



Region 6 Compliance Assurance and Enforcement Division
INSPECTION REPORT

Inspection Date(s):	9/13/2018		
Media:	Water		
Regulatory Program(s)	CWA – NPDES		
Company Name:	Mora Mutual Domestic Water and Sewage Works Association (MDW & SWA)		
Facility Name:	Mora MDW & SWA Wastewater Treatment Plant		
Facility Physical Location:	Highway 3, approximately 1 mile east of the Village of Mora, on the north side of Mora River		
(city, state, zip code)	Mora, NM 87732		
Mailing address:	P.O. Box 304		
(city, state, zip code)	Mora, NM 87732		
County/Parish:	Mora County		
Facility Contact:	Elouterio Trujillo	President	
	mwsa@nnmt.net		
FRS Number:			
Identification/Permit Number:	NM0024996		
Media Number:			
NAICS:	221320		
SIC:	4952		
Personnel participating in inspection:			
Amy Andrews, P.E.	USEPA/6EN-WMH	Environmental Engineer	214-907-0638
Clarence Aragon	Mora	Operations Manager	575-387-2767
EPA Lead Inspector Signature/Date			
	Amy Andrews		Date
Supervisor Signature/Date			
	Carol Peters		Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

Environmental Protection Agency (EPA) Region 6 inspector Amy Andrews arrived at the Mora Mutual Domestic Water and Sewage Works Association (Association) Wastewater Treatment Plant (WWTP) at 11:30 AM on September 13, 2018 for an unannounced inspection. I met with Clarence Aragon, the Operations Manager for the Mora MDW & SWA. I presented my credentials to Mr. Aragon 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 Mora MDW & SWA representatives (the permittee), observations made by the EPA inspector, and records and reports maintained by the permittee and the EPA.

FACILITY DESCRIPTION

The Mora WWTP is classified as a minor municipal discharger with a design capacity flow of 0.052 Million Gallons per Day (MGD). The discharge from the WWTP enters the Mora River in the Canadian River Basin in segment *20.6.4.307 of 20.6.4 NMAC State of New Mexico Standards for Interstate and Intrastate Surface Waters*. The designated uses for this segment of the river are: marginal coldwater aquatic life, warmwater aquatic life, primary contact, irrigation, livestock watering and wildlife habitat. This segment of the Mora River is 303(d) listed as not supporting marginal coldwater aquatic life. Probable causes of impairment include nutrient / eutrophication, biological indicators and dissolved oxygen. A Total Maximum Daily Load (TMDL) has been calculated and implemented for this segment of Mora River. Thus, included in the NPDES permit for the Mora WWTP are discharge limitations for Total Nitrogen and Total Phosphorus.

The Mora WWTP is currently configured as a conventional activated sludge plant. The plant is located underground, inside of a building to assist treatment of wastewater during cold winter months. Wastewater is gravity fed from the collection system to the headworks and the trash tank where solids, trash, grit and oils and grease are removed and sent to an aerobic digester. Currently the aerobic digester takes all wasting and grit, there are no drying beds onsite, and the facility will most likely need to have the sludge pumped out and hauled offsite, however they have not reached capacity yet. The wastewater flow from the headworks is split evenly between the two treatment trains at the splitter box, which has two influent V-notch weirs and pressure transducers to track the influent flowrate. From there, each treatment train goes to an anaerobic digestion tank, pre-anoxic tank, aeration tank, post-anoxic tank, mixing tank, and secondary clarifiers. The secondary clarifiers have a filter system which is designed to also help with phosphorus reduction. Return activated sludge (RAS) is sent from the secondary clarifiers back to the anaerobic digester tank. Effluent from the clarifiers goes through an effluent V-notch weir with pressure transducer to track effluent flow rate, then leaves the treatment building and goes through a chlorination chamber where it is chlorinated and dechlorinated using

tablets before being discharged at Outfall 001. Compliance sampling is conducted after the outfall at the Mora River.

