

NPDES PERMIT NO. NM0022250

FACT SHEET

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

APPLICANT

Albuquerque Bernalillo County Water Utility Authority (ABCWUA) Southside WWTP
4201 2nd Street SW
Albuquerque, NM 87105

ISSUING OFFICE

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Region 6
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DATE PREPARED

July 1, 2011

PERMIT ACTION

Proposed reissuance of the current permit issued March 31, 2005, with an effective date of May 1, 2005 and an expiration date of April 30, 2010.

RECEIVING WATER – BASIN

Rio Grande – Rio Grande Basin

DOCUMENT ABBREVIATIONS

In this document, references to State shall mean either New Mexico and/or the Pueblo of Isleta. Also, in this document, various abbreviations are used. They are as follows:

4Q3	Lowest four-day average flow rate expected to occur once every three-years
BAT	Best available technology economically achievable
BCT	Best conventional pollutant control technology
BPT	Best practicable control technology currently available
BMP	Best management plan
BOD	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CBOD	Carbonaceous biochemical oxygen demand (five-day unless noted otherwise)
CD	Critical dilution
CFR	Code of Federal Regulations
cfs	Cubic feet per second
COD	Chemical oxygen demand
COE	United States Corp of Engineers
CWA	Clean Water Act
DMR	Discharge monitoring report
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FCB	Fecal coliform bacteria
F&WS	United States Fish and Wildlife Service
gpm	Gallons per minute
mg/l	Milligrams per liter
ug/l	Micrograms per liter
MGD	Million gallons per day
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMIP	New Mexico NPDES Permit Implementation Procedures
NMWQS	New Mexico State Standards for Interstate and Intrastate Surface Waters
NPDES	National Pollutant Discharge Elimination System
MQL	Minimum quantification level
O&G	Oil and grease
PI	Pueblo of Isleta
PIWQS	Pueblo of Isleta Water Quality Standards
pg/l	Picograms per liter
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
USFWS	United States Fish & Wildlife Service
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 permit previously issued March 31, 2005, with an effective date of May 1, 2005, and an expiration date of April 30, 2010, are:

- A. Tiered river flow limits for Carbonaceous Biochemical Oxygen Demand, total ammonia, nitrate, Total Inorganic Nitrogen, and Dissolved Oxygen are proposed to be removed from the draft permit. They will be replaced with single yearly low flow limits.
- B. Monitoring requirements for total and dissolved molybdenum and boron are proposed to be removed in the draft permit.
- C. Monitoring requirements for total arsenic are proposed to be removed from the draft permit.
- D. Percent removal efficiency for TSS has been added to the draft permit.
- E. Application pollutant testing requirements have been added.
- F. A technical mistake made in the previous permit for total inorganic nitrogen has been corrected.
- G. Total maximum daily load limits for bacteria have been added.
- E. A one-time PCB test requirement using the sensitive congener method has been added.

II. APPLICANT LOCATION and ACTIVITY

Located at the south side of Albuquerque, southwest of the airport on the east side of the Rio Grande, the ABCWUA Southside WWTP has a design flow of 76 MGD serving a population of over 578,000. Under the SIC Code 4952, the applicant operates a municipal WWTP.

Wastewater Process

Following preliminary treatment, influent is treated at the primary clarifiers. Four older circular clarifiers each have a capacity of 0.812 million gallons (MG). These units can treat 22 MGD. The other four circular clarifiers each have a capacity of 1.6 MG. The design flow for these units is 38 MGD. The eight primary clarifiers have scum/scrapper arms to move sludge and scum to respective sludge or scum pits. Each pit is skirted with tooth weirs to control floatables. Sludge is pumped to the sludge mixing unit prior to going to the digesters. When the scum pits get full, the scum is sent to the sludge mixing unit.

Effluent from the primary clarifiers is pumped to the nitrogen removal facility which consists of 14 aeration basins. Each aeration basin has a capacity of 2.29 MG. Each basin has three anoxic zones followed by two swing zones. Each basin has three oxic zones and one dissolved oxygen control zone. There is one mixer in each of the anoxic zones and two mixers in each swing zone. The mixers are vertical shaft units. Each basin has a 7200 gpm recycle pump. Aeration in the oxic zones is provided by four, 450 horsepower (HP) blowers in the north blower building and eight, 450 HP blowers in the south blower building. There are two chemical feed systems for addition of soda ash and acetic acid for supplemental carbon if needed. Following the aeration basins, flow enters one of 12 final circular clarifiers. Each clarifier; 13 feet high and 135 feet in diameter, has a capacity of 1.5 MG. Each has a sludge/scum arm to remove sludge and scum to their respective pits. Sludge can either be returned as return activated sludge (RAS) or wasted to

the sludge mixing unit as wasted activated sludge (WAS). Bacteria control is achieved by ultraviolet (UV) light system added in March 2011, replacing a chlorination/dechlorination system. The applicant has stated that the chlorination/dechlorination system will be removed and not used as a backup system.

Sludge

WAS from the final clarifiers is pumped to one of seven, 24,000 gallon capacity dissolved air floatation units providing 1.33 hours detention time. The hydraulic loading, including recycling, is rated at 1.8 gpm per square-foot. Polymer is fed into the units at a rate of 5 pounds per ton (2,000 pounds) of dry sludge. The sludge blending unit consists of a single 190,000 gallon tank. The three sludge blend pumps have a capacity of 250 gpm at a sludge concentration range of 4-8%. Two sludge grinders can each process 800 gpm.

There are 14 digesters with 10 designated as primary and 4 as secondary. The 14 digesters range in size from 846,600 gallons to 945,700 gallons. Mixing in the primary digesters is provided with internal belt driven mixers and the secondary digesters are mixed with gas mixers. Dewatering is done with three centrifuges. Polymer tanks and feed pumps are used to thicken the sludge and the thickened sludge is sent to one of four storage bins each with a capacity of 3,000 cubic feet. Thickened sludge is trucked to a sludge disposal site on the West Mesa where it is either surfaced disposed, land applied or composted on 3,800 acres of rangeland. The sludge is sampled and applied at an agronomic rate. Composted sludge is windrowed in a covered pole building on site. Composting is accomplished by mixing sludge with bulking agents, yard and barn waste, then sold.

