

NPDES PERMIT NO. NM0028762

STATEMENT OF BASIS

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

APPLICANT

City of Aztec - Water Treatment Plant
201 West Chaco
Aztec, New Mexico 87410

ISSUING OFFICE

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

PREPARED BY

Maria Okpala
Environmental Engineer
NPDES Permits & Technical Branch (6WQ-PP)
Water Quality Protection Division
VOICE: 214-665-3152
FAX: 214-665-2191
EMAIL: Okpala.maria@epa.gov

DATE PREPARED

May 2, 2016

PERMIT ACTION

Proposed reissuance of the current NPDES permit initially issued August 18, 2009, with an effective date of October 1, 2009, and an expiration date of September 30, 2014.

40 CFR CITATIONS: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations, revised as of April 29, 2016.

RECEIVING WATER – BASIN

Lower Animas Irrigation Ditch, thence to the Animas River in Waterbody Segment No.20.6.4.403 of the San Juan River Basin.

DOCUMENT ABBREVIATIONS

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

4Q3	Lowest four-day average flow rate expected to occur once every three-years
BAT	Best available technology economically achievable
BCT	Best conventional pollutant control technology
BPT	Best practicable control technology currently available
BMP	Best management plan
BOD	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CBOD	Carbonaceous biochemical oxygen demand (five-day unless noted otherwise)
CD	Critical dilution
CFR	Code of Federal Regulations
cfs	Cubic feet per second
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
FWS	United States Fish and Wildlife Service
mg/l	Milligrams per liter
ug/l	Micrograms per liter
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
ML	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	Wasteload 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 previous permit issued August 18, 2009, with an effective date of October 1, 2009, and an expiration date of September 30, 2014, are:

1. Electronic DMR reporting requirements have been included in the proposed permit.
2. Language on the sufficiently sensitive Method has been established in the proposed permit.
3. Reporting requirement for Total Aluminum has been removed from the draft permit since total aluminum did not show reasonable potential to exceed NMWQS.

II. APPLICANT LOCATION and ACTIVITY

As described in the application, the facility is located at New Mexico Highway 173 in the City of Aztec in San Juan County, New Mexico. Under the SIC Code 4941, the applicant operates a Water Treatment plant. This permitting action is for the discharge of backwash and flushing water originating from the potable water treatment plant.

The Water Treatment Plant (WTP) consists of four plants, operated separately, at the same location. The plant utilizes a combination of coagulation, flocculation, and various media filters, including anthracite coal, plastic pellets, and garnet & silica sand, depending on the plant. The intake water source for all the four plants is the Animas River. Intake water is treated with aluminum sulfate and a non-ionic polyacrylamide polymer (coagulation and flocculation depending on the plant), clarification and filtering prior to disinfection and distribution. Two of the four plants go through a flush cycle with raw water approximately every four to five hours. Filter backwash using potable water occurs from once per day to once every three to four days depending on the plant and the time of year.

The backwash and system flush flows through the WTP's sump system to an on-site settling pond (i.e. backwash pond) with an outlet to an open ditch, then through a driveway culvert, then through a pipe to an open channel to the Lower Animas Ditch. Samples are collected prior to discharge at the entrance to the pipe leading to the open channel to the Lower Animas Ditch.

Solids are removed from the settling pond once every year, stacked on the sides, and stockpiled adjacent to the pond to dry. The sediment stockpile is tested using Toxicity Characteristic Leaching Procedure. Based on the test results, the sediment is either sent to Bondad Landfill/WCA in Durango, Colorado or provided to the public.

The discharge is located at Latitude 36° 50' 0" North, Longitude 107° 58' 45" West. The discharge from the facility is to receiving waters named lower Animas irrigation Ditch, then to the Animas River, thence to the San Juan River in Waterbody Segment Code No. 20.6.4.403, of the San Juan Basin. 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 June 5, 2013).

The known uses of the receiving water(s) are public water supply, industrial water supply, irrigation, livestock watering, wildlife habitat, marginal coldwater aquatic life, primary contact and warmwater aquatic life.

III. EFFLUENT CHARACTERISTICS

The pollutants shown in Table I below was obtained in Section C of the Permit Application Form 2C dated April 2, 2014, April 11, 2016, and April 18, 2016.