The Mora WWTP has encountered a number of issues since being issued an Administrative Order (AO) by the EPA in 2012. This AO required the Mora Association to begin construction of a new WWTP on 10/1/2012, with completion of the new WWTP on 10/31/2013. The treatment system prior to 2012 was a lagoon system which consisted of two lagoons (north and south lagoons), chlorination, de-chlorination and then discharge to the Mora River. The lagoons are still available for storage if the system becomes overwhelmed with influent flow or in the case of extended power loss to the system (around 48 hours or more). Between 2012 and 2014, the WWTP was converted to a Moving Bed Biofilm Reactor (MBBR) system with biological treatment designed to uptake phosphorus and carbon feed for biological metabolism for nitrate polishing, and ultraviolet disinfection. However, the MBBR system never functioned correctly, and after a series of funding and construction issues, in 2016 the MBBR system was abandoned in favor of the current conventional activated sludge plant, with ongoing upgrades being funded by the equipment supplier of the MBBR system, but no specific timeline for finishing upgrades.

Section II - OBSERVATIONS

Mr. Aragon met me at the WWTP, gave me a tour of the facility, explained the funding issues, and walked me through his methods for compliance sampling and analysis. Mr. Aragon is the only operator of the WWTP, he holds a Level IV Wastewater Operator Certification, which also includes, in accordance with 20.7.4.14, *J. NMAC*, Wastewater Laboratory Technician 2 certification. Mr. Aragon checks the plant for malfunctions first thing in the morning, then goes into the office, and comes back to the WWTP to sample and do plant maintenance in the afternoon. There are no backup operators available, but Mora Association board members fill in during emergencies. In-house compliance sample analysis is done for pH and total residual chlorine (TRC). *E. coli*, total suspended solids (TSS), and biochemical oxygen demand (BOD) are analyzed by the Las Vegas Wastewater Laboratory in Las Vegas, NM, and total phosphorus and total nitrogen are analyzed by Hall Environmental Laboratory in Albuquerque, NM.

Section III – AREAS OF CONCERN

Requirement 1

NPDES Permit NM0024996, Part I, A.1. Final Effluent Limitations, *Pollutants Total Phosphorus and Total Nitrogen*

TIME PERIOD	POLLUTANT	30-DAY AVG lbs/day	DAILY MAX lbs/day	30-DAY AVG mg/l	DAILY MAX mg/l	MEASUREMENT FREQUENCY	SAMPLE TYPE
Summer (May 1 - Sept 30)	Total Phosphorous	0.81 ⁽⁷⁾	Report ⁽⁷⁾	Report ⁽⁷⁾	Report ⁽⁷⁾	One/Month	Grab
Summer (May 1 - Sept 30)	Total Nitrogen	5.91 ⁽⁷⁾	Report ⁽⁷⁾	Report ⁽⁷⁾	Report ⁽⁷⁾	One/Month	Grab
Winter (Oct 1 – April 30)	Total Phosphorous	0.26 ⁽⁷⁾	Report ⁽⁷⁾	Report ⁽⁷⁾	Report ⁽⁷⁾	One/Month	Grab
Winter (Oct 1 – April 30)	Total Nitrogen	4.34 ⁽⁷⁾	Report ⁽⁷⁾	Report ⁽⁷⁾	Report ⁽⁷⁾	One/Month	Grab

Concern 1

Permittee has been unable to meet the final effluent limitations for total phosphorus and total nitrogen since the effective date of this permit.

Requirement 2

NPDES Permit NM0024996: Part I, A.1. Final Effluent Limits: *Flow, 7-day Average, Report MGD*

Concern 2

DMRs are missing the fillable entry spot for reporting 7-day average flows. Permittee has not been reporting 7-day average flows.

Requirement 2

NPDES Permit NM0024996: 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 2A

V-notch weirs and pressure transducers have been installed at the inflow splitter box and at the effluent. Permittee indicated that regular (monthly) checks of the pressure transducer against the reading in the V-notch weir are not conducted, and that the calibration has not been checked since the pressure transducers were installed 8 months ago.

Section IV – FOLLOW UP

No information was received by EPA after exiting the Facility on September 13, 2018.