NPDES PERMIT NO. NM0020133
FACT SHEET

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

APPLICANT

Los Alamos County Department of Public Utilities
1000 Central Avenue, Suite 130
Los Alamos, NM 87544

ISSUING OFFICE

U.S. Environmental Protection Agency
Region 6
1201 Elm Street, Suite 500
Dallas, Texas 75270

PREPARED BY

Bryn Copson
Physical Scientist
Permitting Section (6WD-PE)
Permitting and Water Quality Branch
Water Division
VOICE: 214-665-6427
EMAIL: copson.bryn@epa.gov

DATE PREPARED

November 4, 2021

PERMIT ACTION

Renewal of a permit previously issued on December 21, 2016, with an effective date of February 1, 2017, and an expiration date of January 31, 2022.

This permit includes conditions and requirements for the currently operational Wastewater Treatment Facility (WWTF) and the new WWTF that is planned to replace the current facility during the effective dates of this permit. Construction of the new WWTF is planned to begin January 2022 and end July 2023. Attainment of operational level and discharge from the new WWTF is planned for July 2023.

RECEIVING WATER – BASIN

Canada del Buey (unclassified water of the state subject to 20.6.4.98 NMAC) – 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
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
ML	Method minimum level
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	Publicly owned treatment works
RP	Reasonable potential
SS	Settleable solids
SSM	Sufficiently Sensitive Method
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
WWTF	Wastewater treatment plant

I. CHANGES FROM THE PREVIOUS PERMIT

Changes from the permit previously issued on December 21, 2016, with an effective date of February 1, 2017, and an expiration date of January 31, 2022, are as follows:

- Monitoring frequency of BOD_5 for the current facility has been increased due to exceedances.
- Monitoring frequency of E. coli bacteria has been returned to the recommended frequency outlined by the State of New Mexico (NMIP, 2012).
- WET testing requirements have been updated.
- An effluent limit for Dissolved Oxygen has been established. This new limit includes a schedule of compliance with interim and final effluent limits.

II. APPLICANT LOCATION and ACTIVITY

As described in the application, the facility (Outfall 001: Latitude 35° 49' 39.93" North and Longitude 106° 11' 5.96" West) is located at 600 Overlook Road, White Rock, Los Alamos County, New Mexico.

Under the SIC code 4952, the applicant operates Los Alamos County White Rock Wastewater Treatment Facility (WWTF), which has a design flow of 0.82 MGD providing sanitary services for approximately 5,852 residents. The WWTF provides primary and secondary levels of treatment. The wastewater is treated with a trickling filter system. Effluent is disinfected with chlorine, followed by dechlorination and then discharged to Canada Del Buey, an unclassified intermittent water (20.6.4.98 NMAC), which then flows to the Rio Grande of the Rio Grande Basin, via Outfall 001. Water designated for reuse under a ground water permit is drawn off before dechlorination and used to irrigate a nearby park. Generated sewage sludge is hauled to the Los Alamos WWTF for further treatment and disposal. A map of the facility is attached.

There is planned construction of a new WWTF that will replace the current Los Alamos County White Rock WWTF. Construction of the new WWTF is planned to begin January 2022 and end July 2023. Attainment of operational level and discharge from the new WWTF is planned for July 2023. The new WWTF will be completely inside the existing facility boundary and the current WWTF will be decommissioned upon completion of the new WWTF. The new WWTF has a design flow of 0.5 MGD and provides primary and secondary levels of treatment. The wastewater will be treated with an activated sludge system. Following treatment by primary and secondary clarifiers, the wastewater is processed through a tertiary filtration system consisting of disk filters. Effluent is disinfected with an ultraviolet system and then discharged to Canada Del Buey, an unclassified intermittent water (20.6.4.98 NMAC), which then flows to the Rio Grande of the Rio Grande Basin via an outfall that is located in the same location as the current WWTF outfall (Outfall 001). Generated sewage sludge will be dewatered with a fan press and subsequently hauled to the Los Alamos County - Bayo WWTF (NM0020141) for further treatment and disposal. The new WWTF plans are attached.

These facilities will subsequently be referred to as the current WWTF and the new WWTF.

III. EFFLUENT CHARACTERISTICS

Data submitted in Form 2A for the WWTF is as follows:

Parameter	Max	Avg
	(mg/l unless noted)	
pH, minimum, standard units (su)	6.63	NA
pH, maximum, standard units (su)	7.47	NA
Design Flow Rate (MGD)	0.348	0.195
Temperature (C), winter	24.3	15.0
Temperature (C), summer	26.5	21.38
Biochemical Oxygen Demand, 5-day (BOD_5)	36.50	20.77
Fecal coliform (cfu/100 ml)	60.00	6.82
Total Suspended Solids (TSS)	29.92	16.90
Ammonia (as N)	31	20
TRC	0.01	0.00
DO	4.3	4.1
Total Kjeldahl Nitrogen (TKN)	37	26
Nitrate + Nitrite Nitrogen	7.7	4.2
Oil & Grease	ND	ND
Phosphorus (Total)	7.2	6.5
TDS	464	429

Since February 2017, there have been several exceedances according to the submitted DMRs:

Date	Parameter	Exceedance (pH: 6.6 – 9.0)	Exceedance (30-day average, mg/L)	Exceedance (7-day average, mg/L)	Exceedance (Percent Removal, %)
4/30/17	pH	6.52			
1/31/18	BOD_5		34.78	46.79	
12/31/18	BOD_5		36.48	51.14	
1/31/19	BOD_5		42.18	55.5	84
2/28/19	BOD_5		34.81		
3/31/19	BOD_5		31.86		
2/29/20	BOD_5		34.09		

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).

V. DRAFT PERMIT RATIONALE AND PERMIT CONDITIONS

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

Following regulations promulgated at 40 CFR 122.44(l)(2)(ii), the draft permit limits are based on either technology-based effluent limits pursuant to 40 CFR 122.44(a) or on State water quality standards and requirements pursuant to 40 CFR 122.44(d), whichever are more stringent.

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

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, *E. coli* bacteria, 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.

2. Effluent Limitation Guidelines

The current and new facilities are POTWs/POTW-likes that have technology-based limits established at 40 CFR Part 133, Secondary Treatment Regulation. Pollutants with requirements established in this Chapter are BOD, TSS and pH. BOD limits of 30 mg/l for the 30-day average and 45 mg/l for the 7-day average and 85% percent (minimum) removal are found at 40 CFR §133.102(a). TSS limits; also 30 mg/l for the 30-day average and 45 mg/l for the 7-day average, and 85% percent (minimum) removal are found at 40 CFR §133.102(b). Since these are technology-based requirements there is no compliance schedule provided to meet these limits. Compliance is required on the permit effective date until midnight the day prior to three years from the permit effective date for the current WWTF, and beginning on the date three years from the permit effective date for the new WWTF.

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 POTWs or similar, the plant’s

design flow is used to establish the mass load and the change in the design flow from the current to the new WWTF affects the allowable loading. Mass limits are determined by the following mathematical relationship:

Loading in lbs/day = pollutant concentration in mg/l * 8.345 (lbs)(l)/(mg)(MG) * design flow in MGD

Current Facility Effluent Limitation:

These limits are effective for discharges of effluent at the current WWTF via Outfall 001 on the permit effective date until midnight the day prior to three years from the permit effective date.

30-day average BOD/TSS loading = 30 mg/l * 8.345 (lbs)(l)/(mg)(MG) * 0.82 MGD = 205 lbs/day
7-day average BOD/TSS loading = 45 mg/l * 8.345 (lbs)(l)/(mg)(MG) * 0.82 MGD = 308 lbs/day

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

Effluent Characteristic	**Discharge Limitation**			
	lbs/day, unless noted		mg/l, unless noted	
Parameter	30-day Avg	7-day Avg	30-day Avg	7-day Avg
BOD_5	205	308	30	45
BOD_5, % removal[1]	≥ 85	---	---	---
TSS	205	308	30	45
TSS, % removal[1]	≥ 85	---	---	---
pH	NA	NA	6.0 to 9.0 s.u.	

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

New Facility Effluent Limitation:

These limits are effective for discharges of effluent at the new WWTF via Outfall 001 beginning on the date three years from the permit effective date.

30-day average BOD/TSS loading = 30 mg/l * 8.345 (lbs)(l)/(mg)(MG) * 0.5 MGD = 125 lbs/day
7-day average BOD/TSS loading = 45 mg/l * 8.345 (lbs)(l)/(mg)(MG) * 0.5 MGD = 188 lbs/day

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

Effluent Characteristic	**Discharge Limitation**			
	lbs/day, unless noted		mg/l, unless noted	
Parameter	30-day Avg	7-day Avg	30-day Avg	7-day Avg
BOD_5	125	188	30	45
BOD_5, % removal[1]	≥ 85	---	---	---
TSS	125	188	30	45
TSS, % removal[1]	≥ 85	---	---	---
pH	NA	NA	6.0 to 9.0 s.u.	

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

3. Pretreatment Regulation

The facility is not subject to the full pretreatment program pursuant to 40 CFR 403.8. General practices are retained in the permit draft.

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/Tribe WQS. Effluent limitations and/or conditions established in the draft permit are in compliance with applicable State/Tribal WQS and applicable State/Tribe water quality management plans to assure that surface WQS of the receiving waters are protected and maintained or attained.

Compliance with the following water quality based requirements is required on the permit effective date until midnight the day prior to three years from the permit effective date for the current WWTF, and on the date three years from the permit effective date for the new WWTF.

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/Tribe narrative and numerical water quality standards are used in conjunction with EPA criterion 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 approved on July 24, 2020). The wastewater flows from the outfall to an intermittent stream named Canada del Buey in Los Alamos County in State waters, then flows approximately 300 feet where it enters waters of the San Ildefonso Pueblo. After approximately one mile, the discharge leaves San Ildefonso Pueblo waters and reaches the Rio Grande in State waters. The San Ildefonso Pueblo does not have EPA approved water quality standards and does not have NPDES authority. Establishment of permit limits that meet State WQS will be protective of Tribal waters. The current stream designated uses are livestock watering, wildlife habitat, marginal warmwater aquatic life and primary contact. Because the 4Q3 of Canada del Buey (20.6.4.98 NMAC) is zero, no dilution is allowed and applicable criteria must be met following final treatment and prior to discharge into the receiving water.