TABLE 1: OUTFALL 001 POLLUTANTS

Parameter	Max	Avg
	mg/l unless noted	
Flow, million gallons/day (MGD)	0.323	0.181
Nitrate plus Nitrite Nitrogen	0.17	0.17
Nitrate - N	0.17	0.17
Hardness as CaCO ₃	280	266.50
Cyanide, weak acid dissociable	ND	ND
Aluminum, D (from DMRs)	0.35	0.238
Antimony, T	ND	ND
Arsenic, T	ND	ND
Beryllium, T	ND	ND
Chromium, T	ND	ND
Copper, T	0.0017	0.0015
Lead, T	ND	ND
Mercury, T	ND	ND
Nickel, T	ND	ND
Selenium, T	ND	ND
Thallium, T	ND	ND
Zinc, T	ND	ND
Cyanide, T	ND	ND
Phenols	ND	ND
Barium	0.09	0.0864
Boron	0.052	0.051
Cobalt	ND	ND
Molybdenum, T	0.0083	0.0083
Uranium, T	0.0019	0.00185
Vanadium, T	ND	ND
Methylene Chloride	ND	ND
TRC	ND	ND

Footnote:

T – Total; D – Dissolved; ND – Non detect

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.

It is proposed that the permit be reissued for a 5-year term following regulations promulgated at 40 CFR §122.46(a). This is a renewal of an existing permit. An NPDES Application for a Permit to Discharge (Form 1 & 2C) was received on April 2, 2014. Additional Permit application information were received on April 11, 2016 and April 18, 2016. The application was deemed administratively complete on April 22, 2016.

V. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

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

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

Technology-based effluent limitations are established in the proposed draft permit for TSS. Water quality-based effluent limitations are established in the proposed draft permit for pH and TRC.

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 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.

Discharges from similar drinking water facilities (e.g City of Las Vegas, Village of Ruidoso, City of Springer etc) are required to meet effluent limitations for total suspended solids (TSS) at monthly average of 20 mg/l and daily maximum of 30 mg/l. Therefore, based on these similar permitted facilities, using BPJ, effluent limitations for TSS are established in the draft permit identical to the previous permit.

Loading limits are not established since the discharge is not a continuous one and is discharged from a holding lagoon on an as needed basis. This is identical to the previous permit.

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 "New Mexico State Standards for Interstate and Intrastate Surface Waters," (20.6.4 NMAC, amended through June 5, 2013). General criteria are applicable as specified in 20.6.4.13 NMAC. The facility discharges into the lower Animas Ditch, thence to the Animas River, thence to the San Juan River, Waterbody

Segment No. 20.6.4.403 NMAC of the San Juan River Basin. The known uses of the receiving water(s) are public water supply, industrial water supply, irrigation, livestock watering, wildlife habitat, marginal coldwater aquatic life, primary contact and warmwater aquatic life.

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

There were no violations of the permit limits for pH in the last permit cycle. The limitation and monitoring requirements for pH of 6.6 to 9 are continued in the draft permit.

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.

The facility is a minor industrial with the highest monthly average flow over the most recent 24-months as 0.181 MGD (0.88055 cfs). For industrial facilities, the highest monthly average flow over the most recent 24-months is used for reasonable potential calculations.

The receiving water has been identified to be a classified perennial stream. Data provided by the NMED shows that the low-flow (4Q3) for the Animas River, above Estes Arroyo is 184 cfs. The harmonic mean used for human health pollutant RP is 426 cfs.

The CD for this facility is evaluated as follows:

$$\text{Critical Dilution, CD} = Q_e / (FQ_a + Q_e)$$

where:

Q_e = facility flow (0.181 MGD or 0.28055 CFS)

Q_a = critical low flow of the receiving waters ($Q_a = 183$ CFS)

F = fraction of stream allowed for mixing (1.0)

$$\begin{aligned} \text{CD} &= 0.28055 \text{ CFS} / [(1.0) (184) + 0.28055] \\ &= 0.0015 \\ &= 0.15 \% \end{aligned}$$

The acute to chronic ratio of 10:1 shall be used to allow acute biomonitoring in lieu of chronic. Therefore, acute toxicity is proposed to be evaluated at a critical dilution of 1.5%.

