

Region 6 - Enforcement & Compliance Assurance Division
INSPECTION REPORT

Inspection Date(s):	08/20/2024	
Media Program:	Water	
Regulatory Program(s)	NPDES	
Company Name:	City of Rio Rancho	
Facility Name:	City of Rio Rancho Wastewater Treatment Plant #2	
Facility Physical Location:	100 Industrial Park Loop	
(city, state, zip code)	Rio Rancho, New Mexico 87144	
Mailing address:	3200 Civic City Circle	
(city, state, zip code)	Rio Rancho, New Mexico 87144	
County/Parish:	Sandoval	
Facility Phone Number	505-896-8736	
Facility Contact:	Jim Chiasson	Utilities Director
	rchiasson@rrnmn.gov	
FRS Number:	110022872346	
Identification/Permit Number:	NM0027987	
Media Identifier Number:	NA	
NAICS:	221320	
SIC:	4952	
Personnel participating in inspection:		
Ruben Aranda	Jacobs (consultant)	Regional Health & Safety
Dennis Gonzales	Jacobs (consultant)	Project Manager
Bill Jacquez	Jacobs (consultant)	Compliance Coordinator
Ricardo Sanchez	Jacobs (consultant)	Lead Operator
Beatriz Salazar-Archuleta	NMED	Intern
Shawnee Suazo	NMED	Inspector
Emily Yurk	EPA-R6/ECDWM	Inspector/Enforcement Officer
David A Esparza	EPA-R6/ECDWM	Environmental Engineer
EPA Lead Inspector Signature/Date	DAVID ESPARZA Digitally signed by DAVID ESPARZA Date: 2024.09.17 16:28:05 -06'00' David Esparza Date	
Supervisor Signature/Date	ROBERTO BERNIER Digitally signed by ROBERTO BERNIER Date: 2024.09.26 13:16:20 -05'00' Roberto Bernier Date	

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

EPA Region 6 inspectors David Esparza, PE, and Ms. Emily Yurk, accompanied by Ms. Shawnee Suazo and Ms. Beatriz Salazar-Archuleta from the New Mexico Environment Department (NMED), arrived at the City of Rio Rancho (Rio Rancho) Wastewater Treatment Plant (WWTP) at 8:50 AM (MST) on August 20, 2024, for an unannounced inspection. I met with their contract consultants: Jacobs Engineering Group representatives Mr. Bill Jacquez; Compliance Coordinator, Mr. Dennis Gonzales; Wastewater Supervisor, Mr. Ruben Aranda; Regional Health & Safety and Mr. Ricardo Sanchez; Lead Operator. I presented my credentials and informed them that this was an EPA inspection to determine the WWTP's compliance under the Clean Water Act (CWA) and Rio Rancho's National Pollutant Discharge Elimination System (NPDES) permit. The generation of this report is based on information supplied by Rio Rancho representatives, observations made by the United States Environmental Protection Agency (US EPA) inspector, and records and reports maintained by the permittee (Rio Rancho), and the US EPA. Before leaving the facility, an exit briefing was held with the above-mentioned contract representatives, to explain areas of concern noted at the time of the inspection.

FACILITY DESCRIPTION

The WWTP #2 is a major discharger with a pre-treatment program and permitted flow of 8.8 million gallons per day (MGD) (currently operating at approximately 4.8 MGD) and is located at 100 Industrial Park Loop NE, Sandoval County, New Mexico (depicted in **Aerial Image 1** below). The WWTP facility serves a population of approximately 102,000 residents. The WWTP facility is currently operated under a contract agreement with Jacobs Engineering Group (formerly CH2M, now a subsidiary of Jacobs) (for design, build and operations), 24-hours per day, 7 days per week and consists of a staff of 10 full-time equivalent (FTE) positions for wastewater and 7 FTEs for collections (i.e. gravity sewers, pumping stations, force mains and other sewer conveyance methods).

A Supervisory Control and Data Acquisition (SCADA) system provides around the clock monitoring of WWTP operations. After entering the WWTP facility via a series of 27 lift stations (LS) (Identified in **Table 1** below).

