

## **NPDES PERMIT NO. NM0028436 FACT SHEET**

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

### **APPLICANT**

Pojoaque Terrace Mobile Home Park  
27 Camino Cerrado  
Santa Fe, NM 87506

### **ISSUING OFFICE**

U.S. Environmental Protection Agency  
Region 6  
1445 Ross Avenue  
Dallas, Texas 75202-2733

### **PREPARED BY**

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### **DATE PREPARED**

October 4, 2017

### **PERMIT ACTION**

Proposed reissuance of the current National Pollutant Discharge Elimination System (NPDES) permit issued August 19, 2011, with an effective date of October 1, 2011, and an expiration date of September 30, 2016.

### **RECEIVING WATER – BASIN**

Arroyo Destierro to Pojoaque Creek to Pojoaque River – Upper 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 <sub>5</sub>	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CBOD <sub>5</sub>	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
µg/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
PCB	Polychlorinated Biphenyl
POTW	Publically owned treatment works
PPWQS	Pueblo of Pojoaque Water Quality Standards
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
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
WQS	Water Quality Standards
WWTP	Wastewater Treatment Plant

In this document, references to State WQS and/or rules shall collectively mean either or both the State of New Mexico and/or the Pueblo of Pojoaque.

**I. CHANGES FROM THE PREVIOUS PERMIT - None****II. FACILITY LOCATION and ACTIVITY**

The plant is located at 27 Camino Cerrado in Santa Fe, Santa Fe County, New Mexico. Under the SIC Code 6515, the applicant operates a mobile home site and a wastewater treatment plant with a design flow capacity of 0.02 MGD serving 69 residences, a population of approximately 280 people.

**PLAT OF FACILITY**

The wastewater treatment plant consists of a modified extended aeration activated sludge process with secondary clarification, chlorination (calcium hypochlorite tablet feeder) and de-chlorination (sodium sulfite tablet feeder). Sludge is wasted to a holding tank and is taken away for disposal by a contracting firm (S&R Septic). S&R Septic disposal facility is located off Tune Drive that intersects NM Hwy 65. S&R Septic operates under DP-465 issued by the NMED.

The treated effluent from the plant is discharged to Arroyo Destierro, thence to Pojoaque Creek, thence the Pojoaque River within the exterior boundaries of the Pueblo of Pojoaque, of the upper Rio Grande Basin in Segment No. 20.6.4.114. The single outfall of the facility is located at Latitude: 35° 53' 55" North and Longitude: 106° 01' 35" West.

**III. EFFLUENT CHARACTERISTICS**

A quantitative description of the discharge(s) described in the EPA Permit Application Form 2A received July 31, 2017, are presented below:

POLLUTANT TABLE - 1

Parameter	Average	Maximum
Flow	0.01 MGD	0.020 MGD
Temperature, winter	---	---
Temperature, summer	---	---
pH, minimum	---	6.00 s.u.
pH, maximum	---	9.00 s.u.
Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	5.00 mg/L	7.50 mg/L
<i>E.coli</i> Bacteria (cfu/100 ml)	---	---
Total Suspended Solids (TSS)	---	---
Chlorine, Total Residual (TRC)	---	---

A summary of BOD<sub>5</sub>, TSS, *E. coli* bacteria, total residual chlorine and pH monitoring data from January 2015 to January 2017 taken from DMRs demonstrates compliance with permit limitations established in the previous permit.

#### 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 applicant submitted a complete permit application July 31, 2017. 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 initially issued August 19, 2011, with an effective date of October 1, 2011, and an expiration date of September 30, 2016 is administratively continued until this permit is reissued.

#### 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 NPDES permit limits be developed to meet the more stringent of either technology-based effluent limitation guidelines (ELGs), numerical and/or narrative water quality standard-based effluent limitations, or the previous permit. Technology-based effluent limitations are established in the proposed permit for BOD<sub>5</sub>, TSS and percent removal for both. Water quality-based effluent limitations are established in the proposed draft permit for *E. coli* bacteria, TRC and pH.

