

Region 6 - Enforcement & Compliance Assurance Division
INSPECTION REPORT

Inspection Date(s):	01/19/2024	
Media Program:	Water	
Regulatory Program(s)	CWA	
Company Name:	Town of Taos	
Facility Name:	Taos WWTP	
Facility Physical Location:	182 Los Cordovas Drive	
(city, state, zip code)	Ranchos de Taos, New Mexico 87571	
Mailing address:	400 Camino de la Placita	
(city, state, zip code)	Taos, New Mexico 87571	
County/Parish:	Taos	
Facility Phone Number	757-751-2047	
Facility Contact:	Francisco Espinoza	Public Works Director
	fespinoza@taosgov.com	
FRS Number:	110022681267	
Identification/Permit Number:	NM0024066	
Media Identifier Number:	NA	
NAICS:	221320	
SIC:	4952	
Personnel participating in inspection:		
Celsa Vigil	SMA-Operations (Contract Operator)	Laboratory Technician
Celina Apodaca	SMA-Operations (Contract Operator)	Laboratory Technician
Nafis Fuad	NMED-PSRS	Compliance/Enforcement Team Lead
James Andel	NMED-SWQB	Industrial/Municipal Inspector
Issac Martinez	NMED-SWQB	Municipal/Industrial Specialist
David Esparza	EPA-R6/ECDWM	Environmental Engineer
EPA Lead Inspector Signature/Date		
	David Esparza	Date
Supervisor Signature/Date		
	Roberto Bernier	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

United States Environmental Protection Agency (EPA) Region 6 inspector David Esparza, PE, accompanied by Mr. Nafis Fuad, Mr. James Andel, and Mr. Issac Martinez from the New Mexico Environment Department (NMED), arrived at the Town of Taos (Taos) Wastewater Treatment and Reclamation Facility (WWTP) approximately 12:00 PM on January 19, 2024, for an unannounced inspection. I presented my credentials to Ms. Celsa Vigil and Ms. Celina Apodaca, on-site SMA-Operations (Contract Operator) and informed them that this was an EPA inspection to determine the facility's compliance under the Clean Water Act (CWA) and the requirements of the National Pollutant Discharge Elimination System (NPDES) permit program, in accordance with the CWA. The generation of this report is based on information supplied by Taos' representatives, observations made by the EPA inspector, NMED, and records and reports maintained by the permittee (Taos), and the EPA. Before leaving the facility on January 19, 2024, an exit briefing was held with Ms. Vigil and Ms. Apodaca, to explain areas of concern noted at the time of the inspection. It should be noted the WWTP also maintains a discharge permit (DP-232) issued by the New Mexico Environment Department (NMED), Groundwater Quality Bureau (GWQB) that allows a permitted discharge up to 2MGD.

FACILITY DESCRIPTION

The Town of Taos (Taos) WWTP facility is classified as a major discharger with a design capacity of 2.0 MGD and an average daily flow of 1.2 MGD, serving a population of approximately 11,000. The facility is located at 182 Los Cordovas Drive, Rancho de Taos, Taos County, New Mexico (denoted in Aerial Image #1 and further detailed in Aerial Image #2 below). The WWTP has been operated and managed under a contract agreement with SMA Operations, LLC. since 1991. WWTP hours of operation are Monday through Friday 8 AM to 5 PM.

The WWTP treatment process is comprised of a gravity collection system, and one (1) lift station (identified in Table #1). The influent then traverses through a splitter box that sends the flow to either the East or West aeration basins. These two (2) basins from the old WWTP have been configured such that half of each has a series of fine bubble diffusers to create an aerated zone, and the other half has mixers only that constitute the anoxic zone.

Thence the partially treated wastewater enters the membrane bioreactor (MBR) system, consisting of four (4) parallel basins with filters, aerators, and mixers operating simultaneously. Return Activated Sludge (RAS) is returned to the splitter box past the grit removal basin, where the Waste Activated Sludge (WAS) is pulled from the return line. After the sludge is dewatered from the belt press, the solids are deposited into roll-off bins for transport and landfill disposal. The processed water or Permeate Water is continuously sent through two (2) banks of Ultraviolet Disinfection (UV) system lights prior to discharge into an unnamed arroyo that flows for approximately $\frac{3}{4}$ - mile thence into the Rio Pueblo de Taos, a tributary to the Rio Grande.