Energy

The facility has four cogeneration units which burn either methane gas or natural gas. The interconnect agreement with the electric utility allow for sale of excess electric generation. Reject heat is used to heat digesters and for building heating.

See **Figure 1** of the Fact Sheet for an aerial view of the plant and **Figure 2** for the plant schematic. **Figure 2** shows the older chlorination/dechlorination system that has since been replaced with an ultraviolet (UV) system; which is also shown in **Figure 2**.

The discharge from the POTW is to the Rio Grande in Waterbody Segment No. 20.6.4.105 of the Rio Grande Basin. The discharge is located at Latitude 35° 01' 04" North, Longitude 106° 40' 13" West.

III. EFFLUENT CHARACTERISTICS

The City was provided a list of the current MQLs to be used in pollutant testing for the application. See Appendix A of Part II of the Permit for the MQL list. A quantitative description of the discharge(s) described in the EPA Permit Application Form 2A received October 30, 2009, are presented below:

POLLUTANT TABLE – #1 EPA FORM 2A

Parameter	Max	Avg
	(mg/l unless noted)	
Flow, million gallons/day (MGD)	67.25	54.70
Temperature, winter	23.0° C	20.3° C
Temperature, summer	32.0° C	27.5° C
pH, minimum, standard units (su)	6.90	N/A
pH, maximum, standard units (su)	8.80	N/A
Carbonaceous Oxygen Demand, 5-day (CBOD ₅)	3.0	2.0
E. coli (#bacteria/100 ml)	48	24
Total Suspended Solids (TSS)	34	8
Ammonia (NH ₃)	0.96	0.4
Chlorine, Total Residual (TRC)	0.0	0.0
Dissolved Oxygen (DO)	5.3	4.9
Total Kjeldahl Nitrogen (TKN)	8.2	10.0
Nitrate plus Nitrite Nitrogen	9.7	7.7
Oil & Grease	2.5	2.5

The complete list of pollutants tested is found at **Appendix 2** below. Those pollutants that were at levels greater than MQL are as follows:

POLLUTANT TABLE – #2 – EPA FORM 2A Expanded Pollutant List

Parameter (Concentrations Greater than MQL)	Max	Avg
	(ug/l unless noted)	
Aluminum	42.5	38.2
Arsenic	2.5	2.4
Boron	255	255
Chromium	1.5	1.4
Copper	3.3	3.2
Mercury (Method 1631)	0.00375	0.00318
Molybdenum	10.1	6
Nickel	3.2	2.6
Selenium	1.6	1.4
Uranium	0.7	0.4
Vanadium	4	3.5
Zinc	6	12.2
Bromodichloromethane	2.89	1.8
Chlorodibromomethane	1.73	0.81
Chloroform	2.47	1.88

A summary of the past 24-months of available pollutant data taken from DMRs; January 2009, through December 2010, is shown on **Appendix 2** of the Fact Sheet below. A summary of that data is shown in **Table 3** below:

POLLUTANT TABLE – #3 – DMR Data

Parameter	GM (*1) mg/l unless noted
pH, minimum, standard units (su)	6.4
pH, maximum, (su)	8.2
Dissolved Oxygen (DO)	5.2
Nitrogen, Ammonia Total as N	0.56
Carbonaceous Oxygen Demand, 5-day (CBOD ₅)	2.2
Total Suspended Solids (TSS)	9.7
Nitrogen, Total Inorganic (TIN)	6.0
Arsenic, Total (ug/l)	ND (*2)
Boron, Dissolved (ug/l)	0.26
Boron, Total (ug/l)	0.26
Molybdenum, Dissolved (ug/l)	ND
Molybdenum, Total (ug/l)	ND
Mercury, Total (ug/l)	ND
Chlorine, Total Residual (TRC)	ND
Fecal Coliform Bacteria (#bacteria/100 ml)	14

FOOTNOTES:

*1 Geometric mean of the data, except pH, which is the reported max and min values over the 24-months.

*2 ND means Non-detect

Table 4 below shows exceedances of permit limits for the following pollutants based on the past 36-months DMR data from the table above:

POLLUTANT TABLE – #4 – DMR Exceedances

Month – Year	Pollutant	Limit	Reported Value or Number of Events
April – 2008	FCB	200 cfu/100 ml max	April 18 - 350 cfu, April 27 - 2000 cfu
July – 2008	Ammonia	1.5 mg/l max	July 21, 24, 29, 30 - five exceedances
July – 2008	WET	29% effluent	12% effluent
August – 2008	FCB	200 cfu/100 ml max	Aug 16 – 700 cfu
September – 2008	Ammonia	1.5 mg/l max	Sep 22 – 1.7 mg/l
September – 2008	FCB	200 cfu/100 ml max	Sep 1 – 300 cfu, Sep 20 – 250 cfu, Sep 30 – 240 cfu
October – 2008	FCB	200 cfu/100 ml max	Oct 2 – 420 cfu
November – 2008	Mercury	0.12 ug/l avg, 0.17 ug/l max	Nov 24 – 0.28 ug/l
November – 2008	TRC	0.011 mg/l max	Nov 22 – 0.13 mg/l
January – 2009	FCB	200 cfu/100 ml max	Jan 6 – 320 cfu
February – 2009	TRC	0.011 mg/l max	Feb 26 – 0.08 mg/l
March – 2009	TRC	0.011 mg/l max	Mar 25 – 0.07 mg/l, Mar 28 – 0.06 mg/l
April – 2009	Ammonia	4.5 mg/l max	Apr 14 – 4.96 mg/l
June – 2009	FCB	200 cfu/100 ml max	Jun 9 – 2800 cfu, Jun 10 – 7100 cfu, Jun 11 – 9500 cfu
October – 2009	Ammonia	1.5 mg/l max	Oct 9 – 2.58 mg/l, Oct 10 – 1.87 mg/l
October – 2009	FCB	200 cfu/100 ml max	Oct 12 – 230 cfu
October – 2009	pH	6.6 su minimum	Oct 16 – 6.44 su, Oct 22 – 6.45 su
December – 2009	Mercury	0.017 ug/l max	Dec 27 – 0.029 ug/l
January – 2010	Ammonia	4.5 mg/l max	Jan 18 – 5.6 mg/l
February – 2010	FCB	200 cfu/100 ml max	Feb 1 – 3500 cfu/100 ml

