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# NPDES PERMIT NO. NM0020150

## FACT SHEET

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

### APPLICANT

City of Belen WWTP  
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### ISSUING OFFICE

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### DATE PREPARED

August 13, 2014

### PERMIT ACTION

Proposed reissuance of the current National Pollutant Discharge Elimination System (NPDES) permit issued October 28, 2009, with an effective date of September 1, 2009, and an expiration date of August 31, 2014.

Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed in Title 40, Code of Federal Regulations, revised as of September 3, 2014.

### RECEIVING WATER – BASIN

Receiving waters named Bosque Drain, thence to the Rio Grande, in Segment No. 20.6.4.105 of the Rio Grande Basin.

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DOCUMENT ABBREVIATIONS

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

4Q3	lowest four-day average flow rate expected once every three years
BAT	best available technology economically achievable
BCT	best conventional pollutant control technology
BPT	best practicable control technology currently available
BOD5	five-day biochemical oxygen demand
BPJ	best professional judgment
CD	critical dilution
CFR	Code of Federal Regulations
cfs	cubic feet per second
cfu	colony forming units
CFR	Code of Federal Regulations
CWA	Clean Water Act
DMR	discharge monitoring report
ELG	effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
ft.	feet (measurement of distance)
FWS	United States Fish and Wildlife Service
lbs	pounds
LA	Load Allocation (a.k.a. waterbody total assimilative capacity)
ug/L	micrograms per liter (one part per billion)
mg/L	milligrams per liter (one part per million)
MGD	million gallons per day
MQL	minimum quantification level
NAICS	North American Industry Classification System
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
O&G	oil and grease
POTW	publically owned treatment works
STORET	EPA Storage and Retrieval Database
s.u.	standard units (for parameter pH)
SWQB	Surface Water Quality Bureau
TMDL	total maximum daily load
TRC	total residual chlorine
TSS	total suspended solids
WET	whole effluent toxicity
WLA	Waste Load Allocations
WQMP	water quality management plan
WQS	water quality standards
WWTP	wastewater treatment plant

**CHANGES FROM THE PREVIOUS PERMIT**

Changes from the permit previously issued August 28, 2009, with an effective date of September 1, 2009, and an expiration date of July 31, 2014:

- A 30-day Average  $\geq 85$  percent removal requirement for both BOD<sub>5</sub> (Biological Oxygen Demand) and TSS has been added to the discharge limitations.
- Critical dilution for WET testing has been changed from 64% to 17%.
- Waste Load Allocations of  $5.73 \times 10^9$  cfu/day for the E. coli bacteria has been included since E.coli bacteria has been listed as an EPA approved TMDL.

**A. APPLICANT LOCATION and ACTIVITY**

The facility is located at 1300 Conservancy Road, in the City of Belen, NM. The effluent from the site is discharged into the Bosque Drain, thence into the Rio Grande in water quality Segment No. 20.6.4.105 New Mexico Administrative Code (NMAC) of the Middle Rio Grande Basin. The discharge is located on that water at Latitude 34° 38' 32" North and Longitude 106° 46' 36" West, in Valencia County, New Mexico.

Under SIC Code 4952 the discharge is from a publically owned treatment works (POTW). The treatment processes include bar screen, grit tank, aeration basin, secondary clarifier, chlorine contact chamber. The current design flow is 1.2 MGD.

The general and specific stream standards are provided in "New Mexico State Standards for Interstate and Intrastate Surface Waters," (20.6.4 NMAC, amended through August 7, 2013). The receiving Waterbody, Segment No. 20.6.4.105, has designated uses of irrigation, marginal warmwater aquatic life, livestock watering, public water supply, wildlife habitat and primary contact

Based on NMED staff observations of the outfall location and an evaluation of readily-available imagery, flow from the outfall would be toward Bosque Drain, thence to the Segment 20.6.4.105 NMAC of the Rio Grande Basin.

