NPDES PERMIT NO. NM0030112 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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DATE PREPARED

September 27, 2018

PERMIT ACTION

Renewal of a permit previously issued on August 28, 2013 with an effective date of October 1, 2013, 2007, and an expiration date of September 30, 2018.

RECEIVING WATER – BASIN

Rio Cebolla, thence to Jemez River – Rio Grande Basin

DOCUMENT ABBREVIATIONS

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

4Q3	Lowest four-day average flow rate expected to occur once every three-years
BAT	Best available technology economically achievable
BCT	Best conventional pollutant control technology
BPT	Best practicable control technology currently available
BMP	Best management plan
BOD	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CBOD	Carbonaceous biochemical oxygen demand (five-day unless noted otherwise)
CD	Critical dilution
CFR	Code of Federal Regulations
cfs	Cubic feet per second
COD	Chemical oxygen demand
COE	United States Corp of Engineers
CWA	Clean Water Act
DMR	Discharge monitoring report
DO	Dissolved oxygen
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FDA	U.S. Food and Drug Administration
FWS	United States Fish and Wildlife Service
mg/l	Milligrams per liter
ug/l	Micrograms per liter
lbs	Pounds
MG	Million gallons
MGD	Million gallons per day
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMIP	New Mexico NPDES Permit Implementation Procedures
NMWQS	New Mexico State Standards for Interstate and Intrastate Surface Waters
NPDES	National Pollutant Discharge Elimination System
MQL	Minimum quantification level
O&G	Oil and grease
POTW	Publically owned treatment works
RP	Reasonable potential
SS	Settleable solids
SIC	Standard industrial classification
s.u.	Standard units (for parameter pH)
SWQB	Surface Water Quality Bureau
TDS	Total dissolved solids
TMDL	Total maximum daily load
TRC	Total residual chlorine
TSS	Total suspended solids
UAA	Use attainability analysis
USGS	United States Geological Service
WLA	Waste Load allocation
WET	Whole effluent toxicity
WQCC	New Mexico Water Quality Control Commission
WQMP	Water Quality Management Plan
WWTP	Wastewater treatment plant

I. CHANGES FROM THE PREVIOUS PERMIT

Changes from the permit previously issued on August 28, 2013 with an effective date of October 1, 2013, and an expiration date of September 30, 2018 are as follow:

