



NEW MEXICO
ENVIRONMENT DEPARTMENT

Surface Water Quality Bureau

SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

Harold Runnels Building, N2050
1190 South St. Francis Drive (87505)
P.O. Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-0187 Fax (505) 827-0160
www.nmenv.state.nm.us



DAVE MARTIN
Secretary

BUTCH TONGATE
Deputy Secretary

JAMES H. DAVIS, Ph.D.
Director
Resource Protection Division

Certified Mail - Return Receipt Requested

2 March 2012

Mr. Mark Fratrack
Village Administrator
7 Firehouse Road
P.O. Box 100
Taos Ski Valley, New Mexico 87525

Re: **Major Municipal; SIC 4952; NPDES Compliance Evaluation Inspection; Village of Taos Ski Valley Wastewater Treatment Plant; NM0022101; February 2, 2012**

Dear Mr. Fratrack:

Enclosed, please find a copy of the report for the referenced inspection that the New Mexico Environment Department (NMED) Surface Water Quality Bureau (SWQB) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

Problems noted during this inspection are discussed in the Further Explanations section of the inspection report. You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and to modify your operational and/or administrative procedures, as appropriate.

I wish to thank you for the cooperation of the Village of Taos Ski Valley WWTP representatives including Ray Keen and Joe Apodaca during this inspection.

If you have any questions about this inspection report, please contact me at (505) 827-0212.

Sincerely,

/s/ Barbara Cooney

Barbara Cooney
Surface Water Quality Bureau

cc: Marcia Gail Adams, USEPA (6EN-AS) by e-mail
Samuel Tate, USEPA (6EN-AS) by e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Diana McDonald, USEPA (6EN-WM) by e-mail
Larry Giglio, USEPA (6WQ-PP) by e-mail
Sonia Hall and Hannah Branning, USEPA (6EN-WC) by e-mail

Addressee

Date

Page 2

NMED District II Manager by e-mail



NPDES Compliance Inspection Report

Section A: National Data System Coding

Transaction Code	NPDES	yr/mo/day	Inspec. Type	Inspector	Fac Type
1 N 2 5 3 N M 0 0 2 2 1 0 1 11 12 1 2 0 2 0 2 17 18 C 19 S 20 1					
Remarks					
M A J O R M U N I C I P A L					
Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved	
67 1 69	70 3	71 N	72 N	73	74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) TAOS SKI VALLEY WASTEWATER TREATMENT PLANT P. O. BOX 66 TAOS SKI VALLEY, NEW MEXICO 87525 Directions: To the Utilities Office - From The Town of Taos take Paseo Del Pueblo Norte (US-64) North 4 miles—Turn Right on NM-150 go aprox 14.5 miles-- Bear Right on Thunderbird Rd. go aprox 0.1 miles --- Brown Wood Siding 2 story Bldg on Left (7 Firehouse Rd) --- go up stairs to office.	Entry Time /Date 12:30 hours / 2 February 2012	Permit Effective Date 01 October 2011
	Exit Time/Date 17:00 hours / 2 February 2012	Permit Expiration Date 30 September 2016
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) RAY KEEN, OPERATIONS MANAGER 575-770-2351 JOE APODOCA, PLANT OPERATOR 575- 776-8846	Other Facility Data	
Name, Address of Responsible Official/Title/Phone and Fax Number MARK FRATRICK , VILLAGE ADMINISTRATOR VILLAGE OF TAOS SKI VALLEY P. O. BOX 66 TAOS SKI VALLEY, NEW MEXICO 87525 (575)776-8220 ext. 1	Contacted Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	SIC 4952 Latitude -- 36 °35'46" West Longitude -- 105° 27'38" North

Section C: Areas Evaluated During Inspection (S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

S	Permit	U	Flow Measurement	S	Operations & Maintenance	N	CSO/SSO
M	Records/Reports	M	Self-Monitoring Program	S	Sludge Handling/Disposal	N	Pollution Prevention
S	Facility Site Review	N	Compliance Schedules	N	Pretreatment	N	Multimedia
M	Effluent/Receiving Waters	S	Laboratory	N	Storm Water		Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

