

Environmental
Protection Agency

Governor
Lt. Governor
Director

December 8, 2011

RE: TRUMBULL COUNTY
JOHNSTON TOWNSHIP
MAPLEWOOD MIDDLE SCHOOL
COMPLIANCE EVALUATION INSPECTION
(NPDES PERMIT 3PT00070)

Maplewood Local School District
Attn: Perry D. Nicholas, Superintendent
2414 Greenville Road N.E.
Cortland, OH 44410

Dear Mr. Nicholas:

On November 9, 2011, a compliance evaluation inspection (CEI) was conducted on the wastewater treatment plant (WWTP) serving the Maplewood Middle School. The facility is located at 4174 Greenville Road, in Johnston Township, Trumbull County. Present for the inspection were Mr. John Brown, representing the school system, and this writer.

The purpose of the inspection was to evaluate the Operation and Maintenance of the WWTP, and to evaluate compliance with the National Pollutant Discharge Elimination System (NPDES) permit effluent limits. The previous CEI was conducted on January 8, 2009.

At the time of the November 9 inspection, the following observations were made and information was obtained:

- 1) The trash trap was in use and its contents were typical. The trash trap is usually pumped twice per year, in September and February.
- 2) The flow equalization tank was in use, was being aerated, and the flow equalization pumps were operating properly. Air to the flow equalization tank is supplied by up to three blowers, and blower operation is continuous (i.e. not on a timer). Blowers #1 and #3 were operating, while blower #2 was in standby mode.

There was a slight solids buildup around the flow splitter weir in the flow equalization tank, and the high water level alarm for the flow equalization tank did not work when manually tested. **Both of these items need to be satisfactorily addressed.**

- 3) The extended aeration tank contents were medium brown and well aerated, with no foam present. The return activated sludge (RAS) line was returning light brown liquid from the settling tank to the aeration tank.
- 4) The settling tank contents were slightly turbid, and the skimmer was operational, returning clear water to the aeration tank. The skimmer pipe needs to be adjusted down slightly, to approximately 1/4" below the surface of the water. At the time of the inspection, the flow to the WWTP was low, and no effluent was seen in the effluent trough. There were some solids, and a slight mossy growth, present in the effluent trough.

- 5) Both sand filter dosing pumps were set in the 'AUTO' mode. When manually tested, the #1 pump did not operate, and the #2 pump operated. The high level alarm was also operational when manually tested. **The #1 pump needs to be inspected, and if necessary repaired, to ensure proper operation.** Pump totalizing recorders in the dosing station are used to estimate daily flow for the WWTP.
- 6) The east surface sand filter cell was in use, contained some solids, and had a slight vegetative growth. The west filter cell had a very slight solids deposition.
- 7) The concrete around the inlet pipe of the sand filter junction box has cracked or broken away, and when the filters are dosed, water sprays onto the ground from the dosing pipe. **The junction box needs to be made water tight such that water does not spray onto the ground when the filters are being dosed.**
- 8) Treated effluent is disinfected by tablet chlorination and dechlorination units during the disinfection season. At the time of the inspection, the chlorination/dechlorination units contained no tablets, as disinfection is not required for the period of November 1 through April 30. All tubes were present in the two tube units, and they were properly capped.
- 9) The aerated sludge holding tank contents were well aerated and medium brown in color. When needed, A-1 Drain service hauls the liquid sludge to a larger WWTP for disposal. Sludge was last hauled summer 2011.
- 10) Effluent being discharged from the WWTP was clear and visually free of solids.
- 11) Mr. Brown collects the WWTP effluent samples, and transports them to Cardinal Labs for analysis. The sample bottles are prepared by and given to Mr. Brown, by Cardinal Labs.
- 12) The licensed responsible operator in charge of the Maplewood Elementary School WWTP is Mr. Scott Mascioli. Mr. Mascioli conducts the dissolved oxygen and pH testing onsite at the WWTP. The eDMR data is submitted to the Ohio EPA and pinned by Mr. Mascioli.