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) to be the applicable limits. State WQS that are more stringent than effluent limitation guidelines are as follows:

a. pH

For primary contact and marginal warmwater aquatic life uses, the criterion for pH is between 6.6 and 9.0 s.u. pursuant to 20.6.4.900.D and 20.6.4.900.H(6) NMAC. This State WQS is more stringent than the technology-based effluent limitation listed in the Effluent Limitation Guidelines section and is therefore the applicable limit (40 CFR §122.44(d)).

b. Bacteria

Site-specific criteria for intermittent waters of the state require the criterion for E. coli bacteria to be set at 206 cfu/100 ml monthly geometric mean and 940 cfu/100 ml daily maximum pursuant to 20.6.4.98 NMAC.

c. 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 criterion, the permit must contain an effluent limit for that pollutant.

All applicable facilities are required to fill out appropriate sections of the Form 2A and 2S, to apply for an NPDES permit or reissuance of an NPDES permit. The new form is applicable not only to POTWs, but also to facilities that are similar to POTWs, but which do not meet the regulatory definition of "publicly owned treatment works" (like private domestics, or similar facilities on Federal property). The forms were designed and promulgated to "make it easier for permit applicants to provide the necessary information with their applications and minimize the need for additional follow-up requests from permitting authorities," per the summary statement in the preamble to the Rule. These forms became effective December 1, 1999, after publication of the final rule on August 4, 1999, Volume 64, Number 149, pages 42433 through 42527 of the FRL. The facility is designated as a minor facility and does not need to fill out the expanded pollutant testing section Part D of Form 2A. There are no toxics that need to be placed in the draft permit.

d. TRC

For wildlife habitat, criteria for TRC is 11 ug/l pursuant to 20.6.4.900.J NMAC.

e. Dissolved Oxygen (DO)

The facility discharges treated effluent into Canada del Buey (20.6.4.98 NMAC). The receiving water is an intermittent stream and has a 4Q3 flow of 0 cfs and a harmonic mean flow of 0 cfs (NMED email dated 8/30/21). The State of New Mexico WQS criteria designate a use of intermittent streams as marginal warmwater aquatic life. Marginal warmwater aquatic life water quality criteria requires a DO minimum of at least 5 mg/L. Because the receiving stream has a 4Q3 flow of 0 cfs and a harmonic mean flow of 0 cfs, it is not possible to establish a mixing zone. Consequently, the discharge must meet the DO criterion following final treatment and prior to discharge into the receiving water. Data submitted in Form 2A (see Section III above) demonstrates that there is reasonable potential for causing or contributing to an exceedance of the water quality standard. Accordingly, an effluent limit for DO must be set.

This is a newly established limit for this permit renewal. Therefore, a schedule of compliance is provided per 40 CFR 122.47(a). A schedule of compliance has been established in the permit to allow time for the permittee to construct the new WWTF that will include equipment necessary for the facility to meet the final effluent limit for DO of a minimum of 5 mg/L. Per 40 C.F.R. 122.47(a)(3), an interim limit must be set. An interim limit of a minimum of 4.1 mg/L has been established in the permit and must be met beginning on the effective date of the permit. The interim limit is based on the current WWTF average DO discharge data submitted in Form 2A.

D. MONITORING FREQUENCY FOR LIMITED PARAMETERS

Compliance with the following monitoring frequencies are required on the permit effective date until midnight the day prior to three years from the permit effective date for the current WWTF, and beginning on the date three years from the permit effective date for the new WWTF. Apart from for $BOD_{5,}$ which has different sampling frequencies for the current WWTF and the new WWTF, the monitoring frequencies are the same.

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 sampling frequencies for the current plant design (trickling filter) and the new plant design (activated sludge) are the same as outlined in Table 8 and Table 9 (page 34 of the NMIP) for design flows between 0.5 and 1.0 MGD. Except for $BOD_{5,}$ which has different sampling frequencies for the current WWTF and the new WWTF. Compliance history has been considered when setting sampling frequency.

Parameter	Frequency	Sample Type
Flow	Daily	Totalized
pH	5/week	Instantaneous Grab
BOD_5 (Current WWTF)	1/week (increased due to exceedances)	6-hr Composite (*2)
BOD_5 (New WWTF) (*1)	3/month	6-hr Composite (*2)
TSS	3/month	6-hr Composite (*2)
TSS and BOD_5 % Removal	1/month	Calculation
TRC (*3)	5/week	Instantaneous Grab
E. coli Bacteria	3/month	Grab
DO	3/month	Instantaneous Grab

Footnotes:
*1 The sampling frequency for the new WWTF applies on the date three years from the permit effective date .
*2 Sample type has been changed from the NMIP recommended type (3-hr Composite) to 6-hr Composite samples to make monitoring requirements consistent with the Ground Water Discharge Permit for the facility. A 6-hr Composite sample is more representative than a 3-hr Composite sample.
3* Sampling and reporting requirements for TRC apply to the current facility until midnight the day prior to three years from the permit effective date. If the facility begins using Ultraviolet disinfection during the period beginning on the effective date of the permit and lasting through midnight the day prior to three years from the permit effective date, sampling and reporting are only required when chlorine is used for either bacteria control and/or when chlorine is used to treat filamentous algae and/or used to disinfect process treatment equipment, and/or used at any time within the treatment process at the facility. The new facility uses Ultraviolet disinfection and therefore the TRC sampling and reporting requirements only apply to the new facility when chlorine is used for either bacteria control and/or when chlorine is used to treat filamentous algae and/or used to disinfect process treatment equipment, and/or used at any time within the treatment process at the facility.

E. WHOLE EFFLUENT TOXICITY

The following WET terms and conditions are applicable to the currently operational WWTF on the permit effective date until midnight the day prior to three years from the permit effective date, and the new WWTF beginning on the date three years from the permit effective date.

Procedures for implementing WET terms and conditions in NPDES permits can be found in the NMIP. Table 11 of the NMIP outlines the type of WET testing for different types of discharges. The receiving water is Canada del Buey, an intermittent stream with a 4Q3 of 0 cfs (0 MGD). With the current facility design flow rate of 0.82 MGD, and new facility design flow rate of 0.5 MGD, a CD of 100% will be used in this permit. The permittee shall conduct a chronic WET test using Ceriodaphnia dubia (Cd) and Pimephales promelas (Pp), twice every 5 years. This is an increase from the NMIP recommended frequency of once every five 5 years in order to accommodate one test on the current WWTF and one test on the new WWTF. WET testing data on the new WWTF will assist in determining WET testing requirements for the next permit term. The permittee conducted one WET test in the previous permit cycle, with no evidence of toxicity, therefore no reasonable potential exists and no limit is needed. Monitoring will continue being a requirement of this permit.

The proposed permit requires 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 must be 32%, 42%, 56%, 75%, 100%. The low-flow effluent concentration (critical low-flow dilution) is defined as 100% effluent for both the current WWTF and the new WWTF. The permittee shall limit and monitor discharge(s) as specified below:

WHOLE EFFLUENT TOXICITY TESTING (7-Day Chronic Static Renewal/ NOEC) (*1)	VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Ceriodaphnia dubia	Report	Twice/5 yrs (*2)	24-Hr Composite
Pimephales promelas	Report	Twice/5 yrs (*2)	24-Hr Composite

(1*) Monitoring and reporting requirements begin on the effective date of this permit. See Part II of the permit for WET testing requirements and additional WET monitoring and reporting conditions. Grab samples are allowed per method, if needed.
(*2) The first WET test shall be completed on the current WWTF while it is in operation during this permit term. The second WET test shall be completed on the new WWTF if it is in operation during this permit term. The WET test on the new WWTF should be conducted at least 9 months prior to the permit expiration date so results will be available to be used in the permit reapplication due 180 days prior to the expiration date.

VI. TMDL REQUIREMENTS

The receiving water segment 20.6.4.98 NMAC Canada del Buey is not listed in 303(d) List. No additional limitation/monitoring is required. The permit has a standard reopener clause that would allow the permit to be changed if at a later date additional requirements on new or revised TMDLs are 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 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 water, which is protective of the designated uses of that water, NMAC Section 20.6.4.8.A.

VIII. ENDANGERED SPECIES CONSIDERATIONS

According to a report updated on September 30, 2021 that checked for federally endangered (E)/threatened (T) species listed under the Endangered Species Act for Canada del Buey from Outfall 001 to the confluence with the Rio Grande (obtained from http://ecos.fws.gov/ipac), there are federally endangered (E)/threatened (T) species in the area. In the previous permit federally endangered (E)/threatened (T) species for the area of the outfall were determined by looking at all species listed in Los Alamos County. To determine federally endangered (E)/threatened (T) species for this permit a more localized approach was used that only looked at species listed under the Endangered Species Act for Canada del Buey from Outfall 001 to the confluence with the Rio Grande. Based on this approach the following species were identified as being in the region: Mexican spotted owl (T), Southwestern willow flycatcher (E), Yellow-billed Cuckoo (T) and New Mexico meadow jumping mouse (E). The Jemez Mountains salamander (E), which was listed in the previous permit, was not listed in the September 30, 2021 report. EPA determined the issuance of the previous permit would have a “no effect” on all of the listed threatened and endangered species identified in the September 30, 2021 report.

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. EPA determined a “no effect” for the previous permit, issued December 21, 2016.

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

3. EPA has received no additional information since February 1, 2017, the previous permit effective date, which would lead to revision of its determinations.

IX. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

There is planned construction of a new WWTF set to begin January 2022 and end July 2023. The new WWTF will be completely inside the existing facility boundary and will not impact any new historical and/or archeological sites. The reissuance of the permit should have no impact on historical and/or archeological sites.

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 Form 2A dated August 27, 2021, Form 2S dated September 17, 2021, and revised Form 2A Tables A, B, & E received September 28, 2021.

B. 40 CFR CITATIONS

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 July 24, 2020.

State of New Mexico 303(d) List for Assessed Stream and River Reaches, 2020-2022.