SEE THE FURTHER EXPLANATIONS SECTION OF THE ATTACHED REPORT

Name(s) and Signature(s) of Inspector(s) Barbara Cooney /s/ Barbara Cooney	Agency/Office/Telephone/Fax NMED/SWQB 505-827-0212 / 505-827-0160	Date 2 March 2012
Signature of Management QA Reviewer Richard Powell /s/ Richard Powell	Agency/Office/Phone and Fax Numbers NMED/SWQB 505-827-2798 / 505-827-0160	Date March 2, 2012

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS S M U NA (FURTHER EXPLANATION ATTACHED YES)

DETAILS:

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE Need to update the signatory New town manager Y N NA

2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES Y N NA

3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT Y N NA

4. ALL DISCHARGES ARE PERMITTED Y N NA

SECTION B - RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. S M U NA (FURTHER EXPLANATION ATTACHED YES)

DETAILS: Does not have record of Letter from EPA allowing reduction in testing frequency for Whole Effluent Toxicity Testing.

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. Y N NA

2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. S M U NA

a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING Y N NA

b) NAME OF INDIVIDUAL PERFORMING SAMPLING Y N NA

c) ANALYTICAL METHODS AND TECHNIQUES. Y N NA

d) RESULTS OF ANALYSES AND CALIBRATIONS. Y N NA

e) DATES AND TIMES OF ANALYSES. Y N NA

f) NAME OF PERSON(S) PERFORMING ANALYSES. Y N NA

3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. S M U NA

4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. S M U NA

5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. Y N NA

SECTION C - OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. S M U NA (FURTHER EXPLANATION ATTACHED YES)

DETAILS:

1. TREATMENT UNITS PROPERLY OPERATED. S M U NA

2. TREATMENT UNITS PROPERLY MAINTAINED. S M U NA

3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. S M U NA

4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. S M U NA

5. ALL NEEDED TREATMENT UNITS IN SERVICE. S M U NA

6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. S M U NA

7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. S M U NA

8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. Y N NA

STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. Y N NA

PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. Y N NA

SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR?
 IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED?
 HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?

Y N NA
 Y N NA
 Y N NA

10. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT?
 IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?

Y N NA
 Y N NA

SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS.
 DETAILS: Missing sample data for Whole Effluent Toxicity

S M U NA (FURTHER EXPLANATION ATTACHED YES.)

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT.

Y N NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.

Y N NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT.

Y N NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT.

Y N NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT.

Y N NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE

Y N NA

a) SAMPLES REFRIGERATED DURING COMPOSITING.

Y N NA

b) PROPER PRESERVATION TECHNIQUES USED.

Y N NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3.

Y N NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE
 THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT?

Y N NA

SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS.
 DETAILS:

S M U NA (FURTHER EXPLANATION ATTACHED YES.)

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED.
 TYPE OF DEVICE Square Weir Box With 45 degree V notch.

Y N NA

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED.

Y N NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.

Y N NA

4. CALIBRATION FREQUENCY ADEQUATE. (DATE OF LAST CALIBRATION when installed)
 RECORDS MAINTAINED OF CALIBRATION PROCEDURES.
 CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.

Y N NA
 Y N NA
 Y N NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE.

Y N NA

6. HEAD MEASURED AT PROPER LOCATION.

Y N NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.

Y N NA

SECTION F - LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS.
 DETAILS:

S M U NA (FURTHER EXPLANATION ATTACHED YES.)

1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)

Y N NA

SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED Y N NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. S M U NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. S M U NA

5. DUPLICATE SAMPLES ARE ANALYZED. 10 % OF THE TIME. Y N NA

6. SPIKED SAMPLES ARE ANALYZED. % OF THE TIME. Yearly - as part of the DMR QA study Y N NA

7. COMMERCIAL LABORATORY USED. Y N NA

LAB NAME Bio-aquatics Hall Laboratory
 LAB ADDRESS Carlton, TX Albuquerque, NM
 PARAMETERS PERFORMED Bio Monitoring Phosphorous, Total Nitrogen & Ammonia

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. S M U NA (FURTHER EXPLANATION ATTACHED YES.)

