

**Environmental  
Protection Agency**

Ted Strickland, Governor  
Lee Fisher, Lt. Governor  
Chris Korfieski, Director

December 14, 2010

RE: LORAIN COUNTY  
BRENTWOOD LAKE WWTP  
NPDES NO. 3PH00024

Lorain County Commissioners  
Administration Building  
216 Middle Avenue  
Elyria, OH 44035

Dear Commissioners:

On December 9, 2010, a Compliance Evaluation Inspection (CEI) was conducted on the Brentwood Lake Wastewater Treatment Plant (WWTP). Present during the inspection were Mr. Nick Webber, of the Lorain County Sanitary Engineer's Office; Mr. John Sabo of the Lorain County Health Department; and this writer, of Ohio EPA. The inspection was conducted to evaluate the present operation and maintenance conditions at the WWTP, and to evaluate its compliance with the terms and conditions of its NPDES permit. The previous inspection was conducted on September 10, 2009.

At the time of the December 9<sup>th</sup> inspection, the following observations were made:

- 1) The comminutor was in use and operating satisfactorily. Since the last inspection a new motor was installed (July 15, 2010).
- 2) Contents of the extended aeration tank were medium brown, with light brown foam along the edges of the tank. The suspended solids (MLSS) content appeared to be at a high concentration.

When asked about the high suspended solids concentrations, Mr. Webber indicated it has been more difficult to waste sludge from the system during cold weather due to the presence of plastic fibers in the system, caused by the lining process of the sanitary sewers in the collection system by Insituform. Lining of the sanitary sewers in the Brentwood Lake service area has been on-going for months, and is nearing completion.

- 3) The return activated sludge line was returning medium brown sludge, and the skimmer line from the settling tank was returning clear water.
- 4) The settling tank contents were typical, and effluent from the settling tank was clear and free of solids. The settling tank effluent trough was clean and free of solids or algae.

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*PLC Lorain County/Brentwood Lake*

- 5) Tertiary filtration of the settled effluent is accomplished by two drum filters, which were operational and in the 'AUTO' mode at the time of the inspection.
- 6) When required by NPDES Permit, final effluent is disinfected with chlorine gas, and dechlorinated using sodium bisulfite. However, the disinfection process was not in operation at the time of the inspection, as it is not required between November 1<sup>st</sup> and April 30<sup>th</sup> each year.
- 7) The effluent was being post aerated prior to discharge. The effluent was visually clear, colorless, and free of solids or foam.
- 8) The aerated sludge holding tank was approximately ½ full of dark brown sludge, and exhibited no odor. Approximately 9000 gallons of sludge was hauled to the French Creek WWTP in November 2010.
- 9) The standby generator located on site is test run every Monday.
- 10) Flow measurement at the Brentwood Lake WWTP is obtained by ultrasonic flow meter, which is calibrated twice per year. At the time of the inspection, flow to the WWTP was averaging 20 gpm (28,800 gpd).

Since the last CEI, the Brentwood Lake WWTP has reported the following NPDES Permit effluent violations in their monthly electronic Discharge Monitoring Reports (eDMR):

**BRENTWOOD LAKE WWTP  
 NPDES PERMIT NO. 3PH0024  
 EFFLUENT LIMIT VIOLATIONS  
 (9/1/09 – 12/1/10)**

<b>Reporting Period</b>	<b>Parameter</b>	<b>Limit Type</b>	<b>Limit</b>	<b>Reported Value</b>	<b>Violation Date</b>
September 2009	Fecal Coliform	7D Conc	2000	11000	9/8/2009
March 2010	Total Suspended Solids	30D Conc	12	12.411	3/1/2010
March 2010	Total Suspended Solids	7D Qty	13.6	18.7575	3/8/2010
October 2010	Total Suspended Solids	30D Conc	12	14.475	10/1/2010
October 2010	Total Suspended Solids	7D Conc	18	24.6	10/8/2010

**\*\* Note: No frequency or code violations reported.**

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The County should continue with all efforts that will enable the Brentwood Lake WWTP to consistently meet its NPDES Permit limits. Please submit a report to this office detailing the reasons for the effluent numeric violations.

Also, please include in the report, the approximate percentage completion of the Insituform sanitary sewer lining project in the sanitary sewer system tributary to the Brentwood Lake WWTP.

If there are any comments or questions concerning this document, you may contact me at (330) 963-1110.

Respectfully,



Charles E. Allen  
Environmental Engineer  
Division of Surface Water

CEA/mt

File: MUNI/Lorain/BrentwoodLake P&C