March – 2010	TSS	45 mg/l	Mar 13 – 65 mg/l
March – 2010	Mercury	0.017 ug/l max	Mar 7 – 0.241 ug/l
April – 2010	Ammonia	4.5 mg/l max	Apr 26 – 5.74 mg/l, Apr 29 – 5.61 mg/l
May – 2010	Ammonia	4.5 mg/l max	May 1 – 10.01 mg/l, May 4 – 7.43 mg/l, May 6 – 12.16 mg/l, May 8 – 5.0 mg/l, May 10 – 8.55 mg/l, May 11 – 13.86 mg/l.
July – 2010	FCB	200 cfu/100 ml max	July 17 – 256 cfu/100 ml
August – 2010	FCB	200 cfu/100 ml max	Aug 21 – 300 cfu/100 ml, Aug 23 – 300 cfu/100 ml
October – 2010	TRC	0.011 mg/l max	Oct 22 – 0.07 mg/l, Oct 25 – 0.05 mg/l
November – 2010	FCB	200 cfu/100 ml max	Nov 26 – 203 cfu/100 ml

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). The existing permit is administratively continued until this permit is issued.

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 requires 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 CBOD₅, E. coli bacteria, pH, TRC, nitrite-nitrate, nitrogen, DO and WET.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

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

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

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

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

The 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 CBOD, TSS and pH. CBOD limits of 25 mg/l for the 30-day average and 40 mg/l for the 7-day average are found at 40 CFR §133.102(a)(4). TSS limits; also 30 mg/l for the 30-day average and 45 mg/l for the 7-day average, 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). Additionally limited in the ELG's contained in 40 CFR §133.102(b) is 85% removal for CBOD and TSS. For the draft permit, TSS limits of 30 mg/l for the 30-day average and 45 mg/l for the 7-day average are continued based on 40 CFR Part 133 and the previous permit. The previous permit established CBOD limits based on water quality concerns and not technology-based. New parameter 85% percent (minimum) removal will be proposed for TSS based on the ELG requirements. The CBOD limitations in the draft permit are shown in the water quality section below.

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 * 8.34 lbs/gal * design flow in MGD
30-day average TSS loading = 30 mg/l * 8.34 lbs/gal * 76 MGD
30-day average TSS loading = 19015 lbs

Technology-Based Effluent Limits – 76 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.
<i>YEAR ROUND</i>				
Flow	N/A	N/A	Measure MGD	Measure MGD
TSS	19015	28522	30	45
TSS, % removal	---	---	≥ 85% (*1)	---
pH	N/A	N/A	6.0 – 9.0 standard units	

Footnotes:

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

C. WATER QUALITY BASED LIMITATIONS

1. General Comments

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

The ABCWUA discharge point into the Rio Grande is in State waters approximately five-miles upstream of the boundary with the Pueblo of Isleta. In addition to the NMWQS, the permit limits developed for the POTW must be protective of the numeric instream criteria of the Pueblo.

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 of New Mexico Water Quality Standards

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC amended through January 14, 2011). The facility discharges into the Rio Grande in segment number 20.6.4.105 of the Rio Grande Basin. The designated uses of the receiving water are wildlife habitat, livestock watering, limited warmwater aquatic life, irrigation and secondary contact.

4. Pueblo of Isleta Water Quality Standards

The general and specific stream standards for the Pueblo of Isleta (PI) are provided in Surface Water Quality Standards (PIWQS) amended March 18, 2002, Tribal Resolution 02-064, approved by EPA July 22, 2005. The designated uses of the receiving stream are warmwater fishery use, primary contact ceremonial use, primary contact recreational use, agricultural use, industrial water supply use and wildlife use.

5. 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). The previous permit established a daily minimum flow condition combined with a seasonal time frame for the pollutants for water quality limited pollutants CBOD, DO, Ammonia, Total Inorganic Nitrogen (TIN), Nitrate and WET. The previous permit created a rolling low-flow for permitting purposes; Qs4D, defined as the running four (4) day average of river flow data at the Central Ave. Bridge, Albuquerque, New Mexico (USGS station NM08330000. WQS contained in 20.6.4.11(B)(2) NMAC, establishes critical low flow conditions to be used in developing point source discharge permit requirements. The City of Albuquerque submitted a letter from James Pendergast of EPA Headquarters in support of their request to include seasonal limits in the proposed permit. The letter states that tiered limits may be considered in developing limitations to address any NPDES permitting scenario in which more than one set of circumstances exists (e.g., different effluent flows, different receiving stream flows, different hydrologic or climatic conditions) that, in the judgment of the permitting authority, need to be taken into account by way of tiered effluent limits. Further the document states, EPA has accepted the use of seasonal effluent limits in both guidance and practice on a case by case basis where state WQS allow and conditions warrant their use. Both EPA and states with NPDES authority have developed seasonally based permit limits in some cases consistent with state WQS.

