



**Environmental  
Protection Agency**

John R. Kasich, Governor

Mary Taylor, Lt. Governor

Scott J. Nally, Director

October 23, 2012

RE: GEAUGA COUNTY  
CHARDON TWP  
WILDER MHP  
NPDES NO: 3PV00128

Mr. Glenn Wilder  
Wilder MHP  
10865 Chardon Road  
Chardon, OH 44024

Dear Mr. Wilder:

On October 3, 2012, this writer met with you and Mr. Fred Wilder to conduct an inspection of the newly constructed south wastewater treatment plant (WWTP) serving the above referenced facility. The intent of the inspection was to review the operations and maintenance of the upgraded treatment plant prior to the elimination of the north WWTP. In addition, this office gathered information for the National Pollutant Discharge Elimination System (NPDES) permit modification.

The upgraded south WWTP has an average daily design flow of 30,000 gpd. The new treatment system will replace the existing 10,000 gpd treatment system on the north side of the park and the 16,000 gpd treatment system on the south side of the park. The treated effluent from the 30,000gpd treatment system will be divided to maintain the existing outfall locations and limitations. No more than 10,000 gpd will be diverted to the north outfall by a pump station while no more than 16,000 gpd will be discharged to the south outfall. The NPDES permit will be modified to include these changes.

At the time of the inspection, both the north and south plants were producing what appeared to be a satisfactory quality effluent. Below are the findings and recommendations from the inspection:

### **INSPECTION**

#### **North Plant**

The contents of the aeration tank were a brown color and provided with adequate air supply. The sludge return lines were in operation and returning a good amount of solids. The contents of the clarifier appeared turbid with some solids on the surface. The chlorination tank appeared to be in satisfactory condition with disinfection treatment provided. It is understood the plant will be taken out of service and all flows will be transferred to the south WWTP for treatment. The only portions of the plant that are to remain are the chlorine contact tank and the trash trap.

#### **South Plant**

The upgraded WWTP consists of a 3,000-gallon trash trap, a 13,200-gallon flow equalization tank, three – 10,000-gallon extended aeration tanks, two - 3,339-gallon clarifiers, a 6,000-gallon sludge holding tank, a 1,200-gallon dosing pump station, surface sand filters with a total treatment area of 1,237 ft<sup>2</sup> split into two beds and ultraviolet disinfection. After UV disinfection,

the effluent will be sent to a flow splitter box where flow shall be divided between the south outfall 001 and the north outfall 002.

At the time of the inspection, the newly constructed south plant was in satisfactory operation and maintenance condition.

The aeration tank was provided with adequate air circulation and the contents of the tank were a chocolate brown color. The rollover within the aeration tank was satisfactory and the sludge return lines were in operation. The surface of the clarifier was clear, the skimmer was visible and the effluent from the tank was clear. The fixed media clarifiers were in satisfactory condition. The UV disinfection system was in operation and appeared to be in satisfactory condition. The surface sand filters were in satisfactory condition.

The old south WWTP remains intact. At the time of the inspection, there was a black PVC transfer pipe from the old WWTP to the newly constructed WWTP. You indicated you would like to use the existing tank as additional flow equalization capacity in the event of high flows. The use of the old wastewater treatment system for additional flow equalization will require a Permit to Install to be submitted. This office would accept a general \$200 application fee if a PTI was submitted for the use of the existing WWTP for additional flow equalization capacity. Please notify this office if you plan to maintain the old WWTP for additional flow equalization capacity.

Based on the results of the inspection, this office has no objection to the connection of the prior to the finalization of the NPDES permit modification.

#### **NPDES PERMIT**

The facility submitted an NPDES permit modification request to alter the NPDES permit to eliminate duplicate monitoring and to clarify any contradictions in the current NPDES permit. The modified NPDES permit will maintain the two outfalls. The sampling point will be after the flow splitter box following the ultra violet treatment system of the new WWTP on the south side. The previous permit noted Station 001 as the north outfall and Station 002 as the south outfall. This is incorrect and the modified permit will provide the correct outfall description of the south outfall is Station 001 and the north outfall is Station 002.

The current permit expires January 31, 2014. The WWTP is currently classified by the Ohio EPA as a Class A wastewater treatment facility. This classification is located in the NPDES permit which had an effective date of February 1, 2009. New operator and plant certification rules have gone in effect and are found in OAC 3745-7-04. In accordance with these regulations, the new WWTP will be classified a Class 1 WWTP. The classification is based on the average daily design flow of the wastewater treatment works. The upgraded WWTP has an average daily design flow of 30,000 gpd which qualifies the plant for a Class 1 classification. The new regulations provide the plant classification rankings and operator staffing requirements. According to OAC 3745-7-04, the minimum staffing requirements for a Class 1 facility is 3 days per week for a minimum of 1.5 hours per week.