**B. EFFLUENT CHARACTERISTICS**

A quantitative description of the discharge(s) described in the EPA Permit Application Form 2A dated December 18, 2013 are presented below:

Table 1

Parameter	Avg	Max
	(mg/l unless noted)	
Flow, million gallons/day (MGD)	.79	1.44
Temperature, winter	14.47°C	15.10°C
Temperature, summer	23.07°C	25.20°C
pH, minimum, standard units (SU)	---	7.53
pH, maximum, standard units (SU)	---	6.96
Biochemical Oxygen Demand, 5-day (BOD <sub>5</sub> )	4.21	5.23

Fecal Coliform (FCB) (cfu/100 ml)	6.33	9.3
Total Suspended Solids (TSS)	8.3	12.5
Ammonia (NH <sub>3</sub> )	0	---
Chlorine, Total Residual (TRC)	0	0
Dissolved Oxygen	6.2	6.31
Total Kjeldahl Nitrogen (TKN)	0	0
Nitrate plus Nitrite Nitrogen	25	24.67
Oil and grease	0	0
Phosphorus, Total	2.67	3.02
Total Dissolved Solids (TDS)	791	780
Hardness (as CaCO <sub>3</sub> )	---	---
Nitrate (as N)	---	---

Effluent characteristics indicate that the following total recoverable metals were detected in the discharge:

<u>Pollutant</u>	<u>Avg Conc. (µg/l)</u>	<u>Pollutant</u>	<u>Avg Conc. (µg/l)</u>
Arsenic	2.6	Copper	5.9
Selenium	1.6*	Zinc	61
Chlorodibromo-methane	7.57	Chloroform	10.33
Dichlorobromo-methane	12.03		

\* Concentrations below MQLs

On November 19, 2012, a Compliance Evaluation Inspection (CEI) was conducted at the Belen Wastewater Treatment Plant (WWTP) by the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB). The purpose of this inspection is to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act. As part of this inspection the Discharge Monitoring Reports (DMRs) were reviewed to determine if any excursions of the NPDES permit limits took place since the current permit was issued and no major excursions were noted.

### C. REGULATORY AUTHORITY/PERMIT ACTION

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

procedures). Other parts of 40 CFR provide guidance for specific activities and may be used in this document as required.

It is proposed that the permit be reissued for a 5-year term following regulations promulgated at 40 CFR §122.46(a). The previous permit will expired in July 31, 2014. EPA received the NPDES application on January 27, 2014. The existing permit is administratively continued until this permit is issued.

#### D. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

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

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

Technology-based effluent limitations are established in the proposed draft permit for TSS and BOD5. Water quality-based effluent limitations are established in the proposed draft permit for pH, *E. coli* bacteria, and TRC.

##### 2. 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 BOD5, TSS, 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.

Some biological treatment technologies, such as waste stabilization ponds, are capable of achieving significant reductions in BOD5 and TSS but might not consistently achieve the secondary treatment standards for these parameters. Congress recognized that unless alternate limitations were set for facilities with waste stabilization ponds, which often are in small communities, such facilities could be required to construct costly new treatment systems to meet the secondary treatment standards even though their existing treatment technologies could achieve significant biological treatment. To prevent requiring upgrades where facilities were achieving their original design performance levels, Congress included provisions in the 1981 amendments to the Clean Water Act Construction Grants program (*Public Law 97-117, Section 23*) that required EPA to make allowances for alternative

biological treatment technologies, such as waste stabilization ponds. In response to that requirement, in 1984, EPA promulgated regulations at § 133.105 that include alternative standards that apply to facilities using “equivalent to secondary treatment.” A facility must meet the criteria in § 133.101(g) to qualify for application of those alternative standards.

Secondary treatment for publicly owned treatment work (POTW), established at [40 CFR 133.102(a)] and [40 CFR 133.102(b)], are 30 mg/L for the 30-day average and 45 mg/L for the 7-day average and 85% percent (minimum) for BOD<sub>5</sub> and TSS each and a pH range of 6.0 – 9.0.