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	none	none	none	none	none	clear	

RECEIVING WATER OBSERVATIONS Effluent exceedences for Ammonia and TKN

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. S M U NA (FURTHER EXPLANATION ATTACHED YES.)
 DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. S M U NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. S M U NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: Surface Disposal at Rio Rancho Landfill (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

SECTION I - SAMPLING INSPECTION PROCEDURES (FURTHER EXPLANATION ATTACHED YES.)

1. SAMPLES OBTAINED THIS INSPECTION. Y N NA

2. TYPE OF SAMPLE OBTAINED
 GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY _____

3. SAMPLES PRESERVED. Y N NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. Y N NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. Y N NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE. Y N NA

7. SAMPLE SPLIT WITH PERMITTEE. Y N NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. Y N NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. Y N NA

Introduction

On 2 February 2012 a Compliance Evaluation Inspection (CEI) was conducted at the Village of Taos Ski Valley Wastewater Treatment Plant (WWTP) NM0022101 by Barbara Cooney of the State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB).

The inspection was conducted by NMED for the US Environmental Protection Agency (USEPA), Region VI, under the NPDES permit program, in accordance with the federal Clean Water Act. These inspections are conducted under contract with the USEPA and are used by EPA to evaluate compliance with the NPDES permit program. This inspection report is based on information supplied by the Village of Taos Ski Valley representatives (the permittee), observations made by the NMED inspector, reports and records kept by the permittee and/or NMED.

Findings of the inspection are detailed on the attached EPA form 3560-3 and in the narrative Further Explanations section of this report.

The Village of Taos Ski Valley WWTP is classified as a major municipal discharger, with a design flow of 0.1 MGD and with tertiary treatment. The facility discharges treated effluent directly to the Rio Hondo in Water Quality Segment 20.6.4.129. The designated uses for the receiving stream are domestic water supply, high quality coldwater aquatic life, irrigation, livestock watering, wildlife habitat, and secondary contact.

The location coordinates in decimal degrees are: Longitude -105.45556 and Latitude 36.58584 N.

Inspection Details

The NMED inspector arrived at the Village of Taos Ski Valley WWTP at 12:30 hours. The inspector showed her credentials and explained the purpose of the inspection to Mr. Ray Keen, Utilities Director and Mr. Donald Scheiber, Community Development Director. Following the inspection an exit interview was held with Mr. Mark Fratrack, Village Administrator and Mr. Keen. The Inspector left the Village offices and facilities at 17:00 hours.

Treatment Scheme

Wastewater entering the Taos Ski Valley WWTP is domestic and restaurant waste. It flows by gravity through the collection system via eight inch lines. The collection system is subject to high influent and infiltration (I&I). The ground water is especially high during spring runoff. The Village continuously works on the collection system to minimize I&I. In recent years several manholes have been replaced and have helped reduce the volume entering the treatment plant. Wastewater in the collection system flows by gravity to the headworks where an influent Parshall flume and wooden yard stick serves as the staff gauge to measure influent volumes. A new grit removal system with a screw pump and bagging system is on line. The grit is taken to the Taos County landfill after passing the paint filter test for final disposal.

Following the headworks, untreated sewage is sent to the two flow equalization basins. Equalization basins are used to control the volume as it is sent to the next treatment units. One tank is older and constructed of concrete with a hydraulic capacity of 135,000 gallons. The second tank is constructed of steel with a capacity of 250,000 gallons. Both are in-ground and covered. A substantial freeboard is maintained in the tanks to ensure they can adequately handle any excessive I&I during spring and summer

Village of Taos Ski Valley
Wastewater Treatment Plant
Compliance Evaluation Inspection
NPDES Permit Number NM0022101
2 February 2012
Page - 2 - of 6

months. Diffused aeration helps alleviate the growth of filamentous bacteria in the equalization basins, also preventing the raw sewage from becoming septic and aiding in reduced odors as well.

Solids from the Anoxic selector, backwash from the pressure filters, and liquids from the sludge dewatering process are returned to the equalization basins. After flow equalization, wastewater enters the main treatment building. Influent flow is controlled by a "pinch" valve which can maintain a constant influent flow to the aeration basins.

