EPA United States Environmental Protection Agency

Region 6 Compliance Assurance and Enforcement Division

INSPECTION REPORT

Inspection Date(s):	08/21/2019		
Media:	Water		
Regulatory Program(s)	CWA – NPDES		
Company Name:	**Town of Springer**		
Facility Name:	**Springer Water Treatment Plant**		
Facility Physical Location:	128 Highway 468		
(city, state, zip code)	Springer, NM 87747		
Mailing address:	P.O. Box 488		
(city, state, zip code)	Springer, NM 87747		
County/Parish:	Colfax County		
Facility Contact:	Boe Lopez	Mayor	
	diamondarrowranch@yahoo.com		
FRS Number:	110017696082		
Identification/Permit Number:	NM0030627		
Media Number:			
NAICS:			
SIC:	4941		
Personnel participating in inspection:			
Amy Andrews, P.E.	USEPA/6EN-WMH	Environmental Engineer	214-907-0638
Jennifer Foote	NMED	Inspector	505-827-0596
Laura Danielson	Town of Springer	Water/Wastewater Manager	575-483-2682
EPA Lead Inspector Signature/Date	AMY ANDREWS Digitally signed by AMY ANDREWS DN: c=US, o=U.S. Government, ou=Environmental Protection Agency, cn=AMY ANDREWS, 0.9.2342.19200300.100.1.1=68001003655888 Date: 2019.10.25 09:45:19 -06'00'		
	Amy Andrews		Date
Supervisor Signature/Date	CAROL PETERS-WAGNON Digitally signed by CAROL PETERS-WAGNON DN: c=US, o=U.S. Government, ou=Environmental Protection Agency, cn=CAROL PETERS-WAGNON, 0.9.2342.19200300.100.1.1=68001003652679 Date: 2019.10.25 11:16:35 -05'00'		
	Carol Peters		Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

Environmental Protection Agency (EPA) Region 6 inspector, Amy Andrews, and New Mexico Environment Department inspector, Jennifer Foote, arrived at the Springer Town Hall at 9:00 AM on August 21, 2019 for an unannounced inspection of the Town of Springer Water Treatment Plant (WTP). We met with Laura Danielson, the Town of Springer Water and Wastewater Manager. I presented my credentials to Ms. Danielson and informed her 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 Town of Springer representatives (the permittee), observations made by the EPA inspector, and records and reports maintained by the permittee and the EPA.

FACILITY DESCRIPTION

The Springer WTP is classified as a minor industrial discharger under the CWA, Section 402 NPDES permit program, authorized to discharge treated backwash water at a design flow of 0.28 million gallons per day (MGD). The facility serves a population of approximately 1047 people (2010 US Census) and the Springer Correctional Facility (currently housing around 400 women-inmates). The effluent from the WTP is discharged into a non-classified arroyo, thence to Cimarron River in Waterbody Segment No. 20.6.4.306 (NMAC, State of New Mexico Standards for Interstate and Intrastate Surface Waters) of the Canadian River Basin. This segment includes designated uses of irrigation, warmwater aquatic life, livestock watering, wildlife habitat and primary contact.

The Springer WTP treats surface water from two reservoirs on site. Overflow from an upper reservoir drains via a spillway into a lower reservoir from which raw water is drawn for treatment. The lower reservoir also has a spillway and associated drainage ditch leading toward the unnamed tributary south of the facility. Previously, the dams were subject to a New Mexico Office of the State Engineer order limiting storage in the reservoirs. The reservoir dam replacement was completed in March 2016.

Raw water from the lower reservoir flows via gravity to a pump station and is sent to the enclosed treatment plant. The treatment scheme consists of chemical injection followed by two parallel Tonka package units rated at 525,600 gallons per day, each compartmentalized into two flocculation chambers, sedimentation basin, and multi-media filter. Depending on water demand or maintenance schedule, one or both of the package units may be placed into service at any time. Following filtration, water is disinfected with a MIOX disinfecting solution before distribution to the drinking water system.

At the head of the plant, aluminum sulfate and cationic polymer (poly diallyldimethylammonium chloride or pDADMAC) are injected into the raw water within the intake pipes and then flash mixed. Water flows into the flocculation chamber where horizontal paddle wheel mixers enhance the

coagulation-flocculation process. Following the flocculation chamber, flow enters the sedimentation basin and is thrust up through tube settlers. The upward movement of water through the tube settlers allows each tube to function as a small settling basin. From the sedimentation basin, water enters a multi-media filtration unit for removal of remaining suspended solids.

Filter backwashing (with finished water) begins automatically at pre-set intervals based on continuously monitored effluent turbidity levels from each package unit on an alternating schedule. Emergency overflows from the package plant (prior to disinfection) as well as floor drains in inside the treatment plant flow to the backwash ponds. The operator may also manually backwash the filter media. Backwashing tends to occur approximately three times every five days. Backwash water is flushed to one of two new concrete detention ponds adjacent to the treatment building that have been constructed such that the inflow does not disturb the solids that are already present in the pond. Ms. Danielson stated that flow to the concrete detention ponds goes to one pond at a time and is switched to the other pond after six months. Discharge to the unnamed arroyo at Outfall 001 happens automatically when the water level reaches a given level in the backwash pond. Solids are allowed to dry and then excavated from the pond not currently in use and placed in the old unlined backwash pond to dry prior to final disposal. The permittee plans to send the solids to the Waste Management Landfill in Rio Rancho for final disposal.