The reasonable potential calculation was performed using the parameters above that were greater than the MQL. See the RP spreadsheet, Appendix A of the fact sheet (attached). Based on Appendix A, no pollutants were found at levels that would demonstrate a reasonable potential to exceed WQS. The reasonable potential calculation for total Aluminum was performed using data obtained from the last permit cycle DMRs. Total Aluminum did not show reasonable potential to exceed NMWQS. As a result, the total Aluminum monitoring and reporting requirements are removed from the draft permit.

c. Total Residual Chlorine

The current permit has a TRC limit of 0.019 mg/L. The permittee reported TRC as non-detect. However, the permittee uses potable water for filter backwash, which occurs from once per day to once every three to four days depending on the plant and the time of year. According to PAGE 29 of the 2012 NMIP, which states that, *“In instances where a facility uses chlorine for disinfection of the wastewater, or is used as an emergency back-up to a system using another bacteria control technology such as ultraviolet light, or is used to remove filamentaceous algae, or when chlorine is used to disinfect process equipment used at the facility and the permit writer must limit TRC in the permit.”* As a result, TRC limit of 0.019 mg/L is continued in the draft permit.

d. Total Dissolved Solids

Monitoring requirements for the Total Dissolved Solids (TDS) are established in the proposed permit because the discharge enters the Colorado River Basin, in accordance with the current Salinity policy and program outlined in the most current “review, water quality standards for salinity, Colorado river system.” The NM WQS citation for adoption of this policy is at 20.6.4.54 NMAC. The objective of the policy is to achieve “no salt return” whenever practicable for industrial discharges and an incremental increase in salinity over the supply water for municipal dischargers. Under the Colorado Salinity Control Program (CSP), the facility is considered to be an existing facility where construction commenced on or before October 18, 1975. The Aztec water plant was built in 1954. For existing industrial facilities, permitting authority may permit the salt discharge upon satisfactory demonstration that it meets one of three tests. The applicable test for the Aztec plant is that the existing tonnage of salt is less than one-ton (2000 lbs) per day or 366 tons per year.

TDS data obtained from the DMRs reveals that the discharge does not have a reasonable potential to exceed the 1 ton/day in salinity. The highest monthly average Total Dissolved Solids reported during the last two years is 419 mg/l.

$$\text{TDS} = 419 \text{ mg/l} * 8.34 \text{ lbs/gal} * 0.181 \text{ MGD} * 1 \text{ ton} / 2000 \text{ lbs} = 0.316 \text{ tons/day}$$

Since the TDS concentration is less than 500 mg/L, the discharge qualifies for a “fresh water waiver” irrespective of the total daily or annual or annual salt load. Furthermore, the reported TDS is less than 1 ton/day, monitoring shall continue to be performed once every three months, using grab sample.

e. Dissolved Oxygen

The dissolved Oxygen criteria according to 20.6.4.900.H (3) NMAC for marginal coldwater aquatic criteria is 6 mg/L or more. EPA used LA-QUAL version 9.30 to model DO along the receiving stream. The model output showed that the DO concentrations are above 7 mg/L throughout the receiving stream. As a result, no further DO requirements are established 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). Sample frequency is based on the March 12, 2012, NMIP and the previous permit.

Flow shall be estimated daily when discharging. Estimated flow measurements are not subject to the accuracy provisions established at Part III.C.6 of the permit. The pollutant TRC shall be monitored daily when discharging by instantaneous grab which according to Part 136 is defined as analysis within 15 minutes of collection. TDS shall be monitored once per quarter by grab sample consistent with the previous permit.

D. WHOLE EFFLUENT TOXICITY

Procedures for implementing WET terms and conditions in NPDES permits are contained in the NMIP. In Section V.C.4.b. above; "Critical Conditions", it was shown that the critical dilution, CD, for the facility is 0.15%. The discharge of the effluent is to a perennial stream and for this type of facility the Narrative Toxics Implementation Guidance – Whole Effluent Toxicity, (NTIG-WET), requires a one-time chronic test. However, since the CD, 0.15% is $\leq 10\%$, the NTIG-WET allow for the less expensive acute test using an acute-to-chronic ratio of 10:1. The dilution series is 0.6%, 0.8%, 1.1%, 1.5% and 2.0%, with 1.5% as the CD. This series is slightly different from the previous permit since the CD has been changed. The test species shall be the *Daphnia pulex* and *Pimephales promelas*.

The previous permit had a 48-hour acute WET testing of once per permit term and no failure. Based on the test results, the permit does not require WET limits. EPA concludes based on the nature of the discharge described in activity section of this document that this effluent will not cause or contribute to an exceedance of the State water quality standards. Therefore WET limits will not be established in the proposed permit.