This facility has four 25 thousand gallon aeration basins operating in series. In the first chamber the coagulant, Polyaluminum Chloride or (PAC) is added to aid in the precipitation and removal of phosphorous. Also introduced into the first chamber is Soda Ash, to normalize the pH. Influent pH is generally between 8 and 9 standard units (s.u.). A continuous readout pH meter is used to control the soda ash feed. When pH approaches 6.0 S.U., soda ash in a 50% solution is dripped into the tank to increase the pH to 7.0. The effluent pH is close to 7.0 s.u. Feed tanks for the Polyaluminum Chloride and the Soda Ash, are located above the four basins.

Previously the second and third chambers contained a floating layer of plastic media designed to aid in the coagulation of the phosphorus by creating greater surface area for the reaction between the Polyaluminum Chloride and the dissolved phosphorous in the wastewater. Operators found that these floating media added to the generation of high volumes of solids in the treatment system that were difficult to manage, due to the small size of the two secondary clarifiers. The use of the floating media has been discontinued and removed from the basins. The facility is still able to meet the Phosphorous nutrient removal requirements without the floating media. However in the last year there have been times when the facility exceeded the Ammonia Nitrogen effluent limits. Of the four basins one is maintained in an oxygen deprived state. The anoxic basin has a Dissolved Oxygen (DO) concentration of 1.0 mg/L. The aerobic basins have DO concentrations as high as 5.0mg/L according to operators.

Mixed Liquor Suspended Solids (MLSS) concentrations in the aeration basins are 5100 mg/l during the winter when the Village and resort population is highest. This concentration changes seasonally, going down in the summer months.

From the aeration basins, wastewater passes through a splitter box into one of two secondary circular, conal bioclarifiers. The clarifiers are operated in parallel, where settling of activated sludge takes place. Return activated sludge (RAS) is directed to the first aeration basin. Under normal operating conditions, a four to seven feet sludge level is maintained in these units. The clarifier weirs appeared level and no short circuiting was observed. Floating materials are moved into a scum pit using a scum sweep arm. Contents of the scum pit are pumped to the sludge storage tanks.

Wastewater from the bioclarifiers is pumped to two pressure polishing filters which run parallel. These are varying head filters and are backwashed at 10 psi differential. Filter media in both of these units consists of anthracite coal and sand. The media has never been replaced since the units were installed in the 1980s. The filters are backwashed every day. The backwash water is sent up to the EQ basins and mixed with the influent wastewater. Each of these units can be bypassed individually whenever maintenance is needed. After the polishing filters, treated water passes through two ultraviolet disinfection units run in series. Each unit consists of eight bulbs emitting ultraviolet light. The units are attached to a control panel which indicates if a bulb has burned out. There is also an opacity meter to determine when the bulbs need to be cleaned. The bulbs are cleaned by agitating with a weak citric acid solution. Operators also use the records of E coli bacteria concentrations as indicators of need for cleaning or replacement of bulbs. Each unit can be cleaned individually so disinfection remains continuous. Disinfection detention time in these units is approximately seven minutes. Effluent water

then enters a flow measuring unit consisting of a square weir box which includes a 45° V-notch weir with a staff gauge. The staff gauge, affixed to the side of the square weir box was not easily visible. A secondary ultrasonic flow measuring device is used for reporting purposes. The ultrasonic flow meter gives both an instant flow and totalized flow reading.

Effluent samples are collected at this point by a *Hach* composite sampler. Samples are collected as required in the NPDES permit. The sampler can maintain a temperature of 1° C in the refrigerator where the samples are stored. The permit requires that the samples be kept at no higher than 4° C. From the effluent sampling location the flow is discharged to the Rio Hondo.

Sludge

Sludge at this facility is stored in two sludge storage tanks located on the hillside behind the treatment building. The tanks accept sludge from both the bioclarifier and the chemical clarifier. Supernatant is decanted off and re-circulated back to the flow equalization basin for reentry into the treatment building for additional treatment. Solids are pulled out of the storage tanks into a sludge centrifugal dewatering system that produces 20% solids. The pressed solids go up a conveyor belt and are dropped into a tip-off. The tip-off is located in a bunker area that is a sloped cement pad with an under drain. Water entering the drain in the bunker is returned to the EQ basin. Final disposal of the sludge is at the Rio Rancho Land fill.

Further Explanations

Note: The sections are arranged according to the format of EPA form 3560-3 and checklist, attached, rather than being ranked in order of importance.