## B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated at 40 CFR §122.44 (a) require technology-based effluent limitations to be placed in NPDES permits based on ELGs where applicable, on BPJ in the absence of guidelines, or on a combination of the two. In the absence of promulgated guidelines for the discharge, permit conditions may be established using BPJ procedures. 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<sub>5</sub>, TSS, fecal coliform/*E. Coli* bacteria, pH, and O&G.

**BAT** – The most appropriate means available on a national basis for controlling the direct discharge of toxic and non-conventional pollutants to navigable waters. BAT effluent limits represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

The Pojoaque Terraces Manufactured Housing Community, LLC is a privately owned facility which treats sanitary wastewater. Secondary treatment technology-based ELGs and percent removal for both BOD<sub>5</sub> and TSS, and pH are established at 40 CFR §133.102 (a), 40 CFR §133.102 (b) and 40 CFR §133.102 (c), respectively. BOD<sub>5</sub> and TSS ELGs are 30 mg/L for the 30-day average, 45 mg/L for the 7-day average and 85 percent removal (minimum). ELGs for pH are between 6-9 s.u. Additionally, regulations at 40 CFR §122.45 (f)(1) require all pollutants limited in permits to have limitations expressed in terms of mass, such as pounds per day. When determining mass limits for a POTW, the plant's design flow is used to establish the mass load. Mass limits are determined by the following mathematical relationship:

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

30-day average BOD<sub>5</sub>/TSS loading = 30 mg/l \* 8.345 lbs/gal \* 0.02 MGD = 5.0 lbs/day

07-day average BOD<sub>5</sub>/TSS loading = 45 mg/l \* 8.345 lbs/gal \* 0.02 MGD = 7.5 lbs/day

A summary of the technology-based limits based on 0.02 MGD Design Flow

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS			
	30-Day Avg.	7-Day Avg.	30-Day Avg.	7-Day Avg.
Parameter				
Flow	N/A	N/A	Measure MGD	Measure MGD
BOD <sub>5</sub>	5.0 lbs/Day	7.5 lbs/Day	30 mg/L	45 mg/L
BOD <sub>5</sub> , % removal, minimum	≥ 85%	---	---	---
TSS	5.0 lbs/Day	7.5 lbs/Day	30 mg/L	45 mg/L
TSS, % removal, minimum	≥ 85%	---	---	---
pH	NA	NA	6.0 - 9.0 s.u.	

The facility will be required to maintain a log and kept at the facility showing the influent of BOD<sub>5</sub> and TSS on a once/month frequency to be used to determine the removal percentage. This data is not required to be submitted but must be made available to EPA or its agents upon request.

## 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 water quality limits. Under Section 301 (b)(1)(C) of the CWA, discharges are subject to effluent limitations based on WQS. Effluent limitations and/or conditions established in the draft permit are in compliance with Tribal WQS to assure that surface WQS of the receiving waters are protected and maintained, or attained. Permit limits will ensure downstream WQS will be met in accordance with 40 CFR §122.4(d).

### 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. Tribal narrative and numerical WQS 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. Tribal Water Quality Numerical Standards

#### a. DESIGNATED USES

The Pojoaque River designated uses for the PPWQS, Section IV.F, are irrigation, primary contact, marginal cold-water fisheries, groundwater recharge, livestock watering, and wildlife habitat use. The general and specific stream standards for the state of New Mexico in waterbody Segment No. 20.6.4.114 NMAC are provided in NMWQS (effective June 5, 2013). The designated uses of this receiving water are irrigation, livestock watering, wildlife habitat, marginal cold-water aquatic life, primary contact and warm-water aquatic life; and, public water supply on the main stem of Rio Grande.

#### b. RECEIVING WATER STANDARDS

The discharge from Outfall 001 enters the Arroyo Destierro, thence Pojoaque Creek, thence Pojoaque River within the exterior boundaries of the Pueblo of Pojoaque; upstream from that portion of the river is also designated as Segment No. 20.6.4.114 in the Upper Rio Grande Basin.

Based on the minimal flow of 0.02 MGD from the wastewater treatment facility and 2.5-mile distance between the facility and Pueblo of Pojoaque boundary, it is the professional opinion of the permit writer that the treated wastewater may not reach the state of New Mexico jurisdictional downstream water body. Therefore, the proposed permit is established to comply with the PPWQS. Protection of PPWQS would be expected to also protect NMWQS should the discharge reach state waters. The segment downstream of the discharge and Pueblo waters in the Pojoaque River WQS 20.6.114 and AU ID- NM-2011\_20 is on the NMED 303(d) list of impaired waters for PCB as found in the water column.

