OhioEPA
State of Ohio Environmental Protection Agency
Northeast District Office

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

October 3, 2007

RE: VILLAGE OF MORELAND HILLS
CUYAHOGA COUNTY
JACKSON VALLEY WWTP
WOODLAND GLEN WWTP
QUAIL HOLLOW WWTP
GREENTREE WWTP

Mayor and Council
Village Hall
4350 S.O.M. Center Road
Moreland Hills, OH 44022

Dear Mayor and Council:

On October 2, 2007, this office met with Mr. Michael Bode, Wastewater Operations Manager, to conduct inspections of the four wastewater treatment plants (WWTP) referenced above. The purpose of the inspections was to obtain and review information in anticipation of renewal of the National Pollutant Discharge Elimination System (NPDES) permits. Receipt of the renewal applications by Ohio EPA authorizes the permittee to discharge beyond the expiration dates.

The Village of Moreland Hills is served by four extended aeration plants that discharge treated effluent to the Chagrin River or its tributaries. On July 10, 2007, the U.S. EPA approved the Chagrin River Watershed Total Maximum Daily Load (TMDL) report. The purpose of the TMDL report is to identify and evaluate water quality problems in the Chagrin River basin and propose solutions to bring the impaired water body into attainment with water quality standards. One recommendation of the Chagrin River TMDL report is to reduce suspended solids and phosphorous loadings. Upon renewal of the NPDES permits phosphorous monitoring will be included and the total suspended solids limit of 18 mg/l will be reduced to 15 mg/l.

Review of monthly operating reports (MOR), received by Ohio EPA for the period September 2002 through August 2007 indicates significant effluent limitation violations and monitoring frequency violations have occurred. The specific violations for each WWTP are cited in the enclosed attachments. Many of the frequency violations appear to be a failure to collect the appropriate number of samples within a given week. As discussed during the inspection, a week starts with the first day of the month and ends seven days later. Sampling procedures must be changed accordingly to avoid recurring frequency violations. The MOR's for October 2003 have not been received for all four plants. Mr. Bode was able to retrieve copies of the operating data and will submit the information to our Columbus office. Written notification as to the reasons for the violations and a description of the actions to be taken to prevent any further recurrences is required.

It is our understanding as of August 2007 the MOR's are transmitted to Ohio EPA via SWIMware using a personal identification number. As discussed, pursuant to Part III of the NPDES permits hardcopies of the reports must be signed and maintained on site for records retention purposes.

The findings of the inspections are noted as follows:

Jackson Valley WWTP (NPDES Permit 3PA00023)

The influent flow to this WWTP has increased well beyond the plant's design capacity. Review of the MOR's indicates that this plant is in significant noncompliance with the final effluent limitation of the NPDES permit. A meeting was held on October 31, 2006, with Ohio EPA and representatives for the Village to discuss a possible plant expansion that will be capable of handling the flows due to inflow/infiltration and an expanded service area.

At the time of the inspection the plant lift station had a plugged line so a portable pump was placed in the wet well and a discharge hose was extended across the top of the tanks to the equalization tank. Spent sand material removed from the slow surface sand filter was piled along the outside wall of the filter. It was explained that during wet weather events the sand filters may become blinded by solids and overflow.

Please be advised, the diverting or bypassing of wastewater from any portion of the treatment facility is prohibited and must be reported in accordance with Part III, item 11, of your NPDES permit. Part III, also requires *"All wastewater treatment works shall be operated in a manner consistent with the following: At all times, the permittee shall maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee necessary to achieve compliance with the terms and conditions of this permit..."*

Three collection system bypasses have occurred and were reported in accordance with Part III of the NPDES permit. The Winterberry pump station overflowed to the creek on June 18, 2007. Valves and one pump were replaced returning the pump station to proper operation. Two force main leaks occurred at the Cableknoll pump station on April 7, 2006, and June 18, 2007. A contractor was hired to repair the force main. Due to the current manner of installation (lack of proper bedding and pressure design), these repairs may only serve as temporary measures.

The plant lift station must be fixed and returned to proper operation, the pile of spent sand material must be disposed of properly, a schedule to permanently repair the Cableknoll force main must be developed and implemented and all tasks confirmed in writing to this office.

Enclosed is a copy of the Antidegradation Addendum that was submitted with the renewal application. Please sign and return to this office.