Table 1: City of Rio Rancho Lift Stations

Lift Station #	Location by Address	Comment
1	4906 Dolores Hildago SE	
2	2451 Southern Blvd. SE	Lift station will have full upgrade and relocated North of current location (2451 Southern Blvd. SE)
3	301 Southern Blvd.	
4	Inca & Hondo	
5	1025 Sunflower SW	See note below
6	Alpine & Riverview Rd.	
7	7400 Hapsburg NE	
8	South of WWTP #3	Located on the west side of the canal
9	Sue Cleveland High School	

Lift Station #	Location by Street Address	Comment
10	Highway 528	This LS is located behind the Walgreens/Pinehurst
11	8011 Montoya Rd.	This LS is in the proximity of Walmart
12	OFFLINE	This LS was replaced by LS-14.2 and was closed in place.
13	1650 Riverside Drive	Located at WWTP #3
14.2	WWTP #2 by west gate	SCADA update is planned
15	1385 Hwy 528	VFDs will be installed along with new pumps and odor Control. (1385 Hwy 528)
16	2006 Grande Blvd. SE	
17	1057 Joshua Dr SE	See note below
18	1420 Sara Way SE	
19	1712 Prairie Sage Way SE	
20	7059 Westphalia Blvd. NE	
21	1650 Riverside Drive	New panel and pumps were installed along with VFDs. A new wet well and odor control will be installed in the coming years. (1650 Riverside Drive (WWTP #3). SCADA update is also planned
22	Hwy 528 & Obregon Rd NE	Lift station will have a full upgrade along with wet well. (Hwy 528 and Obregon Rd NE)
23	4903 Chaco Loop NE	
24	2300 Westside Blvd. SE	
25	3655 Hanley Rd. NE	Located at WWTP #5
26	Blue Grama Rd.	
27	4300 Sara Rd. SE	
28	21 st and 12 th	

Note: Every lift station will have back up power or quick connections, **besides** LS- 5 (1025 Sunflower SW) and LS-17 (1057 Joshua SE)

WWTP #2 is one (1) of several WWTPs owned or previously owned and operated by the City of Rio Rancho. Outfall 001, the outfall from WWTP #2, is the only outfall currently discharging under an NPDES permit. **Note₁:** Outfall 001 was realigned and reconstructed from an approximate perpendicular (straight) discharge into the Rio Grande to an approximate parallel configuration; thence an eventual discharge. WWTP #3 NPDES permit NM0029602, issued on June 6, 2016, was terminated on March 24, 2021. All WWTP #3 waste streams are diverted to the influent flow at WWTP #2. WWTP #1 was permanently closed (circa April 2020); with all flow pumped to the Water Reclamation Facility #6 (WRF #6). Ultra-violet (UV) and chlorination disinfection units are used at WWTP #2 (5.5 MGD) and WRF #6 (2.7 MGD), where their effluents are comingled prior to discharging to the Rio Grande at Outfall 001.

WWTP #2 (NM0027987) is comprised of two separate treatment streams, 2A and 2B. Stream 2A is a Schreiber Process Unit that was built circa 1995, and consists of a bar screen, aeration basin and clarifier basin. 2B has approximately twice the treatment volume of 2A and utilizes an activated sludge treatment process with an automatic grit belt and climber screen system, anoxic basins, fine bubble aeration basins, and clarifiers. Both 2A and 2B flows recombine prior to the ultraviolet (UV) disinfection system and discharge to Outfall 001.



Aerial Image 1: Overall view of the City of Rio Rancho’s Wastewater Treatment Plant #2. Aerial from Google Earth maps.

Additionally, Rio Rancho has implemented written policies and procedures to address any potential sanitary sewer overflow events (SSOs), and standard operating procedures (SOPs) pertaining facility operations and maintenance (O&M). Furthermore, by City Ordinance, a Fats, Oils and Grease (FOG) program was enacted with respect to existing and/or new FOG contributors.

Section II - OBSERVATIONS

I observed the following and/or the following information was provided, stated on August 20, 2024, or through follow-up correspondence.