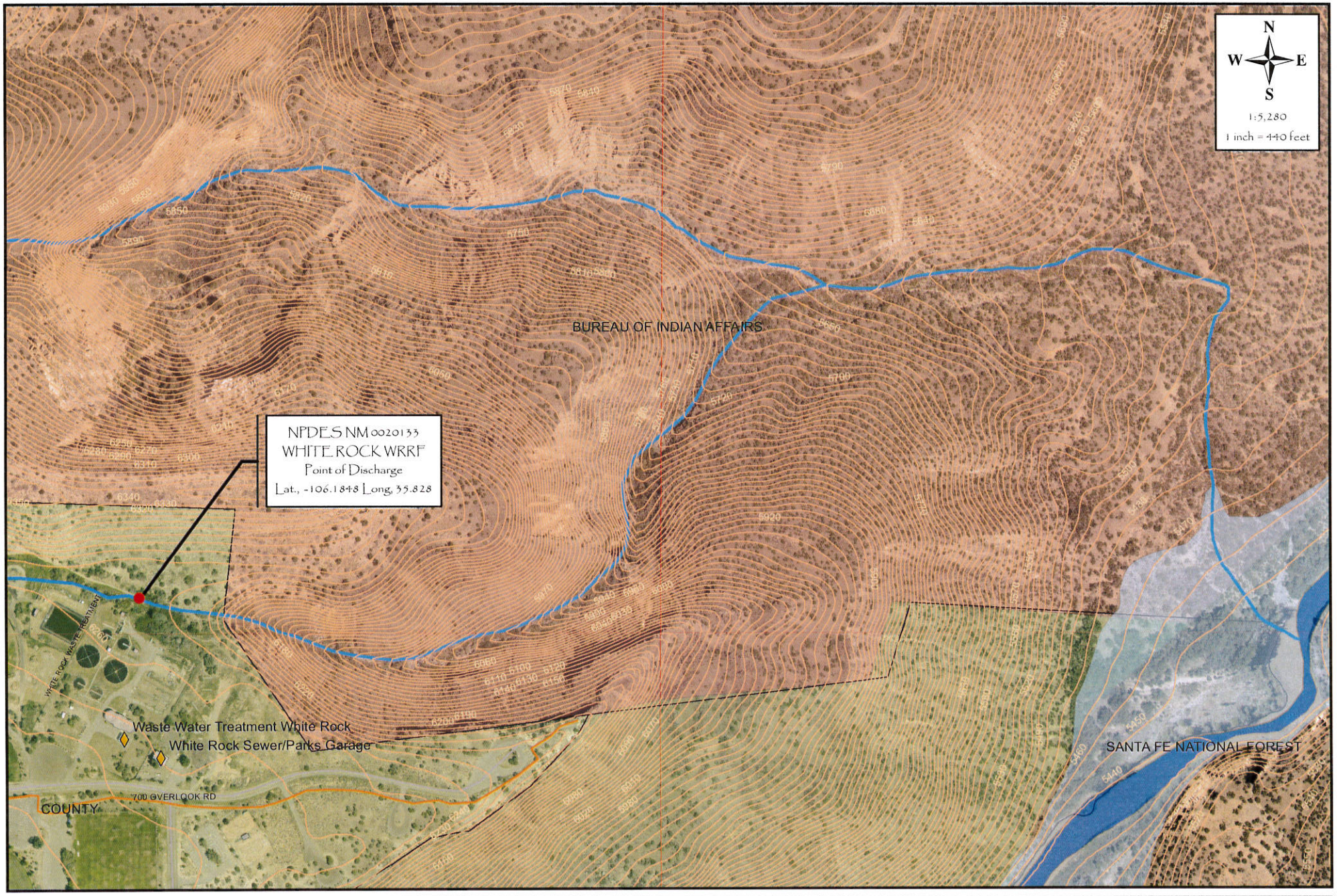
Procedures for Writing & Certifying NPDES Permits in New Mexico – NMIP, March 15, 2012.

D. MISCELLANEOUS

U.S. Fish & Wildlife Service, Environmental Conservation Online System (ECOS) and Information for Planning and Consultation (IPaC) system.

Permittee emails dated: September 8, 2021, September 28, 2021, 10/8/21, 10/26/21, and 11/8/21.

NMED email dated August 30, 2021.