Woodland Glen WWTP (NPDES Permit 3PA00011)

At the time of the inspection the air supply was turned off to the equalization tank and the Muffin Monster (grinder) was out of service; influent flow was passing through the bar screen. The two rapid sand filters were out of service, thus the settled effluent has been diverted around the rapid sand filters to the ultraviolet disinfection tank. The faulty pump has been replaced, however the control device (programmable logic controller) for the rapid sand filters must be reset in order to return the filters to operation. Review of the MOR's indicates that this plant is in significant noncompliance with the final effluent limitation of the NPDES permit. Continued noncompliance may be cause for enforcement pursuant to the Ohio Revised Code Chapter 6111.

Bypassing of the rapid sand filters was not reported to this office. As noted above, the diverting or bypassing of wastewater from any portion of the treatment facility is prohibited and must be reported in accordance with Part III, item 11, of the NPDES permit. It is our understanding that the rapid sand filters were returned to service as of October 8, 2007.

The information provided on the renewal application indicates that the annual average daily flow (0.078 mgd) for the current year increased substantially over the previous two years (0.053 mgd and 0.056 mgd). The application indicates that televising, smoke testing, cleaning, grouting and sealing were performed to minimize inflow and infiltration (I/I). Provide this office with a detailed description of the work performed to date and include a description of the actions to be taken to further locate and eliminate sources of I/I.

The Muffin Monster must be repaired/replaced and returned to service. Aeration of the equalization tank must be reestablished to prevent solids deposition and to maintain aerobic conditions. Also noted, the storm swale that was installed during the expansion of the WWTP must be maintained to prevent storm water from flowing down the hillside and into the aeration tank. All tasks must be confirmed in writing to this office.

Quail Hollow WWTP (NPDES Permit 3PA00009)

The continuous flow meter was "stuck" thus incapable of recording flow as required by the NPDES permit. It is our understanding that a service technician will be contacted immediately. The clarifier effluent weirs need to be cleaned, and one side of the surface sand filter is in need of weeding. A pile of spent filter sand material must be disposed of properly. The pile is located on the asphalt drive near the sludge drying beds uphill of two storm drains. During a wet weather event the sand material will drain to the storm sewers that discharge directly to waters of the state.

The information provided on the renewal application indicates that the annual average daily flow for three consecutive years exceeds the design flow of 20,000 gpd for this plant. The application indicates that televising, smoke testing, cleaning, grouting and sealing were performed to minimize inflow and infiltration. Provide this office with a detailed description of the work performed to date and include a description of the actions to be taken to further locate and eliminate sources of I/I.

Greentree WWTP (NPDES Permit 3PA00010)

This plant is the smallest of the four Village plants serving twenty-four homes. All flow enters the plant by gravity sewers; there are no pump stations for this service area. No discharge was occurring at the time of the inspection due to the minimal amount of flow entering the plant.

Laboratory

All samples required by the NPDES permits are collected by plant personnel and are analyzed in-house; however, laboratory quality control measures have not been properly documented through the development and implementation of a written Quality Assurance/Quality Control (QA/QC) program. The purpose of a QA/QC program is to monitor the confidence of the data generated by the laboratory. This deficiency was previously noted in our inspection letter dated

June 13, 2002. Completion of a written plan must be confirmed in writing to this office. Components of the plan should include, but not be limited to, the following:

> Documentation of the standard operating procedures to be followed for sample collection, handling, analyses and reporting.
>
> General laboratory requirements including equipment and material maintenance. A temperature log shall be maintained for all drying ovens, incubators, sample refrigerators, etc.
>
> Analytical quality control procedures geared to produce data of known and defensible quality typically through the analyses of standards, duplicates and spikes.

The chlorine residual value, a reporting requirement of the Greentree WWTP permit, has been reported as zero. Please note that values of "0" should not be reported on monthly reports for analytical parameters such as chlorine. If the quantitative analysis, performed according to an approved analytical method, does not detect the substance or detects it at a level below the method detection level (MDL), then the appropriate value to report is "AA" (Below Detectable Limit). When this code is used the detection limit must be reported in the dialog box when using SWIMware.

Conclusions

Within thirty days of the date of this letter submit a written response to this office, as required, addressing all deficiencies cited above.

Please be advised, failure to comply with the terms and conditions of the NPDES permits may be cause for enforcement pursuant to the Ohio Revised Code Chapter 6111.

Draft copies of the renewal permits will be sent under separate cover. Any comments regarding the draft permits must be submitted in writing during the public notice period.

If you should have any questions, please contact this office at (330) 963-1124.

Sincerely,

Sandra M. Cappotto

Sandra M. Cappotto
Environmental Scientist
Division of Surface Water

SMC/mt

enclosure

cc: Michael Bode, Wastewater Operations Manager, Village of Moreland Hills (w/enclosures)