The New Mexico WQS specifies that "...the critical low flow is the minimum average flow consecutive day flow that occurs with a frequency of once in three years (4Q3)." Further it states "[T]he critical low flow may be determined on an annual, a seasonal or a monthly basis, as appropriate after due consideration of the site specific conditions." The Qs4D is not consistent with the language in the WQS. There is no requirement in the CWA that specifies critical low flow conditions other than effluent limits must meet state WQS. The WQS provides the allowable permit requirements shown above and the Qs4D does not meet them. Establishing permit limits on a rolling 4-day average is not consistent with the WQS. At the shortest, monthly flow periods could be considered but the WQS does not acknowledge a shorter time. Additionally the Pendergast letter states, "[P]ermitting authorities also should consider the practicality of enforcing flow-based limits when making a decision about whether to include such limits in an NPDES permit." The monthly DMR submittal does not allow determination of compliance with limits since the potential exists for a wide spread of permitted values that obscures the compliance of permitted limits. From an operational aspect of the treatment works, the biological system cannot be ramped up and then slowed down on the basis of river flow in light of nearly consistent effluent flow. The system is not capable of such response and

operational problems are bound to occur if such operation is guided by the ever changing river flow.

The permit writer investigated seasonal periods of flow based on irrigation driven higher flow periods and remaining lower flow non irrigation periods. Generally, higher flows exist during the period from spring thru early summer; generally March, April, May, June and July and the lower flow is the balance from August to March inclusive. As these alternative seasonal 4Q3's were derived, a common problem noted with each was that when real flow data through the period of record for the months being considered was compared to the high season 4Q3, there were periods when the 4Q3 could create toxic events. The permit writer considered a toxic event when the 4Q3 exceeded the statistical flow for three (3) consecutive days or more. During this three day period, it would be possible that allowed pollutant discharges based on higher seasonal 4Q3's would be greater than the allowable criteria taking into consideration the actual stream flow. A key element of NPDES permit program is that conservative measures are adopted to ensure that discharges will be compliant with applicable criteria at minimum flow periods and that any greater background flow would also be protected. The use of a yearly 4Q3 is consistent with all other permits written in NM. The draft permit will use the single year 4Q3 in determining permit conditions to support NM WQS. The 4Q3 was determined by NMED and is 81.8 cfs (52.9 MGD) and for human health criteria the harmonic mean flow is 205 cfs (132.5 MGD).

For purposes of ensuring that permit limits established for the protection of Pueblo of Isleta criteria are protected zero (0) cfs critical low flow is appropriate and consistent with the previous permit. The PI Implementation Plan (PIIP) refers to low flow, Q_a , and states that " Q_a = Critical all time low flow of stream at discharge point in MGD." The discharge from the facility alone creates a flow element that would reach the Isleta Pueblo lands. To determine impacts of water quality based pollutants and its compliance with PI WQS, the permit will evaluate the ABCWUA discharge after mixing with the 4Q3 identified above.

a. CBOD

The previous permit established CBOD limits for a range of flow conditions. The fact sheet previously discussed why the four-day rolling average flow will not be used. However, the CBOD; 15 mg/l 30-day average and 22.5 mg/l 7-day average, is based on the flow of greater than 34.6 MGD but less than 183 MGD year round. These limits are more restrictive than the technology-based CBOD established in 40 CFR §133.102(a), CBOD 25 mg/l 30-day average, 40 mg/l 7-day average.

Mass limits are determined by the following mathematical relationship:

Loading in lbs/day = pollutant concentration in mg/l * 8.34 lbs/gal * design flow in MGD

30-day average CBOD loading = 15 mg/l * 8.34 lbs/gal * 76 MGD

30-day average CBOD loading = 9508 lbs

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS			
	Lbs/Day		mg/l (unless noted)	
	30-Day Avg.	7-Day Avg.	30-Day Avg.	7-Day Avg.
CBOD	9508	14261	15	22.5

c. DISSOLVED OXYGEN

Effluent limitations for minimum DO were calculated through 2010 surface water stream modeling performed by Region 6 and are based on current 5 mg/l WQS. The DO is 4 mg/l 30-day average.

d. TOTAL INORGANIC NITROGEN

PIWQS criteria exist for total inorganic nitrogen (TIN). TIN equals the total amount of ammonia (NH₃), ammonium (NH₄), nitrate (NO₃), and nitrite (NO₂). The State of New Mexico does not have criteria for TIN or its components. The PIWQS instream criterion for TIN is 10 mg/l daily maximum for the protection of primary contact ceremonial uses. Technical mistakes were made in the previous permit however and will be corrected in the draft permit for TIN limits. Previous permit established the above limits based on the 10 mg/l TIN PIWQS criteria. The limits as stated above were for the protection of primary contact ceremonial uses. According to the PIIP, when limits are determined after establishing reasonable potential exists for the pollutant to exceed PIWQS, the limit Ce, is defined as the allowable daily average effluent concentration. The limits noted above should be stated as 30-day averages. The daily maximum value would then be calculated from the 30-day average. The previous permit calculated the TIN limits as daily maximums then established 30-day averages that were more stringent than the criteria. These changes do not constitute antibacksliding as defined in 40 CFR §122.44(l) based on technical mistakes as provided in 40 CFR §122.44(2)(i)(B)(2). The draft permit maintains the calculated limits, but changes them to 30-day averages and recalculates corrected daily maximum limits consistent with the PIIP. The daily maximum TIN is based on the accepted practice of daily maximum is 1.5 times the daily average. The daily maximum TIN is $10 \times 1.5 = 15$ mg/l.

e. AMMONIA NITROGEN

Ammonia limits are based on PIWQS. NM WQS allow WET testing to demonstrate compliance with ammonia toxicity. The draft permit will propose 30-day average, year round limits of 1.0 mg/l. This is based on the previous permits minimum limit. Daily maximum limits are established at 1.5 mg/l; 30-day average times 1.5.

f. BACTERIA

The previous permit had limits for FCB. Since the previous permit issuance, New Mexico has adopted E. coli as the bacteria standard in lieu of FCB. Stream specific NMWQS for E. coli bacteria is 126 cfu/100 ml daily monthly geometric mean and 410 cfu/100 ml daily maximum. PIWQS for E. coli bacteria are 47 cfu/100 ml daily monthly geometric mean and 88 cfu/100 ml daily maximum for both primary contact ceremonial use and primary contact recreational use.

The Pueblo of Isleta WQS are the limiting standards and the draft permit will propose these limits.