OUTFALL 001

During the period beginning on the effective date of the permit and lasting through the expiration date of the permit, the permittee is authorized to discharge backwash water to the lower Animas Ditch, thence to the Animas River, thence to the San Juan River, Waterbody Segment No. 20.6.4.403 NMAC of the San Juan River Basin from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified below.

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE</u>	<u>MONITORING</u>
	<u>30-DAY AVG MINIMUM</u>	<u>48-HR MINIMUM</u>
Whole Effluent Toxicity Testing (48-Hour Static Renewal) (*1)		
Daphnia pulex	REPORT	REPORT
Pimephales promelas	REPORT	REPORT
<u>EFFLUENT CHARACTERISTIC</u>	<u>MONITORING</u>	<u>REQUIREMENTS</u>
	<u>FREQUENCY</u>	<u>TYPE</u>
Whole Effluent Toxicity Testing (48-Hour Static Renewal) (*1)		
Daphnia pulex	Once/Permit Term	24 Hr. Composite
Pimephales promelas	Once/Permit Term	24-Hr. Composite

FOOTNOTES

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

F. FINAL EFFLUENT LIMITATIONS

See the draft permit for limitations.

VI. FACILITY OPERATIONAL PRACTICES

A. WASTE WATER POLLUTION PREVENTION REQUIREMENTS

The permittee shall institute programs directed towards pollution prevention. The permittee will institute programs to improve the operating efficiency and extend the useful life of the treatment system.

B. OPERATION AND REPORTING

The permittee must submit Discharge Monitoring Report's (DMR's) quarterly, beginning on the effective date of the permit, lasting through the expiration date of the permit or termination of the permit, to report on all limitations and monitoring requirements in the permit.

The permittee must submit monitoring results to EPA on either the electronic or paper Discharge Monitoring Report (DMR) approved formats. Monitoring results can be submitted electronically in lieu of the paper DMR Form. All DMRs shall be electronically reported effective December 21, 2016, per 40 CFR 127.16. See 80 FR 64063. To submit electronically, access the NetDMR website at www.epa.gov/netdmr and contact the R6NetDMR@epa.gov in-box for further instructions. Until the permittee is approved for Net DMR, it must report on the Discharge Monitoring Report (DMR) Form EPA. No. 3320-1 in accordance with the "General Instructions" provided on the form. No additional copies are needed if reporting electronically, however when

submitting paper form EPA No. 3320-1, the permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA and other agencies as required. (See Part III.D.IV of the permit.)

Sufficiently Sensitive Analytical Methods (SSM)

The permittee must use sufficiently sensitive EPA-approved analytical methods (SSM) (under 40 CFR part 136 or required under 40 CFR chapter I, subchapters N or O) when quantifying the presence of pollutants in a discharge for analyses of pollutants or pollutant parameters under the permit. In case the approved methods are not sufficiently sensitive to the limits, the most SSM with the lowest method detection limit (MDL) must be used as defined under 40 CFR 122.44(i)(1)(iv)(A). If no analytical laboratory is able to perform a test satisfying the SSM in the region, the most SSM with the lowest MDL must be used after adequate demonstrations by the permittee and EPA approval.

VII. 303(d) LIST

The reach (Animas River from its confluence with the San Juan upstream to Estes Arroyo) into which the facility discharges to the San Juan River in Waterbody Segment No. 20.6.4.403 of the San Juan River Basin is listed on the “2014-2016 Integrated §303(d)/§305(b) List of Impaired Waters.” The 303(d) list indicates that warmwater aquatic life, primary contact, and marginal coldwater aquatic life, are uses not fully supported in the stream segments. The probable causes of impairment are nutrient/eutrophication, E. coli, and nutrient/eutrophication, temperature respectively. The discharger is not a contributor of nutrient loading/eutrophication, temperature or E. coli.

A permit reopener clause has been added to the permit stating "This permit may be reopened to establish effluent limitations for the parameter(s) to be consistent with that approved State standards in accordance with 40 CFR 122.44(d). Modification of the permit is subject to the provisions of 40 CFR 124.5." Additionally, language has been added stating that the permit may be reopened and modified during the life of the permit if relevant portions of the State WQS are revised or remanded. The permit may be reopened to include conditions of the completed TMDL. Therefore, no additional requirements beyond the previously described technology-based or water quality-based effluent limitations and monitoring requirements, are established in the proposed permit.