Permit Verification

Overall Rating For Permit Verification (Satisfactory)

Record Keeping & Reporting

Overall Rating For Record Keeping and Reporting (Marginal)

Permit Requirements for Recordkeeping & Reporting

*The permit requires in PART I, C. MONITORING AND REPORTING (MAJOR DISCHARGERS):
Monitoring information shall be on Discharge Monitoring Report Form(s) EPA3320-1 as
specified in Part III.D.4 of this permit and shall be submitted monthly.*

The permit requires in Part III.C. Monitoring and Records

3. Retention of Records:

The permittee shall retain records of all monitoring information, including all calibrations and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time.

4. Records Content:

Village of Taos Ski Valley
Wastewater Treatment Plant
Compliance Evaluation Inspection
NPDES Permit Number NM0022101
2 February 2012
Page - 4 - of 6

Records of monitoring information shall include:

- a. The date ,exact place and time of sampling or measurements;*
- b. The individual(s) who performed the sampling or measurements;*
- c. The date(s) and times(s) analyses were performed;*
- d. The individual(s) who performed the analyse(s);*
- e. The analytical techniques or methods used; and*
- f. The results of such analyses.*

Findings for Record Keeping & Reporting

As part of the inspection, a records review was conducted for the Months of October, November and December 2011. The operators had difficulty locating records for the BOD laboratory analysis for the month of November 2011 at the time. However they were able to locate these records and sent them via e-mail to the inspector within a week of the date of the inspection.

NMED has not received Discharge Monitoring Reports (DMRs) for the month of August 2011.

Effluent /Receiving Waters

Overall Rating For Effluent/Receiving Waters (Marginal)

The permit requires in Part I.A. Effluent Limitations And Monitoring Requirements:

Permit requirements for Effluent / Receiving Waters in the permit that became effective October 1, 2011

	<i>Lbs/Day 30Day Avg</i>	<i>Lbs/Day Daily Max</i>	<i>Lbs/Day 7Day Avg</i>	<i>Mg/L 30 Day Avg</i>	<i>Mg/L Daily Max</i>	<i>Mg/L 7 Day Avg</i>
<i>Ammonia Nitrogen November1-April30</i>	5.34	NA	5.34	3.2	NA	3.2
<i>Ammonia Nitrogen May1-October 31</i>	5.34	NA	5.34	3.2	NA	3.2

Findings for Effluent / Receiving Waters

The table below shows the exceedences of effluent limits since the last Compliance Evaluation Inspection conducted by the EPA - October 2010.

Date	Pollutant	Permit Limit	Concentration Reported on DMRs
January 2012	Ammonia Nitrogen	7 Day Avg 3.2 mg/L	3.4 mg/L
November 2011	Ammonia Nitrogen	7 Day Avg 3.2 mg/L	11.00 mg/L
January 2011	Ammonia Nitrogen	7 Day Avg 3.2 mg/L	5.7 mg/L
January 2011	Total Kjeldahl Nitrogen	7 Day Avg 12.3 mg/L	12.5mg/L
December 2010	Ammonia Nitrogen	7 Day Avg 3.2 mg/L	3.5 mg/L

Date	Pollutant	Permit Limit	Concentration Reported on DMRs
December 2010	Total Kjeldahl Nitrogen	30 Day Avg 8.2 mg/L	9.15 mg/L
December 2010	Total Kjeldahl Nitrogen	7 Day Avg 12.3 mg/L	13.1 mg/L

The exceedences of effluent limits all occurred during the high flow portion of the year. It is advisable for the permittee to develop more aggressive control mechanisms to manage the transition from the low flow season to the high flow times of the year.

Flow Measurement

Overall Rating For Flow Measurement (Marginal)

Permit Requirements for Flow Measurement

The permit requires in Part III, Section 6., Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from the true discharge rates throughout the range of expected discharge volumes.

Findings for Flow Measurement

Effluent water enters a flow measuring unit consisting of a square weir box which includes a 45° V-notch weir with a staff gauge. The staff gauge, affixed to the side of the square weir box was not easily visible. The operator accompanying the inspector had never used the staff gauge. A secondary ultrasonic flow measuring device is used for reporting purposes. The ultrasonic flow meter gives both an instant flow and totalized flow reading.