New Mexico issued a TMDL in May 2010, based on PIWQS. The TMDL established E. coli limits of 47 cfu/100 ml monthly geometric average with a monthly average waste load limit of 1.35×10^{11} cfu/day based on PSWQS. The load limit is based on the following conversion factor:

$$C \text{ as cfu/100ml} \times 1000 \text{ ml/Liter} \times 1\text{Liter}/0.264 \text{ gallons} \times 1,000,000 \text{ gal/MG} \times Q \text{ as MGD} = \text{cfu/day}$$

Where C = water quality standard criteria for bacteria
Q = stream flow in MGD

$$47 \text{ cfu/100 ml/day} \times 1000 \text{ ml/Liter} \times 1\text{Liter}/0.264 \text{ gallons} \times 1,000,000 \text{ gal/MG} \times Q \text{ as MGD} = 3.79 \times 10^7 \text{ cfu/MGD}$$

$$\text{Loading limit expressed as cfu/day} = 76 \text{ MGD} \times 3.79 \times 10^7 \text{ cfu/MGD} = 1.35 \times 10^{11} \text{ cfu/day}$$

This TMDL supersedes and replaces a 2002 TMDL that established FCB limits. Since the 2010 TMDL eliminates FCB and replaces it with E. coli bacteria, the change does not constitute antibacksliding. The draft permit will propose E. coli bacteria limits of 47 cfu/100 ml monthly geometric average with a waste load limit of 1.35×10^{11} cfu. Since there is no required construction activity to add bacteria control technology, no compliance schedule will be granted in the draft permit to meet the E. coli limits.

g. pH

Stream specific NMWQS for pH, 6.6 to 9.0 su and PIWQS primary contact recreational use are more restrictive than the technology-based limits presented earlier. These limits are identical to the previous permit and will be proposed to be continued in the draft permit.

h. 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 Publicly Owned Treatment Works (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 a major POTW for permitting purposes and must supply the expanded pollutant testing list described in EPA Application Form 2A as presented above in Part III of this Fact Sheet. See **Tables 1, 2** and **Appendix 1** of this Fact Sheet.

ii. Critical Conditions

Toxics are evaluated with the yearly 4Q3 as discussed above and also as used in the previous permit. The facility discharges to State of New Mexico waters but may also affect the downstream Isleta Pueblo water quality so the discharge must be protective of both states criteria. The NMIP allows a mixing zone for establishing pollutant limits in discharges. NMED establishes a critical low flow designated as 4Q3; the minimum average four consecutive day flow which occurs with a frequency of once in three years. The SWQB of the NMED provided EPA with the 4Q3 based on data from the USGS Gauge 08330000 station, upstream of the facility. As stated previously, the 4Q3 is 81.8 cfs (52.9 MGD).

For permitting purposes of certain parameters the CD of the effluent to the receiving stream is determined. The CD is calculated as follows:

$CD = Q_e \div (FQ_a + Q_e)$, where:

Q_e = facility flow (76 MGD)

Q_a = critical low flow of the receiving waters 81.8 cfs (52.9 MGD)

F = fraction of stream allowed for mixing (1.0)

$$\begin{aligned} CD &= 76 \text{ MGD} \div [(1.0)(52.9) + 76] \\ &= 0.5896 \\ &= 59 \% \end{aligned}$$

NMED also provided data on the harmonic mean flow for the Rio Grande based on data for the time period 1974 to 2008 is 205 cfs (132.5 MGD). This value will be used to determine human health based limitations.

Stream hardness of 143 mg/l, expressed as CaCO_3 , was obtained from the Rio Bravo Bridge STORET Station MRG105005740, identified in the previous permit.

iii. Reasonable Potential – New Mexico

Based on the pollutant data in Part III of this Fact Sheet; see **Tables 1, 2 and Appendix 1** of the Fact Sheet, a water quality screen was run to determine if pollutant concentrations exhibit RP to exceed WQS for the various designated uses. If RP exists, the screen would also calculate the appropriate permit limit needed to be protective of such designated uses. The screen is based on the NMIP as of May 3, 2011. This screen is shown as **Appendix 3** of the Fact Sheet and based

on the results as shown in **Appendix 3** of the Fact Sheet, none of the pollutants tested demonstrate RP to violate NMWQS consistent with the designated uses for the receiving water.

iv. Reasonable Potential – Pueblo of Isleta

The Pueblo of Isleta is a downstream state and the permit limits developed for this permit must ensure that its WQS are protected. *See* 40 CFR 122.4(d). In addition to ammonia and total inorganic nitrogen (TIN) (*see* below), pollutants that have PIWQS that were found to be at levels above MQL; *see* **Appendix 1**, are aluminum, arsenic, boron, chromium, copper, mercury, molybdenum, nickel, selenium, vanadium, zinc, bromodichloromethane, chlorodibromomethane and chloroform.

Criteria for several of the pollutants; chromium, copper, nickel and zinc, are expressed as a function of hardness according to the following mathematical relationships and their results are as follows:

<u>Pollutant</u>	<u>Chronic Toxicity</u>	<u>Acute Toxicity</u>
Chromium:	$0.86 (e^{(0.819 [\ln\{\text{hardness}\}] + 0.6848)})$ 99.34 ug/l	$0.316 (e^{(0.819 [\ln\{\text{hardness}\}] + 3.7256)})$ 763.7 ug/l
Copper:	$0.96 (e^{(0.8545 [\ln\{\text{hardness}\}] - 1.702)})$ 12.157 ug/l	$0.96 (e^{(0.9422 [\ln\{\text{hardness}\}] - 1.7)})$ 18.82 ug/l
Nickel:	$0.997 (e^{(0.846 [\ln\{\text{hardness}\}] + 0.0584)})$ 70.038 ug/l	$0.998 (e^{(0.846 [\ln\{\text{hardness}\}] + 2.255)})$ 633.7 ug/l
Zinc:	$0.986 (e^{(0.8473 [\ln\{\text{hardness}\}] + 0.884)})$ 160.0 ug/l	$(e^{(0.8473 [\ln\{\text{hardness}\}] + 0.8618)})$ 158.7 ug/l