When determining mass limits for POTW’s, the plant’s design flow used to establish the mass load. Mass limits are determined by the following mathematical relationship:

$$\text{Loading in lbs/day} = \text{pollutant concentration in mg/l} * 8.34 \text{ conversion factor} * \text{design flow in MGD}$$

$$30\text{-Day Avg. BOD}_5 \text{ loading (lbs/day)} = 30 \text{ mg/L} * 8.345 \text{ lbs/gal} * 1.2 \text{ MGD}$$

$$30\text{-Day Avg. BOD}_5 \text{ loading (lbs/day)} = 300.42 \text{ lbs/day}$$

$$7\text{-Day Avg.: BOD}_5 \text{ loading (lbs/day)} = 45 \text{ mg/L} * 8.345 \text{ lbs/gal} * 1.2 \text{ MGD}$$

$$7\text{-Day Avg.: BOD}_5 \text{ loading (lbs/day)} = 450 \text{ lbs/day}$$

$$30\text{-Day Avg. TSS loading (lbs/day)} = 30 \text{ mg/L} * 8.345 \text{ lbs/gal} * 1.2 \text{ MGD}$$

$$30\text{-Day Avg. TSS loading (lbs/day)} = 300.42 \text{ lbs/day}$$

$$7\text{-Day Avg.: TSS loading (lbs/day)} = 45 \text{ mg/L} * 8.345 \text{ lbs/gal} * 1.2 \text{ MGD}$$

$$7\text{-Day Avg.: TSS loading (lbs/day)} = 450 \text{ lbs/day}$$

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

Table 2

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS 0.3 MGD Design Flow			
	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 <sub>5</sub>	300	450	30	45
TSS	300	450	30	45
BOD and TSS removal	≥85%	N/A	N/A	N/A
pH	Within the limit of 6.0-9.0			

### 3. WATER QUALITY-BASED LIMITATIONS

#### a. 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.

#### b. 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.

#### c. State Water Quality Standards

Stated previously, the effluent from the site is discharged into the Bosque Drain, thence into the Rio Grande in water quality Segment No. 20.6.4.105 of the Middle Rio Grande Basin. Based on the New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, as amended through August 7, 2013, the designated uses of the receiving water are irrigation, marginal warmwater aquatic life, livestock watering, public water supply, wildlife habitat and primary contact.

#### d. Permit Action - Water Quality-Based Limits

The Clean Water Act 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 criterion, the permit must contain an effluent limit for that pollutant. Regulations promulgated at [40 CFR 122.44(d)] require limits in addition to or more stringent than effluent limitation guidelines (technology based).

In accordance with 20.6.4 NMAC, the permit must be developed to allow for the maintenance and attainment of acute numerical criteria at the point of discharge to the receiving stream and for the maintenance and attainment of chronic numerical criteria at the edge of the mixing zone.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and alkalinity will be documented in a full report, according to the appropriate test method publication. The full reports required by each test section do not need to 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.



### 1) pH

For water segment 20.6.4.105 NMAC, there is a specific WQS range for pH, so a pH range of 6.6 – 9.0 is established based on the water segment-specific criteria.

### 2) Bacteria

The *E. coli* bacteria limitations of 126 cfu/100 ml monthly geometric mean and 410 cfu/100 ml daily maximum are established at 20.6.4.105 NMAC for primary contact. These limitations shall be established in the proposed permit and this will provide appropriate control for contribution of bacteria to the stream. In addition, Rio Grande segment 20.6.4.105 from the confluence at the Rio Puerco to the Isleta Pueblo boundary is listed on the current “2012 – 2014 State of New Mexico Clean Water Act §303(d)/§305(b) Integrated Report”, requiring Total Maximum Daily Loads (TMDLs) for not supporting primary contact and marginal warmwater aquatic life due to *E. coli* criterion violations. See Section F. below for TMDL-based bacteria loading limit.

### 3) 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 and 2S, to apply for an NPDES permit or reissuance of an NPDES permit. The new form is applicable not only to POTWs and to facilities that are similar to POTWs, but those facilities, which do not meet the regulatory definition of POTW (like privately owned sanitary wastewater treatment facility, 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.

Detected effluent data were screened against the EPA approved 2011 New Mexico Water Quality Standards (NMWQS). Based on information confirmed with the Middle Rio Grande Conservancy District by NMED, the critical low flow, 4Q3, at Bosque Drain is 9.32 cfs, and the harmonic mean flow is 53.9 cfs. The stream geometric mean TSS, 112 mg/l; geometric mean hardness, 115 mg/l; 4Q3 flow, 9.32 cfs; and harmonic mean flow, 53.9 cfs were used to calculate Reasonable Potential (RP). Based on these calculations, the discharge has no RP to cause or contribute to violations of State WQS. The RP screening spread sheet is in the file.

There are no toxics that need to be placed in the draft permit except for TRC described below.

