

Region 6 - Enforcement & Compliance Assurance Division
INSPECTION REPORT

Inspection Date(s):	09/03/2024	
Media Program:	Water	
Regulatory Program(s)	CWA – NPDES	
Company Name:	Village of Hatch	
Facility Name:	Hatch Wastewater Treatment Plant	
Facility Physical Location:	1 mile south of east side of Hwy 85 (south of schools)	
(city, state, zip code)	Hatch, NM 87937	
Mailing address:	133 N. Franklin Street	
(city, state, zip code)	Hatch, NM 87937	
County/Parish:	Doña Ana County	
Facility Phone Number		
Facility Contact:	Dennis Torres	Mayor
	dtorres@villageofhatch.org	
FRS Number:	110009831192	
Identification/Permit Number:	NM0020010	
Media Identifier Number:		
NAICS:	221320	
SIC:	4952	
Personnel participating in inspection:		
<i>Name</i>	<i>Affiliation/mailcode</i>	<i>Title</i>
Amy Andrews, P.E.	USEPA/6ECD-WM	Inspector/Environmental Engineer
Nafis Fuad	NMED-SWQB	Compliance and Enforcement Supervisor
Juan Duran	Village of Hatch	Wastewater Plant Operator
EPA Lead Inspector Signature/Date	AMY ANDREWS AMY ANDREWS c=US, o=U.S. Government, ou=Environmental Protection Agency, cn=AMY ANDREWS, 0.9.2342.19200300.100.1.1=68001003655888 2024.10.22 12:52:19 -06'00'	
	Amy Andrews	Date
Supervisor Signature/Date	ROBERTO BERNIER Digitally signed by ROBERTO BERNIER Date: 2024.10.27 01:00:03 -05'00'	
	Roberto Bernier	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

Environmental Protection Agency (EPA) Region 6 inspector, Amy Andrews, and New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) inspector, Nafis Fuad, arrived at the Village of Hatch Wastewater Treatment Plant (WWTP) at 9:10AM on 09/03/2024 for an unannounced inspection. We met with Juan Duran, the Wastewater Treatment Plant Operator. I presented my credentials to Mr. Duran and informed him that this was an EPA inspection to determine compliance with the facility's National Pollutant Discharge Elimination System (NPDES) permit and the Clean Water Act (CWA). The inspection was conducted under the authority of the NPDES permit program, in accordance with the Federal CWA. This report is based on information supplied by {facility} representatives (the permittee), observations made by the EPA inspector, and records and reports maintained by the permittee and the EPA.

FACILITY DESCRIPTION

The Hatch WWTP is classified as a minor municipal discharger under the CWA, Section 402, of the NPDES permit program and is authorized to discharge up to 0.3 million gallons per day (MGD) based on design flow, with an actual discharge between 0.1 MGD and 0.2 MGD. Discharge is to receiving waters of the Rio Grande River in waterbody segment 20.6.4.98 (NMAC, State of New Mexico Standards for Interstate and Intrastate Surface Waters) of the Rio Grande Basin. This segment includes the designated uses of livestock watering, wildlife habitat, marginal warmwater aquatic life and primary contact.

Wastewater from the Village of Hatch arrives at the WWTP through a series of seven lift stations to the entrance works. The flow enters the treatment works by first passing through a bar screen. The bar screen has approximately 1-inch gaps between the bars. Rags and debris picked up on the bar screen are placed in a dumpster and then sent with the sludge to a sanitary landfill. There is no influent flowmeter.

From the headworks, wastewater flows into one of two parallel sequencing batch reactor (SBR) units which each have the capability to treat 300,000 gallons of wastewater. Each unit is 44 feet by 29 feet and contains one mixer, one decanter, and two rows of fine bubble diffusers. Three 15-horsepower blowers provide air for the aeration system in these units. Each cycle in the SBR tanks consists of a fill phase, mixing/aeration phase, settling phase, and decant phase. After decanting, wastewater enters the post equalization basin to hold until the batch discharge. When the equalization basin reaches a certain level, effluent is released and flows past the ultraviolet (UV) disinfection system and passes through a Parshall flume with ultrasonic flow meter before being discharged. Samples are taken immediately after the UV system.

Wasted sludge is sent to the digester for processing and disposal. When the digester gets full, waste activated sludge (WAS) is withdrawn and placed on one of six concrete-lined sludge drying beds where polymer is added to facilitate separation of solids and water. Return activated sludge (RAS) is sent back to the head of the plant flowing by gravity back to the lift station. Solids are removed from the concrete-lined drying beds and placed on a sand drying bed to further dry out. After the sludge is dry, it is removed and placed in a plastic lined dumpster for shipment to the Camino Real Landfill in Sunland Park, NM.