Approximately 500k-gallons of disinfected effluent water, is sold to the Taos Country Club for maintenance of their greens.

Septage and domestic (typically greywater) wastewater is received at the head works. According to WWTP records an average of approximately 140K-gallons of septage is received on a weekly basis (2021 Taos records). The facility staff monitors incoming registered septage haulers for pH and grease to determine compatibility with the WWTP for acceptance or rejection. This policy was adopted under Town of Taos Resolution 14-62 on November 25, 2014.



Aerial Image #1: Overall view of the Town of Taos' Wastewater Treatment and Reclamation Facility. Aerial from Google Earth maps.



Sample Locations		
1-Influent	6-North East Aeration Basin	12-#2 Clarifier (OOS)
2-South East Aeration Basin	7-North West Aeration Basin	13-Ras Line
3-South West Aeration Basin	8-Splitter Box	14-MLSS Line
4-Center East Aeration Basin	9-#3 Clarifier (OOS)	15-Effluent
5-Center West Aeration Basin	10-#1 Clarifier (OOS)	16-Turbidity
	11-#4 Clarifier (OOS)	

Aerial Image #2: Detailed overall view of the Town of Taos' Wastewater Treatment and Reclamation Facility. Aerial from Google Earth maps and provided by SMA Operations, LLC.

Table 1: Town of Taos Lift Stations

	Lift Station	Address
1	Town Hall	400 Camino de la Placita Taos

Taos does have written policies and procedures to address any potential sanitary sewer overflow events (SSOs), standard operating procedures (SOPs) pertaining facility operations and maintenance (O&M) and a current Fats, Oils and Grease (FOG) program policy with respect to existing and/or new FOG contributors.

Currently, there is no Industrial Users (IU) contributing to the WWTP.

Section II – OBSERVATIONS

I observed the following and/or the following information was provided or stated on January 19, 2024.

- The WWTP and all ancillary services are contract operated/managed by SMA Operations, LLC. and have been since 1991.

- It was stated the Town's Public Works Department maintains the collection system aspect of the Town while the WWTP is contractor operated by SMA Operations, LLC.
- It was also stated the WWTP receives waste stream contributions from Taos Pueblo, El Prado, and communities within the Valle de Los Ranchos area as well as individual residences in the proximate area.
- The WWTP maintains a backup diesel generator for power that is exercised weekly.
- A Supervisory Control and Data Acquisition (SCADA) system provides around the clock monitoring of WWTP operations and is manned during normal working hours with alarm notifications in the off hours.
- It was previously stated their current Asset Management Schedule (Utility Improvement Fund) had been drafted and was awaiting legal approval for advertising. The status of this document is not known.
- The WWTP had secure perimeter fencing; thus, limiting access. The overall WWTP's operations and maintenance (O&M), and general facility housekeeping appeared to be in good order.

Section III – AREAS OF CONCERN

- A review of the submitted Integrated Compliance Information System (ICIS) Discharge Monitoring Reports (DMR) data for the period January 20, 2022, through October 31, 2023, indicates NPDES permit excursions with respect to Nitrogen (ammonia total), Total Suspended Solids (TSS), 5-day Biological Oxygen Demand (BOD₅), Escherichia coli (E. coli), Total Chlorine Residual (TCR), Total Mercury (as Hg), fecal Coliform (general), and pH (Appendix 2 ICIS E90 Effluent Violations).

EPA Region 6 inspector David Esparza conducted a closing conference at the Town of Taos' WWTP approximately at 4:30 PM on January 19, 2024, for the inspection.

Section IV – FOLLOW UP

Additional information or clarification was requested on January 23, 2024, and February 13, 2024, via electronic mail (email) and by telephone. No additional information was received (copies of email Request for Information (RFI) attached).

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log 4 photographs taken 1/19/2024.

