

NPDES PERMIT NO. NM0030686

FACT SHEET

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

APPLICANT

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ISSUING OFFICE

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DATE PREPARED

May 23, 2016

PERMIT ACTION

Proposed reissuance of the current National Pollutant Discharge Elimination System (NPDES) permit issued May 28, 2010, with an effective date of June 1, 2010, and an expiration date of May 31, 2015.

RECEIVING WATER – BASIN

Unnamed Arroyo - Rio Puerco - Rio Grande

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
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
ug/l	Micrograms per liter (one part per billion)
mg/l	Milligrams per liter (one part per million)
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
ML	Minimum quantification level
O&G	Oil and grease
POTW	Publically owned treatment works
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
WET	Whole effluent toxicity
WQCC	New Mexico Water Quality Control Commission
WQMP	Water Quality Management Plan
WWTP	Wastewater treatment plant

As used in this document, references to State water quality standards and/or rules, regulations and/or management plans may mean the State of New Mexico and/or Tribal or both.

I. CHANGES FROM THE PREVIOUS PERMIT

Changes from the permit previously issued on May 28, 2010, with an effective date of June 1, 2010, and an expiration date of May 31, 2015 include

- a. E. coli and pH limits have been revised;
- b. Limit for percent removal of BOD has been added;
- c. Limit for percent removal of TSS has been added;
- d. Sufficiently Sensitive Methods requirements have been added;
- e. DMR electronic reporting requirements have been added;
- f. BOD 7-day and 30-day loadings based on 0.38 MGD design flow have been revised;
- g. TSS 7-day and 30-day loadings based on 0.38 MGD design flow have been revised;
- h. The TDS monitoring frequency has been changed to once every quarter;
- i. Total Mercury monitoring and report requirement has been proposed; and,
- j. A 7-Day bio-monitoring testing and annual 48-Hour bio-monitoring testing have been added.

II. DISCHARGE LOCATION AND ACTIVITY

As described in the application, the treatment plant is owned and operated by Laguna Development Corporation. Under the Standard Industrial Classification (SIC) 4952, the applicant currently operates a sanitary treatment facility. The treatment facility composes of coarse screen, grit removal, fine screen, anoxic basin for nitrification/denitrification, pre-aeration, and membrane bio-reactor basin. The design treatment capacity is 0.38 million gallons per day (MGD).

The effluent from the treatment plant is discharged into an unnamed arroyo thence to the Rio Puerco which runs intermittently during significant rain events. The discharge is located in Bernalillo County, New Mexico on the Pueblo of Laguna. Its outfall is approximately a half mile upstream of the Rio Puerco and 28 miles upstream of the intersection of the Rio Puerco and the Rio Grande. The discharge is located on that water at:

Latitude - 35° 01' 48" North
Longitude – 106° 56' 48" West

Downstream of the facility, jurisdiction over the Rio Puerco is shared with the Pueblo of Isleta before passing into State of New Mexico jurisdiction.

III. EFFLUENT CHARACTERISTICS

A quantitative description of the discharge(s) described in the EPA Permit Application Form 2A received on December 17, 2014, are presented below:

POLLUTANT TABLE - 1

Parameter	Max	Avg
	(mg/l unless noted)	
Flow, million gallons/day (MGD)	0.23	0.15
Temperature, winter	10.0 °C	10.0 °C
Temperature, summer	20.0 °C	20.0 °C
pH, minimum, standard units (SU)	6.9 su	N/A
pH, maximum, standard units (SU)	7.5 su	N/A
Biochemical Oxygen Demand, (BOD)	5.9	2.7
Fecal Coliform (FCB) (bacteria/100 ml)	1	1
Total Suspended Solids (TSS)	4	4
Ammonia (NH3)	1.0	1.0
Chlorine, Total Residual (TRC)	1.0	0.8
Dissolved Oxygen	7.5	7
Total Kjeldahl Nitrogen (TKN)	3.6	2.4
Nitrate plus Nitrite Nitrogen	9	6.5
Oil and grease	5.5	5
Phosphorus, Total	2	1.75
Total Dissolved Solids (TDS)	2820	2557

A summary of the last 3 years of pollutant data taken from DMRs indicates no reported violations of limited parameters. The following are effluent characteristics.