#### ii. Total Residual Chlorine

The previous permit established water quality-based effluent limitations for TRC of 19 ug/L. This requirement will be maintained in the draft permit.

### iii. Critical Conditions

Critical dilutions 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. The mixing zones established by the State of New Mexico do not overlap with tribal/pueblo borders.

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. A low-flow, or 4Q3, of (9.32) ft<sup>3</sup>/second (cfs) was provided by NMED.

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:

$CD = Q_e / (F \cdot Q_a + Q_e)$ , where:

$Q_e$  = facility flow (1.2 MGD)

$Q_a$  = critical low flow of the receiving waters (9.2 cfs = 6.0236 MGD)

$F$  = fraction of stream allowed for mixing (1.0)

$CD = 1.2 \text{ MGD} / [(1.0)(6.0236 + 1.2)]$

$= 0.1661 * 100$

$= 16.61\% \approx 17\%$

According to the NMIP, if it is determined that a facility is to receive chronic biomonitoring requirements at a critical dilution of 10% or more.

## 4. 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)]. Monitoring frequencies in the current permit are retained: three times per week for pH, BOD<sub>5</sub>, TSS, and E. coli, and daily for TRC. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.

## 5. Whole Effluent Toxicity Limitations

In Section D.3.d.3) iii above; "Critical Conditions", it was shown that the CD for the facility is 17%. Based on the nature of the discharge; POTW, the design flow; greater than 1 MGD, the nature of the receiving water; perennial, and the critical dilution; 17%, the NMIP directs the WET test to be a 7-day chronic test using *Ceriodaphnia dubia* and *Pimephales promelas* (fathead minnow) a once per quarter frequency.

The Belen Drain has a 4Q3 of 9.32 MGD; therefore, the critical dilution is 17%. The draft permit proposes the following tests with a dilution series of 8%, 10%, 13%, 17%, and 23% in addition to the control (0% effluent).

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 - Belen Drain, an perennial stream, thence to the Rio Grande River in Segment 20.6.4.105 NMEC of the Middle Rio Grande Basin. Discharges shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE 30-DAY AVG MINIMUM</u>	<u>MONITORING 7-DAY MINIMUM</u>
Whole Effluent Toxicity Testing (7-day Static Renewal) (*1,*2,*3)		
<i>Ceriodaphnia dubia</i>	REPORT	REPORT
<i>Pimephales promelas</i>	REPORT	REPORT

<u>EFFLUENT CHARACTERISTIC REQUIREMENTS</u>	<u>MONITORING FREQUENCY</u>	<u>TYPE</u>
Whole Effluent Toxicity Testing (7-day Static Renewal) (*1,*2,*3)		
<i>Ceriodaphnia dubia</i>	1/Quarter	24-Hr. Composite
<i>Pimephales promelas</i>	1/Quarter	24-Hr. Composite

FOOTNOTES

- (\*1) Monitoring and reporting requirements begin on the effective date of this permit and shall be performed during the first year of the permit. See Part II, Section E, Whole Effluent Toxicity Testing Requirements for additional WET monitoring and reporting conditions.
- (\*2) Once per quarter. If the first full year of testing, four (4) quarterly tests pass, monitoring frequency can be reduced to once per 6 months for *Ceriodaphnia dubia* and once a year for *Pimephales Promelas*. See Part II of the Permit for monitoring frequency reduction. If any test fails, testing frequency will continue at 1/quarter until the expiration date of the permit.
- (\*3) See Part II, Section F, and Whole Effluent Toxicity Testing Requirements for additional WET monitoring and reporting conditions.

E. FACILITY OPERATIONAL PRACTICES

1. SEWAGE SLUDGE

The permittee shall use only those sewage sludge disposal or reuse practices that comply with the federal regulations established at [40 CFR Part 503] "Standards for the Use or Disposal of Sewage Sludge." The specific requirements in the permit apply as a result of the design flow of the facility, the type of waste discharged to the collection system, and the sewage sludge disposal or reuse practice utilized by the treatment works.

## 2. 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.

## 3. 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.

## 4. OPERATION AND REPORTING

The applicant is required to operate the treatment facility at maximum efficiency at all times; monitor the facility's discharge on a regular basis; and, report the results quarterly. The monitoring results will be available to the public.