The effluent flow channel is enclosed and not easily accessible. The ultrasonic flow meter was calibrated at the time of installation.

It is advisable that documentation be developed for both the fixed staff gauge and the ultrasonic flow measurement device regarding calibration procedures. This should be included in the Standard Operating Procedures (SOPs). This is a repeat finding.

Self Monitoring

Overall Rating For Self Monitoring (Marginal)

Permit Requirements for Self Monitoring

The permit issued April 1, 2006 was administratively extended through September 30, 2011 and requires in Part I on page 8, Whole Effluent Toxicity Testing.

The permit further states in Part II.C. Monitoring Frequency Reduction

a. The permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters of testing for one or both test species, with no lethal or sub-lethal effect demonstrated at or below the critical dilution. If granted, the monitoring frequency for that test species may be reduced to not less than once per year for the less sensitive species (usually the Fathead minnow) and not less than twice per year for the more sensitive test species (usually the Ceriodaphnia dubia).

Finding For Self Monitoring

Bio Monitoring: The DMRs submitted to NMED for Bio-Monitoring demonstrate that quarterly monitoring was conducted effectively through March 31, 2010. According to Mr. Keen, a letter was sent to EPA requesting a "test frequency reduction". NMED does not have a copy of that correspondence. A later correspondence from the permittee sent to EPA was received by NMED on July 11, 2011 restating the original request. The permittee had no written record of a response from EPA allowing a test frequency reduction. However, there are no records of continued quarterly Bio-Monitoring testing after March 31, 2010 by the permittee. Unless there is written documentation of a permit modification to allow a test frequency reduction, the original requirements in the permit must be followed by the permittee.

Laboratory

Overall Rating For Laboratory (Satisfactory)

Operation and Maintenance

Overall Rating For Operation and Maintenance (Satisfactory)

Sludge Disposal

Overall Rating For Sludge Disposal (Satisfactory)

Findings For Sludge Disposal

The sludge holding pad and the approximately 5 foot tall pile of sludge on the cement pad were covered in snow. There were no berms or physical barriers in place at the opening of the pad. It is sloped away from the opening and an under-drain is in place. However due to the high volume of snow in the winter it appears that some runoff could occur. The permittee may consider installing some barriers to prevent snow melt and storm runoff from escaping from the cemented area.

NMED/SWQB
Official Photograph Log
Photo # 1

Photographer: B. Cooney

Date: 2 February 2012

Time: 13:35

City/County: Village of Taos Ski Valley / Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: The Dome Top Of An Equalization Basin (EQ) At the Head of the Wastewater Treatment Plant



NMED/SWQB
Official Photograph Log
Photo # 2

Photographer: B. Cooney

Date: 2 February 2012

Time: 13:39

City/County: Village of Taos Ski Valley / Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: Sludge bed. With so much snow it was not evident that the cement platform was sloped so there would be no run off. Some physical barrier may be necessary such as a berm, curb or other barrier to prevent run off from the sludge bed.



NMED/SWQB
Official Photograph Log
Photo #3

Photographer: B. Cooney

Date: 2 February 2012

Time: 13:29

City/County: Village of Taos Ski Valley / Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: Influent Grit Removal Screw Pump at the head works. The solids are bagged, pass the paint filter test then are sent to the Rio Rancho landfill for final disposal.



NMED/SWQB
Official Photograph Log
Photo #4

Photographer: B. Cooney

Date: 2 February 2012

Time: 13:30

City/County: Village of Taos Ski Valley / Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: Influent flow measurement with a wooden yard stick at the influent Parshall flume.



NMED/SWQB
Official Photograph Log
Photo # 5

Photographer: B. Cooney

Date: 2 February 2012

Time: 13:45

City/County: Village of Taos Ski Valley / Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: solids de-watering system following the anaerobic digestion. The Circular Unit to the right is a centrifugal system that moves water to the outside of the cylinder where it is captured and sent to the head of the EQ basins. Solids left in the center of the unit are moved by a conveyor system (not seen in the photo) to the beds and/or hopper for transport to final disposal.



NMED/SWQB
Official Photograph Log
Photo # 6

Photographer: B. Cooney

Date: 2 February 2012

Time: 13:46

City/County: Village of Taos Ski Valley / Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: Anaerobic Digesters for solids.