Section II - OBSERVATIONS

After introductions were made at the Town Hall, we proceeded to the WTP, where the opening meeting was conducted. During the opening meeting, the inspection objectives were discussed, and I provided a list of documents to review as part of the inspection. After the opening meeting we conducted a tour of the WTP. Before leaving at the end of the inspection, a closing meeting was conducted to discuss observations (this section) and areas of concern (see Section III).

A laboratory and records review was conducted after the opening meeting, followed by a facility tour. pH, dissolved oxygen (DO) and total residual chlorine (TRC) are analyzed at the facility, total suspended solids (TSS) samples are sent to Mike Baca in Raton, and all other samples are sent to Hall Environmental Laboratory in Albuquerque, NM. TRC testing is done during every discharge. The receiving stream below Outfall 001 is a dry arroyo accept for the leakage from the reservoir dam. At the time of the inspection there was a slight trickle of discharge, which Ms. Danielson indicated was not enough flow to be from a filter backwash, the exact source of the discharge was not determined at that time.

The new concrete backwash ponds were built in 2017 to remedy issues with the old unlined earthen pond. The old pond was designed improperly, causing the previously settled solids to be re-suspended during every backwash event. Immediately after the new concrete backwash ponds were built, Ms. Danielson reports that they did have some schedule issues with figuring out how they could fill each basin before solids would begin discharging out the outfall. This resulted in an exceedance of TSS in December 2018 and three exceedances of aluminum in 2018, however Ms. Danielson is confident that

they have figured out the cleaning schedule for the new backwash ponds, and no exceedances have occurred thus far in 2019.

Section III – AREAS OF CONCERN

Requirement 1
NPDES Permit NM0030627, 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 1
The permittee reports that the solids removed from the backwash ponds will be considered hazardous waste due to the aluminum content when taken to the landfill. Hazardous waste was not properly stored onsite.

Requirement 2
NPDES Permit NM0030627, 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.*
Concern 2
This facility requires at least two operators to run the facility. At the time of the inspection, Ms. Danielson (with a Level 4 Water/Wastewater Certification) was the only operator, also operates the Springer Wastewater Treatment Plant, and is planning to retire within the next year. She has one uncertified helper and is hopeful that the facility will soon hire a Level 2 Operator. In accordance with New Mexico Administrative Code (NMAC) 20.7.4, in order to "operate" this facility, a Level 3 Water 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 water supply system or public wastewater facility or to affect human health, public welfare or the environment."

Requirement 3
NPDES Permit NM0030627, Part III: Standard Conditions, C.4. Record Contents: *Records of monitoring information shall include: a. The date, exact place, and time of sampling or measurements;*
Concern 3
Several typographical errors were noted on bench sheets, a) the facility was listed as the "Raton WWTP" on the TSS bench sheets, b) the sampling location is listed as "effluent parshall flume" on TSS bench sheets even though there is no effluent parshall flume.

Requirement 4
NPDES Permit NM0030627, Part III: Standard Conditions, C.5. Monitoring Procedures, 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 4

pH buffer solutions did not have received-on or opened-on dates written on the bottles. The manufacturer of these solutions, "USABlueBook" states that they must be used within 6 months after opening. Actual expiration, based on six months after opening or the printed manufacturer's expiration, was unable to be determined.

Requirement 5

NPDES Permit NM0030627, Part III: Standard Conditions, 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 minimum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

Concern 5

The mag-meter located prior to the filters has not been calibrated since installation, 14 years ago. There is no meter to measure actual discharge going out the outfall (permit requires estimate), but the discharged amount is calculated using the total capacity of the ponds and the backwashed flow.

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – 4 photos taken 8/21/2019

Appendix 1
Photograph Log

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

Location: Village of Springer Water Treatment Plant		
City: Springer	County/Parish: Colfax County	State: New Mexico

Photo File Name: DSCN1209.JPG
Date of Photo: 8/21/2019
Time of Photo: 10:38
Photographer: Amy Andrews
Description: Outfall 001

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: Village of Springer Water Treatment Plant		
City: Springer	County/Parish: Colfax County	State: New Mexico

Photo File Name: DSCN1210.JPG
Date of Photo: 8/21/2019
Time of Photo: 10:43
Photographer: Amy Andrews
Description: New concrete backwash ponds are shown to the right of the new reservoir dam (right side of photo), old earthen backwash pond is to the left of the concrete ponds.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: Village of Springer Water Treatment Plant		
City: Springer	County/Parish: Colfax County	State: New Mexico

Photo File Name: DSCN1211.JPG
Date of Photo: 8/21/2019
Time of Photo: 10:44
Photographer: Amy Andrews
Description: New concrete backwash ponds

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Location: Village of Springer Water Treatment Plant		
City: Springer	County/Parish: Colfax County	State: New Mexico

Photo File Name: DSCN1213.JPG
Date of Photo: 8/21/2019
Time of Photo: 10:45
Photographer: Amy Andrews
Description: New concrete backwash pond, pipe shown on right side of photo is inlet pipe, discharge flows to the outfall when it reaches the top of the white pipes shown on the left side of the photo.