<u>Parameter</u>	<u>Avg. Monthly (Min.) (Max.)</u> <u>(mg/l unless noted)</u>	
Flow, million gallons/day (MGD)	0.099	0.306
pH, minimum, standard units (su)	N/A	6.8 su
pH, maximum, standard units (SU)	N/A	7.9 su
Biochemical Oxygen Demand, 5-day (BOD ₍₅₎)	0.0	13.1
E. Coli (bacteria/100 ml)	< 1	41
Total Suspended Solids (TSS)	0.2	10.0
Total Residual Chlorine	0.0	7.2

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.

V. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

1. Reason for Permit Issuance

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 be expired on May 31, 2015. The application was received on December 17, 2014. The existing permit is administratively continued until this permit is issued.

2. 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 E. coli bacteria, pH and TRC.

1) TECHNOLOGY BASED EFFLUENT LIMITATIONS

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 facility is a POTW treating sanitary wastewater. POTW's have 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 pH. BOD limits of 30 mg/l for the 30-day average and 45 mg/l for the 7-day average and 85% percent (minimum) removal are found at 40 CFR §133.102(a). TSS limits 30 mg/l for the 30-day average and 45 mg/l for the 7-day average and 85% percent (minimum) removal are found at 40 CFR §133.102(b). ELG's for pH are between 6-9 s.u. and are found at 40 CFR §133.102(c). Regulations at 40 CFR §122.45(f)(1) require all pollutants limited in permits to have limits expressed in terms of mass such as pounds per day. When determining mass limits for POTW's, the plant's design flow is used to establish the mass load. Mass limits are determined by the following mathematical relationship:

Loading in lbs/day = pollutant concentration in mg/l * 8.345 lbs/gal * design flow in MGD
 30-day average BOD₅/TSS loading = 30 mg/l * 8.345 lbs/gal * 0.38 MGD
 30-day average BOD₅/TSS loading = 95.13 lbs

7-day average BOD₅/TSS loading = 45 mg/l * 8.345 lbs/gal * 0.38 MGD
 7-day average BOD₅/TSS loading = 142.7 lbs

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

Final Effluent Limits - 0.380 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	95.13	142.7	30	45
TSS	95.13	142.7	30	45
BOD ₅ , % removal (*1)	≥ 85	---	---	---
TSS, % removal (*1)	≥ 85	---	---	---
pH	N/A	N/A	6.0 - 9.0 standard units	

*1 Percent removal is calculated using the following equation: [(average monthly influent concentration – average monthly effluent concentration) ÷ average monthly influent concentration] * 100.

2) WATER QUALITY BASED LIMITATIONS

i. 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.

ii. 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.

iii. Reasonable Potential

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 Publicly Owned Treatment Works (POTW's), but also to facilities that are similar to POTW's, 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 amount of information required for minor facilities was limited to specific sections of these forms. Supporting information for this decision was published as "Evaluation of the Presence of Priority Pollutants in the Discharges of Minor POTW's", June 1996, and was sent to all state NPDES coordinators by EPA Headquarters. In this study, EPA collected and evaluated data on the types and quantities of toxic pollutants discharged by minor POTW's of varying sizes from less than 0.1 MGD to just under 1 MGD. The Study consisted of a query of the EPA Permit Compliance System (PCS) database from 1990 to present, an evaluation of minor POTW data provided by the State agencies, and on-site monitoring for selected toxics at 86 minor facilities across the nation.

iv. Water Quality Standards

As indicated, the discharge is located on Pueblo of Laguna Tribal land. The Rio Puerco is approximately a half mile downstream of the outfall. The WWTP effluent likely enters this reach. The Rio Puerco passes through the State of New Mexico jurisdiction and Pueblo of Isleta Reservation. Laguna Pueblo has trial water quality standards which have not been reviewed or approved by EPA. The designated uses of the receiving stream are primary human contact, secondary human contact, warm-water fishery, wildlife habitat, aquatic life, and livestock and wildlife watering.

A segment of the Rio Puerco is protected under 20.6.4.130 NMAC. The designated uses of the downstream waters are irrigation, warm water aquatic life, livestock watering, wildlife habitat, and primary contact. This segment of Rio Puerco (non-pueblo Rio Grande to Arroyo Chico) is impaired for E. coli and Total Mercury. It is currently on the State of New Mexico's 2014-2016 §303(d) List.

