



State of Ohio Environmental Protection Agency

Northeast District Office

2110 East Aurora Rd.
Twinsburg, Ohio 44087

TELE: (330) 963-1200 FAX: (330) 487-0769
www.epa.state.oh.us

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

September 27, 2007

RE: MAHONING COUNTY
MILTON TWP.
GREEN ACRES CAMPGROUND
15487 CREED ROAD
NPDES PERMIT #3PR00221

Mr. Lorey Marino
P.O. Box 176
Lake Milton, OH 44429

Dear Mr. Marino:

On September 24, 2007, this writer conducted an unannounced inspection of the Green Acres campground wastewater treatment system. Discharge is to a lake on the campground property prior to discharging to an unnamed tributary of the Mahoning River. Dwayne Stull is the certified operator responsible for the treatment system.

Observations

The aeration tank and return sludge had a medium brown color indicative of a good population of microbes necessary for treatment. The clarifier surface was free of scum and the wastewater being discharge from the clarifier was clear. A single blower is used to provide air to the treatment system, and a spare blower and motor are kept on site. A duel pump station is used to pump wastewater from the treatment system to the slow surface sand filters.

The sand filters were covered with sludge. The west sand filter was being rested, and sludge was being permitted to dry for removal. The east sand filter was clogged with a heavy layer of sludge and approximately 4 inches of wastewater was observed in the filter. A sump pump was located in the southwest corner of the east sand filter to pump standing water out of the filter and into the disinfection tank.

Be advised that bypassing the sand filters with the sump pump is a violation of Part III of the National Pollutant Discharge Elimination System (NPDES) permit. The permit prohibits the bypassing of any treatment process in the system. The sump pump must be removed and not used in the future.

One solution to the clogged filters discussed during the inspection was the construction of a sludge holding tank. The tank would provide a mechanism to remove excess sludge from the treatment system. Periodically, sludge should be pumped to the holding tank and permitted to settle. The clear water on the surface is then returned to the treatment system. In between times of sludge wasting, the contents of the sludge holding tank would be aerated using the existing blower. Wasting excess and old sludge to the holding tank will prevent the sludge from overflowing the clarifier and onto the filter beds. In addition, a sludge holding tank can be used to thicken sludge prior to hauling off site, thereby reducing hauling costs.

To construct the sludge holding tank, a tee could be installed in the sludge return line. One side of the tee would continue to be used to return sludge to the front of the aeration tank. The second side of the tee would be used to transfer sludge to the holding tank. Two valves would be installed on the lines to control the direction of sludge flow. A decant line from the top of the

sludge holding tank to the aeration tank would be installed to return clear water after the sludge is permitted to settle. A new air line from the existing blower would be installed in the sludge holding tank to provide air to the system.

Installation of a new sludge tank will require a permit-to-install from Ohio EPA. Detailed drawings stamped by a registered professional engineer, along with the necessary application, would have to be submitted to the Northeast District Office for review. Enclosed with this letter are copies of the application forms. A registered professional engineer will complete the forms for signature along with the detailed drawings of the sludge holding tank. Considering the relatively large number of active camp sites and the food service operation, it is anticipated that the system generates a significant amount of sludge. It is recommended that Green Acres install the sludge holding tank to provide a means to more conveniently handle the sludge.

In addition, if flow rates increase dramatically during rain events causing the sludge to be pushed out of the system and onto the sand filters, you might also consider the installation of an equalization tank. The equalization tank will store excessive amounts of wastewater during rain events for return to the aeration tank once the flow rate decreases.

NPDES Permit Compliance

The compliance record for the treatment system was reviewed as part of this inspection. The Monthly Operating Reports (MORs) for the period covering January 2007 through August 2007 were reviewed for compliance. Following are violations reported during the review period.

Reporting Period	Parameter	Limit Type	Limit	Reported Value	Violation Date
June 2007	Fecal Coliform	30D Conc.	1000	2590.	6/1/2007
June 2007	Fecal Coliform	1D Conc.	2000	2590.	6/27/2007
July 2007	Nitrogen, Ammonia	30D Conc.	2.0	23.9	7/1/2007
July 2007	Nitrogen, Ammonia	30D Qty	0.038	.40708	7/1/2007
July 2007	Nitrogen, Ammonia	1D Conc.	3.0	23.9	7/18/2007
July 2007	Nitrogen, Ammonia	1D Qty	0.057	.40708	7/18/2007
August 2007	Nitrogen, Ammonia	30D Conc.	2.0	2.1	8/1/2007

Be advised that these violations of the NPDES permit also constitute violations of Ohio Revised Code 6111.07. It is recommended that these results be presented to Mr. Stull so that operational changes can be made if necessary. Be advised that Green Acres must remain in consistent compliance with the NPDES permit.

You may contact this office at (330) 963-1251 to discuss any questions you may have.

Respectfully,



John Kwolek
 District Engineer
 Division of Surface Water

JK/mt

cc: Joe Mansky, Mahoning County Department of Health