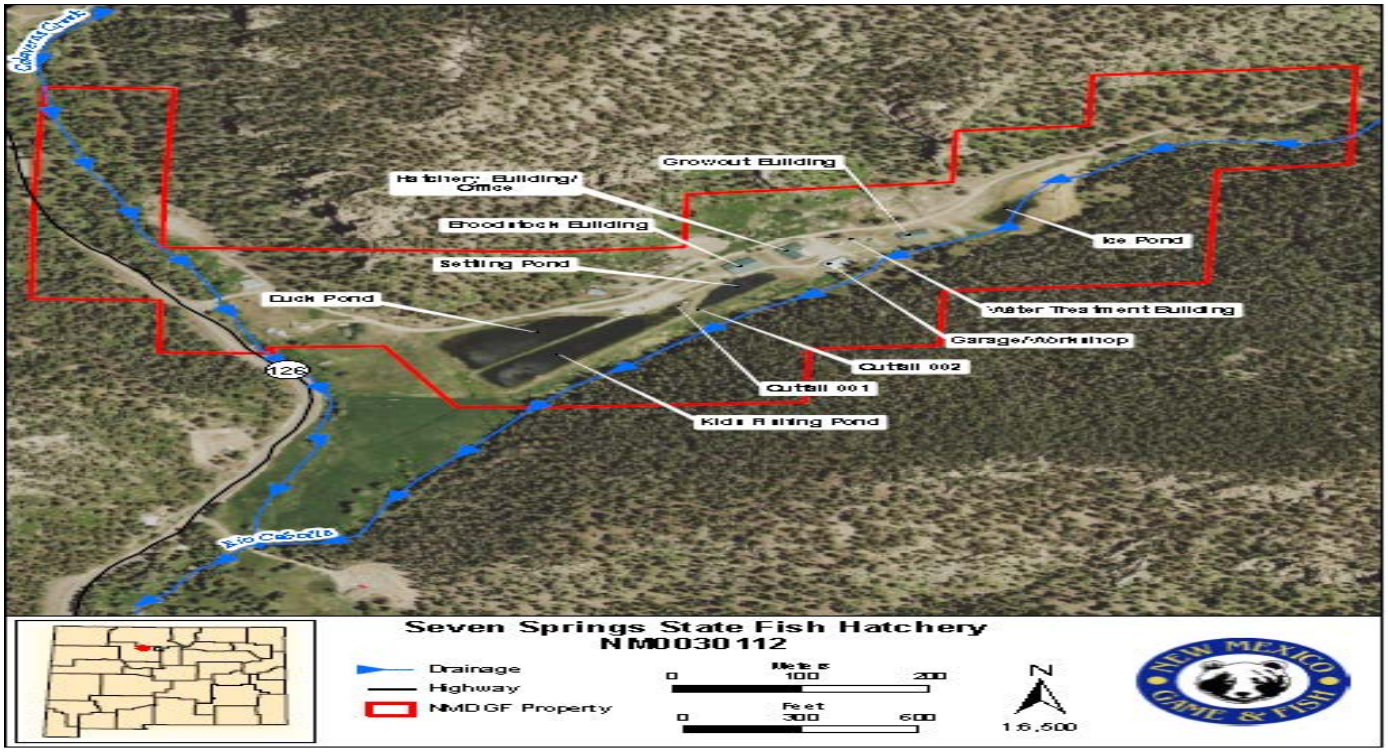
- Limit for TRC has been reinstated since the FDA approved drug Chloramine-T is listed as an option for the treatment of the Bacterial Gill Disease. In addition, the TRC was detected at a concentration of 0.022 ug/L at Outfall 002.

- Added limitations for aluminum at Outfall 001 based on RP analysis and reporting for aluminum at Outfall 002 (non-continuous flow).

II. APPLICANT LOCATION and ACTIVITY

As described in the application, the facility (Latitude 35° 55' 39.072" N and Longitude 106° 42' 13.2978" W) is located at 346 Forest Road 314, city of Jemez Springs, Sandoval County, New Mexico. Under the SIC code 921, the facility hatches and raises Rio Grande cutthroat trout for stocking in lakes and streams with estimated production maximum of 10,200 lbs annually. Water sources are Calaveras Spring, Cebolla Spring, Coldwater Spring and Seven Spring; some of the springs water are oxygenated before being utilized.

The facility primarily consists of 2 raceways, 3 ponds, including settling pond and kid fishing pond, buildings: grow out, hatchery, and brood stock. During normal operation water overflows from one building to another, thence to the raceways. The wastewater mainly consisting of unconsumed food, fish waste and other sediment is discharged to the fishing pond, where Outfall 001 is located. The wastewater at the fishing pond is routed to the wetlands, then to a neighbors pasture; it is also discharged to Rio Cebolla. When weekly cleaning occurs in the building(s) or raceways, wastewater with sediment from the cleaning activity is directly discharged to the settling pond, where Outfall 002 is located. At the settling pond the wastewater is discharged to Rio Cebolla. Average long term flows at Outfalls 001 and 002 are 0.503 MGD and 0.146 MGD, respectively. A map of the facility is attached.



III. EFFLUENT CHARACTERISTICS

The facility has provided the laboratory test results for the priority pollutants (metals, cyanide/chlorine, volatile, acid compounds, base/neutral compounds and pesticides) listed in Appendix D of NMIP for Outfall 001 and Outfall 002. Samples were collected on November 27, 2017 and analyzed on December 1, 2017. Test results and applicant's certification dated March 23, 2018 stated that all analytes tested were either not detected or were detected below the minimum quantification level (MQL) except for aluminum and uranium at both Outfall 001 and 002.

