# NPDES PERMIT NO. NM0023477
# FACT SHEET

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

APPLICANT

Village of Fort Sumner Wastewater Treatment Plant
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ISSUING OFFICE

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PREPARED BY

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DATE PREPARED

November 29, 2017

PERMIT ACTION

Proposed reissuance of the current permit issued May 8, 2012 with an effective date of July 1, 2012, and an expiration date of June 30, 2017.

RECEIVING WATER – BASIN

The Pecos River, Segment No. 20.6.4.207 - Pecos River Basin

DOCUMENT ABBREVIATIONS

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

| | |
|---|---|
| 4Q3 | Lowest four-day average flow rate expected to occur once every three years |
| BAT | best available technology economically achievable |
| BCT | Best conventional pollutant control technology |
| BPT | Best practicable control technology currently available |
| BMP | Best management plan |
| BOD | Biochemical oxygen demand (five-day unless noted otherwise) |
| BPJ | Best professional judgment |
| CBOD | Carbonaceous biochemical oxygen demand (five-day unless noted otherwise) |
| CD | Critical dilution |
| CFR | Code of Federal Regulations |
| Cfs | Cubic feet per second |
| COD | Chemical oxygen demand |
| COE | United States Corp of Engineers |
| CWA | Clean Water Act |
| DMR | Discharge monitoring report |
| ELG | Effluent limitation guidelines |
| EPA | United States Environmental Protection Agency |
| ESA | Endangered Species Act |
| FCB | Fecal coliform bacteria |
| F&WS | United States Fish and Wildlife Service |
| mg/L | Milligrams per liter |
| 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 |
| RP | Reasonable potential |
| SBR | Sequencing Batch Reactor |
| SIC | Standard industrial classification |
| s.u. | Standard units (for parameter pH) |
| SHPO | State Historic Preservation Officer (SHPO) |
| SWQB | Surface Water Quality Bureau |
| TDS | Total dissolved solids |
| THPO | Tribal Historic Preservation Officer (THPO) |
| 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 |

In this document, references to State WQS and/or rules shall mean either the State of New Mexico and/or any Tribe.

## I. CHANGES FROM THE PREVIOUS PERMIT

Changes from the permit previously issued May 8, 2012, with an effective date of July 1, 2012, and an expiration date of June 30, 2017:

A. Discharge Monitoring Report (DMR) results shall be electronically reported to EPA per 40 CFR 127.16.

B. Measurement frequency for E. coli has been changed from twice per month to three per month.

C. Pollution prevention requirements has been revised accordingly.

## II. APPLICATION LOCATION and ACTIVITY

### LOCATION

As described in the application, the plant site is located between Salt Cedar Street and Sewer Plant Drive, in De Baca County, New Mexico. The Outfall is located at the following coordinates:

Outfall 001: Latitude 34° 26' 29" N; Longitude 104° 14' 5" W


The effluent from the treatment plant is discharged into the receiving water named Pecos River, in water body Segment Code No. 20.6.4.207 of the Pecos River Basin.

### ACTIVITY

The facility consists of headworks (Grit chamber, pumps, and automatic rake), dual Sequencing Batch Reactor (SBR) system, one digester, three sludge beds, one drying bed, one equalization basin, and UV disinfection. A detailed description of the wastewater treatment process is as follows. There are three lifts stations throughout the Village's collection system. The entrance works to the plant consist of a comminutor with a bypass to an automated bar screen which runs every 15 minutes. The grit is currently landfilled. The headworks also consist of an aerated grit chamber and a 6-inch Parshall flume. The influent is then lifted by two alternating submersible pumps to the two separate SBR basins.

Flow is cycled through the basins during phases which consists of fill/mix, settling and decant periods to treat the wastewater entering the plant. There are four small blowers which provide aeration to these two units. An aerobic sludge digester is located between the two SBR units. Decant water from the SBR units enter a flow equalization unit (Schreiber unit) which ensures an even flow to the disinfection system.

Disinfection of the wastewater is achieved through UV (ultraviolet) radiation. A single bank of lights is enclosed within the effluent flow to allow time for disinfection. Once flow passes through the UV disinfection unit, it proceeds through the old chlorine contact chamber before entering a 6-inch Parshall flume for flow measurement. Chlorination capabilities continue to be maintained at the plant in case the UV disinfection system needs to go off line for repairs.

The plant's design flow is 0.21 MGD with a monthly average of 0.05 MGD.