The designated uses of the Pueblo of Isleta receiving stream are primary contact ceremonial use, primary contact recreational use, warm-water fishery, agricultural water supply use, industrial water supply use and wildlife usage.

Since 40 CFR §122.4(d) requires NPDES permits be protective of a downstream Pueblo of Isleta's and the State of New Mexico's water quality standards, their water quality standards have been considered in the development of permit conditions for the facility. The permit conditions protective of the downstream Pueblo of Isleta's and the State of New Mexico's water quality standards are also expected to be protective of Laguna Pueblo water quality.

v. 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). Downstream State WQS that are more stringent than effluent limitation guidelines are as follows:

a. BACTERIA

Primary contact currently is one of the designated uses of downstream Rio Puerco. E. coli limits have been revised in the draft permit to protect downstream designated uses. Downstream State segment specific (20.6.4.130 NMAC) WQS for E. coli bacteria is 126 cfu/100 mL monthly geometric mean and 410 cfu/100 mL daily max. Downstream Isleta Pueblo segment specific WQS for E. coli bacteria is 47cfu/100 mL monthly geometric mean and 88 cfu/100 mL daily max. EPA notes that the unapproved Laguna Pueblo E. coli water quality standard for waters with a primary contact use are the same as Isleta Pueblo's. The draft permit proposes E.coli limits of 47cfu/100 mL monthly geometric mean and 88 cfu/100 mL daily max., which are currently being met by the facility. Permit conditions protective of the downstream tribal and the State water quality standards are also expected to be protective of Laguna Pueblo water quality standards.

b. pH

Laguna Pueblo, downstream State of New Mexico (20.6.4.130 NMAC) and downstream Pueblo of Isleta segment specific WQS for pH, 6.6 to 9.0 standard units, are more restrictive than the technology-based limits presented earlier. The draft permit proposes pH limits of 6.6 (minimum) and 9.0 (maximum) standard units.

c. TOXICS

i. General Comments

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

excursion above a water quality criteria, the permit must contain an effluent limit for that pollutant.

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

The facility is designated as a minor, and does not need to fill out the expanded pollutant testing section Part D of Form 2A. As mentioned, the Rio Puerco is impaired for Total Mercury. There are no toxics that need to be placed in the draft permit except for TRC and Total Mercury.

ii. TRC

The facility uses chlorine to control bacteria. The downstream NMWQS for total residual chlorine (TRC) are 11 ug/l for chronic and 19 ug/l for acute conditions. Downstream Pueblo of Isleta and Laguna Pueblo WQS for TRC is 11 ug/L. The DMR data indicate facility effluent has low TRC concentrations and show no exceedance of 11 ug/L for the last three years. The TRC monitoring frequency of 1/week from the previous permit will be continued in the draft permit.

iii. Total Mercury

The downstream NMWQS for mercury are 0.77 ug/L (for wildlife habitat), 2 ug/L (for domestic water supply) and 10 ug/L (for livestock watering). Downstream Pueblo of Isleta WQS for mercury is 2 ug/L. The unapproved Laguna Pueblo mercury water quality standard are 0.01 mg/L (for livestock and wildlife watering), 1.1 ug/L (for wildlife habitat), and 2 ug/L (for primary human contact/ceremonial). As mentioned, a downstream segment of the Rio Puerco within the State of New Mexico jurisdiction is impaired for Total Mercury. Monitoring requirements for Total Mercury are proposed in the draft permit to establish and verify the impact on the receiving water from the site for the pollutant.

3) MONITORING FREQUENCY FOR LIMITED PARAMETERS

Regulations require that permits 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)). For consistency, the monitoring frequencies are the same as those used by EPA R6's Implementation Procedure for NM, taking into account the nature of the facility and its design flow. A frequency of 2/month is established for BOD, TSS, and E. coli, and the pH monitoring frequency of 5/week from the previous permit will be continued in the draft permit.

4) WHOLE EFFLUENT TOXICITY (WET) TESTING

Based on the information described in the EPA Permit Application (i.e, Form 3510-2A) received December 17, 2014, the facility effluent has low flow volume, BOD and TSS concentrations. However, its maximum and average TDS concentrations are 2820 mg/l and 2557 mg/l, respectively. EPA has concerned that these TDS concentrations are high and could potentially have detrimental effects on the aquatic life. The draft permit proposes to increase the TDS monitoring frequency to once every quarter and WET testing, as described below, to be conducted.

