

Region 6 - Enforcement & Compliance Assurance Division

INSPECTION REPORT

Inspection Date(s):	01/18/2024	
Media Program:	Water	
Regulatory Program(s)	CWA	
Company Name:	Village of Taos Ski Valley	
Facility Name:	Taos Ski Valley WWTP	
Facility Physical Location:	101 Ocean Boulevard	
(city, state, zip code)	Village of Taos Ski Valley, New Mexico 87525	
Mailing address:	Post Office Box 100	
(city, state, zip code)	Taos Ski Valley, New Mexico 87525	
County/Parish:	Taos	
Facility Phone Number	575-776-8220	
Facility Contact:	John Avila	Village Administrator
	javila@vtsv.org	
FRS Number:	110002047197	
Identification/Permit Number:	NM0022101	
Media Identifier Number:	NA	
NAICS:	221320	
SIC:	4952	
Personnel participating in inspection:		
Adam Romero	Village of Taos Ski Valley	WWTP Operator
Damean Crenen	Village of Taos Ski Valley	WWTP Operator
Josiah Griego	Village of Taos Ski Valley	WWTP Operator
John Avila	Village of Taos Ski Valley	Village Administrator
Marlene Salazar	Village of Taos Ski Valley	Village Public Works Administration Assistant
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, Mr. Nafis Fuad, Mr. James Andel and Mr. Issac Martinez all from the New Mexico Environment Department (NMED) arrived at the Village of Taos Ski Valley (Taos Ski Valley) Wastewater Treatment Plant (WWTP) at approximately 8:45 AM on January 18, 2024, for an unannounced inspection. I presented my credentials to Mr. John Avila and Ms. Marlene Salazar of Taos Ski Valley 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 Ski Valley representatives, observations made by the EPA inspector, NMED, and records and reports maintained by the permittee (Taos Ski Valley), and the EPA. Before leaving the facility on January 18, 2024, an exit briefing was held with Ms. Salazar and Mr. Avila, to explain areas of concern noted at the time of the inspection. It should be noted the WWTP also maintains a discharge permit (DP-1383) issued by the New Mexico Environment Department (NMED), Groundwater Quality Bureau (GWQB) in conjunction with the sludge disposal.

FACILITY DESCRIPTION

The Village of Taos Ski Valley (VTSV) WWTP facility is classified as a minor discharger with a design capacity of 0.9 MGD serving a year-round population of approximately 500 people and a peak tourist population of approximately 5,000. The facility is located at 38 Ocean Boulevard Taos Ski Valley, Taos County New Mexico or approximately 0.36-miles west of the Village Administration Office, between New Mexico State Road (SR) 150 and Ocean Boulevard in Taos Ski Valley, Taos County, New Mexico (denoted in Aerial Image #1 below). Approximate coordinates to the VTSV WWTP facility are Latitude 36°35'48.66" North, Longitude 105°27'40.67" West. Site hours will consist of Monday through Friday 7am to 5pm.

The existing WWTP is located inside a building to protect it from inclement weather during the winter months. The WWTP treatment process is comprised of a gravity collection system, one (1) lift station (identified in Table #1), headworks comprised of a grit removal system with a screw pump and bagging system. Flow from the headworks then traverses through a flow control box; thence to two (2) in-ground equalization (EQ) basins, i.e., an anoxic EQ basin with mixers and a steel EQ basin.

The WWTP maintains the following basins which were retrofitted from the existing treatment facility. This includes one (1) Pre- Anoxic Zone (PAX) basin of approximately 24K-gallons (existing tank) which flows into the one (1) Pre-Aeration Zone (PAI) basin of approximately 71K-gallons (existing tank). Flow is separated into two (2) parallel treatment trains. Each train consists of one (1) Pre-Aeration Zone tanks of approximately 30K-gallons (existing tanks) which flow into the following process zones. One (1)

Post-Anoxic Zone (AXP) basin of 29K-gallons per train which flow into one (1) Membrane Zone (MBR) basin of approximately 21K-gallons. Solids from the MBR basin are returned to the Pre-Anoxic Zone basin. The permeate water thence traverse through two (2) ultraviolet (UV) disinfection units per train prior to discharge to the Rio Hondo a tributary of the Rio Grande. The WWTP utilizes an Alfa Laval centrifuge located within the dewatering building prior to discharging to the sludge pad. Final, disposal of the sludge is at the Taos County Regional Landfill or Rio Rancho Landfill.