Pollutants	Outfall 001 (ug/L)	Outfall 002 (ug/L)	MQL (ug/L)
Mercury, total	0.00092	0.00087	0.005
Aluminum (*)	78.2	104	2.5
Antimony	0.044 (**J**)	0.047 (**J**)	60
Arsenic	0.42 (**J**)	0.39 (**J**)	0.5
Barium	18	19.6	100
Beryllium	0.101	0.078	0.5
Boron	13.5	13.0	100
Chromium	0.26	0.34	10
Cobalt	0.02 (**J**)	0.032	50
Copper	0.22	0.29	0.5
Lead	0.106	0.189	0.5
Molybdenum	0.76	0.58	10
Nickel	0.08 (**J**)	0.20	0.5
Selenium	0.3 (**J**)	0.3 (**J**)	5
Uranium (*)	0.663	0.579	0.1
Vanadium	0.79	0.65	50
Zinc	1.4 (**J**)	8.8	20
Chloromethane	0.04 (**J**)	0.03 (**J**)	-
Di-n-butyl Phthalate	0.049 (**J**)	0.034 (**J**)	10
Butyl Benzyl Phthalate	0.18 (**J**)	0.061 (**J**)	10
Bis(2-ethylhexyl1) Phthalate	0.15 (**J**)	-	10
Toluene	-	0.06 (**J**)	10
Diethyl Phthalate	-	0.043 (**J**)	10
Chlorine	-	0.022 (**J**)	33
Thallium	-	0.017 (**J**)	0.5

Note: (*) Exceed MQLs; (**J**) Lab reported as estimated value

During the permit term DMRs showed several pH measures exceeded the maximum limit of 8.8 standard units.

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 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. The application was received on March 27, 2018. It is proposed that the permit be reissued for a 5-year term following regulations promulgated at 40 CFR §122.46(a).

V. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

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

Regulations contained in 40 CFR §122.44 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 draft permit for TSS and SS. Water quality-based effluent limitations are established in the draft permit for pH.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. General Comments

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

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

BCT - Technology-based standard for the discharge from existing industrial point sources of conventional pollutants including TSS and SS.

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

2. Effluent Limitation Guidelines

Pursuant to 40 CFR 451, ELGs have been promulgated for concentrated aquatic animal production facility that produces 100,000 lbs or more annually. Since the facility produces less than 100,000 lbs estimated annually, BMP is appropriate. BMP for solid control, materials storage, structural maintenance, recordkeeping and training is required (40 CFR 451.11).

Limitations for TSS were established at 10 mg/l monthly average and 15 mg/l daily max. Limitations for SS were set at 0.1 ml/l monthly average and 0.5 ml/l daily max. The limitations are retained in the draft permit for Outfalls 001 and 002.

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 maximum 30-day average 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)(l)/(mg)(MG) * flow in MGD

Monthly average TSS loading = 10 mg/l * 8.345 (lbs)(l)/(mg)(MG) * 0.8238 MGD = 69 lbs/day
Daily max. average TSS loading = 15 mg/l * 8.345 (lbs)(l)/(mg)(MG) * 0.8238 MGD = 103 lbs/day

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

Parameter	Monthly Avg	Daily Max	Monthly Avg	Daily Max
TSS	69 lbs/day	103 lbs/day	10 mg/L	15 mg/L
SS	N/A	N/A	0.1 ml/L	0.5 ml/L
pH	N/A	N/A	6 to 9 s.u.	

Mass loading for Outfall 002 is not established due to non-continuous flow; "Report" is adequate.