For consistency, WET permit procedures are the same as those contained in the March 2012, Procedures for Implementing NPDES Permits in New Mexico (NMIP). Table 11 of Section V of the NMIP outlines the type of WET testing for different types of discharges. The design flow of the facility is 0.38 MGD. The 4Q3 of the receiving water, an intermittent waterbody, is zero cfs. Based on the nature of the discharge, POTW; the design flow, 0.38 MGD; the nature of the receiving water, intermittent; and the critical dilution, 100%, Table 11 provides that the WET test to be a Chronic (7-day) bio-monitoring using *Ceriodaphnia dubia* (water flea) and *Pimephates promelas* (flathead minnow). In addition, Table 11 directs that the first test be conducted in the first year of the permit, and if the chronic test passes, acute (48-hr) bio-monitoring with *Daphnia pulex* (water flea) would be required for remaining term of the permit at 1 per year frequency. The test series will be 0% (control), 32%, 42%, 56%, 75%, and 100%.

VI. FACILITY OPERATIONAL PRACTICES

A. SEWAGE SLUDGE

The sludge produced at the facility is discharged into a large lagoon for aerated treatment. The lagoon is designed for 10 years plus disposal.

B. WASTE WATER POLLUTION PREVENTION REQUIREMENTS

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

C. INDUSTRIAL WASTEWATER CONTRIBUTIONS

The treatment plant has no non-categorical Significant Industrial User's (SIU) and no Categorical Industrial User's (CIU). The EPA has tentatively determined that the permittee will not be required to develop a full pretreatment program. However, general pretreatment provisions have been required. The facility is required to report to EPA, in terms of character and volume of pollutants any significant indirect dischargers into the POTW subject to pretreatment standards under §307(b) of the CWA and 40 CFR Part 403.

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. Reporting requirements and the requirement of using EPA-approved test procedures (methods) for the analysis and quantification of pollutants or pollutant parameters are contained in 40 CFR 122.41(l) and 40 CFR 122.21 (e), respectively. All Discharge Monitoring Reports (DMRs) shall be electronically reported effective December 21, 2016 per 40 CFR 127.16. The monitoring results will be available to the public.

VII. 303(d) LIST

The Rio Puerco is approximately a half mile from the outfall. The Rio Puerco is under joint jurisdiction of the State and Laguna Pueblo. This section of the Rio Puerco is protected under 20.6.4.130 NMAC.

The Rio Puerco (non-pueblo Rio Grande to Arroyo Chico) is impaired for E. coli and Total Mercury. It is currently on the state of New Mexico 2014-2016 §303(d) List. The WWTP effluent likely enters this reach.

VIII. ANTIDegradation

The Pueblo of Laguna does not have NPDES-approved WQS nor an anti-degradation policy. The draft permit is protective of the receiving water and further downstream waters and under the jurisdiction of the State and the Pueblo of Isleta. There is no evidence based on available information that the discharge from the facility degrades existing uses.

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 mass loading requirements of the previous permit for BOD₅, TSS are revised based on the 0.38 MGD design flow, and the concentration limit for E. coli has been revised in the draft permit to protect designated uses.

X. ENDANGERED SPECIES CONSIDERATIONS

Five species (Yellow-billed Cuckoo, Southwestern willow flycatcher, Mexican spotted owl, Rio Grande silvery minnow and New Mexico meadow jumping mouse) in Bernalillo County are listed as Endangered or Threatened, according to the U.S. Fish & Wildlife Service's (USFWS) website, http://ecos.fws.gov/tes_public/reports/species-by-current-range-county?fips=35001/E.

The yellow-billed cuckoo is a Neotropical migrant bird that winters in South America and breeds in North America. The yellow-billed cuckoo has been listed as endangered. The primary cause of loss and degradation of yellow-billed cuckoo is the loss and degradation of riparian breeding habitat, which is believed to have caused the declines in the distribution and abundance of the species. Conversion to agriculture and other land uses, urbanization, dams and river flow management, stream channelization and bank stabilization, and livestock grazing are the causes of riparian habitat losses. The permit does not authorize activities that may cause destruction of the yellow-billed cuckoo habitat, and issuance of the permit will have no effect on this species.