A review of the electronic Discharge Monitoring Reports (eDMR), as reported to the Ohio EPA for the Maplewood Middle School WWTP during the period of December 1, 2008 through November 1, 2011, found the following numeric effluent violations for the facility:

**MAPLEWOOD MIDDLE SCHOOL
 NUMERIC EFFLUENT VIOLATIONS
 NPDES PERMIT NO. 3PT00070
 (DEC. 1, 2008 – NOV. 1, 2011)**

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
January 2009	Nitrogen, Ammonia (NH3-N)	30D Conc	3.0	4.34	1/1/2009
October 2009	Nitrogen, Ammonia (NH3-N)	30D Conc	1.0	15.9	10/1/2009
December 2009	Total Suspended Solids	30D Conc	12	15.	12/1/2009
December 2009	Nitrogen, Ammonia (NH3-N)	7D Conc	4.5	7.42	12/8/2009
December 2009	pH	1D Conc	6.5	6.24	12/8/2009
May 2009	Nitrogen, Ammonia (NH3-N)	7D Conc	1.5	14.	5/8/2009
October 2009	Nitrogen, Ammonia (NH3-N)	7D Conc	1.5	15.9	10/8/2009
August 2010	CBOD 5 day	7D Conc	15	31.5	8/22/2010

MAPLEWOOD LOCAL SCHOOL DISTRICT
 DECEMBER 8, 2011
 PAGE 3

December 2009	Nitrogen, Ammonia (NH3-N)	30D Conc	3.0	7.42	12/1/2009
January 2010	Nitrogen, Ammonia (NH3-N)	30D Conc	3.0	30.6	1/1/2010
December 2010	Nitrogen, Ammonia (NH3-N)	7D Conc	4.5	7.61	12/8/2010
May 2009	Nitrogen, Ammonia (NH3-N)	30D Conc	1.0	14.	5/1/2009
January 2010	Nitrogen, Ammonia (NH3-N)	7D Conc	4.5	30.6	1/8/2010
December 2010	Nitrogen, Ammonia (NH3-N)	30D Conc	3.0	7.61	12/1/2010
March 2011	Nitrogen, Ammonia (NH3-N)	30D Conc	3.0	4.07	3/1/2011
August 2010	Total Suspended Solids	30D Conc	12	12.7	8/1/2010
August 2010	CBOD 5 day	30D Conc	10	31.5	8/1/2010

A review of the eDMRs for the same period also found the following reporting frequency violations for the Maplewood Middle School:

**MAPLEWOOD MIDDLE SCHOOL
 FREQUENCY REPORTING VIOLATIONS
 NPDES PERMIT NO. 3PT00070
 (DEC. 1, 2008 – NOV. 30, 2011)**

Reporting Period	Reporting Code	Parameter	Sample Frequency	Expected	Reported	Violation Date
June 2009	50060	Chlorine, Total Residual	1/Quarter	1	0	06/01/2009
December 2010	31616	Fecal Coliform	1/Quarter	1	0	12/01/2010
December 2010	50060	Chlorine, Total Residual	1/Quarter	1	0	12/01/2010
March 2011	50060	Chlorine, Total Residual	1/Quarter	1	0	03/01/2011
March 2011	31616	Fecal Coliform	1/Quarter	1	0	03/01/2011
March 2011	80082	CBOD 5 day	1/Quarter	1	0	03/01/2011

Please review the above (apparent) frequency violations to determine if the parameters were ever measured, measured and not reported, or if they were measured and reported incorrectly in the monthly reports to the Agency.

A written explanation of the findings for all the above NPDES permit violations should be submitted to this office within 14 days of the receipt of this correspondence. If the data was collected and either not reported, or was erroneously reported, the eDMR should be amended with correct information.

A copy of this inspection report is being forwarded to the Trumbull County Health Department. If you have any comments or questions about this document, you may contact me at (330) 963-1110.

Respectfully,



Charles E. Allen
 Environmental Engineer
 Division of Surface Water

CEA:bo

pc: Trumbull County Health Dept.

