EPA United States Environmental Protection Agency

Region 6 Compliance Assurance and Enforcement Division

INSPECTION REPORT

Inspection Date(s):	07/09/2018		
Media:	Water		
Regulatory Program(s)	CWA		
Company Name:	**City of Bloomfield**		
Facility Name:	**Bloomfield Wastewater Treatment Plant**		
Facility Physical Location:	1176 S. Church Street		
(city, state, zip code)	Bloomfield, New Mexico 87413		
Mailing address:	915 N. 1st St.		
(city, state, zip code)	Bloomfield		
County/Parish:	San Juan		
Facility Contact:	David Sonnenberg	Superintendent	
	dsonnenberg@bloomfieldnm.com		
FRS Number:	N/A		
Identification/Permit Number:	NM0020770		
Media Number:	N/A		
NAICS:	221320		
SIC:	4952		

Personnel participating in inspection:			
David Sonnenberg	City of Bloomfield	Water Reclamation Superintendent	505-516-9416
David Kulkarni	City of Bloomfield	Operator	505-632-8474
Jason Thomas	City of Bloomfield	City Engineer/Director of Public Works	575-551-1120
Alan Watts	City of Bloomfield	Operator	505-632-8474
Ray Sterling	City of Bloomfield	Superintendent M&O	505-399-0082
Jennifer Foote	NMED	Industrial and Stormwater Team Supervisor	505-827-0596
Magdeleine Dallemagne	USEPA	Inspector	214-665-7396
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: 2018.07.26 12:57:32 -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: 2018.08.01 15:07:04 -05'00'	
	Carol Peters	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

EPA Region 6 inspectors David Esparza, PE, Jenifer Foote New Mexico Environment Department –Point Source Regulation Section (NMED), Industrial and Stormwater Team Supervisor, and Magdeleine Dallemagne, USEPA, arrived at the City of Bloomfield Wastewater Treatment Plant (WWTP) (hereinafter referred to as the WWTP) at approximately 1:15 PM on July 9, 2018 for an unannounced inspection. We met with David Sonnenberg, Water Reclamation Superintendent, David Kulkari, Water Operator, and Mr. Alan Watts, Water Operator. Mr. Esparza presented his credentials to Mr. Sonnenberg and informed him that this was an EPA inspection to determine the WWTP's compliance under the Clean Water Act (CWA). This compliance evaluation inspection (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 Bloomfield representatives, observations made by the United States Environmental Protection Agency (US EPA) inspector, and records and reports maintained by the permittee (Bloomfield), and the US EPA. Before leaving the facility, an exit briefing was held at 4:10 PM with Mr. Sonnenberg, the above-mentioned staff, regulatory and City of Bloomfield representatives Mr. Jason Thomas and Mr. Ray Sterling to explain areas of concern noted at the time of the inspection.

At this juncture it should be noted that a separate inspection was conducted to observe Bloomfield's laboratory procedures and related functions to ascertain their compliance with that aspect of their NPDES permit.

FACILITY DESCRIPTION

The WWTP is a major discharger with a design flow of 0.9 million gallons per day (MGD), is located at 1176 S. Church Street, Bloomfield, San Juan County New Mexico (depicted in Aerial Image #1 below). The WWTP facility serves a population of approximately 7,100 (2016 US Census) residents. The WWTP is operated by staff within the Public Works Department and consists of 4 full-time equivalent (FTE) positions, inclusive of administrative support on a Monday through Friday 8-hour per day basis. On-call staff is available on an as needed basis.

Upon entry into the WWTP the municipal wastewater (influent) is measured with a staff gauge attached to the Parshall flume and an ultrasonic flow totalizing meter. The head works has split channels: a manual bar screen, and a mechanical grit and solids removal system inclusive of a screw pump. These split channels converge at an aerated grit chamber, thence three (3) sump pumps lift the influent water to two (2) separate parallel above land surface (ALS) aeration basins. These approximately square basins are located ALS because of the high static water level (SWL).