#### c. WATER QUALITY STANDARDS

i. Pueblo of Pojoaque WQS

The general and specific stream standards for the Pueblo of Pojoaque WQS are provided in “2015 Revised PPWQS,” approved by EPA on December 16, 2015. The designated uses of the Pojoaque River, according to PPWQS, Section IV.F, are irrigation, primary contact, marginal coldwater fisheries, groundwater recharge, livestock watering, and wildlife habitat use.

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). Tribal WQS that are more stringent than effluent limitation guidelines are as follows:

a. pH

The Pueblo of Pojoaque stream segment WQS for primary contact, marginal cold-water fisheries, Section IV.D, minimum and maximum pH requirements of 6.6 and 8.8 s.u., are more limiting than the technology-based limits and are consistent with the current permit. The draft permit shall maintain 6.6 to 8.8 s.u. for pH based on the PPWQS. In addition, The NMWQS minimum pH requirement for primary contact, marginal cold-water aquatic life and warm-water aquatic life is identical with PPWQS. The NMWQS maximum pH requirement of 9.0 s.u. is less stringent than the PPWQS; therefore, no additional limitations are required to protect the downstream State’s beneficial uses.

b. Bacteria

PPWQS stream segment WQS for primary contact, Section IV.D, require an *E. coli* monthly geometric mean maximum of 126 cfu/100 ml and a single sample maximum of 235 cfu/100 mL. The draft permit shall propose *E. coli* bacteria limitations based on PPWQS of 126 cfu/100 mL monthly geometric mean and 235 cfu/100 mL single sample maximum.

NMWQS for primary contact require an *E. coli* bacteria monthly geometric mean of 126 cfu/100 mL and a single sample of 410 cfu/100 mL. NMWQS for *E. coli* bacteria monthly geometric mean are identical with PPWQS. The NMWQS single sample requirement is less stringent than the PPWQS; therefore, no additional limitations are required to protect the downstream State’s beneficial uses.

c. Total Residual Chlorine

Information submitted in the application indicates that for the existing plant, bacteria disinfection is currently achieved through chlorination. Chlorine, a known toxicant, if untreated, is likely to cause exceedances of numerical and narrative WQS contained in Section IV.E.4 of the PPWQS. Based on the previous permit, the draft permit will continue the TRC limitation of 0.003 mg/L as required by the PPWQS to protect the segment designated use for marginal cold-water fisheries.

The NM Implementation Plan strategy for TRC requires the most limiting of the critical dilution/chronic criteria concentration of 11 µg/L or end-of-use/acute criteria concentration of 19 µg/L be used in determining the limit. NMIP is less stringent than PPWQS; therefore, no additional limitations are required to protect the downstream State’s beneficial uses.

#### d. 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 the 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 POTW, but also to facilities that are similar to POTW, but which do not meet the regulatory definition of “publicly owned treatment works” (i.e., 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 42433-42527 of the FRL. The facility does not need to fill out the expanded pollutant testing section Part D of Form 2A since it’s designated as a minor. No additional considerations are required for these pollutants.

### 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 contained in 40 CFR §122.44(i)(1). Technology based pollutants, BOD<sub>5</sub> and TSS, are proposed to be monitored one (1) time per month. Flow is proposed to be monitored one (1) time per day. These frequencies are consistent with the current permit. The sample type for BOD<sub>5</sub> and TSS shall be by grab, also consistent with the current permit.

Water quality-based pollutant monitoring frequency for *E. coli* bacteria shall be monitored one (1) time per month by grab sample. TRC shall be monitored daily by instantaneous grab sample. The pH shall be monitored monthly by grab sample, consistent with the current permit. Regulations at 40 CFR §136 define instantaneous grab as being analyzed within 15-minutes of collection.

