Environmental
Protection Agency
Governor
Lt. Governor
Director

December 8, 2011

RE: TRUMBULL COUNTY
GREENE TOWNSHIP
MAPLEWOOD ELEMENTARY SCHOOL
COMPLIANCE EVALUATION INSPECTION
(NPDES PERMIT 3PT00071)

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 Elementary School. The facility is located at 1699 Kinsman Road, in Greene 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 and was being aerated. 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. The flow equalization pumps were operating properly.

3) Extended aeration tank contents were grayish 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. Since the last inspection, the air diffusers have been replaced, and new belts have been installed on the blower motors.

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4) The settling tank contents were slightly turbid, and there was a slight buildup of solids behind the inlet baffle. The skimmer was operational, returning clear water to the aeration tank. The settling tank effluent trough contained some solids and was in need of leveling. The skimmer pipe was properly adjusted.

5) Both sand filter dosing pumps were set in the 'AUTO' mode, and operated when manually tested. The high level alarm was also operational when manually tested. Pump totalizing recorders in the dosing station are used to estimate daily flow for the WWTP.

6) The south surface sand filter cell was in use and was flooded with water. The north filter cell contained some leaves and dead vegetation. Since the last inspection, splash pads in both of the filter cells have been repaired to provide proper support for the dosing pipes.

7) 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.

8) The aerated sludge holding tank contents were well aerated and light brown in color. When needed, A-1 Drain service hauls the liquid sludge to a larger WWTP for disposal.

9) Effluent being discharged from the WWTP was clear and visually free of solids.

10) 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.

11) 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 Elementary School WWTP during the period of December 1, 2008 through November 1, 2011, found the following numeric effluent violations for the facility:

MAPLEWOOD ELEMENTARY SCHOOL
NUMERIC EFFLUENT VIOLATIONS
NPDES PERMIT NO. 3PT00071
(DEC. 1, 2008 – NOV. 1, 2011)

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
December 2008	Nitrogen, Ammonia (NH3-N)	30D Conc	3.0	46.6	12/1/2008
December 2008	Total Suspended Solids	30D Conc	12	30.8	12/1/2008
December 2008	Nitrogen, Ammonia (NH3-N)	30D Qty	0.06	.28574	12/1/2008
December 2008	Nitrogen, Ammonia (NH3-N)	7D Qty	0.09	.28574	12/8/2008
December 2008	Nitrogen, Ammonia (NH3-N)	7D Conc	4.5	46.6	12/8/2008
December 2008	Total Suspended Solids	7D Conc	18	30.8	12/8/2008
March 2009	Nitrogen, Ammonia (NH3-N)	30D Conc	3.0	9.1	3/1/2009
March 2009	CBOD 5 day	30D Conc	10	10.58	3/1/2009
March 2009	Nitrogen, Ammonia (NH3-N)	7D Conc	4.5	9.1	3/22/2009
June 2009	Fecal Coliform	30D Conc	1000	2200.	6/1/2009
June 2009	Fecal Coliform	7D Conc	2000	2200.	6/15/2009
June 2009	Dissolved Oxygen	1D Conc	6.0	5.84	6/23/2009
August 2009	Total Suspended Solids	30D Conc	12	24.7	8/1/2009
August 2009	Total Suspended Solids	7D Conc	18	24.7	8/15/2009
December 2009	Nitrogen, Ammonia (NH3-N)	30D Conc	3.0	10.9	12/1/2009
December 2009	Total Suspended Solids	30D Conc	12	36.	12/1/2009
December 2009	Total Suspended Solids	7D Conc	18	36.	12/8/2009
December 2009	pH	1D Conc	6.5	5.9	12/8/2009
December 2009	Nitrogen, Ammonia (NH3-N)	7D Conc	4.5	10.9	12/8/2009
March 2010	Nitrogen, Ammonia (NH3-N)	30D Conc	3.0	10.8	3/1/2010
March 2010	Total Suspended Solids	30D Conc	12	38.4	3/1/2010
March 2010	Nitrogen, Ammonia (NH3-N)	7D Conc	4.5	10.8	3/8/2010
March 2010	Total Suspended Solids	7D Conc	18	38.4	3/8/2010
March 2010	Dissolved Oxygen	1D Conc	6.0	3.33	3/12/2010
December 2010	Nitrogen, Ammonia (NH3-N)	30D Conc	3.0	3.88	12/1/2010
December 2010	Total Suspended Solids	30D Conc	12	26.	12/1/2010
December 2010	Total Suspended Solids	7D Conc	18	26.	12/8/2010
December 2010	pH	1D Conc	6.5	6.17	12/9/2010
March 2011	Nitrogen, Ammonia (NH3-N)	30D Conc	3.0	4.1	3/1/2011
June 2011	Total Suspended Solids	30D Conc	12	15.	6/1/2011
June 2011	Nitrogen, Ammonia (NH3-N)	30D Conc	1.0	4.31	6/1/2011
June 2011	Nitrogen, Ammonia (NH3-N)	7D Conc	1.5	4.31	6/8/2011
August 2011	Total Suspended Solids	30D Conc	12	25.	8/1/2011
August 2011	Total Suspended Solids	7D Conc	18	25.	8/8/2011

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

MAPLEWOOD ELEMENTARY SCHOOL
REPORTING FREQUENCY VIOLATIONS
NPDES PERMIT NO. 3PT00071
(DEC. 1, 2008 – NOV. 1, 2011)

Reporting Period	Reporting Code	Parameter	Sample Frequency	Expected	Reported	Violation Date
December 2008	31616	Fecal Coliform	1/Quarter	1	0	12/01/2008
December 2008	50060	Chlorine, Total Residual	1/Quarter	1	0	12/01/2008
December 2009	31616	Fecal Coliform	1/Quarter	1	0	12/01/2009
December 2009	50060	Chlorine, Total Residual	1/Quarter	1	0	12/01/2009
December 2010	50060	Chlorine, Total Residual	1/Quarter	1	0	12/01/2010
December 2010	31616	Fecal Coliform	1/Quarter	1	0	12/01/2010
June 2009	01350	Turbidity, Severity	1/Week	1	0	06/15/2009
June 2009	00083	Color, Severity	1/Week	1	0	06/15/2009
June 2009	01330	Odor, Severity	1/Week	1	0	06/15/2009
June 2009	00083	Color, Severity	1/Week	1	0	06/08/2009
June 2009	01350	Turbidity, Severity	1/Week	1	0	06/08/2009
June 2009	01330	Odor, Severity	1/Week	1	0	06/08/2009
June 2009	50060	Chlorine, Total Residual	1/Quarter	1	0	06/01/2009
June 2009	01330	Odor, Severity	1/Week	1	0	06/01/2009
June 2009	00083	Color, Severity	1/Week	1	0	06/01/2009
June 2009	01350	Turbidity, Severity	1/Week	1	0	06/01/2009
June 2010	50060	Chlorine, Total Residual	1/Quarter	1	0	06/01/2010
March 2009	50060	Chlorine, Total Residual	1/Quarter	1	0	03/01/2009
March 2009	31616	Fecal Coliform	1/Quarter	1	0	03/01/2009
March 2010	50060	Chlorine, Total Residual	1/Quarter	1	0	03/01/2010
March 2010	31616	Fecal Coliform	1/Quarter	1	0	03/01/2010
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

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.

If there are any questions or comments regarding the contents of this letter, please contact this office.

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

Charles E. Allen
Environmental Engineer
Division of Surface Water

CEA:bo

pc: Trumbull County Health Dept.