LEGEND

- CRITICAL FACILITIES
- 10FT CONTOUR INTERVALS
- PLSS-SECTION BOUNDARIES

NHD FLOWLINES

- STREAM RIVER
- STREETS/ROADS
- LOS ALAMOS COUNTY PATHWAYS

NHD AREA FEATURES

- INUNDATION AREA
- RIO GRANDE RIVER

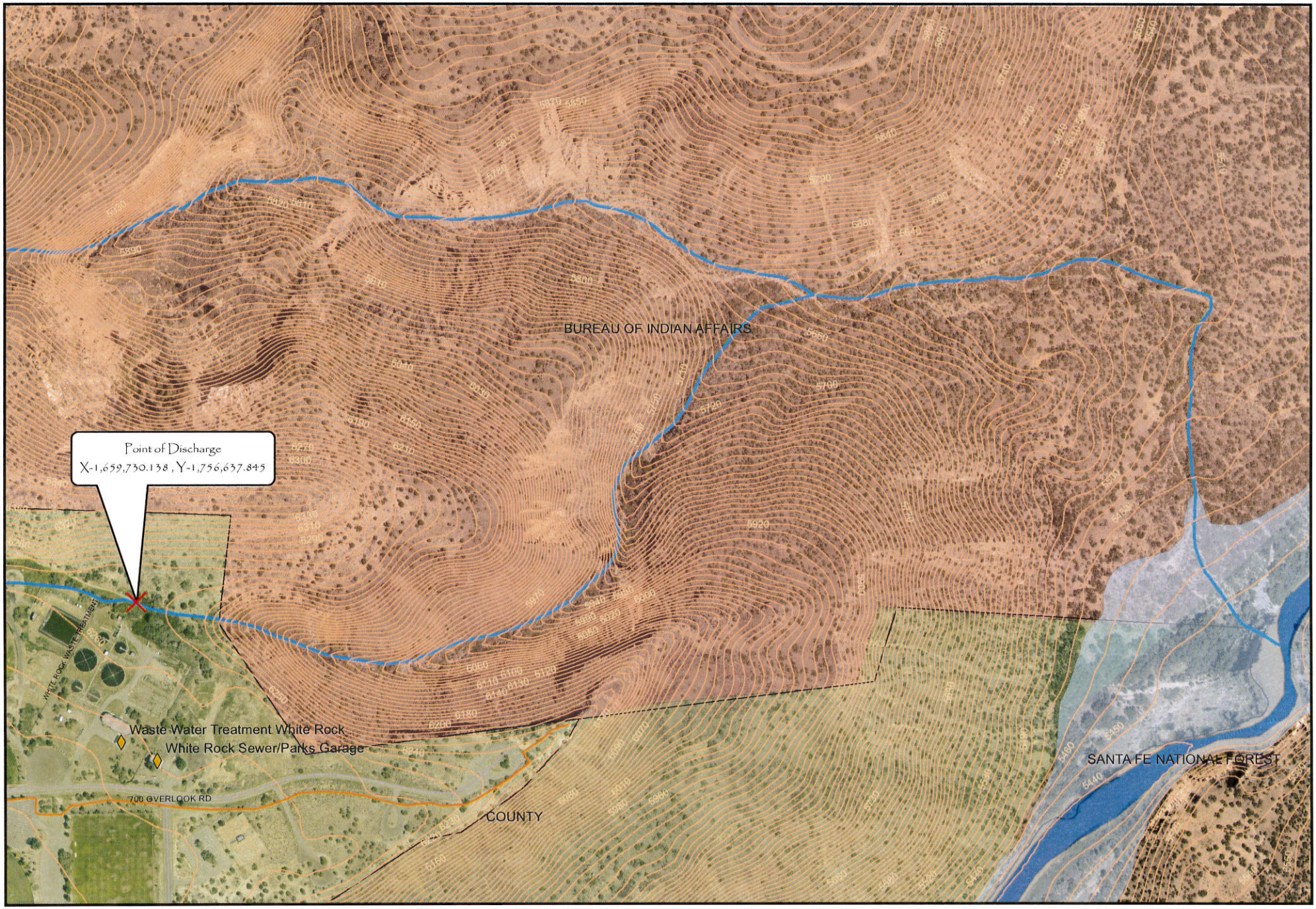
LAND OWNERSHIP

- BIA - PUEBLO OF SAN ILDEFONSO
- LOS ALAMOS COUNTY

LOS ALAMOS COUNTY
UTILITIES

Date: 1/25/2016

Aerial photography from 2014



Legend

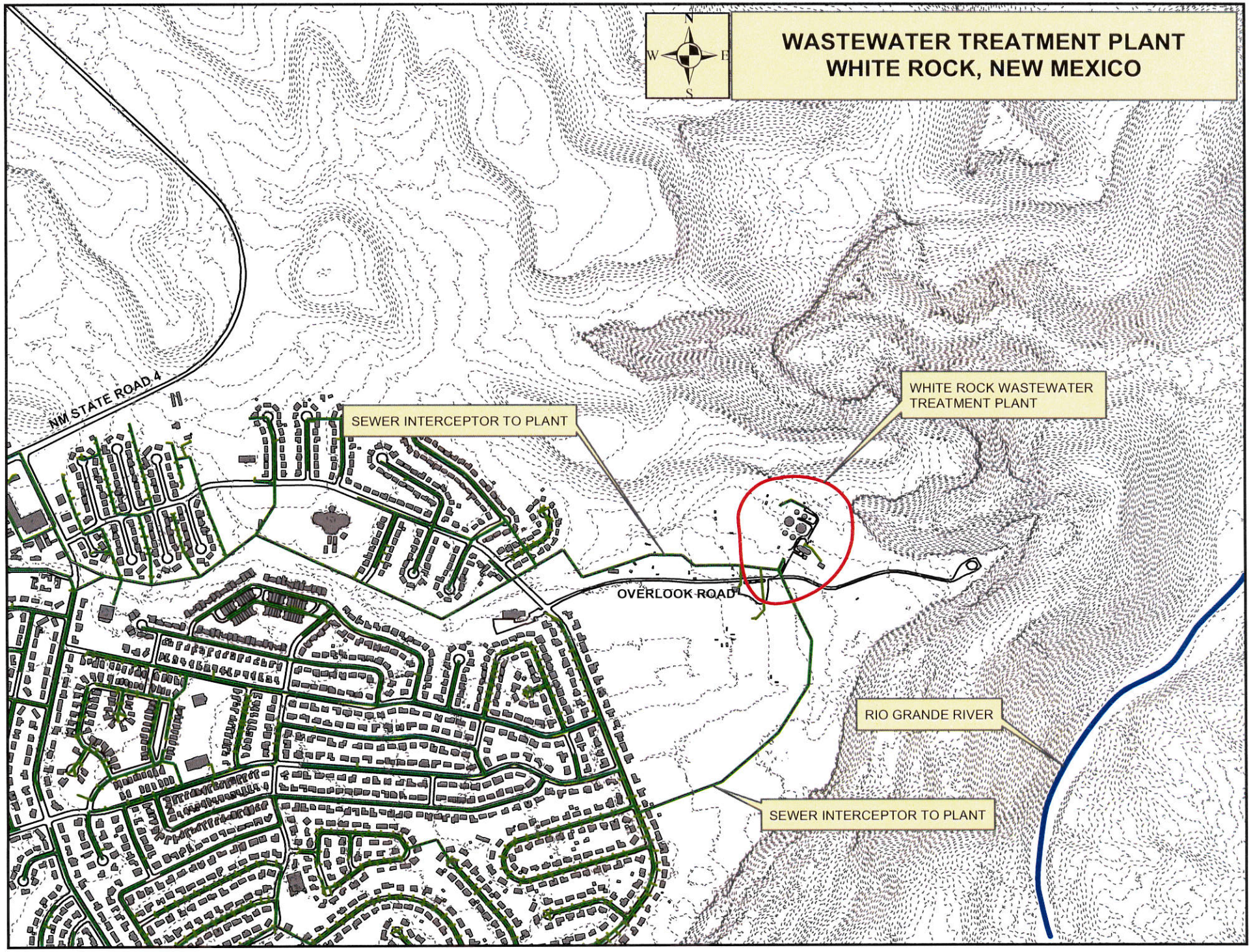
- Critical facilities
- 10FT Contour Intervals
- NHD FLOWLINES: StreamRiver
- Streets / Roads
- Los Alamos County Pathways
- NHD AREA FEATURES: StreamRiver
- Inundation Area
- LAND OWNERSHIP: Los Alamos County
- BIA - San Ildefonso

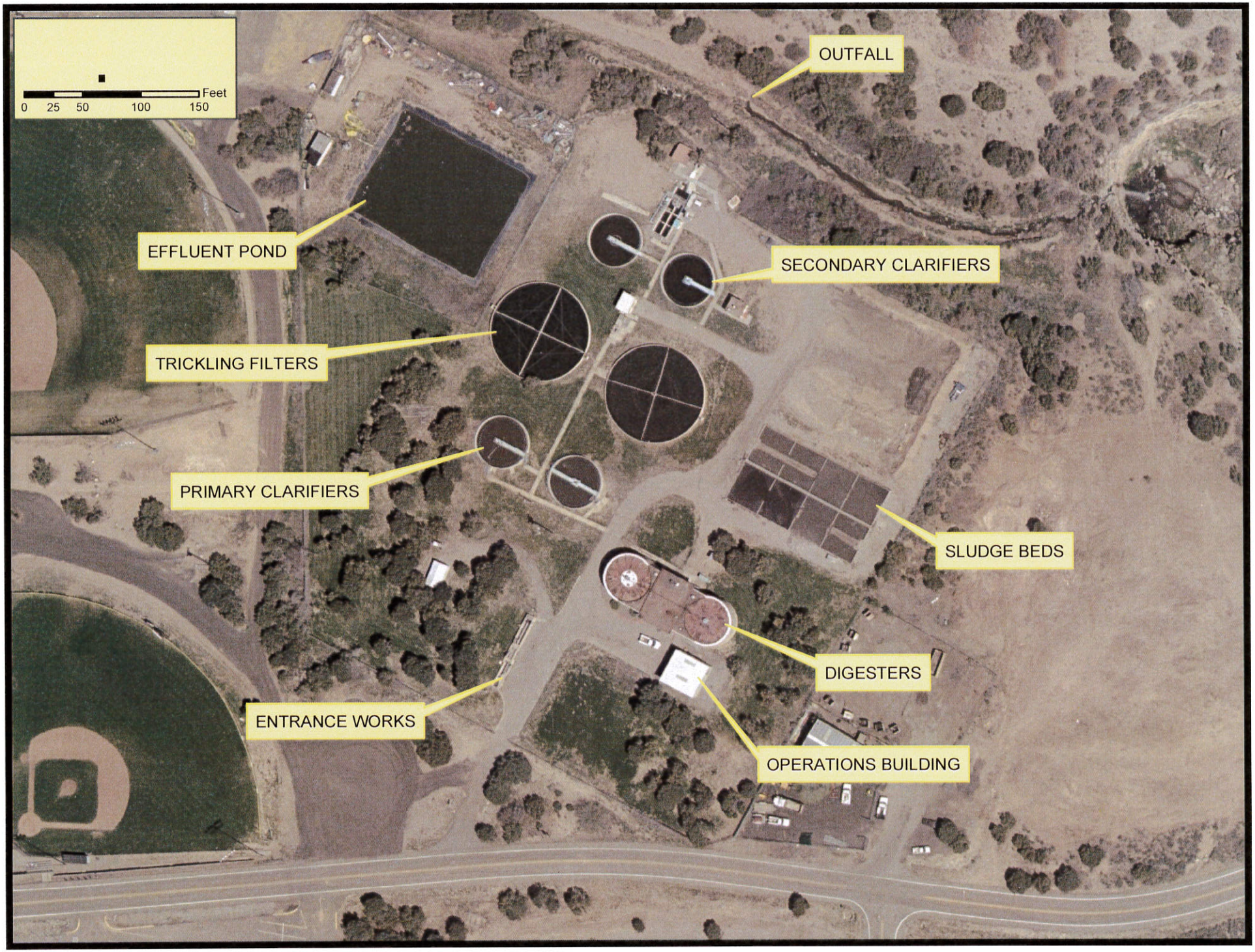
N W E S

1:5,280
1 inch = 440 feet

Los Alamos County Utilities

Date: 1/25/2016
Aerial photography from 2014


N
W
E
S
WASTEWATER TREATMENT PLANT
WHITE ROCK, NEW MEXICO
NM STATE ROAD 4
SEWER INTERCEPTOR TO PLANT
WHITE ROCK WASTEWATER TREATMENT PLANT
OVERLOOK ROAD
RIO GRANDE RIVER
SEWER INTERCEPTOR TO PLANT


Feet
0 25 50 100 150
OUTFALL
EFFLUENT POND
SECONDARY CLARIFIERS
TRICKLING FILTERS
PRIMARY CLARIFIERS
SLUDGE BEDS
DIGESTERS
ENTRANCE WORKS
OPERATIONS BUILDING

DESIGN CRITERIA

DESIGN FLOWS

AVERAGE DAILY FLOW (ADF)	=	0.5 MGD
PEAK HOUR FLOW (PHF)	=	1.0 MGD

INFLUENT CHARACTERISTICS

BIOLOGICAL OXYGEN DEMAND (BOD)	=	325 MG/L
AVERAGE BOD LOADING	=	1,360 LBS/DAY
TOTAL SUSPENDED SOLIDS (TSS)	=	300 MG/L
AVERAGE TSS LOADING	=	1,250 LBS/DAY
TOTAL KJELDAHL NITROGEN (TKN)	=	54 MG/L
AVERAGE TKN LOADING	=	225 LBS/DAY

EFFLUENT REQUIREMENTS

BIOLOGICAL OXYGEN DEMAND (BOD)		< 10 MG/L
TOTAL SUSPENDED SOLIDS (TSS)		< 10 MG/L
TOTAL NITROGEN (TN)		< 10 MG/L
AVERAGE EFFLUENT TURBIDITY	=	3 NTU
DAILY MAXIMUM EFFLUENT TURBIDITY	=	5 NTU
AVERAGE EFFLUENT FECAL COLIFORM		< 5 MPN/ 100 ML
MONTHLY MAXIMUM EFFLUENT FECAL COLIFORM	=	23 MPN/100 ML

INFLUENT FLOW MEASUREMENT

TYPE	PARSAL FLURE
SIZE	6"
CAPACITY	0.03 - 2.5 MGD

HEADWORKS

MECHANICAL SCREENS	
QUANTITY	2 (1 DUTY/1 STANDBY)
OPENING SIZE	2MM
CAPACITY	1 MGD (EACH)
TYPE	ROTARY DRUM
MOTOR SIZE	2 HP (EACH)
VORTEX GRIT TRAP	
QUANTITY	1
DESIGN CAPACITY	1.0 MGD
DIAMETER	8'-0"
PERFORMANCE AT DESIGN FLOW	95% OF 140 MESH
GRIT PUMP	
QUANTITY	1
TYPE	SELF PRIMING
CAPACITY	150 GPM @ 17 FT TDH
MOTOR SIZE	5 HP
GRIT WASHER:	
QUANTITY	1
CAPACITY	150 GPM
MOTOR SIZE	1 HP (AGITATOR); 2 HP (AUGER)
MAX WATER CONTENT	<10%
MAX ORGANIC CONTENT	<5%

OXIDATION DITCH - BNR

ANOXIC BASIN	
QUANTITY	1
SIZE	31'-6" x 45'-0"
VOLUME	0.13 MGD
LIQUID DEPTH	12'-0"
ANOXIC BASIN MIXERS	
QUANTITY	1 DUTY(+1 STANDBY SHELF SPARE)
TYPE	SUBMERSIBLE MIXER
SIZE	5.6 HP
AEROBIC BASIN	
QUANTITY	1
SIZE	122' x 40'
VOLUME	VOLUME 0.45 MGD
LIQUID DEPTH	12'-0"
DESIGN MLSS	4,000 MG/L
AEROBIC BASIN DESIGN SRT	14 DAYS
AEROBIC BASIN AERATORS	
QUANTITY	2 (1 DUTY+1 STANDBY)
TYPE	VERTICAL SUBMERSIBLE AERATORS
SIZE	50 HP
OXYGEN TRANSFER	85 LBS/O2/HR (EACH)