Section II – OBSERVATIONS

At the opening meeting introductions were made and the inspection objectives were discussed. I provided a document request list of documents and information to be reviewed as part of the inspection. Facility personnel provided a description of the operational processes of the facility and described operational challenges that had been encountered recently. Observations discussed during the opening meeting include the following:

- The current NPDES Permit NM0020010 has an expiration date of 11/30/2025. The permit application is due 180 days ahead of the expiration date, which is 06/03/2025.
- The WWTP only has one certified operator; Mr. Duran is certified as a Level 4 Wastewater Operator by the state of New Mexico. There are three additional plant workers who are not certified. Mr. Duran stated that he is planning on retiring within the next few years.
- Backup power is provided by a Cummins generator that turns on automatically and powers the whole plant.
- The plant is monitored by a Supervisory Control and Data Acquisition (SCADA) system, but operators are not able to adjust settings at the plant remotely. Alarms go to the Village alarm relay center, and the operator is notified via phone by dispatch personnel. There is an audible alarm at the plant, however plant personnel regularly disable it when working on the equipment because it is loud.

After the opening meeting, we toured the WWTP. Observations made during the tour included the following:

- The Hatch WWTP was built around 2006, but is in need rehabilitation, including the mixers, the decanters, and the actuators for the blowers because many of the current equipment parts are no longer available. The Village of Hatch is currently working with engineers to determine a path forward, but they do not yet have a construction funding source.
- The SBR decant schedule changes based on storm flows (settings 1-4), which each move the decant cycle forward by half an hour to prevent basin overflows.
- The old plant basins are still available for extra capacity if needed (two clarifiers and the chlorine contact chamber). The piping can be split from the SBR basins (prior to UV disinfection) up to either the drying beds or to the old plant clarifiers and the old chlorine contact chamber. Stale green water is currently sitting in the chlorine contact chamber. Have used the old clarifiers as sludge storage in recent years, but not currently. Previously, when the chlorine contact chamber was in use, the chlorination was by chlorine gas.

A tour of the Hatch WWTP in-house laboratory (lab) was conducted after the plant tour. Observations of the laboratory include the following:

- Analysis for pH, biochemical oxygen demand (BOD), total suspended solids (TSS), Escherichia coli (E. coli) and total residual chlorine (TRC) are conducted at the in-house laboratory.
- Samples collected for non-conventional pollutants required by the permit are hand-delivered to the contract laboratory, Interlab, in Las Cruces for analysis.

- Samples are collected on Tuesday or Wednesday of first week of month, however facility personnel stated that it sometimes slips to the second week of the month.
- There are no written laboratory Standard Operating Procedures (SOPs).
- The solution the pH probe is being stored in has crystallized.
- The Dissolved Oxygen (DO) meter used for BOD analysis was not stored properly, with a sponge.
- The laboratory scale was not level according to the bubble level on the device.
- The thermometer in the low-temp incubator was not properly suspended in water.
- Many expired reagents were present in laboratory cabinets. These expired reagents must be properly disposed of to prevent accidental contamination of other reagents, to prevent accidental use during current analysis, and for safety.
- Corrosives cannot be stored on shelves above eye level in the laboratory.
- The use of an acid reagent should always be conducted inside an operational fume hood.

Documents requested during the inspection were reviewed after inspectors left the facility on 09/03/2024. These documents included Discharge Monitoring Reports (DMRs) and all bench sheets that were used to construct the values reported on the DMRs. Observations from the document review include the following:

- Flow measurements:
 - 7-Day Average values appear to be calculated only from full 7-day weeks during a specific month. The partial flows on days that fall during weeks at the beginning and end of the month are not averaged used to determine 7-day average reporting. Days at the end of the month that do not fill an entire week should be carried over to the following month to create a full week at the beginning of that month.
 - 30-Day Average values are calculated from an average of the daily values. Daily values are recorded as MGD to three decimal places (0.000) and rounded. Using these values gives an overestimation of the actual flow for the month. A more accurate measurement would be to take the difference between the value on the totalizing meter at the beginning of the month, and the value on the totalizing meter at the end of the month, divided by the number of days in the month.
- The blank bench sheets appear to be copies of copies that have lost fidelity over the years and are barely legible now.
- E coli. Analysis. Permittee is using the m-Colibblue24, membrane filtration method by Hach:
 - Bench sheets do not list a date the sample was collected; therefore, it cannot be verified that the samples met holding times.

- Calculation spreadsheets were not provided to the inspector; it is possible the DMR values are hand-calculated by the operator immediately prior to entering them on the DMRs. The following errors were found on the DMRs (note that this may not be an exhaustive list of potential errors).

DMR Date	Pollutant	Value Reported on DMR	Value Observed on Bench Sheets
December 2023	Copper, dissolved; 1/year; grab sample	0.002 mg/L	0.037 mg/L
March 2024	E. coli Bacteria; Daily Max; 2/month; grab sample	93 CFU/100mL	94 CFU/100mL
April 2024	E. coli Bacteria; Daily Max; 2/month; grab sample	48 CFU/100mL	47 CFU/100mL
May 2024	E. coli Bacteria; Daily Max; 2/month; grab sample	69 CFU/100mL	70 CFU/100mL

Note that loading values calculated from incorrect concentration values are also incorrect.