The results of Pueblo of Isleta RP screening is shown in **Appendix 4** of the Fact Sheet. Based on the results of the screening, discharges from the facility do not demonstrate RP to exceed Pueblo of Isleta instream criteria.

v. Summary of Toxic's Screening

Based on results shown in **Appendices 3 and 4** of the Fact Sheet, the pollutants screened do not exhibit RP to exceed state WQS. The previous permit had once per week monitoring requirements for boron, molybdenum, and arsenic. Based on the pollutant concentrations reported on the DMR's and these RP analyses, the pollutants have not been detected in amounts that would represent detection even for continued monitoring. Mercury however continues to have infrequent DMR exceedances and for this reason mercury limits will be continued in the draft permit. The draft permit will require the more sensitive EPA Method 1631 to be used for DMR reporting. The draft permit will propose ending monitoring for boron, molybdenum, and arsenic but mercury limits will be continued. Mercury limits of 0.008 ug/l 30-day average and 0.012 ug/l daily maximum are continued from the previous permit.

vi. TRC

The facility no longer uses chlorine to control bacteria and has switched over to a UV system. The UV system started up March 30, 2011, and testing was completed on April 13, 2011. On June 13, 2011, all sulfur dioxide and chlorine chemicals had been depleted and that system was no longer available even for back-up bacteria treatment. The chlorine/sulfur dioxide system will be decommissioned. Even when chlorine has been replaced by UV for bacteria treatment, chlorine usage may still occur at POTWs for various purposes such as disinfection of process equipment and/or filamentaceous algae control. Consistent with other NPDES permits for POTWs in NM, continuation of TRC limits will be proposed in the draft permit in certain instances such as when chlorine is used as either a backup bacteria control chemical or when disinfection of plant treatment equipment is required. The effluent limitation for TRC is the instantaneous maximum grab sample taken during periods of chlorine use and cannot be averaged for reporting purposes. Regulations at 40 CFR §136 define "instantaneous grab" as analyzed within 15 minutes of collection.

D. MONITORING FREQUENCY FOR LIMITED PARAMETERS

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity, 40 CFR §122.48(b), and to assure compliance with permit limitations, 40 CFR §122.44(i)(1). Sample frequency is based on the May 2011, NMIP. Based on the design flow of the facility, 76 MGD, the NMIP requires that all limited parameters have daily monitoring frequency requirements. Mercury however will be maintained at the current once per week frequency. Flow is proposed to be monitored continuously by totalizing meter. The parameters E. coli bacteria, pH, TRC, and DO shall use grab samples. The parameters CBOD, TSS, TIN, mercury, ammonia, and total inorganic nitrogen shall use 24-Hr composite samples.

E. WHOLE EFFLUENT TOXICITY LIMITATIONS

Procedures for implementing WET terms and conditions in NPDES permits are contained in the NMIP, May 2011. Table 11 of Section V of the NMIP outlines the type of WET testing for different types of discharges. Analysis of past WET data to determine RP is shown on **Appendix 5** of the Fact Sheet. Based on the information taken from DMR reports and laboratory data, reasonable potential to exceed NMWQS has been found to exist. The draft permit proposes to continue the WET limits from the previous permit for both the lethal and sublethal endpoint. The CD of the discharge was previously determined earlier to be 59%. The previous permit WET tests were run at 61%. Since the difference in CD is insignificant, for consistency purposes with previous WET testing, the recommendation of the EPA WET Section is to maintain the previous WET CD and run the tests at 61%. The test species shall be *Ceriodaphnia dubia* and *Pimephales promelas*.

During the period beginning the effective date of the permit and lasting through the expiration date of the permit, the permittee is authorized to discharge from Outfall 001 to the Rio Grande treated sanitary wastewater. Discharges shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>	
	<u>30-DAY AVG MINIMUM</u>	<u>7-DAY MINIMUM</u>
Whole Effluent Toxicity (PCS 22414) (7-Day NOEC) 1/	61%	61%
<i>Ceriodaphnia dubia</i>	REPORT	REPORT
<i>Pimephales promelas</i>	REPORT	REPORT

<u>EFFLUENT CHARACTERISTIC</u>	<u>MONITORING REQUIREMENTS</u>	
	<u>FREQUENCY</u>	<u>TYPE</u>
Whole Effluent Toxicity (7-Day NOEC) 1/		
<i>Ceriodaphnia dubia</i>	1/Quarter	24 Hr. Composite
<i>Pimephales promelas</i>	1/Quarter	24-Hr. Composite

FOOTNOTES

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

F. EFFLUENT TESTING FOR APPLICATION RENEWAL

In addition to the parameters identified in this fact sheet, EPA designated major POTW's are required to sample and report other parameters listed in tables of the EPA Form 2A and WET testing for its permit renewal. The minimum pollutant testing for NPDES permit renewals specified in Form 2A requires three samples for each of the parameters being tested. Current practice is to obtain the three samples over a short time frame, sometimes within two weeks during the permit renewal testing process. In order to obtain a meaningful snapshot of pollutant testing for permit renewal purposes, the draft permit shall require that the testing for Tables A.12, B.6, and Part D of EPA Form 2A, or its equivalent if modified in the future, during the second, third and fourth years after the permit effective date. This testing shall coincide with any required WET testing event for that year. The permittee shall report the results as a separate attachment in tabular form sent to the Permits and Technical Assistance Section Chief of the Water Quality Protection Division within 60 days of receipt of the lab analysis and shall also be reported on the NPDES permit renewal application Form 2A or its equivalent/replacement.

VI. FACILITY OPERATIONAL PRACTICES

A. SEWAGE SLUDGE

The permittee shall use only those sewage sludge disposal or reuse practices that comply with the federal regulations established in 40 CFR Part 503 "Standards for the Use or Disposal of Sewage Sludge". The specific requirements in the permit apply as a result of the design flow of the facility, the type of waste discharged to the collection system, and the sewage sludge disposal or reuse practice utilized by the treatment works. The permittee shall submit an Annual Sludge Status report in accordance with NPDES Permit NM0022250, **Parts I** and **Parts IV**.