SECONDARY CLARIFIERS

QUANTITY	2 (1 DUTY+1 STANDBY)
TYPE	CIRCULAR
DIAMETER	40'-0"
LIQUID DEPTH	14'-0"
OVERFLOW RATE @ ADF	400 GPD/FT²
OVERFLOW RATE @ PHF	800 GPD/FT²

RAS PUMPS

QUANTITY	3 (2 DUTY+1 STANDBY)
TYPE	HORIZONTAL CENTRIFUGAL
CAPACITY	270 GPM @ 15' TDH (EACH)
MOTOR SIZE	2.0 HP (EACH)

WAS/SCUM PUMPS

QUANTITY	3 (2 DUTY+1 STANDBY)
TYPE	PROGRESSIVE CAVITY
CAPACITY	35 GPM @ 46' TDH
MOTOR SIZE	3.0 HP (EACH)

TERTIARY FILTERS

QUANTITY	2 (1 DUTY+1 STANDBY)
CAPACITY	1 MGD (EACH)
TYPE	DISK FILTER
MOTOR SIZE	0.5 HP
MAX LOADING RATE	6.5 GPM/FT²
BACKWASH PUMP CAPACITY	130 GPM @ 24 FT TDH
MOTOR SIZE	2 HP (EACH)

UV DISINFECTION

NO OF CHANNELS	2 (1 DUTY+1 STANDBY)
NO OF MODULES	2 PER CHANNEL
NO OF LAMPS PER CHANNEL	16
TYPE	IN CHANNEL - INCLINED (LOW PRESSURE)
DESIGN TRANSMITTANCE	55%
MIN DOSE	80 MJ/CM²

UTILITY WATER PUMPS

QUANTITY	3 (2 DUTY+1 STANDBY)
TYPE	MULTI STAGE CENTRIFUGAL
CAPACITY	100 GPM @ 110 PSIG
MOTOR SIZE	10 HP (EACH)

HYPOCHLORITE GENERATION SYSTEM

QUANTITY	1
CAPACITY	600 GPD @ 0.7%
STORAGE SIZE	550 GALLONS

SOLIDS HOLDING TANKS

QUANTITY	2
DIAMETER	40'-0"
LIQUID LEVEL (MIN-MAX)	4'-0" TO 16'-0" (SWD)
VOLUME (WORKING)	117,000 GALLONS (EACH)
HRT (TOTAL)	17 DAYS
MIXING/ AERATION	
QUANTITY	4 (2 PER TANK)
TYPE	JET MIX ASPIRATOR PUMPS
CAPACITY	1,020 GPM @ 61 FT TDH
OXYGEN TRANSFER	45 LBS O_2/HR (EACH)
SIZE	30.2 HP (EACH)

SOLIDS DEWATERING EQUIPMENT

QUANTITY	1
TYPE	VOLUTE PRESS
SOLIDS FEED CONCENTRATION	1%
SOLIDS FEED RATE	650 LBS/HR
MAX. HYDRAULIC FEED RATE	130 GPM (<1%SOLIDS)
MIN SOLIDS CAKE	15%
MOTOR SIZE	2.2 HP (2 DRIVE MOTORS); 1.0 HP (FLOC TANK MOTOR)

DEWATERING PUMPS

QUANTITY	1
TYPE	PROGRESSIVE CAVITY
CAPACITY	70 GPM @ 60 PSI
MOTOR SIZE	5 HP

PLANT DRAIN PUMPS

QUANTITY	2 (1 DUTY+1 STANDBY)
TYPE	DRY PIT SUBMERSIBLE
CAPACITY	280 GPM @ 29' TDH
MOTOR SIZE	5 HP (EACH)

811 Know what's below. Call before you dig.

BENCH MARKS

ENGINEER'S SEAL

JUSTIN R. LOGAN NEW MEXICO 15875 LICENSED PROFESSIONAL ENGINEER

AS-BUILT INFORMATION: CONTRACTOR / DATE; WORK SURVEYED BY / DATE; INSPECTORS ACCEPTANCE BY / DATE; FIELD VERIFICATION BY / DATE; DRAWINGS CORRECTED BY / DATE