## III. EFFLUENT CHARACTERISTICS

A quantitative description of the discharge(s) described in the EPA Permit Application Form 2A received December 2017 and complimented on January 2018, are presented below:

POLLUTANT TABLE – 1

| **Parameter** | **Max.** | **Avg.** |
|---|---|---|
| Flow, million gallons/day (MGD) | 0.08 | 0.05 |
| pH, minimum, standard units (su) | 7.1 | N/A |
| pH, maximum, standard units (su) | 7.6 | N/A |
| Biochemical Oxygen Demand, 5-day ($BOD_5$) | 16.8 | 5.8 |
| Fecal Coliform (cfu /100 mL) | 16,000 | 83.0 * |
| Total Suspended Solids (TSS) (mg/L) | 15.0 | 4.93 |
| Temperature (Winter) (C) – min. | 10.0 | 15 |
| Temperature (Summer) (C) – max. | 23.0 | 22 |
| Ammonia (as N) | 11.9 | N/A |
| Dissolved Oxygen | 2.29 | 1.41 |
| Total Kjeldahl Nitrogen (TKN) | 3.46 | N/A |
| Oil and Grease | 0.0 | N/A |
| Phosphorus (Total) | 4.32 | N/A |
| Total Dissolved Solids (TDS) | 814 | N/A |

*geometric mean

A summary of the last 36-months of available pollutant data: July 31, 2014 through June 30, 2017, taken from DMRs shows not exceedances of permit limits. See Pollutant Table 2.

POLLUTANT TABLE – 2

| **Pollutant/Limit** | **Month/Year of Exceedances - Value** |
|---|---|
| E. coli/30-day geoavg. - 548 cfu/100 ml | Jan/2015 - 619, May/2015 – 692, Dec/2015 – 6,928, Mar/2016 – 9,000, Oct/2016 – 14,696, Nov/2016 – 1,600 |
| E. coli/max – 2,507 cfu/100 ml | Aug/2015 – 3,000, Dec/2015 – 16,000, Mar/2016 – 9,000, Jun/2016 – 3,000, Oct/2016 – 9,000 |
| E. coli/30-day avg. – 4.3 bcfu/day | Mar/2015 – 45, Apr/2015 – 142, Jul/2015 – 233, Aug/2015 – 9.7, Sep/2015 – 52.6, Oct/2015 – 72.8, Mar/2016 – 12.4, Jul/2016 – 34.9, Sep/2016 – 72.2, Oct/2016 – 115.2, Nov/2017 – 16.5, Dec/2016 – 11.4, Jan/2017 – 6.7, Feb/2017 – 30.6, Apr/2017 – 350.5, Jun/2017 - 44 |
| TSS % removal - $\geq$85% | Aug/2015 – 84.74, Mar/2016 – 73.45 |
| BOD % removal - $\geq$85% | Aug/2015 – 60.95 |

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 permit application was received on December 4, 2017, following submittal of additional information, the application was determined to be complete on January 22, 2018. 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 May 8, 2012 with an effective date of July 1, 2012, and an expiration date of June 30, 2017.

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 and $BOD_5$. Water quality-based effluent limitations are established in the proposed draft permit for *E. coli* bacteria, TRC, and pH.

## B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated at 40 CFR §122.44 (a) require technology-based effluent limitations to be placed in NPDES permits based on ELGs where applicable, on BPJ in the absence of guidelines, or on a combination of the two. In the absence of promulgated guidelines for the discharge, permit conditions may be established using BPJ procedures. EPA establishes limitations based on the following technology-based controls: BPT, BCT, and BAT. These levels of treatment are:

BPT – The first level of technology-based standards generally based on the average of the best existing performance facilities within an industrial category or subcategory.

BCT – Technology-based standard for the discharge from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and O&G.

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

The Village of Fort Sumner facility is a POTW that has technology-based ELG's established at 40 CFR Part 133, Secondary Treatment Regulation. Pollutants with ELG's established in this Chapter are BOD, TSS, and percent removal for each. BOD limits of 30 mg/l for the 30-day average, 45 mg/l for the 7-day average and 85% percent (minimum) removal are found at 40 CFR §133.102(a). TSS limits of 30 mg/l for the 30-day average, 45 mg/l for the 7-day average and 85% percent (minimum) removal are found at 40 CFR §133.102(b). ELGs for pH are between 6-9 s.u. and are found at 40 CFR §133.102 (c).