C. WATER QUALITY BASED LIMITATIONS

1. General Comments

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

2. Implementation

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

3. State Water Quality Standards

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC, effective August 11, 2018 for federal CWA purposes). The discharge is to Rio Cebolla, segment 20.6.4.108 NMAC. The designated uses of the receiving water are domestic water supply, fish culture, high quality cold-water aquatic life, irrigation, livestock watering, wildlife habitat and primary contact.

4. Permit Action - Water Quality-Based Limits

Regulations promulgated at 40 CFR §122.44(d) require limits in addition to, or more stringent than effluent limitation guidelines (technology based). State WQS that are more stringent than effluent limitation guidelines are as follows:

a. pH

For high quality cold-water aquatic life, criteria for pH is between 6.6 and 8.8 s.u. pursuant to 20.6.4.900.H(1) NMAC.

b. Toxics

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

5. 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). The monitoring frequencies are retained from the previous permit as follow:

Parameter	**Frequency**	**Sample Type**
Flow	Daily	Measured over weir
pH	2/month	Grab
TSS	2/month	Grab
SS	2/month	Grab
Aluminum	2/Month	Grab
TRC	2/Month	Instantaneous Grab

D. WHOLE EFFLUENT TOXICITY

Majority discharge is from Outfall 001 (fishing pond). The CD of 100% at this outfall in the previous permit because the State did not allow dilution into pond, lake or playas. This CD is retained for this draft permit. Procedures for implementing WET terms and conditions in NPDES permits are contained in the NMIP. Table 12 on page 43 of the NMIP outlines the type of WET testing for different types of discharges. Based on the nature of the discharge: minor industrial, the NMIP directs the WET testing to be acute tests (48-hrs.) using *Daphnia pulex* and *Pimephales promelas* once every six months.

The previous permit required a total of ten (10) tests for *Daphnia pulex* and six (6) tests for *Pimephales promelas*. DMRs show that they all passed except test results for the due date of September 30, 2018 have not been received. WET monitoring for the same species will continue with 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 32%, 42%, 56%, 75%, and 100%. The low-flow effluent concentration (critical low-flow dilution) is defined as 100% effluent. The permittee shall limit and monitor discharge(s) as specified below:

Effluent Characteristic	**Discharge Limitations**		**Monitoring Requirements**	
WET Testing (48-hr Static Renewal) [*1]	30-day Avg Min.	48-Hr. Min.	Frequency[*2]	Type
Daphnia pulex (in 1st year)	Report	Report	Once/6 months	Grab
Pimephales promelas (in 1st year)	Report	Report	Once/6 months	Grab
If All Tests Pass				
Daphnia pulex (years: 2, 3, 4, 5)	Report	Report	Once/6 months	Grab
Pimephales promelas (years: 2, 3, 4, 5)	Report	Report	Once/year	Grab
If Any Test Fails				
Daphnia pulex (years: 2, 3, 4, 5)	Report	Report	Once/3 months	Grab
Pimephales promelas (years: 2, 3, 4, 5)	Report	Report	Once/3 months	Grab

Footnote:

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

2. The test shall take place between April 1 and June 30. This permit does not establish requirements to automatically increase the WET testing frequency after a test failure, or to begin a toxicity reduction evaluation (TRE) in the event of multiple failures. However, upon failure of any WET test, the permittee must report the results to EPA and NMED, Surface Water Quality Bureau, in writing, within 5 business days of notification of the test failure. EPA and NMED will review the test results and determine the appropriate action necessary, if any.

Outfall 002 is used when cleaning occurs; the discharge is to the settling pond, thence to Rio Cebolla. Except for sediments, discharged pollutants at Outfall 002 are closely the same as at Outfall 001. In addition, CD is 100% at Outfall 001; therefore, it is not necessary to do WET testing at Outfall 002, which has a much lower CD.