REVISIONS: NO. | DATE | BY

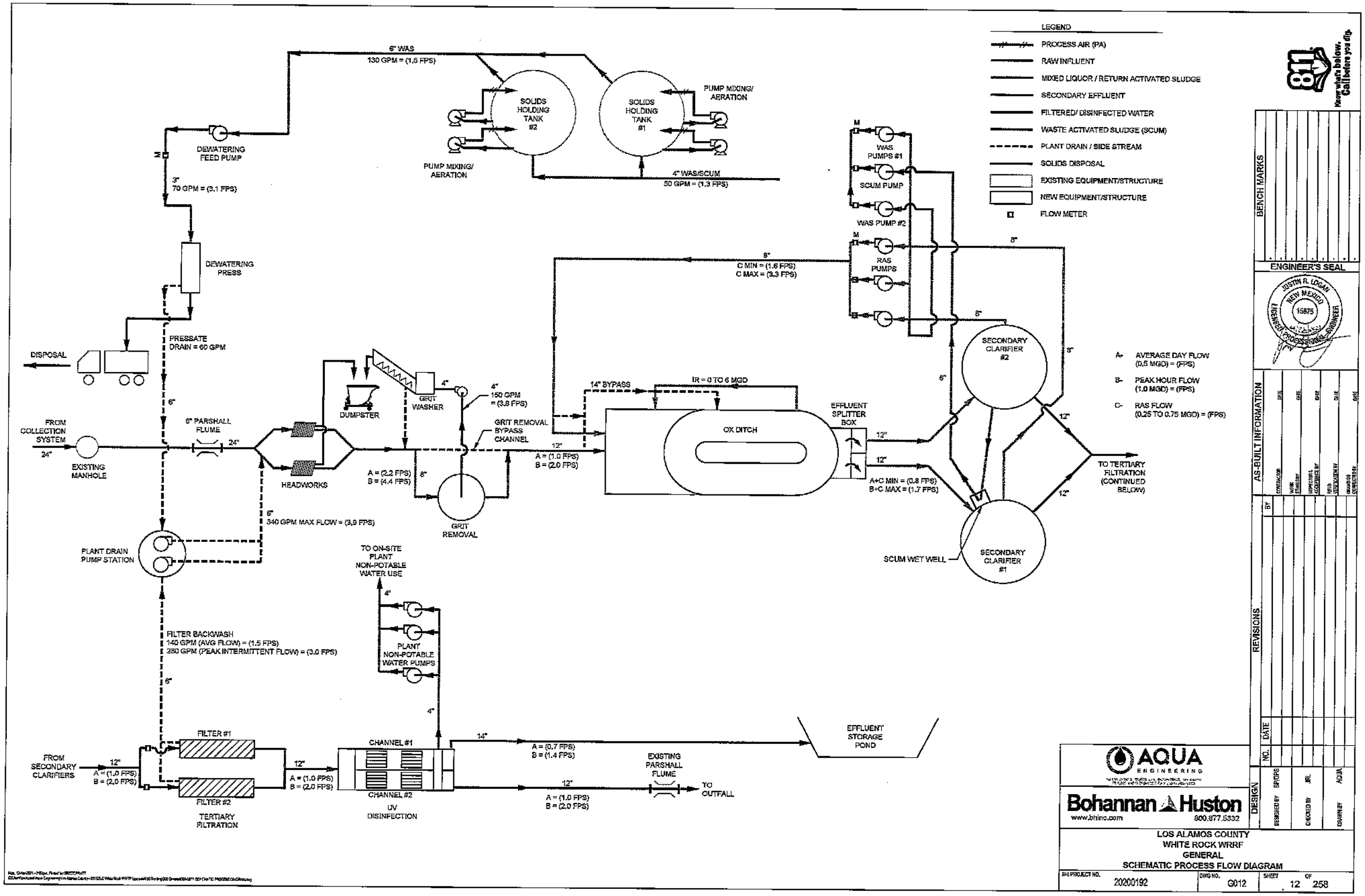
DESIGN: DESIGNED BY BP/DPS; CHECKED BY JRL; DRAWN BY AQUA

AQUA ENGINEERING

Bohannan Huston www.bhinc.com 800.877.5332

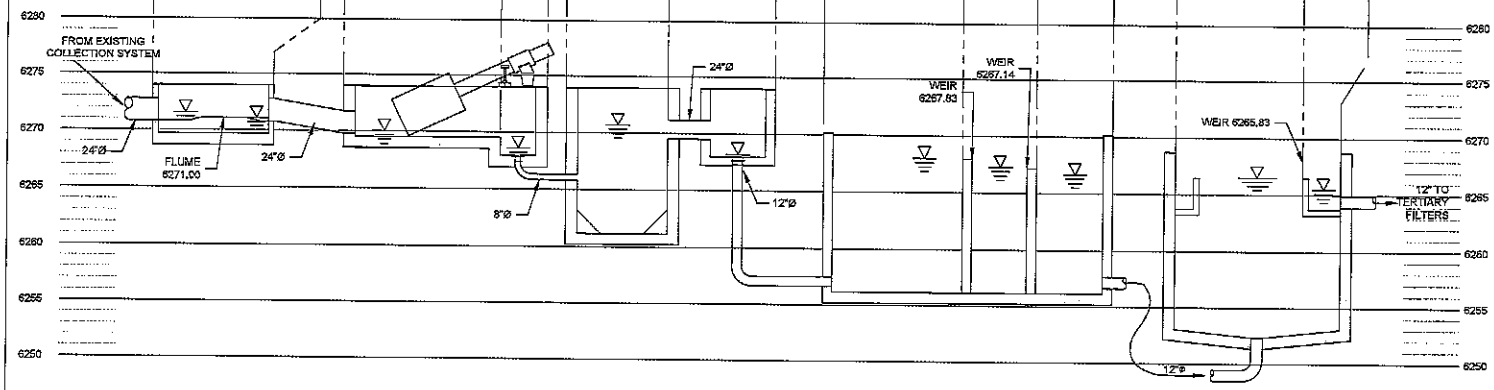
LOS ALAMOS COUNTY
WHITE ROCK WRRF
GENERAL
PROCESS DESIGN CRITERIA SUMMARY

BHI PROJECT NO. 20200192 | DWG NO. G011 | SHEET 11 OF 258

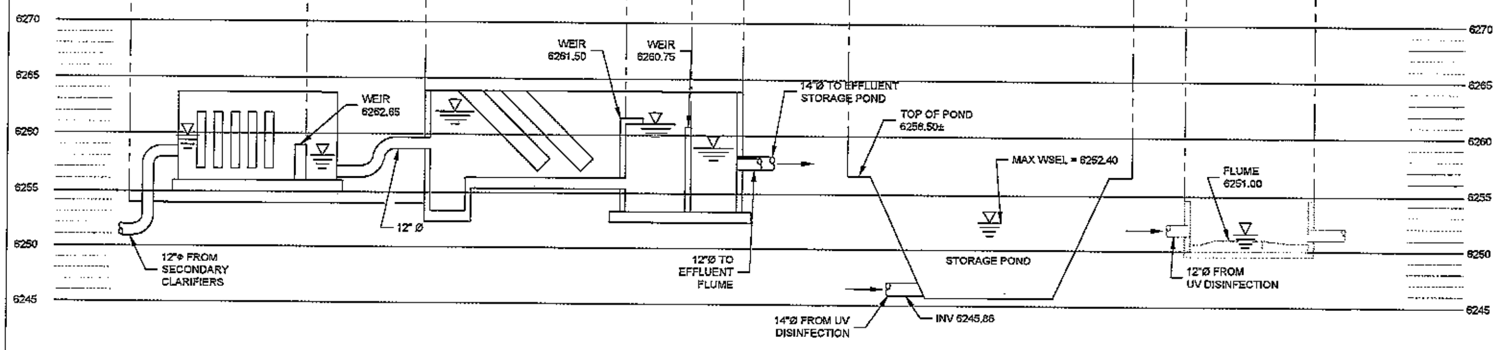

LEGEND
PROCESS AIR (PA)
RAW INFLUENT
MIXED LIQUOR / RETURN ACTIVATED SLUDGE
SECONDARY EFFLUENT
FILTERED/ DISINFECTED WATER
WASTE ACTIVATED SLUDGE (SCUM)
PLANT DRAIN / SIDE STREAM
SOLIDS DISPOSAL
EXISTING EQUIPMENT/STRUCTURE
NEW EQUIPMENT/STRUCTURE
FLOW METER
A- AVERAGE DAY FLOW (0.5 MGD) = (FPS)
B- PEAK HOUR FLOW (1.0 MGD) = (FPS)
C- RAS FLOW (0.25 TO 0.75 MGD) = (FPS)
6" WAS
130 GPM = (1.5 FPS)
SOLIDS HOLDING TANK #2
SOLIDS HOLDING TANK #1
PUMP MIXING/ AERATION
4" WAS/SCUM
50 GPM = (1.3 FPS)
DEWATERING FEED PUMP
3"
70 GPM = (3.1 FPS)
DEWATERING PRESS
PRESSATE DRAIN = 60 GPM
DISPOSAL
WAS PUMPS #1
SCUM PUMP
WAS PUMP #2
RAS PUMPS
8"
C MIN = (1.6 FPS)
C MAX = (3.3 FPS)
SECONDARY CLARIFIER #2
SECONDARY CLARIFIER #1
SCUM WET WELL
TO TERTIARY FILTRATION (CONTINUED BELOW)
FROM COLLECTION SYSTEM
24"
EXISTING MANHOLE
6" PARSHALL FLUME
HEADWORKS
DUMPSTER
GRIT WASHER
4"
150 GPM = (3.8 FPS)
GRIT REMOVAL BYPASS CHANNEL
GRIT REMOVAL
A = (2.2 FPS)
B = (4.4 FPS)
14" BYPASS
IR = 0 TO 6 MGD
OX DITCH
12"
A = (1.0 FPS)
B = (2.0 FPS)
EFFLUENT SPLITTER BOX
A+C MIN = (0.8 FPS)
B+C MAX = (1.7 FPS)
6"
340 GPM MAX FLOW = (3.9 FPS)
PLANT DRAIN PUMP STATION
FILTER BACKWASH
140 GPM (AVG FLOW) = (1.5 FPS)
280 GPM (PEAK INTERMITTENT FLOW) = (3.0 FPS)
TO ON-SITE PLANT NON-POTABLE WATER USE
PLANT NON-POTABLE WATER PUMPS
FROM SECONDARY CLARIFIERS
FILTER #1
FILTER #2
TERTIARY FILTRATION
CHANNEL #1
CHANNEL #2
UV DISINFECTION
14"
A = (0.7 FPS)
B = (1.4 FPS)
EFFLUENT STORAGE POND
EXISTING PARSHALL FLUME
TO OUTFALL
811 Know what's below. Call before you dig.
BENCH MARKS
ENGINEER'S SEAL
JUSTIN R. LOGAN
NEW MEXICO
15875
LICENSED PROFESSIONAL ENGINEER
AS-BUILT INFORMATION
REVISIONS
NO. DATE BY
DESIGN
DESIGNED BY BP/DPS
CHECKED BY JRL
DRAWN BY AQUA
AQUA ENGINEERING
Bohannan Huston
www.bhinc.com
800.877.5332
LOS ALAMOS COUNTY
WHITE ROCK WRRF
GENERAL
SCHEMATIC PROCESS FLOW DIAGRAM
BHI PROJECT NO. 20200192
DWG NO. G012
SHEET 12 OF 258

HYDRAULIC PROFILE

	PARSHALL FLUME		SCREENS *		GRIT TRAP *		OXIDATION DITCH	SPLITTER BOX		SECONDARY CLARIFIERS	
A	6271.54	6271.08	6270.02	6268.61	6268.55	6268.14	6267.97	6267.28	6265.95	6265.88	6264.51
B	6271.83	6271.21	6271.07	6271.01	6269.83	6269.21	6268.06	6267.50	6266.81	6265.92	6265.07**
TOP OF WALL	6274.00±		6274.00				6270.17			6268.75	
FINISHED FLOOR	-		6269.50	6268.00	6261.17	6268.00	6256.17			6251.92	N/A



	TERTIARY FILTERS		UV DISINFECTION ***				STORAGE POND	EFFLUENT FLUME
A	6264.37	6261.65	6261.54		6260.97	6251.88	-	6251.54
B	6264.54	6262.02	6261.58		6261.09	6252.35	-	6251.83
TOP OF WALL	6266.58		6263.88				-	6254.50
FINISHED FLOOR	6255.33		6253.21	6256.21	6251.55		-	-



LEGEND:
A = AVERAGE FLOW (0.5 MGD)
B = PEAK HOURLY FLOW (1.0 MGD)

* INCLUDING AVERAGE RETURN FLOW OF 140 GPM AND PEAK RETURN FLOW OF 280 GPM

** NOTE THAT THE MAX WSEL IS 6265.59 AND OCCURS WHEN FLOW IS ROUTED THROUGH THE TERTIARY FILTERS OVERFLOW

*** WSEL FOR EFFLUENT DISCHARGE TO EFFLUENT STORAGE PONDS (1)
WSEL FOR FUTURE DISCHARGE TO EXISTING TRICKLING FILTERS (2)