- Currently two (2) industrial users (IUs) were identified. The previously known Insight Lighting, Inc. (Insight), located at 4341 Fulcrum Way NE and the second Natures Toolbox (pharmaceuticals). However, based on information provided, Rio Rancho determined Nature’s Toolbox was no longer subject to categorical pretreatment standards and was granted an exception dated June 26, 2024. Insight Lighting, Inc. is designated by the Control Authority as a Middle Tier CIU because its categorical discharge of wastewater does not exceed the 5,000 gpd or the 0.01 percent maximum allowable headworks loading in accordance with 40 CFR 433 - Metal Finishing Point Source Category ([Subpart A- Metal Finishing Subcategory \(§§433.10-433.17\)](#)). This entity and Rio Rancho entered into an individual wastewater discharge agreement (Permit No. C24001), for the disposal of Insight’s effluent into the City’s WWTP #2 in December 2007, this 2007 agreement was revised in May 2024.
- It was stated all lift stations (LS) have back up power or quick connections, except for LS- 5 (1025 Sunflower SW) and LS-17 (1057 Joshua SE). However, those lift stations with back-up power capability are exercised on a routine basis.

- Rio Rancho provided a spreadsheet of the sanitary sewer overflows (SSOs) events- for the period of August 2022 through June 2024 indicating the utility experienced 10 SSO events, though approximately five (5) events equate to less than 400-gallons each, while three (3) events are less than 3K gallons, but the remaining two (2) events are each 10K gallons.
- The on-site laboratory pH-10 buffer had expired (July 2024).
- Rio Rancho consultants stated the sludge blanket within the treatment basins is approximately 1-foot thick and the basins were last cleaned in 2013.
- Rio Rancho consultants stated the dried sludge material is paint filter and toxicity characteristic leaching procedure (TCLP) tested prior to transport and disposal.
- Regarding the Escherichia coli (E. coli) upset in July 2024- the consultants detailed that a slide gate bearing(s) failed and resulted in a 1-day event. The bearing(s) and gate were repaired, and updated protocols were implemented to address potential mechanical failures and confirmation sampling.
- Rio Rancho utilizes three (3) banks of ultra-violet (UV) light for disinfection, two (2) banks are in-operation during the day and one (1) bank online during the night. All three (3) banks are self-cleaning, but all are manually cleaned once per week.
- Rio Rancho utilizes a sonic meter for flow measurement within a Parshall flume after UV disinfection and staff gauge as confirmation. However, the staff gauge was difficult to read and required cleaning.
- The clarifiers exhibited excessive algae growth along the weirs and the consultants stated they are washed and/or cleaned approximately once per month.
- The top 4-feet of the concrete process treatment basins associated with WWTP #1 (permanently closed circa April 2020) are currently being demolished, folded into the basin itself and backfilled.

Section III – AREAS OF CONCERN

- A review of the submitted Integrated Compliance Information System (ICIS) Discharge Monitoring Reports (DMR) data for the period January 1, 2019, through July 31, 2024, indicates NPDES permit excursions with respect to Escherichia coli (E. coli), Total Chlorine Residual (TCR), and Oil & Grease (Appendix 2 ICIS E90 Effluent Exceedances).
- Rio Rancho provided a spreadsheet of the sanitary sewer overflows (SSOs) events for the period of August 2022 through June 2024 indicating the utility experienced 10 SSO events.
- The on-site laboratory pH-10 buffer had expired (July 2024).

EPA Region 6 inspector David Esparza conducted a closing conference at the Rio Rancho WWTP#2 on August 20, 2024, for the inspection.

Section IV – FOLLOW UP

The following information was received by EPA on August 29, 2024, after exiting the Facility on August 20, 2024:

- A copy of the current WWTP site plan.
- An electronic copy of WWTP Sanitary Sewer Overflow (SSO) protocol, inclusive of all SSO events and associated work orders/work sheets for the previous two (2) years.
- An electronic copy of the WWTPs Standard Operating Procedures (SOPs) and clarification how often it is updated.
- A current copy of the WWTPs Asset Management plan.
- A current copy of the WWTPs Fats, Oils and Grease (FOG) policy.
- Electronic copies of applicable service agreements with respect to satellite communities or other entities contributing to the WWTP, i.e., Insight and Natures Toolbox.
- Identification of the quantity, location, and names of any lift stations (LS), wet wells as some are scheduled to be upgraded. Additionally, clarification which LSs have back-up power or available quick connections.

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – 5 photos taken 08/20/2024.

Appendix 2 – Rio Rancho WWTP ICIS E90 Effluent Exceedances and Sanitary Sewer Overflow (SSO) Events.

Appendix 3 – Opening and Closing conference sign-in sheets.