E. DRUGS MEDICATIONS and/or CHEMICALS (DMC)

The permittee shall comply with reporting requirements pursuant to 40 CFR 451.3 if investigational new animal drug (INAD) or any extra-label drug is used where such the use may lead to the receiving water. Reporting is not required for an INAD or extra-label drug, previously approved by FDA, if its use is at or below the approved dosage and involves similar conditions of uses. The permittee shall also notify NMED and EPA of the use of non-FDA approved drug. Notification to NMED shall be by phone within one business day and to EPA within three days of the intention. Written notification shall also be both NMED and EPA within five business days. Notifying information must include name of the DMC, the reason for treatment, date(s) and time(s) of the addition (including duration), method of application and the amount added.

When the DMC used is neither approved by FDA or its use is not consistent with FDA practices, including INAD and extra-label drug with above approved dosage, such that may lead to the receiving water, the permittee shall conduct WET tests. The testing is retained from the previous permit, CD at 100% with additional effluent concentrations at 32%, 42%, 56%, 75%, and 100%, as table below. The permittee shall report WET tests on the DMR as Outfall 01B and mention reporting letter to NMED and EPA.

Effluent Characteristic	**Discharge Limitations**		**Monitoring Requirements**	
WET Testing (48-hr Static Renewal)	30-day Avg Min.	48-Hr. Min.	Frequency	Type
Daphnia pulex	Report	Report	Once/Use[*1]	Grab[*2]
Pimephales promelas	Report	Report	Once/Use	Grab

Footnote:

1. Once/Use is for intermittent use of DMC. For long-term use, only one WET shall be required on the maximum dosage. If any dose is later increased by more than 20% of the maximum dosage, then additional WET tests will be required. This permit does not establish requirements to automatically increase the WET testing frequency after a test failure, or to begin a toxicity reduction evaluation (TRE) in the event of multiple failures. However, upon failure of any WET test, the permittee must report the results to EPA and NMED, Surface Water Quality Bureau, in writing, within 5 business days of notification of the test failure. EPA and NMED will review the test results and determine the appropriate action necessary, if any.

2. The sample shall be taken approximately 30 minutes after the expected time of arrival of the treated water has passed through the outfall. The expected time of arrival can be estimated by direct observations with light floatable object.

The previous permit stated that the applicant shall not use chlorine in the hatchery operation nor discharge any chlorine that may eventually migrate to the outfall(s) at the facility. However, because TRC has been detected below the concerned level at the settling pond, it will be monitored twice per month at Outfall 002 during facility cleanings, including raceway, troughs and tanks (settling pond), and measured daily at Outfall 01B when DMC is used.

VI. TMDL REQUIREMENTS

Rio Cebolla with segment 20.6.4.108, Fenton Lake to headwaters, is in the 303(d) list with probable causes of impairment of aluminum, sedimentation and turbidity. Natural conditions contribute to high aluminum concentrations are unclear; aluminum criteria are under review to identify appropriate levels. A TMDL for aluminum and turbidity is not completed. TMDL for sediments was completed and approved by EPA on June 3, 2003 as stated in the previous permit; temperature in this TMDL was delisted in 2008. The TMDL stated there were no point source contributions associated. Therefore, no additional permit requirements are needed for the sedimentation. The permit has a reopener clause that would allow the permit to be changed if at a later date the segment had a revised TMDL completed.

VII. ANTIDEGRADATION

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

VIII. ENDANGERED SPECIES CONSIDERATIONS

According to the USFWS list updated on October 2, 2018 for Sandoval County, NM at https://ecos.fws.gov/ecp0/reports/species-by-current-range-county?fips=35043, the species are Jemez Mountains salamander (Plethodon neomexicanus) (endangered), Yellow-billed Cuckoo (Coccyzus americanus) (threatened), Mexican spotted owls (Strix occidentalis lucida) (threatened), Southwestern willow flycatcher (Empidonax traillii extimus) (endangered), Rio Grande silvery minnow (Hybognathus amarus) (endangered) and New Mexico meadow jumping mouse (Zapus hudsonius luteus) (endangered).

