EPA United States Environmental Protection Agency

Region 6 Compliance Assurance and Enforcement Division

INSPECTION REPORT

Inspection Date(s):	02/08/2018		
Media:	Water		
Regulatory Program(s)	CWA		
Company Name:	**Village of Fort Sumner**		
Facility Name:	**Fort Sumner Wastewater Treatment Plant**		
Facility Physical Location:	179 Sewer Plant Road		
(city, state, zip code)	Fort Sumner, New Mexico		
Mailing address:	Post Office Box 180		
(city, state, zip code)	Fort Sumner, New Mexico 88119		
County/Parish:	De Baca		
Facility Contact:	Chris Archuleta	Water/Wastewater Supervisor	
	c.archuleta66@gmail.com		
FRS Number:	11011027272		
Identification/Permit Number:	NM0023477		
Media Number:	N/A		
NAICS:	221320		
SIC:	4952		

Personnel participating in inspection:			
Justin Ingram	Village of Fort Sumner	Mayor	575-355-2401
Paul Chavez	New Mexico Rural Water Association	Consultant	505-288-4630
Chris Archuleta	Village of Fort Sumner	Water/Wastewater Supervisor	575-355-7508
Jamie Wall	Village of Fort Sumner	Clerk/Treasurer	575-355-2401
Louie Gallegos	Village of Fort Sumner	Councilman	575-355-2401
Sandra Gabaldon	New Mexico Environment Department	Point Source Regulation Section, Surface Water Quality Bureau	505-827-1041
David Esparza	USEPA	Environmental Engineer	505-366-8402

EPA Lead Inspector Signature/Date	DAVID ESPARZA Digitally signed by DAVID ESPARZA DN: c=US, o=U.S. Government, ou=USEPA, ou=Staff, cn=DAVID ESPARZA, dnQualifier=0000105311 Date: 2018.04.12 09:18:04 -06'00'	
	David Esparza	Date
Supervisor Signature/Date	CAROL PETERS-WAGNON Digitally signed by CAROL PETERS-WAGNON DN: c=US, o=U.S. Government, ou=USEPA, ou=Staff, cn=CAROL PETERS-WAGNON, dnQualifier=0000009981 Date: 2018.08.16 16:03:54 -05'00'	
	Caro Peters	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

EPA Region 6 inspectors David Esparza, PE, Sandra Gabaldon, NMED Point Source Regulation Section, Surface Water Quality Bureau arrived at the Fort Sumner Village Hall (hereinafter referred to as Fort Sumner) at approximately 915 AM on February 8, 2018 for an unannounced inspection. We met with the Honorable Justin Ingram, Mayor, Paul Chavez, New Mexico Rural Water Association, Chris Archuleta Water/Wastewater Supervisor, Jamie Wall, Clerk/Treasurer, and Louie Gallegos, Councilman. Mr. Esparza presented his credentials to the Honorable Justin Ingram, Mayor and informed him that this was an EPA inspection to determine Fort Sumner's Wastewater Treatment Plants (WWTP's) compliance under the Clean Water Act (CWA). This CEI was conducted under the authority 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 Fort Sumner representatives, observations made by the United States Environmental Protection Agency (US EPA) inspector, and records and reports maintained by the permittee (Fort Sumner), and the US EPA. Before leaving the facility, an exit briefing was held with the Honorable Justin Ingram, Mayor, the above mentioned staff, and regulatory representatives to explain areas of concern noted at the time of the inspection.

FACILITY DESCRIPTION

The WWTP a minor discharger with a design flow of 0.21 million gallons per day (MGD), is located at 179 Sewer Plant Road or approximately 2.0-miles southeast of the Fort Sumner Village Hall, De Baca County, New Mexico (depicted in Aerial #1 below). The WWTP facility serves a population of approximately 900 (2016 US Census) residents. The WWTP is operated by staff within the Public Works Department and consists of 2 full-time equivalent (FTE) positions and one (1) temporary position, on a Monday through Friday 8-hour per day basis. On-call staff is available on an as needed basis.

Aerial #1: Overall view of the Village of Fort Sumner Wastewater Treatment Plant. Aerial from Google Earth maps.

Treatment Scheme:

Fort Sumner maintains/operates four (4) lift stations, combined with gravity flow that transports wastewater to the WWTP. Raw sewage reaches the entrance works where a comminutor (a.k.a. grinders, macerators) is used to reduce the particle size of the wastewater solids and a backup bypass channel to a mechanical bar screen. Solids and grit caught in the bar screen are collected in a hopper and transported by contracted carrier to the De Baca County Landfill.

The WWTP headworks are comprised of an aerated grit chamber and a six-inch Parshall flume. The influent flow is then lifted by two (2) alternating submersible pumps to Sequencing Batch Reactors (SBR) basins.

Wastewater is processed though alternating cycles of first filling and mixing, then an aerobic, anaerobic, settling and finally a decant phase. Four (4) small blowers provide aeration to these two (2) units. An aerobic sludge digester is located between the two (2) SBR units. Decant water from the SBR basins enter an older model Schreiber flow equalization unit which ensures even flow to the disinfection system.

The WWTP utilizes an individual bank of Ultraviolet (UV) lights for disinfection and bacterial control prior to discharging the metered treated effluent to Outfall 001 and into the Pecos River in Water Quality Segment 20.6.4.207 of the Pecos River Basin. The designated uses of the receiving stream are irrigation, marginal warm water aquatic life, livestock watering, wildlife habitat and secondary contact.