Southwestern Willow Flycatchers habitat occurs in riparian areas along streams, rivers, and other wetlands where dense willow, cottonwood, buttonbush and arrow weed are present. The primary reason for decline is the reduction, degradation and elimination of the riparian habitat. Other reasons include brood parasitism by the brown headed cowbird and stochastic events like fire and floods that destroy fragmented populations. The receiving water is an intermittent stream which runs only due to rain events, and does not provide suitable habitat for the species. The permit does not authorize activities that may cause destruction of the flycatcher habitat, and issuance of the permit will have no effect on this species.

Research of available material finds that the primary cause for the population decreases leading to threatened status for the Mexican Spotted Owl is destruction of habitat. No pollutants are identified which might affect species habitat or prey species and are not limited by the permit. Catastrophic fires and elimination of riparian habitat also were identified as threats to species habitat. The NPDES program regulates the discharge of pollutants and does not regulate forest management practices and agricultural practices, which contribute to catastrophic fires and elimination of riparian habitat, and thus, species habitat. The issuance of this permit is found to have no impact on the habitat of this species.

The jumping mouse is a small, nocturnal, solitary mammal and an obligate riparian subspecies. Its historical distribution likely included riparian wetlands along streams in the Sangre de Cristo and San Juan Mountains from southern Colorado to central New Mexico, including the Jemez and Sacramento Mountains and the Rio Grande Valley from Española to Bosque del Apache National Wildlife Refuge, and into parts of the White Mountains in eastern Arizona. Ongoing and future habitat loss is expected to result in additional extirpations of more populations. Research indicates that the primary sources of past and future habitat losses are from grazing pressure (which removes the needed vegetation) and water management and use (which causes vegetation loss from mowing and drying of soils), lack of water due to drought (exacerbated by climate change), and wildfires (also exacerbated by climate change). Additional sources of habitat loss are likely to occur from scouring floods, loss of beaver ponds, highway reconstruction, coal-bed methane development, and unregulated recreation. The issuance of this permit is found to have no impact on the habitat of this species.

The Rio Grande silvery minnow is a schooling species with reproductive behavior similar to that of other plains river fishes. Numerous individuals congregate during spawning, and these events may continue over several days or possibly weeks. The Rio Grande silvery minnow occupies a variety of habitats in low-gradient, large streams with shifting sand or silty bottoms. During periods of zero flow it is suspected that they survive in areas where irrigation return flows

re-enter the river, in the pools formed by water leaking through the gates of the diversion dams, and in the irrigation ditches and drains. Some minnows probably survive in the reaches of streams above the diversions where their offspring can repopulate downstream reaches when conditions permit.

Threats to the species include dewatering, channelization and regulation of river flow to provide water for irrigation; diminished water quality caused by municipal, industrial, and agricultural discharges; and competition or predation by introduced non-native fish species. The discharge is to an intermittent stream about 28 miles from the Rio Grande, and is unlikely to contribute pollutants to the Rio Grande. The proposed action does not modify Rio Grande's river flow. Therefore, no effect on the species is expected.

Based on the information available to EPA, that the reissuance of this permit will have *no effect* on these federally listed threatened or endangered species.

XI. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

The reissuance of the permit should have no impact on historical and/or archeological sites because 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 State/Tribal Water Quality Standards are promulgated or revised. In addition, if either the State and/or Tribe develops a TMDL, this permit may be reopened to establish effluent limitations for the parameter(s) to be consistent with that TMDL. Modification of the permit is subject to the provisions of 40 CFR §124.5.

XIII. VARIANCE REQUESTS

No variance requests have been received.

XIV. CERTIFICATION

The discharge is located within boundaries of tribal trust land, and EPA has both permitting and certifying jurisdiction. A draft permit and draft public notice will be sent to the downstream State, 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. EPA is the certifying agency.

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 Forms 2A received on December 17, 2014.

B. 40 CFR CITATIONS

Citations to 40 CFR Sections 122, 124, 125, 133, 136

C. MISCELLANEOUS

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

State of New Mexico 303(d) List for Assessed Stream and River Reaches, 2014 -2016.