### E. WHOLE EFFLUENT TOXICITY LIMITATIONS

Biomonitoring of the discharge will not be placed in the permit based on the low flow, and nature of the receiving waterbody. Based on the technology-based and water quality-based limitations discussed above, and the nature of the discharge, the discharge does not have potential to exceed either numerical or narrative standards established by PPWQS.

## VI. FACILITY OPERATIONAL PRACTICES

### A. SEWAGE SLUDGE PRACTICES

Sludge produced at this facility is transported via truck by S&R Septic to a disposal facility located off Tune Drive that intersects NM Hwy 65. The permittee shall use only those sewage sludge disposal or reuse practices that comply with the federal regulations established in 40 CFR §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. 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 treatment plant has no non-categorical Significant Industrial User's (SIU) and no Categorical Industrial User's (CIU). The EPA has determined that the permittee will not be required to develop a full pretreatment program.

#### 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.

#### VII. 303(d) LIST

The Pueblo of Pojoaque has not evaluated the segment of the Pojoaque River within Tribal boundaries. Until the water is assessed, additional permit action is not required. A reopener clause will allow permit conditions to be addressed if and when the Pueblo assess the receiving water, and additional permit limits are required

#### VIII. ANTIDegradation

The Pueblo of Pojoaque revised PPWQS Section II "Anti-degradation Policy and Implementation Plan" sets forth the requirements to protect existing uses through implementation of the Pueblo of Pojoaque revised WQS. The limitations and monitoring requirements set forth in the proposed permit are developed from the PPWQS and are protective of those designed 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. There is no increase of pollutants being discharge to the receiving waters authorized in the proposed permit.

#### IX. ANTIBACKSLIDING

The proposed permit is consistent with the requirements to meet anti-backsliding provisions of the CWA, 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 discharge limitations requirements of the previous permit for all pollutants.

## X. ENDANGERED SPECIES CONSIDERATIONS

The most recent county listing available at US Fish and Wildlife Service (USFWS) shows the following endangered (E) or threatened (T) species in Santa Fe County on their website at <https://ecos.fws.gov/ecp0/reports/species-by-current-range-county?fips=35049>. The three bird species include the Yellow-billed Cuckoo (*Coccyzus americanus*) (T), Southwestern willow flycatcher (*Empidonax traillii extimus*) (E) and the Mexican spotted owl (*Strix occidentalis lucida*) (T). The only mammal is the North American wolverine (*Gulo gulo luscus*) (T).

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. Characteristics of discharge have not changed from the previously issued permit, September 29, 2006.
2. EPA concluded “no effect” during the previous issuance of the permit and has received no additional information which would lead to revision of its determination.
3. EPA determines based on the available information in items 1 and 2 that the environmental baseline established by the previous permit is still valid. Therefore, EPA concludes that reissuance of this permit will have “no effect” on listed species and designated critical habitat.

## XI. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

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

## XII. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if relevant portions of the Pueblo of Pojoaque or State WQS are revised or remanded. In addition, the permit may be reopened and modified during the life of the permit if relevant procedures implementing the State or Tribal WQS are either revised or promulgated. Should either the Pueblo of Pojoaque or the State adopt a new WQS, and/or develop or amend a TMDL, this permit may be reopened to establish effluent limitations for the parameter(s) to be consistent with that approved Tribal or State standard and/or water quality management plan, in accordance with 40 CFR §122.44(d). Modification of the permit is subject to the provisions of 40 CFR §124.5.

## XIII. VARIANCE REQUESTS - None

## XIV. CERTIFICATION

The permit is in the process of certification by the Pueblo of Pojoaque agency following regulations promulgated at 40 CFR §124.53. A draft permit and draft public notice will be sent to the NMED, Pueblo of San Ildefonso, 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 July 31, 2017.

### B. 40 CFR CITATIONS

Citations to 40 CFR as of October 10, 2017.

Sections §122, §124, §125, §136, §137, §138

### C. PUEBLO OF POJOAQUE REFERENCES

2015 Revised Pueblo of Pojoaque Water Quality Standards, approved by EPA December 16, 2015.

### D. STATE OF NEW MEXICO REFERENCES

*New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, as effective June 5, 2013.*

*Procedures for Implementing NPDES Permits in New Mexico, March 15, 2012.*

*Statewide Water Quality Management Plan, December 23, 2011.*

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