1. **Jemez Mountains salamander** is a species of salamander in the family Plethodontidae endemic to New Mexico. Its natural habitat is temperate forests. It is threatened by habitat loss, is in rapid decline. Ninety percent of the Jemez Mountains salamander population lives within the boundaries of the Santa Fe National Forest. To protect the Jemez Mountains salamander, one must safeguard the Jemez Mountains—a striking landscape characterized by large tracts of undisturbed wilderness, rocky peaks, and mountain streams. Because volcanic activity formed the mountains, they also contain unique features such as hot springs, fumaroles, and the Valles Caldera itself, a ring of hills born from the remnants of several extinct volcanoes.

The Jemez Mountains salamander is the most imperiled of the three salamanders that live in New Mexico and is very vulnerable to losing more of its already limited habitat. It is now found in only 38 percent of the sites it historically occupied. Logging, wildfires, and fire suppression activities—such as trench-digging and application of fire-suppressant chemicals—threaten the remaining salamanders. So, does road-building: sometimes these tiny amphibians don’t make it across roads alive during their nightly travels.

2. **Yellow-billed Cuckoo** uses wooded habitat with dense cover and water nearby, including woodlands with low, scrubby, vegetation, overgrown orchards, abandoned farmland, and dense thickets along streams and marshes. In the Midwest, look for cuckoos in shrub-lands of mixed willow and dogwood, and in dense stands of small trees such as American elm. In the central and eastern U.S., Yellow-billed Cuckoos' nests in oaks, beech, hawthorn, and ash. In the West, nests are often placed in willows along streams and rivers, with nearby cottonwoods serving as foraging sites.

3. **Mexican spotted owls** nests, forages, roosts and disperses in a wide variety of biotic communities:

- Mixed-conifer forests are commonly used throughout the range and may include Douglas fir, white fir, southwestern white pine, limber pine, and ponderosa pine. Understory may include Gambel oak, maples, box elder, and/or New Mexico locust. Highest densities of Mexican spotted owls occur in mixed-conifer forests that have experienced minimal human disturbance.

- Madrean pine-oak forests are commonly used throughout the range, and, in the southwestern U.S., are typically dominated by an overstory of Chihuahua and Apache pines, with species such as Douglas fir, ponderosa pine, and Arizona cypress. Evergreen oaks are typically prominent in the understory.

- Rocky canyons are utilized by Mexican spotted owls in the northern part of their range, including far northern Arizona and New Mexico, and southern Utah and Colorado.

Nesting habitat is typically in areas with complex forest structure or rocky canyons, and contains mature or old growth stands which are uneven-aged, multistoried, and have high canopy closure. In the northern portion of the range (southern Utah and Colorado), most nests are in caves or on cliff ledges in steep-walled canyons. Elsewhere, the majority of nests are in Douglas-fir trees (Pseudotsuga menziesii).

The patterns of habitat use by foraging owls are not well known, but Mexican spotted owls generally forage in a broader array of habitats than they use for roosting, and most commonly in Douglas fir. Ganey and Balda (1994) found that, in northern Arizona, owls generally foraged slightly more than expected in unlogged forests, and less so in selectively logged forests. However, patterns of habitat use varied between study areas and between individual birds, making generalizations difficult.

4. **Southwestern willow flycatcher** 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 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.

5. **Rio Grande silvery minnow** was once abundant throughout the Rio Grande and Pecos basins, but now is limited to just a few locations of the Rio Grande in New Mexico. Within North America, the Rio Grande silvery minnow inhabits the Rio Grande River. The Rio Grande silvery minnow currently occupies less than 10% of its historic range, and is now only found in the Rio Grande River from Cochiti Pueblo, downstream to the in-stream flow of Elephant Butte Reservoir. Apparently, this species is now extinct in Texas.

The maximum size for the Rio Grande silvery minnow is 8.9 cm (3.5 in). They travel in schools. The abundance of the Rio Grande silvery minnow varies from season to season and from year to year. If stream or river flows do not significantly increase during the spring, this species is less likely to spawn

that year. Silvery minnows tend to skim the bottom of rivers and streams. These fish are herbivores, whose diet consists of river plants and benthic macro-invertebrates.