B. WASTE WATER POLLUTION PREVENTION REQUIREMENTS

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

C. INDUSTRIAL WASTEWATER CONTRIBUTIONS

The treatment plant has 19 non-categorical Significant Industrial Users (SIU) and 39 Categorical Industrial Users (CIU). The facilities, their services, process employed, process and non-process water flow rates, their CIU if applicable and raw products is shown on **Appendix 6** of the Fact Sheet below.

The facility has an approved pretreatment program in place and will be continued with this draft permit. 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 monthly. The monitoring results will be available to the public.

VII. 303(d) LIST

The Rio Grande, Stream Segment 20.6.4.105, the Rio Grande from the Isleta Pueblo boundary to Alameda Bridge, is listed as impaired on the "State of New Mexico Part 303(d) List for Assessed Stream and River Reaches, 2010-2012." The waterbody is assessed as Category 5/5A with irrigation, livestock watering and wildlife habitat as fully supporting but secondary contact and marginal warmwater aquatic life as being impaired. Probable causes of impairments are listed as E. coli, PCBs, dissolved oxygen and temperature.

The E. coli TMDL has just recently been approved and loadings have been previously addressed in the Fact Sheet above. *See* Section V. above. No additional permit requirements are needed at this time to address bacteria impairments.

The PCB is a listed pollutant since currently NMED has issued a fish consumption advisories for the reach. These advisories demonstrate non-attainment with "fishable" CWA goals and require further investigation. The NMED released results of a study conducted in 2009 of Rio Grande water quality near the Santa Fe Buckman Direct Diversion and in Albuquerque during storm flow conditions, April 19, 2010, stating that "...storm water events in the Albuquerque area have the potential to carry concentrations of PCBs into the Rio Grande that can harm wildlife and humans consuming PCB contaminated fish." The press release added that "Since the focus of the sampling events was river water, it is not known at this time if the contaminants were present in the stormwater itself or if the volume and velocity of the stormwater flow disturbed

contaminants already present and bound in sediments.” Previous studies conducted since 2003 by local storm water management agencies have not detected PCBs in stormwater. These earlier tests were conducted using EPA Method 608; a gas-chromatograph with electron capture sometimes referred to as the Arochlor method having a MQL of 0.2 ug/l. This latest stormwater testing of PCBs testing by NMED however, were analyzed using EPA Method 1668; also referred to as the Congener Method. The Congener Method has detection capabilities of 200 pg/l, significantly lower than the Arochlor Method. Although EPA Method 1668 has been proposed, it has not been approved under 40 CFR 136 for use in compliance monitoring for NPDES permits. The spread between the Arochlor and Congener Method’s MQLs are where PCB criteria for both the PIWQS and NMWQS for human health are. So while indications lead to PCB’s being in stormwater, it is prudent that discharges from the POTW be evaluated at the Congener levels to determine if the POTW has any contributing role in the pollutants impact. However, use of this more sensitive EPA method will provide lower detection levels necessary to determine if PCBs are in discharges to or from the POTW at levels that have reasonable potential to cause or contribute to an exceedance of State or Tribal water quality standards. Since the waterbody is listed for PCB’s in the Rio Grande, an assessment of potential PCB contamination using the sensitive Congener Method will be required. The draft permit will propose a one-time analysis of effluent using the Congener Method. The test shall be required to be performed within the first year of issuance.

The DO TMDL is scheduled for 2013. DO was addressed previously. *See* V.C. above. A DO model was completed by the EPA in late 2009 that concluded that 95% percentile flow runs would not cause a violation of these WQS. The permit has water quality based limitations for CBOD that address the impact of oxygen demanding substances on the receiving stream and are consistent with the DO model.

Temperature isn’t a pollutant that is consistent with the operations of a POTW. Heat is not added to the discharge through wastewater treatment processes. Temperature limitations are not included in the draft permit based on the listing.

The standard reopener language in the permit allows additional permit conditions for these and any other pollutants if warranted by additional data based on these requirements and/or new or revised TMDLs.

VIII. ANTIDegradation

New Mexico and the Pueblo of Isleta both have antidegradation requirements to protect existing uses through implementation of their respective states WQS. The limitations and monitoring requirements set forth in the proposed draft are developed from the appropriate State WQS and are protective of those designated uses. Furthermore, the policy’s set forth the intent to protect the existing quality of those waters, whose quality exceeds their designated use. The permit requirements and the limits are protective of the assimilative capacity of the receiving waters, which is protective of the designated uses of that water.

IX. ANTIBACKSLIDING

The proposed permit is consistent with the requirements to meet antibacksliding provisions of the Clean Water Act, Section 402(o) and 40 CFR §122.44(l)(i)(A), which state in part that interim or final effluent limitations must be as stringent as those in the previous permit, unless material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation. The proposed permit is slightly more restrictive than the previous permit since the upper flow higher pollutant limits have been removed for CBOD, TSS, nitrate-nitrite and ammonia. The concentration limits for DO, pH, E. coli, and TRC are the same. Limits for aluminum, boron, cadmium, copper, selenium, and silver have been eliminated from the draft permit. The pollutant deletions are based on 40 CFR §122.44 (l)(B), new information that was not available at the time the previous permit was issued and was discussed in Part V above.

X. ENDANGERED SPECIES CONSIDERATIONS

According to the most recent county listing available at US Fish and Wildlife Service (USFWS), Southwest Region 2 website, <http://www.fws.gov/southwest/es/EndangeredSpecies/lists/>, four species in Sandoval County are listed as endangered (E) or threatened (T). The lone aquatic species is the Rio Grande silvery minnow (*Hybognathus amarus*) (E). Two species are birds and include the southwestern willow flycatcher (*Empidonax traillii extimus*) (E) and the Mexican spotted owl (*Strix occidentalis lucida*) (T). The only mammal is the black-footed ferret *Mustela nigripes* (E). The American bald eagle (*Haliaeetus leucocephalus*) was previously listed in Sandoval County; however, the USFWS, removed the American bald eagle in the lower 48 states from the Federal List of Endangered and Threatened Wildlife Federal Register, July 9, 2007, (Volume 72, Number 130).