Section III – AREAS OF CONCERN

Requirement 1

NPDES Permit NM0020010, Part I: A. Limitations and Monitoring Requirements 1. *FINAL Effluent Limitations – 0.3 MGD Design Flow. During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge treated municipal wastewater to Hatch Drain, in Segment Number 20.6.4.98 NMAC, from Outfall 001. Such discharges shall be limited and monitored by the permittee as specified [in NPDES permit NM0020010].*

Concern 1

Errors were reported on DMRs (see document observations). The operator must review the DMRs from the last 3 years and correct and resubmit all DMRs where errors are found.

Requirement 2

NPDES Permit NM0020010, Part I: A. Limitations and Monitoring Requirements 1. *FINAL Effluent Limitations – 0.3 MGD Design Flow*

WHOLE EFFLUENT TOXICITY TESTING (7-Day Chronic Static Renewal, *8)	30-DAY AVG MINIMUM	7-DAY AVG MINIMUM	FREQUENCY	TYPE
Ceriodaphnia dubia	Report	Report	Once/5 years	24-Hr Composite
Pimephales promelas	Report	Report	Once/5 years	24-Hr Composite

*8. Monitoring and reporting requirements begin on the effective date of this permit and shall be performed no later than 12 months from the permit effective date. This test should occur in winter or springtime when most sensitive juvenile life forms are likely to be present in the receiving water, and colder ambient temperatures might adversely affect treatment processes. See PART II, Section E. Whole Effluent Toxicity Testing requirements for additional WET monitoring and reporting conditions.

Concern 2

WET testing was required to have been completed by 11/30/2021. As of the date of this inspection, permittee had not conducted WET Testing during this permit cycle.

Requirement 3

NPDES Permit NM0020010, Part I: E. Pollution Prevention Requirements: *The permittee shall institute a program within 12 months of the effective date of the permit (or continue an existing one) directed towards optimizing the efficiency and extending the useful life of the facility. The permittee shall consider the following items in the program: a. The influent loadings, flow and design capacity; b. The effluent quality and plant performance; c. The age and expected life of the wastewater treatment facility's equipment; d. Bypasses and overflows of the tributary sewerage system and treatment works; e. New developments at the facility; f. Operator certification and training plans and status; g. The financial status of the facility; h. Preventative maintenance programs and equipment conditions and; i. An overall evaluation of conditions at the facility.*

Concern 3

Permittee was unable to provide a Pollution Prevention Program.

Requirement 4

NPDES Permit NM0020010, Part III: Standard Conditions B.3. Proper Operation and Maintenance b. *The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and testing functions required to insure compliance with the conditions of this permit.*

In accordance with New Mexico Administrative Code (NMAC) 20.7.4, in order to “operate” this facility, a Level 3 Wastewater Certification is required. Operate is defined as “performing any activity or function or making any process control or system integrity decision regarding water quality or water quantity that has the potential to affect the proper functioning of ... a public wastewater facility or to affect human health, public welfare or the environment.”

Concern 4

At the time of the inspection, the facility had one full time operator with a Level 4 Wastewater certification and several uncertified operators. Day to day operations require a qualified operator having full knowledge of the plant workings, including the quality of the effluent. Having only one certified operator does not provide coverage for times when that operator cannot be there, including vacations or illnesses, and does not provide backup if that operator retires or otherwise leaves the facility. Additionally, the lack of plant and laboratory SOPs means that a newer operator will not have any guidance on how the plant or laboratory has been run in the past and may have to develop their own methodology. SOPs must be developed for both the plant and the laboratory as soon as possible.

Requirement 5

NPDES Permit NM0020010, Part III: Standard Conditions B.3. Proper Operation and Maintenance a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit.

Concern 5

The permittee reports that many plant parts are unavailable and several of the manufacturers are no longer in business. They are working with an engineer to rehabilitate the necessary parts; however they do not have funding yet. Until these parts have been replaced, the WWTP is at risk of major issues.

Requirement 6

NPDES Permit NM0020010, Part III. C.4. Record Contents: *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 time(s) analyses were performed; d. The individual(s) who performed the analyses; e. The analytical techniques or methods used; and f. The results of such analyses.

Concern 6

Many bench sheets were not legible and were missing data (see document review observations above) which made it impossible to verify holding times.

Requirement 7

NPDES Permit NM0020010, Part III. C.5.a. *Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.*

NPDES Permit NM0020010, Part III. C.5.b. *The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities*

Concern 7

Several laboratory instruments were not stored or maintained properly (see laboratory observations), which may make their measurements invalid. Expired reagents must be disposed of properly to ensure safety of personnel and to avoid using them by mistake.

Requirement 8

NPDES Permit NM0020010, Part III. C.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 true discharge rates throughout the range of expected discharge volumes.*

Concern 8

Permittee is not calculating 7-day and 30-day flows properly (see document review observations).

Section IV – CLOSING CONFERENCE

Inspectors conducted a closing conference at the Village of Hatch WWTP at 1:26 PM on 09/03/2024 for the inspection. During the closing conference, Inspectors reviewed the Areas of Concern noted during the inspection. AOCs regarding document review were determined after the conclusion of the inspection and were not included in the closing conference. Inspectors exited the facility at 2:11PM on 09/03/2024.

Section IV – FOLLOW UP

No additional information was received by EPA after exiting the Facility on 09/03/2024.

Section V – LIST OF APPENDICES

No Appendices