Appendix 1

Photograph Log



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

Location: City of Rio Rancho WWTP		
City: Rio Rancho	County/Parish: Sandoval	State: New Mexico



View of the excessive algae growth on the clarifiers along the weirs. **Note:** the consultants stated they are washed and/or cleaned approximately once per month. (DSCN2711). Photographed by E. Yurk



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: City of Rio Rancho WWTP		
City: Rio Rancho	County/Parish: Sandoval	State: New Mexico



Rio Rancho utilizes a sonic meter for flow measurement within a Parshall flume after UV disinfection and staff gauge as confirmation. However, the staff gauge was difficult to read and required cleaning. (DSCN2714). Photographed by E. Yurk



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: City of Rio Rancho WWTP		
City: Rio Rancho	County/Parish: Sandoval	State: New Mexico



View of Outfall 001 downgradient toward the Rio Grande. (DSCN2716) Photographed by E. Yurk



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Location: City of Rio Rancho WWTP		
City: Rio Rancho	County/Parish: Sandoval	State: New Mexico



View of Outfall 001 at the discharge orifice. Note: there was no evidence of aromatics, stressed vegetation, or staining (sheen). (DSCN2718) Photographed by E. Yurk

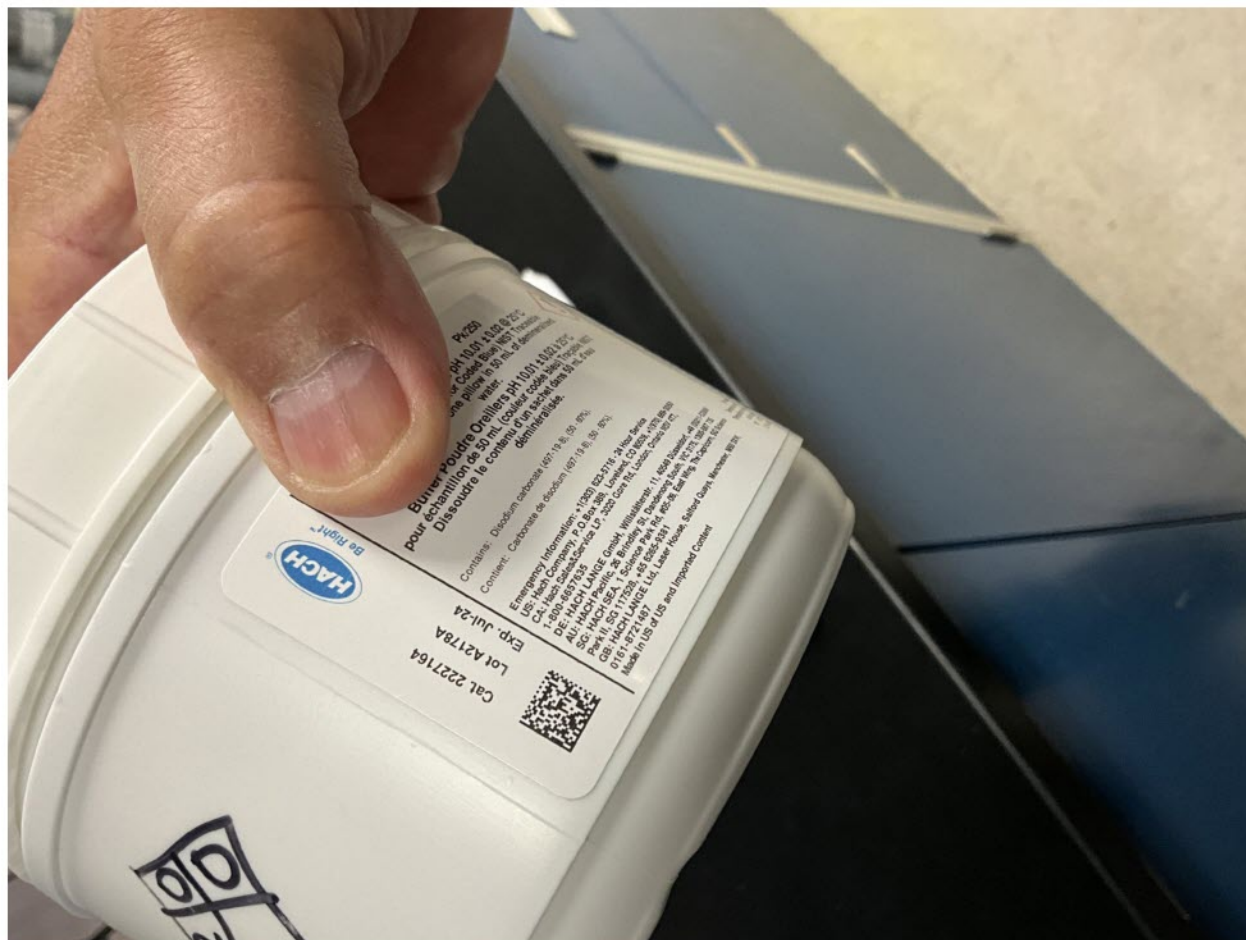


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

Location: City of Rio Rancho WWTP		