### F. 303(d) LIST

Rio Grande segment 20.6.4.105 from the confluence at the Rio Puerco to the Isleta Pueblo boundary is listed on the current "2012 – 2014 State of New Mexico Clean Water Act §303(d)/§305(b) Integrated Report", requiring Total Maximum Daily Loads (TMDLs) for not supporting primary contact and marginal warmwater aquatic life due to E. coli criterion violations. The segment specific criteria for E. coli were incorporated as effluent limitations into the current permit. EPA approved the TMDL for the Middle Rio Grande Watershed on June 30, 2010, where the E. coli effluent limits and Waste Load Allocations for the Belen WWTP for E. coli are 126 cfu/100mL and  $5.73 \times 10^9$  cfu/day, respectively. The proposed permit has established these TMDL-based limitations.

### G. 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 limitations 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.

### H. ANTIBACKSLIDING

The proposed permit is consistent with the requirements and exemption to meet Antibacksliding provisions of the Clean Water Act, Section 402(o) and 40 CFR Part 122.44(i)(B), which state in part that interim or final effluent limitations must be as stringent as those in the previous permit, unless

information is available which was not available at the time of permit issuance. The proposed permit maintains the limitation requirements of the previous permit for BOD<sub>5</sub>, TSS, pH, and TRC and more stringing requirements for E.coli due to TMDL requirements.

## I. ENDANGERED SPECIES CONSIDERATIONS

According to the most recent Valencia County listing available at US Fish and Wildlife Service (USFWS), website, [http://ecos.fws.gov/tess\\_public/countySearch!speciesByCountyReport.action?fips=35061](http://ecos.fws.gov/tess_public/countySearch!speciesByCountyReport.action?fips=35061), three species are listed as endangered (E): New Mexico meadow jumping mouse (*Zapus hudsonius luteus*), Rio Grande silvery minnow (*Hybognathus amarus*) and southwestern willow flycatcher (*Empidonax traillii extimus*); Two are listed as threatened species (T) : Mexican spotted owl (*Strix occidentalis lucida*) and Pecos sunflower (*Helianthus paradoxus*) ; and one is listed as proposed threatened species (P): Yellow-Billed Cuckoo (*Coccyzus americanus*).

Available information from the USFWS web page presents the occurrence of the listed threatened and endangered species in Valencia County as follows:

**Southwestern Willow flycatcher (E) (*Empidonax traillii extimus*):** Small; usually a little less than 6 inches in length, including tail. Conspicuous light-colored wingbars. Lacks the conspicuous pale eye-ring of many similar *Empidonax* species. Overall, body brownish-olive to gray-green above. Throat whitish, breast pale olive, and belly yellowish. Bill relatively large; lower mandible completely pale. Best identified by vocalizations. Call a liquid, sharply whistled whit! or a dry sprrit; song a sneezy witch-pew or fitz-bew. While perched, characteristically flicks tail slightly upward.

**Rio Grande Silvery minnow (E) (*Hybognathus amarus*):** The **Rio Grande Silvery Minnow** is a small herbivorous North American fish. It is one of the seven North American members of the genus *Hybognathus*, in the *cyprinid* family.

**New Mexico meadow jumping mouse (E) (*Zapus hudsonius luteus*):** The New Mexico meadow jumping mouse (jumping mouse) is endemic to New Mexico, Arizona, and a small area of southern Colorado (Hafner et al. 1981, pp. 501-502; Jones 1999, p. 1). The jumping mouse is grayish-brown on the back, yellowish-brown on the sides, and white underneath (Van Pelt 1993, p 1). The species is about 7.4 to 10 inches (187 to 255 mm) in total length, with elongated feet (1.2 inches (30.6 mm)) and an extremely long, bicolored tail (5.1 inches (130.6 mm)) (Van Pelt 1993, p. 1; Hafner et al. 1981, p. 509). The jumping mouse is a habitat specialist (Frey 2006d, p. 3). It nests in dry soils, but uses moist, streamside, dense riparian/wetland vegetation up to an elevation of about 8,000 feet (Frey 2006d, pp. 34-45). The jumping mouse appears to only utilize two riparian community types: 1) persistent emergent herbaceous wetlands (i.e., beaked sedge and reed canarygrass alliances); and 2) scrub-shrub wetlands (i.e., riparian areas along perennial streams that are composed of willows and alders) (Frey 2005, p. 53). It especially uses microhabitats of patches or stringers of tall dense sedges on moist soil along the edge of permanent water. Home ranges vary between 0.37 and 2.7 acres (0.15 and 1.1 hectares) and may overlap (Smith 1999, p. 4). The jumping mouse is generally nocturnal, but occasionally diurnal. It is active only during the growing season of the grasses and forbs on which it depends. During the growing season, the jumping mouse accumulates fat reserves by consuming seeds. Preparation for hibernation (weight gain, nest building) seems to be triggered