	A	B	NOTE
(1)	6252.60	6252.99	-
(2)	6260.21	6260.64	MAX WSEL 6260.00

811 Know what's below. Call before you dig.

BENCH MARKS

ENGINEER'S SEAL
JUSTIN R. LOGAN
NEW MEXICO
15875
LICENSED PROFESSIONAL ENGINEER

AS-BUILT INFORMATION

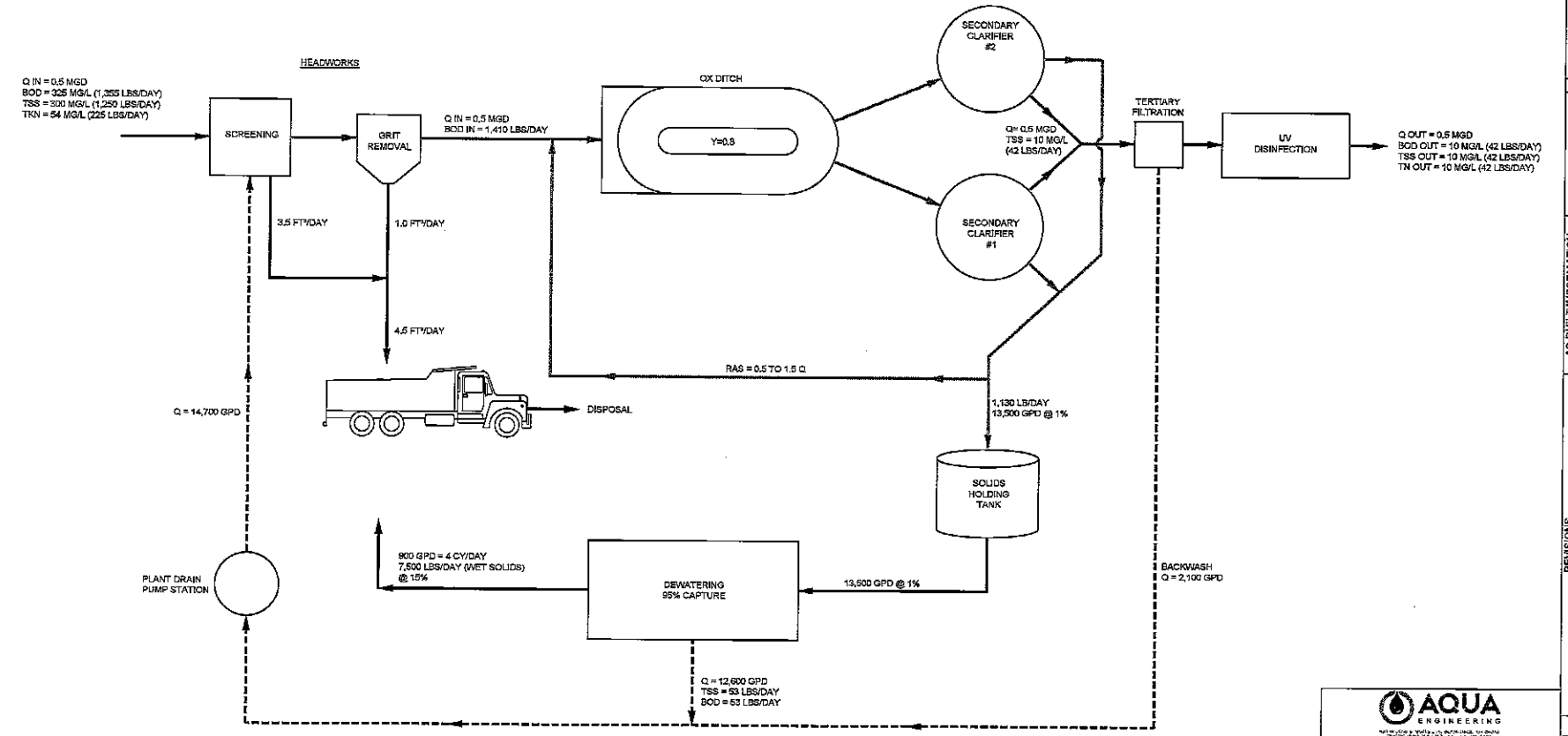
REVISIONS
NO. DATE BY

AQUA ENGINEERING
Bohannan Huston
www.bhinc.com 800.877.5332

DESIGN
DESIGNED BY DCS
CHECKED BY JRL
DRAWN BY AQUA

LOS ALAMOS COUNTY
WHITE ROCK WRRF
GENERAL
HYDRAULIC PROFILE

BHI PROJECT NO. 20200192
DWG NO. G013
SHEET 13 OF 258



811 Know what's below. Call before you dig.

BENCH MARKS

ENGINEER'S SEAL

JUSTIN R. LOGAN NEW MEXICO 15875 LICENSED PROFESSIONAL ENGINEER

AS-BUILT INFORMATION

BY	DATE	CONTRACTOR	DATE
		PLANS STAMPED BY	DATE
		INSPECTOR ACCEPTING BY	DATE
		FIELD SUPERVISOR	DATE
		ENGINEER DESIGNEE	DATE

REVISIONS

NO.	DATE	BY

DESIGN

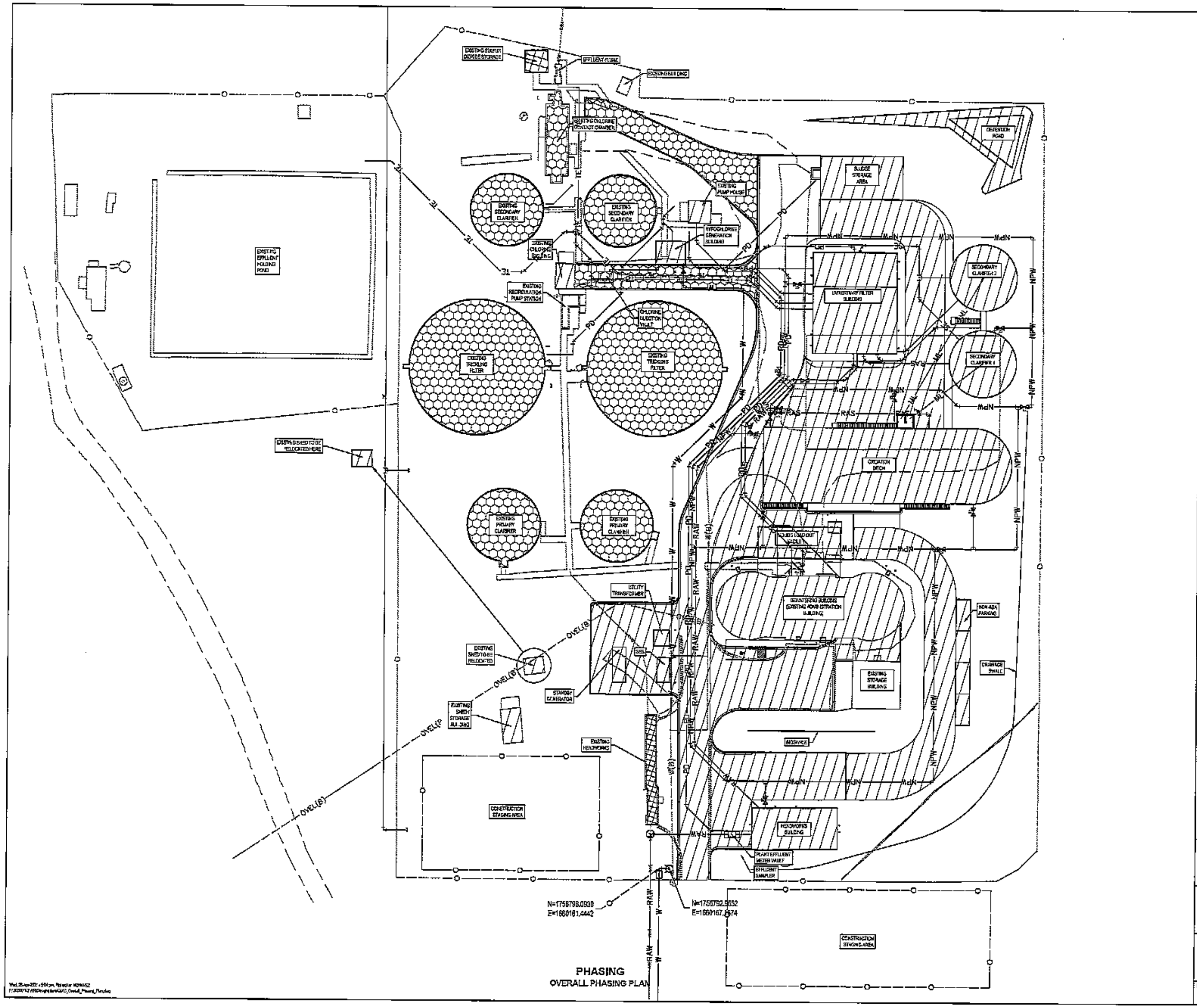
DESIGNED BY	CHECKED BY	DRAWN BY
BF	JRL	AQUA

AQUA ENGINEERING

Bohannan Huston
www.bhinc.com 800.877.5332

LOS ALAMOS COUNTY
WHITE ROCK WRRF
GENERAL
MASS BALANCE

BHI PROJECT NO.	DWG NO.	SHEET	OF
20200192	G014	14	258



PHASING
OVERALL PHASING PLAN

PHASING REQUIREMENTS

1. OPERATION OF EXISTING FACILITIES:
THE EXISTING WRRF IS OPERATIONAL AND MUST REMAIN OPERATIONAL THROUGHOUT THE CONSTRUCTION DURATION. THE PROPOSED PHASING IS PROVIDED AS GUIDANCE FOR THE CONSTRUCTION SEQUENCING. THE CONTRACTOR MUST WORK DIRECTLY WITH THE FACILITY OPERATORS TO ALLOW FOR ACCESS FOR OPERATION AND MAINTENANCE NEEDS OF THE EXISTING FACILITIES. ANY REQUIRED SHUTDOWNS OR SWITCH OVERS SHALL BE COORDINATED WITH THE OPERATORS. WHERE NECESSARY, THE CONTRACTOR SHALL DEVELOP A PLAN FOR TEMPORARY ROUTING OF FACILITIES (I.E PIPING, PUMPS, POWER AND/OR OTHER EQUIPMENT/APPURTENANCES) TO KEEP THE FACILITY IN OPERATION. COSTS ASSOCIATED WITH MAINTAINING THE FACILITY OPERATION OR FOR PROVIDING TEMPORARY FACILITY NEEDS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

2. DEWATERING BUILDING:
THE OPERATORS CURRENTLY USE THE EXISTING OFFICE BUILDING FOR BATHROOM FACILITIES, OFFICE SPACE AND LABORATORY SPACE. THE OPERATORS WILL BE REQUIRED TO VACATE THE BUILDING DURING THE RENOVATION OF THIS SPACE. THE CONTRACTOR SHALL PROVIDE WORKING SPACE IN THE FORM A ON-SITE TRAILER FOR THE OPERATORS TO USE DURING THE RENOVATION OF THE EXISTING OFFICE BUILDING. THE TRAILER SHALL PROVIDE SEPARATE OR CLOSED OFF SPACE NEEDED BY THE CONTRACTOR BUT CAN BE HOUSED WITHIN THE SINGLE TRAILER. THE CONTRACTOR SHALL ALLOW THE LAC ON-SITE STAFF WITH ACCESS TO BATHROOM FACILITIES, INTERNET AND SINK/COUNTERTOPS THAT CAN BE USED AS A LABORATORY SPACE FOR SAMPLING AND TESTING.

3. ELECTRICAL SWITCHOVER:
THE LOCATION OF THE TRANSFORMER AND STANDBY GENERATOR WILL BE RELOCATED ON THE SITE. THE SWITCH OVER TO THE NEW POWER SOURCE SHALL OCCUR ONCE THE CONSTRUCTION OF THE NEW FACILITIES IN PHASE 1 ARE COMPLETE. TEMPORARY POWER MAY BE REQUIRED TO COMPLETE A PORTION OF THE PHASE 1 IMPROVEMENTS. THE ELECTRICAL SWITCHOVER SHALL OCCUR WITHIN LESS THAN A 24 HOUR PERIOD.

4. FACILITY TESTING:
CONTRACTOR MAY UTILIZE TREATED EFFLUENT FOR TESTING OF HYDRAULIC STRUCTURE PER SPEC. SECTION 331400 THE TREATED EFFLUENT USED FOR TESTING MUST BE CONVEYED TO THE HEADWORKS OF THE EXISTING FACILITY AND TREATED PRIOR TO DISCHARGE. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL PUMPS, PIPING, APPURTENANCES, POWER, LABOR, MATERIAL, ETC. TO CONVEY TREATED EFFLUENT. COST SHALL BE CONSIDERED INCIDENTAL PRIOR TO THE PROJECT.