VIII. 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 limits 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. There are no increases of pollutants being discharged to the receiving waters authorized in the proposed permit.

IX. ANTIBACKSLIDING

The proposed permit is consistent with the requirements to meet antibacksliding provisions of the Clean Water Act, Section 402(o) and 40 CFR §122.44(l)(i)(A), which state in part that interim or final effluent limitations must be as stringent as those in the previous permit, unless material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation. The proposed permit maintains the permit requirements of the previous permit for TSS, TRC and pH. Also eliminating the monitoring requirements for dissolved aluminum, previously addressed above, is consistent with the requirements of anti-backsliding.

X. ENDANGERED SPECIES CONSIDERATIONS

According to the most recent county listing available at US Fish and Wildlife Service (USFWS), Southwest Region 2 website, <http://ecos.fws.gov/ipac> ten species in San Juan County are listed as endangered (E) or threatened (T). The two species are avian and include the Southwestern willow flycatcher (*Empidonax traillii extimus*) and Yellow-billed Cuckoo (*Coccyzus americanus*). Three of the species are aquatic and include the Colorado pike minnow (*Ptychocheilus lucius*), Razorback sucker (*Xyrauchen texanus*), and the Zuni Blue head Sucker (*Catostomus discobolus yarrow*). Three of the species are flowering plants and include Knowlton cactus (*Pediocactus knowltonii*), Mancos milk-vetch (*Astragalus humillimus*), and the Mesa Verde cactus (*Sclerocactus mesae-verdae*). Then two mammals and include Canada Lynx (*Lynx Canadensis*) and New Mexico Meadow Jumping Mouse (*Zapus hudsonius luteus*). In the previous permit, a “no effect” determination was made on these species with the exception of the new species added to the list. The new species include the Zuni Blue head Sucker, Canada Lynx and New Mexico Meadow Jumping Mouse. The description of these new species follow:

Zuni Blue head Sucker (*Catostomus discobolus yarrow*)

The Zuni bluehead sucker has a slender fusiform body with a subterminal mouth. The fish’s mouth contains fleshy lips and protuberances, mainly on the lower lips. Both lips are notched laterally, and the middle separation of the lips extends all the way to the fish’s anterior margin. The position of the lips is unique to this species. A Zuni bluehead sucker has a generally thick caudal peduncle. For coloration, young Zuni bluehead suckers are dark gray-green dorsally and cream-white ventrally; while adults are slate-gray, being almost black dorsally and cream-white ventrally. Males develop a distinct coloration during spawning season; instead of being slate-gray, they become intense black with a bright red lateral band. Most individuals are 200 mm (7.87 in) at most, although few were found at 250 mm. No information is found on Zuni bluehead sucker’s habitats along Animas River according to 79 FR 43132 on July 24, 2014. Also in the 80 FR 19941 19953 dated April 14, 2014, the USFWS stated that they are removing the San Juan River Unit from the proposed critical habitat of the Zuni bluehead Sucker.

Canada Lynx (*Lynx Canadensis*)

The lynx is a medium-sized cat with long legs, large, well-furred paws, long tufts on the ears, and a short, black-tipped tail. The winter pelage of the lynx is dense and has a grizzled appearance with grayish-brown mixed with buff or pale brown fur on the back, and grayish-white or buff-white fur on the belly, legs and feet. Summer pelage of the lynx is more reddish to gray-brown. Adult males average 10 kilograms (22 pounds) in weight and 85 centimeters (33.5 inches) in length (head to tail), and females average 8.5 kilograms (19 pounds) and 82 centimeters (32 inches). The lynx's long legs and large feet make it highly adapted for hunting in deep snow.

Recovery Outline for the Contiguous United States Distinct Population Segment of Canada Lynx" dated September 14, 2005 is an interim strategy to guide recovery efforts until a final plan is available. The lynx habitats include "core areas, secondary areas and peripheral areas"; the facility location is not listed in these specific areas. Factors threatening the species include destruction, modification or curtailment of habitat, capture or shooting of lynx, inadequate regulation, high volume of traffic on roads and global warming."

New Mexico Meadow Jumping Mouse (*Zapus hudsonius luteus*)

The meadow jumping mouse (*Zapus hudsonius*) is the most widely distributed mouse in the subfamily Zapodinae. Its range extends from the Atlantic coast in the east to the Great Plains west, and from the arctic tree lines in Canada and Alaska to the north, and Georgia, Alabama, Arizona, and New Mexico to the south. In mid-2014, the New Mexico subspecies of the meadow jumping mouse, *Zapus hudsonius luteus*, was listed as an endangered species under the federal Endangered Species Act.