In June 2019 an improvement project included the placement of an Ovivo Membrane Bioreactor (MBR) system that provides primary treatment in the WWTP. This MBR system is comprised of two (2) treatment trains, an upgraded ultra-violet (UV) disinfection system, comprised of two (2) banks of three (3) modules for each treatment train and a Supervisory Control and Data Acquisition (SCADA) instrumentation.



Aerial Image #1: Overall view of the Village of Taos Ski Valley's Wastewater Treatment Plant. Aerial from Google Earth maps.

Table 1: Village of Taos Ski Valley Lift Stations

	Lift Station	Address
1	Kachina	104 Kachina Road

Taos Ski Valley does have 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) and a current Fats, Oils and Grease (FOG) program policy regarding existing and/or new FOG contributors. Additionally, their Asset Management Plan was updated in 2021.

Currently, there are no Industrial Users (IU) or satellite communities contributing to the WWTP.

Section II – OBSERVATIONS

I observed the following and/or the following information was provided or stated on January 20, 2022.

- The June 2019 improvements included upgrades to the WWTP UV disinfection system, a Supervisory Control and Data Acquisition (SCADA) instrumentation and placement of an Ovivo Membrane Bioreactor (MBR) system.
- The WWTP maintains an on-site generator for back up that is routinely exercised every week.
- Overall maintenance and operation (O&M) of the WWTP appeared to be satisfactory. All equipment looked to be running properly.

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 January 31, 2023, indicates NPDES permit excursions with respect to Nitrogen as Ammonia, Total Nitrogen, Total Phosphorus, 5-day Biological Oxygen Demand (BOD₅) and pH (Appendix 2 ICIS E90 Effluent Violations).

EPA Region 6 inspector David Esparza conducted a closing conference at the Village of Taos Ski Valley's WWTP at approximately 11:30 AM on January 18, 2024, for the inspection.

Section IV – FOLLOW UP

The following information was received by EPA on January 30, 2024, after exiting the Facility on January 18, 2024:

- A copy of the current Asset Management Plan-revised in 2021
- A summary of the quantity and locations of any lift station(s).
 - Kachina Lift Station- 104 Kachina Road
- A sanitary sewer overflow (SSO) protocol, Fats, Oils and Grease (FOG) or Best Management Practices (BMP) summary of:
 - VTSV Spill Reporting Policy

- Spill Spreadsheet
- Grease Trap Policy

- A copy of the current/updated Site Map/Plan
 - VTSV Site and Building plan layout.
 - Schematic of the process system equipment layout

- A copy of the Ovivo Membrane Bioreactor (MBR)
 - Control Strategy
 - MBR unit instruction manual

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – 5 photos taken 1/18/2024.

Appendix 2 – ICIS E90 Effluent Violations

Appendix 1

Photograph Log



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

Location: Taos Ski Valley Wastewater Treatment Plant		
City: Village of Taos Ski	County/Parish: Taos	State: New Mexico



View of one (1) of the WWTP two (2) pieces of process equipment associated with the headworks. (IMG_0216) (09:14 AM:01/18/2024). Photographed by D. Esparza



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: Taos Ski Valley Wastewater Treatment Plant		
City: Village of Taos Ski	County/Parish: Taos	State: New Mexico



View of the grit bagging system within the headworks. (IMG_0217) (09:15 AM :01/18/2024).
Photographed by D. Esparza