Appendix 2 – Integrated Compliance Information System (ICIS) Database E90 Exceedances

Appendix 3 – Request for Information (RFI)

Appendix 1

Photograph Log



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

Location: Taos Wastewater Treatment Plant		
City: Town of Taos	County/Parish: Taos	State: New Mexico



View of "spaghetti" type membranes awaiting cleaning. These membranes physically separate water from the microorganisms and suspended solids. (IMG_0223). Photographed by D. Esparza



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: Taos Wastewater Treatment Plant		
City: Town of Taos	County/Parish: Taos	State: New Mexico



View of the sodium hypochlorite injection system and peristaltic pumps. Sodium hypochlorite is utilized as an efficient oxidizing agent, proven to eliminate bacteria, viruses, and harmful pathogens. (IMG_0225). Photographed by D. Esparza



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: Taos Wastewater Treatment Plant		
City: Town of Taos	County/Parish: Taos	State: New Mexico



View of the citric acid injection system and peristaltic pumps. Citric acid is utilized as a cleaning solution for membrane filters. Additionally, citric acid acts as a chelating agent, binding metals. (IMG_0227). Photographed by D. Esparza



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Location: Taos Wastewater Treatment Plant		
City: Town of Taos	County/Parish: Taos	State: New Mexico



Note the corrosivity of the sodium hypochlorite and citric acid on piping and metals supports. (IMG_0224). Photographed by D. Esparza

Appendix 2

Integrated Compliance Information System (ICIS) Database E90 Exceedances

E90 Effluent Violations From 01/01/2019 - Present

NM0024066

TAOS, TOWN 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
12/31/2022	001	A	BOD, 5-day, 20 deg. C	7 DA AVG	mg/L	21	=	22
12/31/2022	001	A	E. coli	30DAVGEO	CFU/100	126	=	141
12/31/2022	001	A	E. coli	DAILY MX	CFU/100	235	=	276
12/31/2022	001	A	Solids, suspended percent	MO AV MN	%	85	=	71
01/31/2023	001	A	BOD, 5-day, 20 deg. C	30DA AVG	mg/L	17	=	27
01/31/2023	001	A	BOD, 5-day, 20 deg. C	7 DA AVG	lb/d	350.49	=	373
01/31/2023	001	A	BOD, 5-day, 20 deg. C	7 DA AVG	mg/L	21	=	48
01/31/2023	001	A	BOD, 5-day, percent remo	MO AV MN	%	85	=	64
01/31/2023	001	A	Chlorine, total residual	INST MAX	ug/L	11	=	12
01/31/2023	001	A	Coliform, fecal general	30DAVGEO	CFU/100	200	=	244
01/31/2023	001	A	E. coli	30DAVGEO	CFU/100	126	=	263
01/31/2023	001	A	E. coli	DAILY MX	CFU/100	235	=	440
01/31/2023	001	A	Mercury, total [as Hg]	30DA AVG	ug/L	.027	=	.035
01/31/2023	001	A	Solids, suspended percent	MO AV MN	%	85	=	41
01/31/2023	001	A	Solids, total suspended	30DA AVG	mg/L	30	=	55
01/31/2023	001	A	Solids, total suspended	7 DA AVG	mg/L	45	=	77
02/28/2023	001	A	Chlorine, total residual	INST MAX	ug/L	11	=	12
02/28/2023	001	A	E. coli	30DAVGEO	CFU/100	126	=	153
02/28/2023	001	A	E. coli	DAILY MX	CFU/100	235	=	320
04/30/2023	001	A	E. coli	DAILY MX	CFU/100	235	=	274
04/30/2023	001	A	Nitrogen, ammonia total [a	30DA AVG	lb/d	63	=	154
04/30/2023	001	A	Nitrogen, ammonia total [a	30DA AVG	mg/L	3.75	=	20
04/30/2023	001	A	Nitrogen, ammonia total [a	DAILY MX	lb/d	94	=	166
04/30/2023	001	A	Nitrogen, ammonia total [a	DAILY MX	mg/L	5.62	=	20
05/31/2023	001	A	Nitrogen, ammonia total [a	30DA AVG	lb/d	63	=	96
05/31/2023	001	A	Nitrogen, ammonia total [a	30DA AVG	mg/L	3.75	=	10