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:

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

30-day average $BOD_5$ = 30 mg/L * 8.34 lbs/gal * 0.21 MGD
30-day average $BOD_5$ = 52.54 lbs/day

7-day average $BOD_5$ = 45 mg/L * 8.34 lbs/gal * 0.21 MGD
7-day average $BOD_5$ = 78.81 lbs/day

30-day average TSS loading = 30 mg/L * 8.34 lbs/gal * 0.21 MGD
30-day average TSS loading = 52.54 lbs/day

7-day average TSS loading = 45 mg/L * 8.34 lbs/gal * 0.21 MGD
7-day average TSS loading = 78.81 lbs/day

The proposed permit calculated the mass loading for $BOD_5$ and TSS based on 0.21 MGD flow.

Technology-Based Effluent Limits - 0.21 MGD design flow

| EFFLUENT CHARACTERISTICS | DISCHARGE LIMITATIONS | | | |
|---|---|---|---|---|
| | lbs/Day | | mg/L (unless noted) | |
| Parameter | 30-Day Avg. | 7-Day Avg. | 30-Day Avg. | 7-Day Avg. |
| Flow | N/A | N/A | Measure MGD | Measure MGD |
| $BOD_5$ | 52.54 | 78.81 | 30 | 45 |
| $BOD_5$, % removal, minimum | ≥ 85% (*) | --- | --- | --- |
| TSS | 52.54 | 78.81 | 30 | 45 |
| TSS, % removal, minimum | ≥ 85% (*) | --- | --- | --- |
| pH | N/A | N/A | 6.0 – 9.0 s.u. | |

(*) 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 the PSWQS, State WQS and applicable State water quality management plans to assure that surface WQS of the receiving waters are protected and maintained, or attained.

### 2. Implementation

The NPDES permits contain technology-based effluent limitations reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations and/or conditions are included in the NPDES permits. State narrative and numerical water quality standards are used

in conjunction with EPA criteria and other available toxicity information to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

3. Water Quality Standards

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC effective August 11, 2017. The facility discharges to the Pecos River basin (the main stem of the Pecos River from salt creek {near Acme} upstream to Sumner dam) in Segment 20.6.4.207. The designated uses of this segment are irrigation, marginal warm water aquatic life, livestock watering, wildlife habitat and secondary 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

To protect "Marginal Warmwater Aquatic Life" designated use, the State of New Mexico stream segment specific WQS require pH to be between 6.6 and 9 s.u. NMWQS (20.6.4.207 NMAC and 20.6.4.900 NMAC). The water quality-based limits for pH will be used in the permit since they are more stringent than the technology-based limits.

b. Bacteria

To protect "Secondary Contact" designated use, New Mexico stream segment specific WQS require *E. coli* of 548 cfu/100 mL monthly geometric mean and 2507 cfu/100 ml daily maximum, end-of-pipe. The draft permit will maintain the *E. coli* bacteria limits of 548 cfu/100 mL monthly geometric average and 2507 cfu/day daily maximum. The results for E. coli may be reported as either colony forming units (CFU) or the most problable number (MPN), depending on the analytical method used.

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 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 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. Derivation of permit limits will be discussed below.

(ii) Critical Conditions

Critical conditions are used to establish certain permit limitations and conditions. The State of New Mexico WQS allow a mixing zone for establishing pollutant limits in discharges. The state 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 provided EPA with the 4Q3 for the Village of Fort Sumner WWTP.

For permitting purposes of certain parameters such as WET, the critical dilution of the effluent to the receiving stream is determined. The critical dilution, CD, is calculated as:

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

Qe = facility flow (0.21 MGD)
Qa = critical low flow of the receiving waters (0.36 MGD [= 0.56 cfs] )
F = fraction of stream allowed for mixing (1.0)

$CD = 0.21 \text{ MGD}/[(1.0)(0.36) + 0.21]$
$= 0.37$
$= 37\%$

(iii) TRC

The WQS for TRC is 11 µg/l for chronic conditions and 19 µg/l for acute. Since acute conditions do not allow dilution; the limit must be met at end-of-pipe, but chronic standards do allow dilution, the permit shall use the most stringent WQS for the permit limit. Previously, the CD was calculated at 37 %. The in-stream TRC concentration after allowing for dilution is; 11 µg/l ÷ 0.37= 29.7 µg/l. Since this value is greater than the 19 µg/l end-of-pipe acute standard, the 19 µg/l is more stringent and will be more protective. The draft permit includes a value of 19 µg/l as a limit as established in the current permit.