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: Taos Ski Valley Wastewater Treatment Plant		
City: Village of Taos Ski	County/Parish: Taos	State: New Mexico



View of some of the Ovivo MBR membrane modules. (IMG_0218). (10:16 AM :01/18/2024).
Photographed by D. Esparza



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Location: Taos Ski Valley Wastewater Treatment Plant		
City: Village of Taos Ski	County/Parish: Taos	State: New Mexico



A view of the Alfa Laval centrifuge within the dewatering building. (IMG_0221). (10:43 AM:01/18/2024)
Photographed by D. Esparza



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

Location: Taos Ski Valley Wastewater Treatment Plant		
City: Village of Taos Ski	County/Parish: Taos	State: New Mexico



View of the WWTP's snow covered sludge pad. Note: Final, disposal of the sludge is at the Taos County Regional Landfill or Rio Rancho Landfill. (IMG_0222) (10:47 AM:01/18/2024) Photographed by D. Esparza

Appendix 2
Review
of the
ICIS
E90 Effluent Violations

E90 Effluent Violations From 01/01/2019 - Present

NM0022101

TAOS SKI VALLEY, VILLAG

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
01/31/2022	001	A	Nitrogen, ammonia total [a	7 DA AVG	lb/d	5.34	=	6.41
01/31/2022	001	A	Nitrogen, ammonia total [a	7 DA AVG	mg/L	3.2	=	11
01/31/2022	001	A	Nitrogen, total [as N]	7 DA AVG	mg/L	12.3	=	17.3
02/28/2022	001	A	Phosphorus, total [as P]	7 DA AVG	mg/L	.75	=	.85
03/31/2022	001	A	Phosphorus, total [as P]	30DA AVG	lb/d	.8	=	1.34
03/31/2022	001	A	Phosphorus, total [as P]	30DA AVG	mg/L	.5	=	2.44
03/31/2022	001	A	Phosphorus, total [as P]	7 DA AVG	lb/d	1.2	=	2.35
03/31/2022	001	A	Phosphorus, total [as P]	7 DA AVG	mg/L	.75	=	4.1
04/30/2022	001	A	Phosphorus, total [as P]	7 DA AVG	mg/L	.75	=	1.1
05/31/2022	001	A	BOD, 5-day, 20 deg. C	30DA AVG	mg/L	30	=	41
05/31/2022	001	A	BOD, 5-day, percent remo	MO AV MN	%	85	=	16.33
01/31/2023	001	A	Nitrogen, ammonia total [a	30DA AVG	mg/L	3.2	=	3.63
01/31/2023	001	A	Nitrogen, ammonia total [a	7 DA AVG	lb/d	5.34	=	5.56
01/31/2023	001	A	Nitrogen, ammonia total [a	7 DA AVG	mg/L	3.2	=	8.4
01/31/2023	001	A	Nitrogen, total [as N]	30DA AVG	mg/L	8.2	=	9.53
01/31/2023	001	A	Nitrogen, total [as N]	7 DA AVG	mg/L	12.3	=	13.3
02/28/2023	001	A	Nitrogen, ammonia total [a	30DA AVG	mg/L	3.2	=	8.59
02/28/2023	001	A	Nitrogen, ammonia total [a	7 DA AVG	lb/d	5.34	=	14.56
02/28/2023	001	A	Nitrogen, ammonia total [a	7 DA AVG	mg/L	3.2	=	24
02/28/2023	001	A	Nitrogen, total [as N]	30DA AVG	mg/L	8.2	=	12.73
02/28/2023	001	A	Nitrogen, total [as N]	7 DA AVG	mg/L	12.3	=	26.41
03/31/2023	001	A	Nitrogen, ammonia total [a	30DA AVG	lb/d	5.34	=	20.42
03/31/2023	001	A	Nitrogen, ammonia total [a	30DA AVG	mg/L	3.2	=	34.4
03/31/2023	001	A	Nitrogen, ammonia total [a	7 DA AVG	lb/d	5.34	=	29.02
03/31/2023	001	A	Nitrogen, ammonia total [a	7 DA AVG	mg/L	3.2	=	44
03/31/2023	001	A	Nitrogen, total [as N]	30DA AVG	lb/d	13.65	=	21.3