Silvery minnows prefer large streams with slow to moderate current flowing over a mud, gravel substrate, or shifting sand-silt substrate bottom. Silvery minnows typically occupy stream habitats where water depths are moderate 0.2 to 0.8 m (8 in. to 31.5 in.) and have velocity from 0 to 30 cm (0 to I ft./sec). During the winter, these minnows are most commonly found in nearly still water with debris cover. However, during low flows, they are found in isolated pools and in watered reaches immediately down stream of diversion structures. Rio Grande silvery minnows have also been found in irrigation ditches and canals.

6. **New Mexico meadow jumping mouse** is a water-loving animal that lives only along the banks of southwestern streams. It is semi-aquatic, and its large back feet may assist it with swimming as well as jumping. Unlike other subspecies of meadow jumping mouse, it is never found in meadows or grasslands without suitable perennial water and riparian habitat. It is rarely found more than a few feet (1.8 m) from running water.

These mice are naturally rare and scattered across isolated population centers, and no wonder; riparian areas make up less than 1 percent of the landmass in the Southwest. But these precious arteries of life are in decline, and the jumping mouse along with them. The mouse has been extirpated from 70 to 80 percent of its historic range, which extended from the San Juan Mountains in southwestern Colorado into the Rio Grande Valley in New Mexico and the White Mountains in Arizona. These days, they are found only in 5 isolated mountain ranges in Colorado, New Mexico, and Arizona, and in the Rio Grande Valley.

In all historical locations surveyed since 2000, populations have undergone large declines and in some cases may have completely disappeared. Overgrazing by livestock is the primary driver of this decline; cattle grazing, even with low numbers of cows, destroys sensitive streamside habitat through loss of vegetation, alteration of the vegetative community by selective grazing of certain species, soil compaction, and general destruction from trampling. A mouse in grazed habitat generally cannot collect enough food during its short active period to make it through the winter. During surveys in 2005 and 2006, every population of New Mexico meadow jumping mice was found in areas inaccessible to livestock.

In accordance with requirements under section 7(a)(2) of the Endangered Species Act, EPA has reviewed this permit for its effect on listed threatened and endangered species and designated critical habitat. After review, EPA has determined that the reissuance of this permit will have “no effect” on listed threatened and endangered species nor will adversely modify designated critical habitat. EPA makes this determination based on the following:

1. No additions have been made to the USFWS list of threatened and endangered species and critical habitat designation in the area of the discharge since prior issuance of the permit.

2. EPA has received no additional information since the previous permit issuance which would lead to revision of its determinations.

3. The draft permit is consistent with the States WQS and does not increase pollutant loadings.

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

IX. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

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

X. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if NMWQS are promulgated or revised. In addition, if the State 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.

XI. VARIANCE REQUESTS - None

XII. CERTIFICATION

The permit is in the process of certification by the State Agency following regulations promulgated at 40 CFR 124.53. A draft permit and draft public notice will be sent to the District Engineer of COE, to the Regional Director of FWS and to the National Marine Fisheries Service prior to the publication of that notice.

XIII. FINAL DETERMINATION

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

XIV. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. APPLICATION(S) - EPA Application Forms 1 and 2B received by EPA March 27, 2018.

B. 40 CFR CITATIONS - Sections 122, 124, 125, 133, 136, 451

C. STATE OF NEW MEXICO REFERENCES

NMQWS, 20.6.4 NMAC, effective June 5, 2013.
Implementation Guidance for the NMIP, March 15, 2012.
State of New Mexico 303(d) List for Assessed Stream and River Reaches, 2016 -2018.

E. CORRESPONDENCE

Email from NMED to EPA, Region 6, 10/1 & 10/9/2018 providing the ambient and flow data.