EPA Region 6 initiated consultation with the Fish and Wildlife Service in 2001. EPA will not finalize the proposed permit until we have fulfilled our obligations under the Section 7(a)2 of the Endangered Species Act.

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. 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.

XV. FINAL DETERMINATION

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

XVI. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. APPLICATION(s)

EPA Application Form 2A received November 4, 2009.

B. 40 CFR CITATIONS

Citations to 40 CFR are as of July 6, 2011.
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 January 14, 2011.

Procedures for Implementing National Pollutant Discharge Elimination System Permits in New Mexico, May 2011.

Statewide Water Quality Management Plan, December 17, 2002.

State of New Mexico 303(d) List for Assessed Stream and River Reaches, 2010 - 2012.

D. CORRESPONDENCE

Email from Joseph Chwirka, ABCWUA, June 28, 2011, to Larry Giglio, EPA, providing details on the UV facility upgrade.

Email from Ramona Montoya, Pueblo of Isleta, July 20, 2011, to Larry Giglio, EPA, providing details regarding Tribal chronic zinc hardness based criteria.

Email from Richard Powell, NMED, June 3, 2011, to Larry Giglio, EPA, transmitting 4Q3 data.

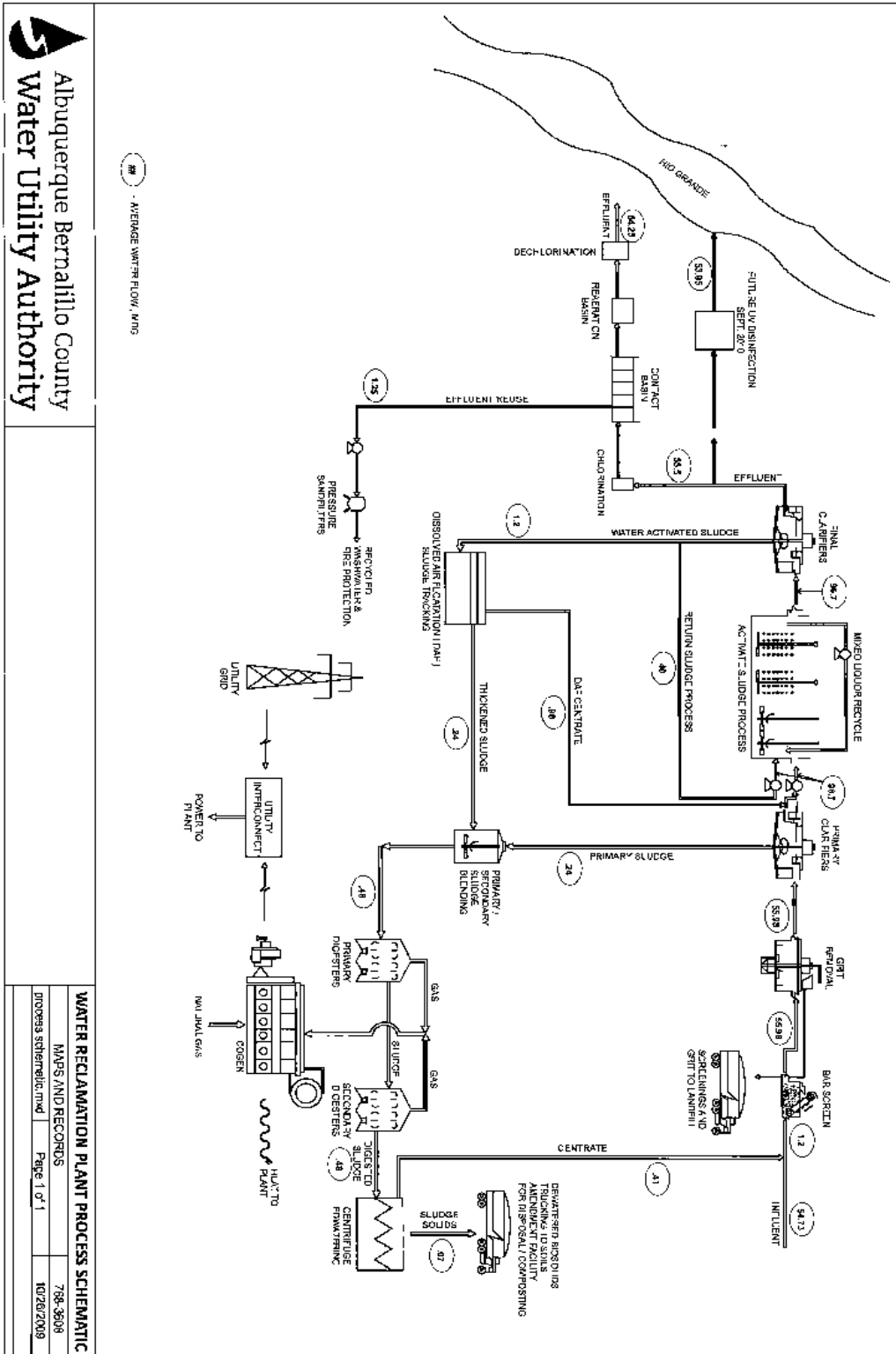
Email from Barbara Gastian, ABCWUA, June 30, 2011, to Larry Giglio, EPA, providing updated DMR data and 2010 exceedances.

Letter from James Pendergast, EPA, September 20, 1996, to Gary Stenhouse, City of Rochester New Hampshire, stating EPA seasonal flow policy.

FIGURE 1 - Overview of Site



Figure 2 – Plant Schematic



Albuquerque Bernalillo County
Water Utility Authority

WATER RECLAMATION PLANT PROCESS SCHEMATIC
MAPS AND RECORDS
Process schematic.mxd Page 1 of 1 798-3608
10/26/2009