by day length. The jumping mouse hibernates about 9 months out of the year, longer than most other mammals (Morrison 1990, p. 141; VanPelt 1993, p. 1; Frey 2005a, p. 59).

**Mexican Spotted owl (T) (*Strix occidentalis lucida*):** Unlike most owls, Mexican spotted owls have dark eyes. They are an ashy-chestnut brown color with white and brown spots on their abdomen, back and head. Their brown tails are marked with thin white bands. They lack ear tufts. Young owls less than 5 months old have a downy appearance. Females are larger than males.

**Pecos sunflower (T) (*Helianthus paradoxus*):** Pecos sunflower is an annual, herbaceous plant. It grows 1–3 meters (m) (3.3 - 9.9 feet (ft)) tall and is branched at the top.

**Yellow-Billed Cuckoo (P) (*Coccyzus americanus*):** Size: 31 cm (12 in) in length. Color: Brownish above and white below; with rusty colored flight feathers. The upper mandible of the bill is black and the lower mandible is yellow. The underside of the tail has pairs of large white spots.

EPA provided a Biological Evaluation (BE) to the Fish and Wildlife Service (FWS) on July 31, 2002, for a consultation (Cons. # 2-22-02-I-572) pursuant to Section 7 of the Endangered Species Act. EPA asked FWS to concur with the “no effect” determination for flycatcher. In a letter of September 16, 2002, EPA requested that an informal consultation for proposed silvery minnow critical habitat to be added to the consultation. EPA determined that the reissuance of the permit “may affect, but is not likely to adversely affect” proposed silvery minnow critical habitat. In the letter dated October 11, 2002, the FWS concurred with EPA that the permit reissuance was “not likely to adversely affect” the silvery minnow critical habitat; and “no effect” for the flycatcher. EPA reviewed the compliance status and found the facility has had no failure of the Whole Effluent Toxicity (WET) test. EPA determines that the 2002 consultation baseline has not been changed and this action has “no effect” on the listed species.

EPA also concludes that reissuance of this permit will have “no effect” on other listed species and designated critical habitat.

#### J. 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.

#### K. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if relevant portions of New Mexico's Water Quality Standards for Interstate and Intrastate Streams are revised or remanded by the New Mexico Water Quality Control Commission. In addition, the permit may be reopened and modified during the life of the permit if relevant procedures implementing the Water Quality Standards are either revised or promulgated by the New Mexico Environment Department. Should the State adopt a State water quality standard, 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].

#### L. VARIANCE REQUESTS

No variance requests have been received.

#### M. 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, Regional Director of the U.S. Fish and Wildlife Service, and National Marine Fisheries Service prior to the publication of that notice.

#### N. FINAL DETERMINATION

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

#### O. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

##### I. APPLICATION(S)

EPA Application Form 2A received December 18, 2013.

##### II. 40 CFR CITATIONS

Sections 122, 124, 125, 133, 136

##### III. STATE OF NEW MEXICO REFERENCES

New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, as amended through August 7, 2013.

Region 6 Implementation Guidance for State of New Mexico Standards for Interstate and Intrastate Stream, March 15, 2012.

Statewide Water Quality Management Plan, December 17, 2002.

State of New Mexico CWA §303(d)/§305(b) Integrated List & Report, 2012-2014.

EPA Approved TMDL for the Middle Rio Grande Watershed, June 30, 2010

##### IV. MISCELLANEOUS REFERENCES

Letter from Dorothy Brown, EPA, to Andy Nunez, Mayor dated March 11, 2014, informing the applicant that its NPDES application received February 28, 201, is administratively complete.