standards

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC effective August 11, 2017). The facility discharges to the Rio Grande (Rio Puerco to Isleta Pueblo boundary) in Segment 20.6.4.105 NMAC in the Rio Grande Basin. The designated uses of the Rio Grande are irrigation, marginal warmwater aquatic life, livestock watering, public water supply, 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

Criteria for pH is listed in 20.6.4.900.D and H.(6) for primary contact and marginal warmwater aquatic life each within the range of 6.6-9.0 su's. These limits are more stringent than the technology-based limits above and the draft permit will propose the water quality based limits 6.6-9.0 su's. These are identical to the current permit.

b. Bacteria

Criteria for bacteria; E. coli, is listed in 20.6.4.900.D , primary contact and establish E. coli bacteria at 126 cfu/100 ml daily monthly geometric mean and 410 cfu/100 ml daily maximum. These limits are identical to the previous permit. The EPA approved a TMDL in 2010 that established WLAs for bacteria from various point sources in Rio Grande including the Village of Bosque Farms. The TMDL established a WLA for bacteria; 2.39×10^9 cfu/day based on 126 cfu/100 ml effluent limit, a 3.79×10^7 conversion factor and 0.5 MGD design flow. The conversion factor is based on the following:

C as cfu/100 ml × 1000 ml/liter × 1liter/0.264 gallons × Qe expressed as MGD

The draft permit will continue to incorporate the E. coli bacteria WLA as approved in the TMDL. Consistent with bacteria TMDL permit practices, the 126 cfu/100 ml concentration and 2.39×10^9 cfu/day mass loading limit is shown as the 30-day average value. The primary contact designated use, allows a daily maximum of 410 cfu/100 ml and the draft permit will maintain the 410 cfu/100 ml concentration limit as the daily maximum. The daily maximum loading limit will be N/A.

c. TOXICS

i. General Comments

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

All applicable facilities are required to fill out appropriate sections of the Form 2A, 2S or 2E, to apply for an NPDES permit or reissuance of an NPDES permit. The new form is applicable not only to POTWs, but also to facilities that are similar to POTWs, but which do not meet the regulatory definition of "publicly owned treatment works" (like private domestics, or similar facilities on Federal property). The forms were designed and promulgated to "make it easier for permit applicants to provide the necessary information with their applications and minimize the need for additional follow-up requests from permitting authorities," per the summary statement in the preamble to the Rule. These forms became effective December 1, 1999, after publication of the final rule on August 4, 1999, Volume 64, Number 149, pages 42433 through 42527 of the FRL. The facility is designated as a minor, and does not need to fill out the expanded pollutant testing section Part D of Form 2A. There are not toxics that need to be placed in the draft permit except for those presented below.

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 SWQB of the NMED was unable to provide EPA with an updated 43Q. As a result, the estimated critical low flow used in the previous permits will be used to calculate the critical dilution. 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·Qa + Qe), where:
Qe = facility flow (0.50 MGD)
Qa = critical low flow of the receiving waters (62.4 MGD/96 cfs)
F = fraction of stream allowed for mixing (1.0)
CD = 0.50MGD/[(1.0)(62.4) + 0.50]
= 0.0079
= 0.79 %

According to the NMIP, if it is determined that a facility is to receive chronic biomonitoring requirements at a critical dilution of 10% or less, then an acute to chronic ratio of 10:1 may be used in order to allow acute biomonitoring in lieu of chronic.
Acute critical dilution = 0.80% * 10= 8%

iii.TRC

The facility uses UV to treat bacteria. Consistent with all POTWs in the State of NM however, TRC limitations are placed in permits to provide discharge limitations in the event chlorine is used as backup bacteria disinfection treatment and/or cleaning and disinfection of process equipment and/or used to control filamentaceous algae. The previous permit established TRC limits of 19ug/l and that limit will be continued in the draft permit with the conditions above stated as to when the facility needs to provide monitoring for TRC. When the above conditions are not being used the permittee may report N/A with a note stating chlorine was not used in the manner stated in the permit footnote.

d. DO

An evaluation of the permittee's impact on the receiving water dissolved oxygen was completed as part of the permitting process. A steady state model (LA-QUAL) was used to evaluate the biochemical oxygen demand of the discharge and associated constituents including ammonia. A complete characterization of the receiving water was not available. Certain parameters, including flow, were available and were utilized. However, the receiving water model also used default values to estimate the various unavailable hydrodynamic and water quality parameters. The discharge was modeled using data obtained from the application, permits limits and defaults were used for unavailable discharge characterization data.