5. STAGING AREA:
CONTRACTOR MAY UTILIZE THE AREA (S) NOTED FOR CONSTRUCTION STAGING. CONTRACTOR IS RESPONSIBLE FOR SITE SECURITY FENCING OF STAGING AREAS AND PROTECTING EQUIPMENT, MATERIAL, ETC. FOR CONSTRUCTION.

6. CONSTRUCTION WATER:
CONTRACTOR MAY UTILIZE TREATED EFFLUENT FOR CONSTRUCTION WATER AT NO COST. POTABLE WATER SHALL BE USED WHERE REQUIRED. CONTRACTOR WILL BE CHARGED FOR POTABLE WATER USAGE.

LEGEND

- PHASE 1
- PHASE 2
- PHASE 3

30 15 0 30
1"=30'

BENCH MARKS

UNITS: US SURVEY FOOT
HORIZONTAL DATUM: NAD_83(2011)(EPOCH:2010.000)
VERTICAL DATUM:NAVD88
PROJECTION: TRANSVERSE MERCATOR
STATE PLANE AND /OR UTM ZONE: NM CENTRAL / (3002)
BASIS OF BEARING: GRID BEARINGS
PROJECT COMBINED FACTOR:
0.99966392 BASED ON POINT BH 20-192-01

ENGINEER'S SEAL

TODD A. BURT
NEW MEXICO
16554
LICENSED PROFESSIONAL ENGINEER

AS-BUILT INFORMATION

	BY	DATE
CONTRACTOR		
WORK STAKED BY		
INSPECTORS ACCEPTANCE BY		
FIELD VERIFICATION BY		
DRAWINGS CORRECTED BY		

REVISIONS

NO.	DATE	

AQUA ENGINEERING

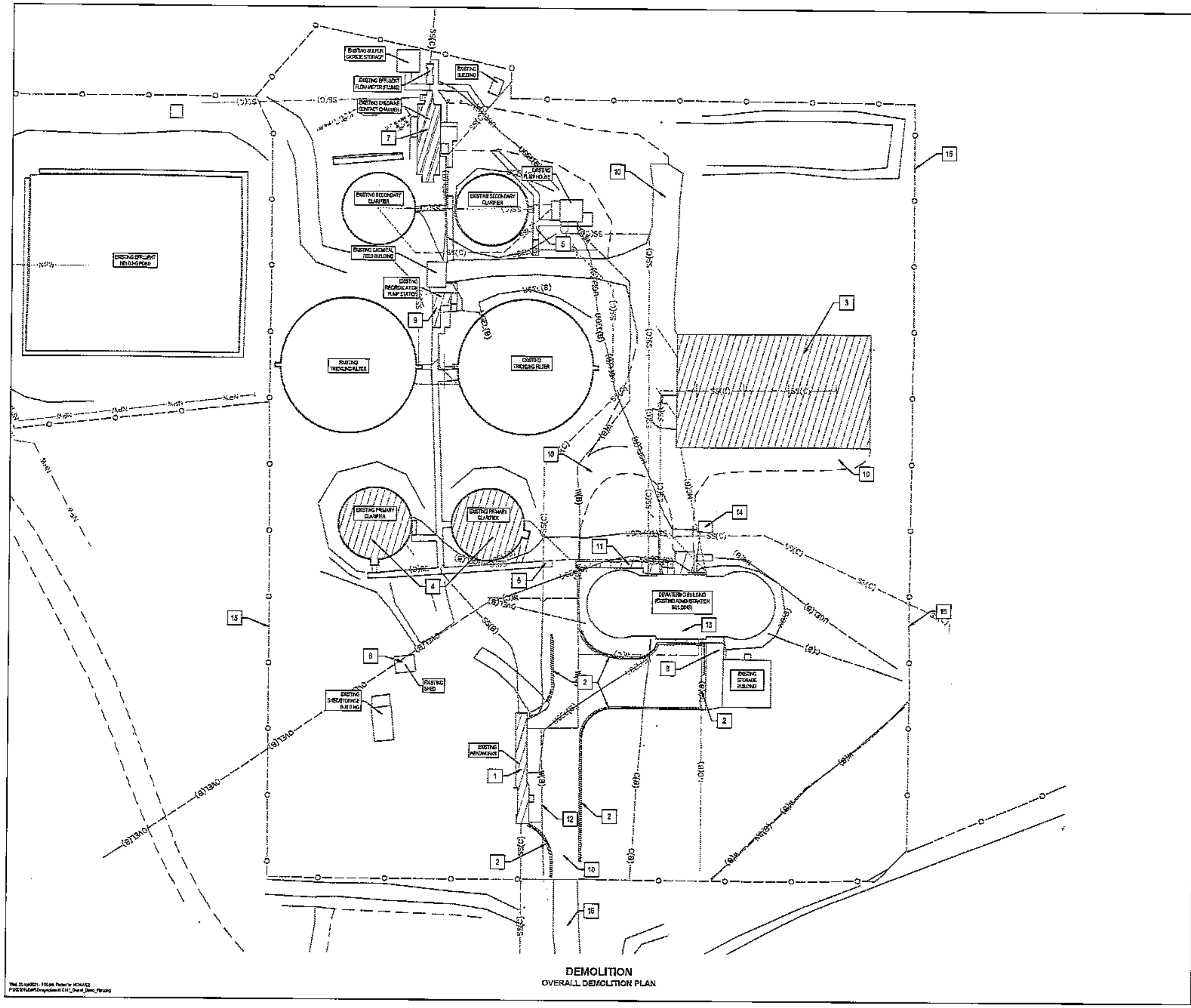
Bohannan Huston
www.bhinc.com 800.877.5332

DESIGN

DESIGNED BY	CEM
CHECKED BY	TAB
DRAWN BY	NEC

LOS ALAMOS COUNTY
WHITE ROCK WRRF
PHASING
OVERALL PHASING PLAN

BHI PROJECT NO.	DWG NO.	SHEET OF
20200192	G016	16 OF 258



DEMOLITION
OVERALL DEMOLITION PLAN

GENERAL NOTES

1. CONTRACTOR SHALL FOLLOW THE CRITERIA ESTABLISHED FOR EACH FACILITY.
2. A HAZARDOUS MATERIAL INVESTIGATION WAS CONDUCTED AND IS INCLUDED IN THE CONTRACT DOCUMENTS FOR THIS PROJECT.
3. HAZARDOUS MATERIALS SHALL BE REMOVED AND DISPOSED OF BY CONTRACTOR. AN ALLOWANCE HAS BEEN PROVIDED IN THE CONTRACT TO COMPLETE THIS WORK.
4. CONTRACTOR MUST PREPARE A DEMOLITION PLAN AND SUBMIT TO ENGINEER FOR APPROVAL PRIOR TO COMMENCING CONSTRUCTION.

KEYED NOTES

1 EXISTING HEADWORKS TO BE ABANDONED IN PLACE. SEE DWG. 01C906.

2 EXISTING CURB TO BE REMOVED AND REPLACED WITH 6" MEDIAN CURB & GUTTER PER NMPWSS STD. DWG. 2415B.

3 EXISTING SLUDGE DRYING BEDS TO BE DEMOLISHED.

4 EXISTING PRIMARY CLARIFIERS TO BE ABANDONED IN PLACE. SEE DWG. 01C903.

5 EXISTING SIDEWALK TO REMAIN AND TIED TO PROPOSED ROAD, SEE GRADING PLAN ON DWG. 1C401.

6 RELOCATE EXISTING BUILDING. SEE DWG. 01C201 AND 01C202. REMOVE AND DISPOSE OF EXISTING CONCRETE PAD.

7 EXISTING CHLORINE CONTACT CHAMBER TO BE ABANDONED-IN-PLACE. SEE DWG. 01C902.

8 CUT EXISTING CONCRETE SIDEWALK AND INSTALL ASPHALT. SEE DWG. 01C201.

9 EXISTING RECIRCULATION PUMP STATION TO BE ABANDONED IN PLACE. SEE DWG. 1C904.

10 EXISTING ROADWAY TO BE REMOVED AND REPLACED SEE DWG 01C401 AND 01C402.

11 EXISTING SIDEWALK TO BE REMOVED.

12 POTABLE WL TO BE RELOCATED AS SHOWN ON DWG. 01C501. EXISTING POTABLE WL SHALL BE ABANDONED IN PLACE.

13 DEWATERING BUILDING TO BE RENOVATED. SEE ARCHITECTURAL DRAWINGS.

14 EXISTING TRANSFORMER TO REMAIN OPERATIONAL UNTIL NEW FACILITIES ARE ACCEPTED TO DISCHARGE EFFLUENT OFFSITE. LOS ALAMOS COUNTY DPU TO REMOVE AND DISPOSE TRANSFORMER AFTER TRANSFER IS COMPLETE.

15 EXISTING FENCE LINE. DO NOT DISTURB.

16 SEE DWG. 01C404 AND 01C405 FOR OFFSITE DEMOLITION AND IMPROVEMENTS.

LEGEND

DEMO / ABANDON-IN-PLACE

30 15 0 30
1"=30'

BENCH MARKS

UNITS: US SURVEY FOOT
HORIZONTAL DATUM: NAD_83(2011)(EPOCH:2010.000)
VERTICAL DATUM:NAVD88
PROJECTION: TRANSVERSE MERCATOR
STATE PLANE AND/OR UTM ZONE: NM CENTRAL / (3002)
BASIS OF BEARING: GRID BEARINGS
PROJECT COMBINED FACTOR:
0.99960382 BASED ON POINT BH 20-102-01

ENGINEER'S SEAL

TODD A. BURT
NEW MEXICO
15654
LICENSED PROFESSIONAL ENGINEER

AS-BUILT INFORMATION

CONTRACTOR	DATE
WORK STAKED BY	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
FIELD VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE

REVISIONS

NO.	DATE		BY

DESIGN

DESIGNED BY	CEM
CHECKED BY	TAB
DRAWN BY	NEC

AQUA ENGINEERING

Bohannan ▲ Huston
www.bhinc.com 800.877.5332

LOS ALAMOS COUNTY
WHITE ROCK WRRF
DEMOLITION
OVERALL DEMOLITION PLAN

BHI PROJECT NO.	DWG NO.	SHEET
20200192	01C101	17 OF 258