City: Rio Rancho	County/Parish: Sandoval	State: New Mexico



View of the on-site laboratory pH-10 buffer that had expired (July 2024). (IMG_0010). Photographed by D. Esparza

Appendix 2

Rio Rancho WWTP ICIS E90 Effluent Exceedances and Sanitary Sewer Overflow (SSO) Events

E90 Effluent Violations From 01/01/2019 - Present

NM0027987

RIO RANCHO, CITY OF

Monitoring Period End Date	Perm Feature ID	Limit Set Designator	Parameter Desc	Statistical Base Short Desc	Limit Unit Short Desc	Limit Value	DMR Value Qualifier Code	DMR Value	Reported Number of Excursions
09/30/2022	001	A	E. coli	DAILY MX	CFU/10	88.	=	2420.	1
10/31/2022	001	A	E. coli	DAILY MX	CFU/10	88.	=	154.	2
11/30/2022	001	A	Oil & Grease	30DA AVG	mg/L	10.	=	11.	2
11/30/2022	001	A	Oil & Grease	DAILY MX	mg/L	15.	=	38.	2
11/30/2022	CC0	1	Oil & Grease	DAILY MX	lb/d	1026.	=	1497.	1
01/31/2023	001	A	E. coli	DAILY MX	CFU/10	88.	=	108.	1
02/28/2023	001	A	Chlorine, total residual	INST MAX	ug/L	11.	=	18.	1
02/28/2023	001	A	E. coli	DAILY MX	CFU/10	88.	=	579.	1
06/30/2023	001	A	E. coli	DAILY MX	CFU/10	88.	=	115.	1
06/30/2023	601	A	Chlorine, total residual	INST MAX	ug/L	11.	=	45.	1
09/30/2023	001	A	E. coli	DAILY MX	CFU/10	88.	=	114.	1
10/31/2023	001	A	E. coli	DAILY MX	CFU/10	88.	=	110.	1
01/31/2024	601	A	Chlorine, total residual	INST MAX	ug/L	11.	=	96.	1
03/31/2024	001	A	E. coli	DAILY MX	CFU/10	88.	=	137.	1
04/30/2024	001	A	E. coli	DAILY MX	CFU/10	88.	=	135.	1
07/31/2024	001	A	E. coli	DAILY MX	CFU/10	88.	=	2076.	1