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
03/31/2023	001	A	Nitrogen, total [as N]	30DA AVG	mg/L	8.2	=	35.88
03/31/2023	001	A	Nitrogen, total [as N]	7 DA AVG	lb/d	20.5	=	29.83
03/31/2023	001	A	Nitrogen, total [as N]	7 DA AVG	mg/L	12.3	=	45.22
03/31/2023	001	A	Phosphorus, total [as P]	30DA AVG	mg/L	.5	=	.95
03/31/2023	001	A	Phosphorus, total [as P]	7 DA AVG	lb/d	1.2	=	1.25
03/31/2023	001	A	Phosphorus, total [as P]	7 DA AVG	mg/L	.75	=	1.9
04/30/2023	001	A	Nitrogen, ammonia total [a	30DA AVG	mg/L	3.2	=	5.5
04/30/2023	001	A	Nitrogen, ammonia total [a	7 DA AVG	lb/d	5.34	=	7.12
04/30/2023	001	A	Nitrogen, ammonia total [a	7 DA AVG	mg/L	3.2	=	21
04/30/2023	001	A	Nitrogen, total [as N]	30DA AVG	mg/L	8.2	=	8.92
04/30/2023	001	A	Nitrogen, total [as N]	7 DA AVG	mg/L	12.3	=	24.13
08/31/2023	001	A	Nitrogen, ammonia total [a	30DA AVG	lb/d	5.34	=	6.56
08/31/2023	001	A	Nitrogen, ammonia total [a	30DA AVG	mg/L	3.2	=	18
08/31/2023	001	A	Nitrogen, ammonia total [a	7 DA AVG	lb/d	5.34	=	6.56
08/31/2023	001	A	Nitrogen, ammonia total [a	7 DA AVG	mg/L	3.2	=	18
08/31/2023	001	A	Nitrogen, total [as N]	30DA AVG	mg/L	16.6	=	19.16
08/31/2023	001	A	Phosphorus, total [as P]	30DA AVG	lb/d	1.2	=	3.02
08/31/2023	001	A	Phosphorus, total [as P]	30DA AVG	mg/L	1.5	=	8.3
08/31/2023	001	A	Phosphorus, total [as P]	7 DA AVG	lb/d	1.8	=	3.02
08/31/2023	001	A	Phosphorus, total [as P]	7 DA AVG	mg/L	2.25	=	8.3
09/30/2023	001	A	Nitrogen, ammonia total [a	30DA AVG	lb/d	5.34	=	13.98
09/30/2023	001	A	Nitrogen, ammonia total [a	30DA AVG	mg/L	3.2	=	33
09/30/2023	001	A	Nitrogen, ammonia total [a	7 DA AVG	lb/d	5.34	=	13.98
09/30/2023	001	A	Nitrogen, ammonia total [a	7 DA AVG	mg/L	3.2	=	33
09/30/2023	001	A	Nitrogen, total [as N]	30DA AVG	mg/L	12.7	=	34
09/30/2023	001	A	Nitrogen, total [as N]	7 DA AVG	mg/L	19	=	34
09/30/2023	001	A	Phosphorus, total [as P]	30DA AVG	lb/d	.8	=	6.36
09/30/2023	001	A	Phosphorus, total [as P]	30DA AVG	mg/L	2.5	=	15
09/30/2023	001	A	Phosphorus, total [as P]	7 DA AVG	lb/d	1.2	=	6.36
09/30/2023	001	A	Phosphorus, total [as P]	7 DA AVG	mg/L	3.75	=	15
10/31/2023	001	A	pH	MINIMUM	SU	6.6	=	6.42