NMED/SWQB
Official Photograph Log
Photo # 7

Photographer: B. Cooney

Date: 2 February 2012

Time: 14:02

City/County: Village of Taos Ski Valley / Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: First of Four basins that alternate aerobic and anaerobic process. In the first basin there is chemical addition of Soda Ash to normalize the pH to near 7.0 su. Polyaluminum Chloride or (PAC) is added to aid in the precipitation and removal of phosphorous.



NMED/SWQB
Official Photograph Log
Photo # 8

Photographer: B. Cooney

Date: 2 February 2012

Time: 14:23

City/County: Village of Taos Ski Valley / Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: In the anaerobic basin the addition of facultative and anaerobic microorganisms is used to aid in the de-nitrification process. Micro C adds a carbon source for microbiological feed - 5% Methanol solution.



NMED/SWQB
Official Photograph Log
Photo # 9

Photographer: B. Cooney

Date: 2 February 2012

Time: 14:03

City/County: Village of Taos Ski Valley / Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: Floating grease and scum is removal from the first basin with a wet vacuum. The grease waste is held in a septic tank then hauled to the Town of Taos WWTP for final disposal.



NMED/SWQB
Official Photograph Log
Photo # 10

Photographer: B. Cooney

Date: 2 February 2012

Time: 14:03

City/County: Village of Taos Ski Valley / Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: Splitter box following the aerobic, anaerobic basins. The flow is divided between two clarifiers.



NMED/SWQB
Official Photograph Log
Photo # 11

Photographer: B. Cooney

Date: 2 February 2012

Time: 13:59

City/County: Village of Taos Ski Valley / Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: The roughly 10 feet deep secondary clarifiers have between 5 and 7 feet deep sludge blankets (as seen with this sludge judge). The clarifiers are undersized for this treatment plant and become overwhelmed with solids quickly. The solids are wasted to maintain lower sludge blankets. Wasting is ongoing daily.



NMED/SWQB
Official Photograph Log
Photo # 12

Photographer: B. Cooney

Date: 2 February 2012

Time: 13:58

City/County: Village of Taos Ski Valley / Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: Clarifier - weirs were balanced and no short circuiting was evident. No apparent floating solids were present in the clarifiers. Sludge blankets are kept high for the size of the units though. Because of the small land area available the size of these treatment units are limited.



NMED/SWQB
Official Photograph Log
Photo #13

Photographer: B. Cooney

Date: 2 February 2012

Time: 14:36

City/County: Village of Taos Ski Valley /Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: Effluent sampling and composting unit. Daily log of temperature reading is recorded on the sheet seen on the door in this photo.



NMED/SWQB
Official Photograph Log
Photo # 14

Photographer: B. Cooney

Date: 2 February 2012

Time: 14:38

City/County: Village of Taos Ski Valley /Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: Composting refrigerator thermometer reads 1° Centigrade. It's important to not let the temperature go any lower. If the samples freeze, they must be discarded and cannot be used for any of the analytical test required in the NPDES permit.



NMED/SWQB
Official Photograph Log
Photo # 15

Photographer: B. Cooney

Date: 2 February 2012

Time: 14:28

City/County: Village of Taos Ski Valley /Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: One of two final sand filters



NMED/SWQB
Official Photograph Log
Photo # 16

Photographer: B. Cooney

Date: 2 February 2012

Time: 14:02

City/County: Village of Taos Ski Valley /Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: Sand filter back wash water from this basin it is sent back to the head of the EQ basins.



NMED/SWQB
Official Photograph Log
Photo # 17

Photographer: B. Cooney

Date: 2 February 2012

Time: 14:36

City/County: Village of Taos Ski Valley /Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: Effluent flow meter and sample location.



NMED/SWQB
Official Photograph Log
Photo #18

Photographer: B. Cooney

Date: 2 February 2012

Time: 14:40

City/County: Village of Taos Ski Valley /Taos County

State: New Mexico

Location: Taos Ski Valley Wastewater Treatment Plant

Subject: Effluent Water Sample is clear and free of any floating solids. - Sample taken at the end of the treatment works. - Fecal Coliform & E. coli samples are not taken w/ this dipper. Samples are collected directly into the sample bottles.