The facility uses UV disinfection for pathogen control, with a chlorination/dechlorination system for backup. The facility is required to monitor for TRC when chlorine is used as a bacteria control chemical or when chlorine is used to disinfect process equipment. TRC limitations will apply when chlorine is used in the treatment process, either alone, or in combination with ultraviolet light treatment. The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.

5. 303(d) List Impacts

The current 2016-2018 State of New Mexico Integrated Clean Water 303(d)/305(b) Report shows that the Pecos River segment from Yeso Creek to Truchas Creek (Assessment Unit NM-2207_02) in Segment 20.6.4.207 NMAC is fully supporting all the uses.

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

## D. MONITORING FREQUENCY FOR LIMITED PARAMETERS

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity 40 CFR 122.48(b) and to assure compliance with permit limitations 40 CFR 122.44(i)(1).

Technology based pollutants; $BOD_5$ and TSS, are proposed to be monitored two (2) times per month using grab samples. Flow shall be sampled continuously (daily) by totalizing meter. The monitoring type and frequency is consistent with the NMIP.

Water quality-based pollutant monitoring frequency for *E. coli* shall be sampled three (3) times per month using grab samples. When TRC is used as a bacteria control chemical for the effluent, the maximum dechlorinated TRC shall be monitored daily by instantaneous grab, when chlorinating. TRC shall be measured within fifteen (15) minutes of sampling. The pollutant pH shall be monitored five (5) times per week by instantaneous grab consistent with the NMIP. Regulations at 40 CFR Part 136 define instantaneous grab as being analyzed within 15-minutes of collection.

## E. WHOLE EFFLUENT TOXICITY LIMITATION REQUIREMENTS

OUTFALL 001

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 nature of the discharge; wastewater treatment plant (POTW), the production flow; more than 0.1 MGD but less than 1.0 MGD, the nature of the receiving water; perennial, and the critical dilution; 37%, the NMIP directs the WET test to be a 7-day chronic test using *Ceriodaphnia dubia* and *Pimephales promelas.* The WET limit for both species is retained in this permit. The required monitoring frequency is once per six-months.

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 16%, 21%, 28%, 37%, and 49% as the dilution series. The low-flow effluent concentration (critical low-flow dilution) is defined as 37% effluent.

Whole Effluent Toxicity Limits will be retained in this permit for both the lethal and sublethal endpoint for both test species. Available data from the previous permit cycle indicates there is no reasonable potential for WET, however it appears that some WET data is lacking. In light of ongoing enforcement action, the WET limits are retained in order to ensure continued compliance with toxicity. The permittee is expected to continue complying with the WET limit for both species.

During the period beginning the effective date of the permit and lasting through the expiration date of the permit, the permittee is authorized to discharge from Outfall 001 - the discharge to the Pecos River of the Pecos River Basin. Discharges shall be limited and monitored by the permittee as specified below:

| **EFFLUENT CHARACTERISTICS** | **DISCHARGE MONITORING** | **MONITORING REQUIREMENTS** | |
|---|---|---|---|
| WHOLE EFFLUENT TOXICITY LIMITS (7Day Chronic NOEC) (*1) | VALUE | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| *Pimephales promelas* | 37% | Once/6months | 24-Hr Composite |
| *Ceriodaphnia dubia* | 37% | Once/6 months | 24-Hr Composite |

FOOTNOTES

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

## VI. FACILITY OPERATIONAL PRACTICES

### A. SEWAGE SLUDGE PRACTICES

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 Section307(b) of the CWA and 40 CFR Part 403.

## 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 NetDMR, 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 II.D.11 and all other reports required by Part III.D to the EPA and copies to NMED as required.

Sufficiently sensitive analytical methods (SSM):

The permittee must use sufficiently sensitive EPA approved analytical methods (SSM) under 40CFR part 136 or required under 40 CFR chapter I, subchapters N or O when quantifying the presence of pollutants n 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 demonstration by the permittee and EPA approval.

# VIII. ANTIDEGRADATION

The State of New Mexico has antidegradation requirements to protect existing uses through implementation of its WQS. The limitations and monitoring requirements set forth in the proposed draft are developed from the appropriate State WQS and are protective of those designated uses. Furthermore, the policy's set forth the intent to protect the existing quality of those waters, whose quality exceeds their designated use. The proposed permit renewal retains the mass loading for BOD and TSS based on 0.21 MGD flow, as requested by previous NMED's conditions of certification. The permit requirements and the limits are protective of the

assimilative capacity of the receiving waters, which is protective of the designated uses of that water.