Surface aerators situated approximately 4-feet deep within the square shaped basins purportedly provide adequate aeration. However, likely due to the location of these aerators and the shape of the

basins, aeration is not efficient and evenly distributed throughout the basins. It is likely with this presumed inefficiency solids accumulate and become septic at the bottom corners of the basins. From the aeration basins, decant is sent to the two (2) approximate 250K gallon secondary round clarifiers (run in parallel) measuring approximately 12-feet in depth, thence to the square serpentine chlorine contact chamber. Dechlorination follows that process and the effluent flows through a Parshall flume with a fixed staff gauge, and an ultrasonic flow totalizing meter measures the discharge volume. The WWTP utilizes this location as their NPDES sampling point. The disinfected treated effluent flow is then routed through an enclosed pipe conduit to outfall 001 and into the receiving waters; San Juan River in Water Quality Segment 20.6.4.408 of the San Juan Basin *(State of New Mexico Standards for Interstate and Intrastate Surface Waters)* (Appendix 1 Photograph #1).

Aerial Image #1: Overall view of the City of Bloomfield Wastewater Treatment Plant. Aerial from Google Earth maps.

Sludge

Mr. Sonnenberg stated the WWTP's solids are wasted from the secondary clarifiers to an open-air chamber identified as the aerobic digester/solids thickener. Decant from the digester/solids thickener is returned to the head works where it mixes with the raw influent. From the digester/solids thickener, solids are sent to the belt press, thence to the sludge drying beds. The sludge drying beds have under drains that direct liquids back to the head of the plant. Grit removed from the head works is collected in a wheel barrow or hopper and after passing the paint filter test disposed of at the landfill. Final disposal of solids is to a surface disposal site at the WCA Bondad Landfill in Durango, Colorado (County Road 318 Durango, CO 81303 • *(970) 247-8295*).

Section II – OBSERVATIONS

The following will utilize portions of the New Mexico Environment Departments (NMED) September 15, 2016 Inspection Report format to document my observations.

Permit Requirements for Operation and Maintenance

The permit requires in Part III.3. PROPER OPERATIONS AND MAINTENANCE:

> *a. The permittee shall properly and maintain all facilities and systems of treatment and* control (and 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. Proper operations and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

Findings for Operation and Maintenance:

- Aeration Basins - The two (2) separate parallel ALS aeration basins have surface aerators situated approximately 4-feet deep within the square shaped basins and purportedly provide adequate aeration. However, likely due to the location of these aerators and the shape of the basins, aeration is not efficient and evenly distributed throughout the basins. It is likely with this presumed inefficiency solids accumulate, and become septic at the bottom corners of the basins contributing to and frequent splash over (Appendix 1 Photographs #1, #2 and #3).

- Concrete cracks and/or spalling – The original WWTP was built in 1978, while new head works were built and commissioned approximately 8 years ago (circa 2010). At various locations throughout the WWTP there are indications of failing concrete, inclusive of spalling/cracks in the treatment units and secondary clarifiers. The interior and some exterior sidewalls of the concrete basins exhibit degradation from the many years of exposure to the caustic wastewater. (Appendix 1 Photograph #5, and #6).

- Aging treatment and obsolete treatment units – Though the WWTP exhibits wear throughout the facility, WWTP personnel are updating and/or replacing equipment and process control systems as monies become available. As an example, two (2) recently received (new) headworks pumps were awaiting installation (Appendix 1 Photograph #7 and #8) and cosmetic repairs were observed elsewhere (i.e. paint, caulking, etc.).

- The dechlorination solution, liquid sodium bisulfite is stored in the enclosed shed and WWTP personnel where in the process of installing updated electrical conduit with respect to the heating, ventilating and air conditioning (HVAC) (Appendix 1 Photograph #9 and #10). This enclosed shed type structure was issue was identified in the NMED May 2015 Inspection Report as a potential health risk to onsite personnel. Until these renovations/upgrades are complete and the building is commissioned the health risk remains.

Section III – AREAS OF CONCERN

The following areas of concern (AOCs) were observed and discussed with the City of Bloomfield:

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Section IV – FOLLOW UP

The following information was received by EPA after exiting the Facility on July 9, 2018:

- Photograph copies of the City of Bloomfield WWTP Operator Certifications

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – 10 photos taken 07/09/2018
Appendix 2 – Opening conference sign-in sheet
Appendix 3 – City of Bloomfield Water Reclamation Operator Certifications