The evaluation demonstrated that the discharge would not cause an excursion of the in-stream standard of 5 mg/L. As a result, no further DO requirement are established in the draft permit. The output file is attached as Appendix I.

5. TMDL Requirement

A TMDL for E. Coli was completed in 2010, the TMDL will be maintained in the permit.

C. Monitoring Frequency for Limited Parameters

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity, 40 CFR §122.48(b), and to assure compliance with permit limitations, 40 CFR §122.44(i)(1). Sample frequency is based on the March 12, 2012, NMIP.

Flow is proposed to be measured and reported continuously by totalizing meter consistent with the current permit. The pollutants BOD and TSS shall be sampled and reported twice per month using 6-hour composite samples. The pollutant pH shall be sampled and reported five times per week using grab samples. E. coli bacteria are to be sampled and reported twice per month using grab samples. TRC, when used according to the conditions stated previously shall be sampled and reported daily by instantaneous grab sample. Instantaneous grab sample is defined in 40 CFR Part 136 as being sampled and analyzed within 15-minutes. Sample frequency for BOD, TSS and E. coli are slightly less frequent; 24 times per year, than the previous permit; 26 times per year. This is to establish consistent frequencies for similar sized facilities in the state based on the NMIP. Sample frequency for pH however has increased from 26 times per year to 260 times. The facility staff performs the sampling using a handheld meter and the increase does not represent a significant cost burden to the facility.

D. WHOLE EFFLUENT TOXICITY LIMITATIONS

Procedures for implementing WET terms and conditions in NPDES permits are contained in the NMIP. Table 11 of Section V of the NMIP outlines the type of WET testing for different types of discharges. Based on the previous permit the CD was calculated to be 0.8%. Test results from the previous permit have been analyzed and the results of that testing, demonstrate that no RP exists for WET effects (See Appendix II). As a result, WET limits are not required in the draft permit. Since the designated use of stream segment 20.6.4.105 has aquatic life, and the critical dilution is less than 10%, the NMIP requires a 48-hour acute biomonitoring test, using the species Daphnia pulex and Pimephales promelas and a 10:1 acute to chronic factor (CD = 8%) . 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. The sample for the WET test for Outfall 001 shall be taken during the period November 1 through April 30. The permittee shall submit the results of any toxicity testing performed in accordance with the Part II of the Permit.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and alkalinity shall be documented in a full report according to the appropriate test method publication. The full reports required by each test section need not be submitted unless requested. However, the full report is to be retained following the provisions of [40 CFR Part 122.41 (j) (2)]. The permit requires the submission of the toxicity testing information to be included on the DMR.

A minimum of five effluent dilutions in addition to an appropriate control (0%) are to be used in the toxicity tests. These additional effluent concentrations are 3%, 5%, 6%, 8%, and 11%. The low-flow effluent concentration (critical dilution) is defined as 8% effluent determined above. Discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	**DISCHARGE MONITORING**	**MONITORING REQUIREMENTS**	
WHOLE EFFLUENT TOXICITY (48-Hr Acute NOEC) (*1)	VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Pimephales promelas	Report	Once/Year	24-Hr Composite
Daphnia pulex	Report	Once/Year	24-Hr Composite

FOOTNOTES

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

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". 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. 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 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. The permittee shall require any indirect discharger to the treatment works to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Act, including any requirements established under 40 CFR Part 403. The following pollutants may not be introduced into the treatment facility: Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, wastestreams with a closed

cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21; Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works are specifically designed to accommodate such discharge; Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference; Any pollutant, including oxygen demanding pollutants (e.g., BOD), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW; Heat in amounts which will inhibit biological activity in the POTW resulting in Interference but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40 degrees Centigrade (104 degrees Fahrenheit) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits; Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through; Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and any trucked or hauled pollutants, except at discharge points designated by the POTW.

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 on a regular basis; and report the results quarterly. The monitoring results will be available to the public.