Meadow jumping mice prefer a habitat which is high in humidity. Although they may live in many different areas usually with high herbaceous cover, they prefer moist grasslands, and avoid heavily wooded areas. High numbers are usually found in grassy fields, and thick vegetated areas with streams, ponds, or marshes nearby. They prefer large open areas to thickly wooded areas. As was stated before they are found in large parts of the United States, and up to Canada

The New Mexico meadow jumping mouse has seen a significant population decline. This decline is mainly due to habitat loss and fragmentation across its range. About 95 percent of the range is found on federal and state lands. Based on the further threat of habitat loss, the U.S. Fish and Wildlife Service (USFWS) designated the New Mexico meadow jumping mouse as endangered under the Endangered Species Act (ESA) on June 9, 2014.

In the Federal Register dated March 16, 2016, (81 FR 14264), the U.S. Fish and Wildlife Service (Service), designate critical habitat for the New Mexico meadow jumping mouse (*Zapus hudsonius luteus*) under the Endangered Species Act of 1973, as amended (Act). The Service designated an area of approximately 5,657 hectares (13,973 acres) along 272.4 kilometers (169.3 miles) of flowing streams, ditches, and canals as critical habitat in eight units within Colfax, Mora, Otero, Sandoval, and Socorro Counties in New Mexico; Las Animas, Archuleta, and La Plata Counties in Colorado; and Greenlee and Apache Counties in Arizona. San Juan County,

New Mexico was not among the designated area of critical habitat, although it was among listed species in San Juan County.

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. The permit limits are consistent with water quality standards and designated uses appropriate for the discharge and receiving waters. Therefore, EPA concludes that reissuance of this permit will have “no effect” on the listed species and/or designated critical habitat.

2. EPA concluded “no effect” during the previous issuance of the permit on August 18, 2009, and has received no additional information since then which would lead to revision of that “no effect” determination.

3. EPA determines that Items 1 and 2 result in no change to the environmental baseline established by the previous permit, therefore, EPA concludes that reissuance of this permit will have “no effect” on listed species and designated critical habitat.

XI. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

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

XII. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if State Water Quality Standards are promulgated or revised. In addition, if the State amends 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. COMPLIANCE HISTORY

A review of the DMR during the last permit cycle revealed that the facility was in violations of its permit for nine quarters (from the first quarter of 2013 to the first quarter of 2015). The facility failed to submit its DMR as well as had violations of TSS and TRC. Specifically, in May, 2013, the facility had both (average and maximum daily value) concentration and loading limits violations. The facility also had similar violations for TRC in June, 2013. Also in April, 2014, the facility had violations for TSS daily maximum limit. As a result of these violations, the frequency established in the previous permit remains the same.

XV. 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; 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.

XVI. FINAL DETERMINATION

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

XVII. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. APPLICATION(s)

EPA Application Form 1 and 2C received on April 2, 2014. Additional Permit application information was received on April 11, 2016, and April 18, 2016. The application was deemed administratively complete on April 21, 2016.

B. 40 CFR CITATIONS

Citations to 40 CFR are as of December 6, 2013.
Sections 122, 124, 125, 133, 136

C. STATE OF NEW MEXICO REFERENCES

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

Procedures for Implementing National Pollutant Discharge Elimination System Permits in New Mexico, March 15, 2012.

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

D. MISCELLANEOUS REFERENCES

<http://ecos.fws.gov/ipac/wizard/trustResourceList!prepare.action>

Letter from Dorothy Brown, EPA, to Mr. Andrew Galloway, Chief Operator, dated April 22, 2016, informing the applicant that its NPDES application received on April 2, 2014, is administratively complete.

Email from Andrew Galloway, Chief Operator, Aztec Water Treatment Plant to Maria Okpala, EPA, dated March 7, & 23, 2016, on facility NPDES Application Form and DMRs.

Email from Andrew Galloway, Chief Operator, Aztec Water Treatment Plant to Maria Okpala, EPA, dated April 11, 2016, and April 18, 2016, on additional facility information.

Email from Daniel Valenta, NMED, to Maria Okpala, EPA, dated April 12, 2016, on critical conditions information.