## IX. ANTIBACKSLIDING

The proposed permit is consistent with the requirements to meet antibacksliding provisions of the Clean Water Act, Section 402(o) and 40 CFR 122.44(l)(i)(A), which state in part that interim or final effluent limitations must be as stringent as those in the previous permit, unless material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation. The proposed permit maintains the mass loading requirements of the 2012 permit for $BOD_5$ and TSS. The 2012 permit maintained the mass loading for BOD and TSS based on 0.21 MGD flow, as required in NMED's conditions of certification. All of the changes represent permit requirements that are consistent with the States WQS and WQMP.

## X. ENDANGERED SPECIES CONSIDERATIONS

According to the most recent county listing available at US Fish and Wildlife Service (USFWS), Southwest Region 2 website, http://www.fws.gov/endangered/, three species in DeBaca County are listed as endangered or threatened. Federally listed as Endangered is the Least Tern *(Sterna antillarum).* Listed as Threatened is the Pecos bluntnose shiner *(Notropis simus pecosensis).*

Least tern (Sterna antillarum) are the smallest member of the gull and tern family. They are approximately 9" in length. Unlike gulls, terns will dive into the water for small fish. The body of least terns is predominately gray and white, with black streaking on the head. Least terns have a forked tail and narrow pointed wings. Least terns less than a year old have less distinctive black streaking on the head and less of a forked tail. The interior population of the least tern has declined due to loss of habitat from dam construction and river channelization on major rivers throught the Rio Grande River systems. Because of dams, river flows are often managed in a nonhistoric fashion, not conducive to the creation and maintenance of sandbars with sparse vegetation. Human disturbance is also a problem. Cold water temperatures due to reservoirs may affect the quantity of forage fish available.

Pecos bluntnose shiner (Notropis simus pecosensis) historically occurred only in permanent flowing waters in the Rio Grande in New Mexico from El Paso, Texas north to near Abiquiu Reservoir on the Chama River, and in the Pecos river in New Mexico. Is a moderate-sized shiner separable from co-occuring shiners by its robust body, blund and rounded snout, and large, slightly subterminal mouth that usually extends even with the pupil. The species is pallid gray to greenish-brown dorsally and whitish ventrally. A 1982 study by the New Mexico Department of Game and Fish reported this fish in the Pecos River only from Fort Sumner to Artesia. Population estimates were not made, but the abundance of this species appeared to be substantially lower than in previous years. The most important factor in the species decline is reduced flow in the main channel of the river due to water storage, irrigation and water diversion.

The facility currently holds a permit with USEPA. The proposed permit will be for the re-issuance of the current permit issued on May 8, 2012, with controls to meet the current state

water quality standards for the area of discharge. The proposed permit ensures that the discharge does not cause or contribute to an exceedance of water quality criteria for irrigation, livestock watering, wildlife habitat, marginal warmwater aquatic life, and secondary contact.

After review, EPA has determined that the reissuance of this permit will not change the environmental baseline established by the previous permit, and therefore, EPA concludes that 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. EPA determined a "No effect" during previous permit, issued on May 8, 2012.

2. No additional changes have been made to the US FWS list of threatened and endangered species and critical habitat designation in the area of the discharge since prior issuance of the permit.

3. EPA has received no additional information since May 8, 2012, previous permit effective date, which would lead to revision of its determinations.

4. EPA determines that Items 1, 2, and 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 since no construction activities are authorized by its issuance.

## XII. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if relevant portions of either States 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's Water Quality Standards are either revised or promulgated. Should either 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 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

No variance requests have been received.

## XIV. CERTIFICATION

The permit is in the process of certification by the State of New Mexico following regulations promulgated at 40 CFR §124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service and to the National Marine Fisheries Service prior to the publication of that notice.

## XV. FINAL DETERMINATION

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

## XVI. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

### A. APPLICATION(s)

EPA Application Form 1 and 2A received in our office December 4, 2017.

Additional data received by email November 28, 2017 and December 22. 2018.

### B. 40 CFR CITATIONS

Citations to 40 CFR as of December 4, 2017.

Sections 122, 124, 125, 133, 136

### C. STATE WATER QUALITY REFERENCES

New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, as amended through June 8, 2017.

Procedures for Implementing NPDES Permits in New Mexico, May 2011.

Statewide Water Quality Management Plan, December 17, 2002.

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

### D. Other

US Fish and Wildlife Service (USFWS), Southwest Region 2 website, http://www.fws.gov/endangered