Electronic Reporting Rule

Discharge Monitoring Report (DMR) results shall be electronically reported to EPA per 40 CFR 127.16. To submit electronically, access the NetDMR website at https://netdmr.epa.gov. Until approved for Net DMR, the permittee shall request temporary or emergency waivers from electronic reporting. To obtain the waiver, please contact: U.S. EPA - Region 6, Water Enforcement Branch, New Mexico State Coordinator (6EN-WC), (214) 665-6468. If paper reporting is granted temporarily, the permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA and copies to NMED as required (See Part III.D.IV of the permit). Reports shall be submitted monthly.

Sufficiently Sensitive Analytical Methods (SSM)

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

VI. 303(d) LIST

The Rio Grande (Rio Puerco to Isleta Pueblo boundary) is listed on the "2016-2018 State of New Mexico Clean Water Act §303(d)/ 305(b) Report." The waterbody is classified as 5/5A with irrigation, livestock watering, primary contact, and wildlife habitat fully supporting for the Rio Puerco to Isleta Pueblo boundary segment. Marginal warmwater aquatic life is not supporting due to temperature and public water supply has not been assessed. A TMDL for temperature has not been completed and since temperature is not normally a pollutant of concern from POTWs no additional requirements are added to the permit based on this. A TMDL for E. Coli was completed in 2010. The WLA for E. Coli established for Bosque Farms WWTP will be maintained in the permit. 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 were completed.

VII. ANTIDEGRADATION

The NMAC, Section 20.6.4.8 "Antidegradation Policy and Implementation Plan" sets forth the requirements to protect designated uses through implementation of the State water quality standards. The limitations and monitoring requirements set forth in the proposed permit are developed from the State water quality standards and are protective of those designated uses. Furthermore, the policy sets forth the intent to protect the existing quality of those waters, whose quality exceeds their designated use. The permit requirements and the limits are protective of the assimilative capacity of the receiving waters, which is protective of the designated uses of that water, NMAC Section 20.6.4.8.A.2.

IX. ANTIBACKSLIDING

The proposed permit is consistent with the requirements to meet antibacksliding provisions of the Clean Water Act, Section 402(o) and 40 CFR §122.44(l)(i)(A), which state in part that interim or final effluent limitations must be as stringent as those in the previous permit, unless material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation. The proposed permit maintains the limitations of the previous permit for BOD, TSS, TRC, pH, and *E. coli*. Any other changes to the permit represent requirements that are consistent with the States WQS and WQMP.

VIII. ENDANGERED SPECIES CONSIDERATIONS

According to the most recent county listing available, https://ecos.fws.gov/ipac/location/RYBMIDO5BBHNPNW2VFLPPWHWP4/resources , six species in the facility location are listed as endangered (E) or threatened (T). The southwestern willow flycatcher (E) (*Empidonax traillii extimus*), the Yellow-billed Cuckoo (*Coccyzus americanus*) (T), the Rio Grande silvery minnow (E) (*Hybognathus amarus*), the Pecos sunflower (T) (*Helianthus paradoxus*), the Mexican spotted owl (T) (*Strix occidentalis lucida*), the New Mexico Meadow Jumping Mouse (E) (*Zapus hudsonius luteus*). The Black-footed ferret (*Mustela nigripes*) is listed as extirpated in the county The American bald eagle (*Haliaeetus leucocephalus*) was previously listed in Valencia County; however, the USFWS removed the American bald eagle in the lower 48 states from the Federal List of Endangered and Threatened Wildlife Federal Register, July 9, 2007, (Volume 72, Number 130).

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 has been no critical habitat designation 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 draft permit is consistent with the States WQS and does not increase pollutant loadings.

4. EPA determines that Items 1, thru 3 result in no change to the environmental baseline established by the previous permit, therefore, EPA concludes that reissuance of this permit will have "no effect" on listed species and designated critical habitat.

IX. 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.

X. 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.

XI. VARIANCE REQUESTS

No variance requests have been received.

XII. 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.

XIII. FINAL DETERMINATION

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

XIV. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. APPLICATION(s)

EPA Application Forms 1 and 2B received March 29, 2017. Application was determined to be administratively complete on October 17, 2017.

B. 40 CFR CITATIONS

Citations to 40 CFR are as of November 24, 2017.
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 August 11, 2017.

Procedures for Implementing National Pollutant Discharge Elimination System Permits in New Mexico, March 12, 2012.

State of New Mexico 303(d) List for Assessed Stream and River Reaches, 2016 - 2018.