SSOs Rio Rancho, NM Permit No. NM0027987

Date	Location	Volume (Gallons)	Cause/Response
6/29/2024	Lift Station #22 NM 528 and Obregon Rd.	3,000	Junction box controlling the pumps was under water due to heavy rain fall in the area. This caused the pumps to fail. Maintenance departments were called out to restore power back to the pumps. Area was pumped, cleaned and lime was used on affected area.
6/9/2024	Lift Station #28 Manhole at 10th and Isabel	1,000	A failed power component at the lift station control panel. The power failure caused the pumps at lift station to shutdown which caused the manhole just east of the lift station to overflow. The Collections department and ICS department were called out to troubleshoot system failure and reset and repair the failed power component. Collections department cleaned area and lime was used on affected area.
5/3/2024	Lift Station #20 7001 Westphalia Blvd.	10,000	Failed power component at the lift station control panel. The power failure caused the pumps at lift station to shutdown which caused the manhole just east of the lift station to overflow. The Collections department and ICS department were called out to troubleshoot system failure and repair the failed power component. All areas were cleaned by operations and collections staff as required. Lime was also used on the affected area.
7/6/2023	Lift Station #15 1385 NM528	10,000	A VFD had failed due to a Buck Booster power failure. Maintenance Department was called out to troubleshoot the system and restore power to the lift station. The Collections Department cleaned and spread lime on the affected area.
6/4/2023	Manhole at 2715 Pinetree	200	Tree roots had clogged the main sewer line causing manhole to overflow onto the street. This was due to residential plumbing repairs and roots being flushed to the main line after homeowners had their lines repaired. Roots were then cut from main line and removed. The affected area was pumped and cleaned by vector truck.
2/25/2023	Lift Station #24 2400 Westside Ct. (WWTP #6)	200	UPS power module that controls the entire facility had failed. The power failure caused the pumps at lift station #24 to shutdown which caused the manhole just east of the lift station to overflow. Collections department and ICS department were called out to troubleshoot system failure and repair the UPS power module. All areas were cleaned by operations and collections staff as required. Lime was also used on the affected area.
11/18/2022	Lift Station #20 7001 Westphalia Blvd.	400	Pump #1 in the wet well malfunctioned. The collections department manually turned-on pump #2 to pump down the wet well. During cleanup and investigation, it was determined that pump #1 malfunctioned due to excessive debris (concrete and pieces of pipe) within the wet well. The collections department removed debris from wet well floor and cleaned the spill the flowed from the manhole just Southwest of the lift station. Area was cleaned and pumped using vector truck. Lime was used on affected area.
10/7/2022	Force Main NM 528 and Honduras	400	After investigation, a 2" split on the 14" main sewer line was found. Local contractor was called out to assess the damage and repair the line. Collections department assisted with spill cleanup with use of vector truck and dirt removal. Lime was also used on the affected area.
10/6/2022	Lift Station #10 NM 528 and Pinehurst	200	Rear door of the vector truck disengaged and opened. Approximately 200 gallons of sewage and water spilled out unto the asphalt and some sewage did flow into the street just south of Lift Station. The affected areas were cleaned immediately by collections staff starting at the street and making their way back up to the Lift Station. Lime was also used on the affected area.
8/27/2022	Lift Station #15 1385 NM528	2,000	Control power relay failed which caused the pumps to shut down. Collections Department and Maintenance Department were called out to troubleshoot system and repair the power relay. Area was pumped, cleaned and lime was used on affected area.

Appendix 3

Rio Rancho WWTP

Opening

and

Closing conference sign-in sheets.



United States Environmental Protection Agency
Region 6 – Water Enforcement Branch
1201 Elm Street, Suite 500
Dallas, Texas 75270

TIME: 8:50 a.m.
DATE: 8-20-24
SUBJECT: Compliance Evaluation Inspection (CEI): Facility Name Rio Rancho
NPDES PERMIT NO:

OPENING MEETING

NAME	TITLE	PHONE NO.	EMAIL
Emily Yurk	EPA Inspector	214-665-6792	yurk.emily@epa.gov
Shawnee Suarez	WLED Inspector	(505) 469-0987	Shawnee.Suarez@enviro.nm.gov
Beatriz Salazar - Archuleta	NMED Intern	(505) 487-0318	Beatriz.Salazar-Archuleta@nm.gov
DAVID ESPARZA	EPA-REVIEW	505 366-8404	ESPARZA.David@epa.gov
Bill Jaguez	Laboratory Compliance (Jacobs)	505/975-1557	billy.jaguez@jacobs.com
Dennis Gonzales	Project Manager	505-604-8769	Dennis.Gonzales@jacobs.com
Ruben Aranda	Regional H&S	505-290-0361	ruben.aranda@jacobs.com

Ricardo Sanchez
Lead Operator
Jacobs
505-975-1577
Ricardo.Sanchez@Jacobs.com



United States Environmental Protection Agency
Region 6 – Water Enforcement Branch
1201 Elm Street, Suite 500
Dallas, Texas 75270

TIME: 1:06 PM
DATE: 8-20-24
SUBJECT: Compliance Evaluation Inspection (CEI): Facility Name Rio Rancho
NPDES PERMIT NO:

CLOSING MEETING

NAME	TITLE	PHONE NO.	EMAIL
Emily York	EPA Inspector	214-665-6792	emily.york .emily@epa.gov
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