Sludge:

Sludge is wasted from the two (2) SBRs, and sent to the aerobic digester. Wasted sludge from the digester is then placed in the sludge drying beds for a minimum period of 90-days. Decant waters from the digesters is returned to the SBR system for reprocessing. The sludge drying beds have under drains that send liquids back to the headworks. Residual solids are also wasted from the Schreiber system directly to the sludge drying beds.

The dried sludge is moved to an adjacent concrete pad, windrowed and staged onsite.

Section II - OBSERVATIONS

I observed the following

- The WWTP has an electrical generator, which is exercised on a weekly basis. It was not apparent which electrical components the generator provides back-up/stand-by power to in the event of a power outage.
- The bar screen is non-functional and was stated to be in this condition for quite some time. The WWTP operators must manually switch the mechanical equipment power on and off. The grit from the bar screen is disposed of at the landfill. It was not clear if a toxicity characteristic leaching procedure (TCLP) or any respective analysis was being performed prior to disposal (Appendix 1 Photograph #1).
- The UV system bulbs (lights) have not been replaced and it is presumed the maximum intensity of the system is 20% with the indication reading “change bulbs”. Replacement bulbs arrived earlier on the day of the inspection, but had not been installed. There appeared to be a seal leak on the UV system.
- The Supervisory Control and Data Acquisition (SCADA) system has no alarm. There is currently no dial out or audible alarms at the WWTP.
- The operator apparently did not know how to use the Teledyne ISCO automatic sampler for the 24-hour composite Whole Effluent Toxicity (WET) sample. He stated he just grabbed a sample and sent it to the laboratory for analysis.
- There are only two (2) blowers out of the six (6) utilized in conjunction with the SBR basins that are operational (Appendix 1 Photograph #2 and #3).
- The sludge drying beds are filled with decant. Based on observation and discussion the drains may be clogged. Immediately adjacent (west) of the sludge drying beds the facility has a 3-year old dried sludge pile staged on a concrete pad (Appendix 1 Photograph #4, #5, #6 and #7).

Section III – AREAS OF CONCERN

I observed the following areas of concern (AOCs)

- The WWTP is currently operating without any certified New Mexico Wastewater Operators, though Fort Sumner has contracted with the New Mexico Rural Water Association on an abbreviated schedule and short term basis.

- The bar screen is non-functional and was stated to be in this condition for quite some time. The WWTP operators must manually switch the mechanical equipment power on and off. It was not clear if any sampling analysis is performed prior to landfill disposal (Appendix 1 Photograph #1).

- The UV system bulbs (lights) have not been replaced and it is presumed the maximum intensity of the system is 20% with the indication reading "change bulbs". Replacement bulbs arrived earlier on the day of the inspection, but had not been installed. There appeared to be a leak at one of the seals on the UV system.

- The Supervisory Control and Data Acquisition (SCADA) system has no alarm. There is currently no dial out or audible alarms at the WWTP.

- The operator apparently did not know how to use the Teledyne ISCO automatic sampler for the 24-hour composite Whole Effluent Toxicity (WET) sample (Appendix 1 Photograph #8).

- It was stated the influent and effluent flow meters had been calibrated by Yukon and Associates recently, but the Fort Sumner WWTP staff did not know how perform a "check" between the totalizing meter and Parshall flume.

- Fort Sumner contracts with the Tucumcari WWTP laboratory for sample analysis. Tucumcari performs analytical analysis on Biological Oxygen Demand (BOD), Total Suspended Solids (TSS) and Escherichia coli (E. coli). Based on the bench sheets the facility provided it is difficult to ascertain if a sampling event occurred to collect any samples for BOD, TSS or E. coli for analysis as required. Tucumcari does provide bench sheets for BOD and TSS for the Fort Sumner WWTP to review, but does not provide bench sheets for E. coli for the facility to review and determine if an adequate quality control (QC) program is in place by the contract laboratory.

- The Tucumcari WWTP provides blank chain of custody (COC) forms for Fort Sumner. These forms do not provide/indentify what analytical regime is requested, condition (temperature, breakage etc.) or volume of the samples were received. Additionally, there is no indication the facility is performing a 10% duplicate sampling as required by their permit. Furthermore, it is not clear if the contracted laboratory maintains an adequate analytical quality control (QC) program, inclusive of the analysis of sufficient standards, spikes and duplicate samples to insure that the accuracy of all required analytical results are maintained by the permittee or designated commercial laboratory. Finally, on the COC form under the "LABORATORY TEST RESULTS"

section it is not clear why the requested wastewater sample analysis is listed under the "Drinking Water" tab.

- The WWTP previously had not been doing pH measurement as required by their NPDES permit. Additionally, current WWTP staff is not familiar with recognized methodology with respect to procedure, recordation or buffer handling (expiration).

- There are only two (2) blowers out of the six (6) utilized in conjunction with the SBR basins that are operational (Appendix 1 Photograph #2 and #3).

- The sludge drying beds are filled with decant. Based on observation and discussion the drains may be clogged (Appendix 1 Photograph #4, and #5).

- Immediately adjacent (west) of the sludge drying beds the facility has a 3-year old dried sludge pile staged on a concrete pad. Based on this observation and WWTP staff comments the site could be considered a Surface Disposal unit unless it complies with §503.20(b) (1-5), in addition to other applicable parameters with respect to site conditions and appurtenant safe guards to prevent surface and/or ground water impacts/degradation (Appendix 1 Photograph #6 and #7).

Section IV – FOLLOW UP

No information was received by EPA after exiting the Facility on [last day].

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log
Appendix 2 – Opening conference sign-in sheet
Appendix 3 – Fort Sumner Bench Sheets
Appendix 4 – Tucumcari Wastewater Treatment Plant Laboratory Chain of Custody Forms.