Monitoring Period End Date	Perm Feature ID	Limit Set Designator	Parameter Desc	Statistical Base Short Desc	Limit Unit Short Desc	Limit Value	DMR Value Qualif ier Code	DMR Value
05/31/2023	001	A	Nitrogen, ammonia total [a	DAILY MX	lb/d	94	=	105
05/31/2023	001	A	Nitrogen, ammonia total [a	DAILY MX	mg/L	5.62	=	10
09/30/2023	001	A	E. coli	DAILY MX	CFU/10C	235	=	370
10/31/2023	001	A	BOD, 5-day, 20 deg. C	7 DA AVG	mg/L	21	=	30
10/31/2023	001	A	Solids, suspended percent	MO AV MN	%	85	=	82
10/31/2023	001	A	Solids, total suspended	7 DA AVG	mg/L	45	=	52

Appendix 3

Request for Information (RFI)

Esparza, David

From: Esparza, David
Sent: Tuesday, January 23, 2024 12:27 PM
To: fespinoza@taosgov.com
Cc: Matthews, Rachel; Esparza, David
Subject: Town of Taos WWTP (NM0024066)

Tracking:	Recipient	Delivery	Read
	fespinoza@taosgov.com		
	Matthews, Rachel	Delivered: 1/23/2024 12:27 PM	Read: 1/23/2024 2:03 PM
	Esparza, David	Delivered: 1/23/2024 12:27 PM	Read: 1/23/2024 12:40 PM

Mr. Espinoza:

It is my understanding the Town's Public Works Department maintains the collection system aspect of the Taos NPDES permit, while the WWTP is contactor operated by SMA Operations, LLC. The following information is requested to make a complete and accurate assessment of the applicable parameters associated with the permit. Additional information might be requested after my review of the received information. The specific request for information (RFI) will be delineated below. Therefore, please forward by email the requested information as soon as possible, but no later than close of business January 30, 2024.

- A complete electronic copy of your Sanitary Sewer Overflow (SSO) protocol, inclusive of all SSO events and associated work orders/work sheets for the previous two (2) years.
- A complete electronic copy of your Standard Operating Procedures (SOPs) and clarification how often it is updated.
- A current copy of your Asset Management plan.
- A current copy of your Fats, Oils and Grease (FOG) policy.
- Electronic copies of applicable service agreements with respect to satellite communities or other entities contributing to the WWTP.
- Current copy of your septage policy.
- Identification of the quantity, location, and names of any lift stations (LS), wet wells etc.

David A. Esparza, P.E.
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Water Enforcement Branch-Municipal/Industrial Section
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(505) 366-8402
eMail: esparza.david@epa.gov

Esparza, David

From: Esparza, David
Sent: Tuesday, February 13, 2024 11:57 AM
To: fespinoza@taosgov.com
Cc: Esparza, David; Matthews, Rachel; Bernier, Roberto
Subject: Town of Taos WWTP (NM0024066)

Tracking:	Recipient	Delivery	Read
	fespinoza@taosgov.com		
	Esparza, David	Delivered: 2/13/2024 11:57 AM	Read: 2/13/2024 11:57 AM
	Matthews, Rachel	Delivered: 2/13/2024 11:57 AM	Read: 2/13/2024 12:03 PM
	Bernier, Roberto	Delivered: 2/13/2024 11:57 AM	

Mr. Espinoza:

This is a follow-up to my voicemail message (VM) from this morning (February 13, 2024). I had previously requested clarification regarding my understanding the Town's Public Works Department maintains the collection system aspect of the Taos NPDES permit, while the WWTP is contractor operated by SMA Operations, LLC. This information was requested to make a complete and accurate assessment of the applicable parameters associated with the permit. I had also stated additional information might be requested after my review of the received information. Receipt of the information was originally requested no later than the close of business January 30, 2024. As of this date I have not received any response. A further review of the Town's file indicates I had previously received some of the requested information. Therefore, please forward by email the requested information delineated below as soon as possible, but no later than close of business February 20, 2024.

- A complete electronic copy of your Standard Operating Procedures (SOPs) and clarification how often it is updated.
- A current copy of your Asset Management plan. It was previously stated the Asset Management Schedule (Utility Improvement Fund) had been drafted and was awaiting approval.
- Electronic copies of applicable service agreements with respect to satellite communities or other entities, inclusive of their respective points of contact (POC) contributing to the WWTP.

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