#### **VIOLATION SUMMARY**

A summary of the WWTP monitoring violations for the period of January 1, 2010 through September 1, 2012 has been attached to this letter.

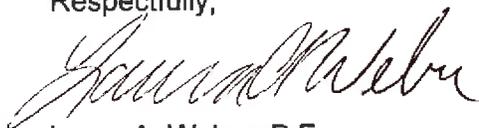
**SUMMARY**

In summary, the results of the inspection are satisfactory. This office would like to remind Wilder MHP of the following items in regards to the NPDES permit modification and the newly upgraded wastewater treatment system:

- 1) The NPDES permit modification will be public noticed in the near future. Wilder MHP will have 30 days to make any comments on the modified NPDES permit.
- 2) The modified NPDES permit will maintain two separate outfalls on the north outfall and the south outfall. The modified permit will provide the outfall description of the south outfall as Station 001 and the north outfall as Station 002.
- 3) The modified NPDES permit will contain an updated WWTP classification of Class 1. The new plant classification is based on the average daily design flow of the newly upgraded south WWTP at 30,000 gpd.
- 4) A PTI will need to be submitted to the Ohio EPA if the old WWTP is to be maintained for additional flow equalization storage.

If you have any questions or comments regarding this letter, please contact this office at (330) 963-1299.

Respectfully,



Laura A. Weber, P.E.  
Environmental Engineer  
Division of Surface Water

LAW/cs

Enclosures: Violation summary

cc: Geauga County Health Department

Discharge Violations:

Reporting Period	Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
August 2010	001	00300	Dissolved Oxygen	1D Conc	6.0	5.49	8/3/2010
August 2010	002	00300	Dissolved Oxygen	1D Conc	6.0	4.17	8/10/2010
August 2010	002	00300	Dissolved Oxygen	1D Conc	6.0	4.37	8/20/2010
August 2010	001	50060	Chlorine, Total Residu	1D Conc	0.019	.06	8/26/2010
August 2010	002	50060	Chlorine, Total Residu	1D Conc	0.019	.16	8/27/2010
August 2010	002	00300	Dissolved Oxygen	1D Conc	6.0	5.45	8/27/2010
September 2010	001	50060	Chlorine, Total Residu	1D Conc	0.019	.05	9/7/2010
September 2010	002	50060	Chlorine, Total Residu	1D Conc	0.019	.07	9/7/2010
September 2010	002	00300	Dissolved Oxygen	1D Conc	6.0	4.68	9/21/2010
September 2010	001	50060	Chlorine, Total Residu	1D Conc	0.019	.05	9/27/2010
September 2010	002	50060	Chlorine, Total Residu	1D Conc	0.019	.05	9/27/2010
September 2010	002	00300	Dissolved Oxygen	1D Conc	6.0	4.99	9/27/2010
October 2010	002	00300	Dissolved Oxygen	1D Conc	6.0	5.09	10/6/2010
October 2010	002	50060	Chlorine, Total Residu	1D Conc	0.019	.21	10/12/2010
October 2010	002	00300	Dissolved Oxygen	1D Conc	6.0	5.92	10/12/2010
October 2010	002	00300	Dissolved Oxygen	1D Conc	6.0	5.24	10/20/2010
October 2010	001	50060	Chlorine, Total Residu	1D Conc	0.019	.05	10/25/2010
October 2010	002	50060	Chlorine, Total Residu	1D Conc	0.019	.18	10/25/2010
October 2010	002	00300	Dissolved Oxygen	1D Conc	6.0	4.26	10/25/2010
November 2010	002	00300	Dissolved Oxygen	1D Conc	6.0	5.18	11/2/2010
April 2011	001	00530	Total Suspended Solids	30D Qty	0.46	1.43073	4/1/2011
April 2011	001	00530	Total Suspended Solids	7D Qty	0.68	1.43073	4/1/2011
April 2011	001	80082	CBOD 5 day	30D Qty	0.38	.47691	4/1/2011
May 2011	002	00530	Total Suspended Solids	30D Qty	0.73	.97199	5/1/2011
May 2011	002	00610	Nitrogen, Ammonia (NH3	30D Conc	1.0	2.58	5/1/2011
May 2011	002	00610	Nitrogen, Ammonia (NH3	7D Conc	1.5	2.58	5/1/2011
May 2011	002	00610	Nitrogen, Ammonia (NH3	30D Qty	0.06	.20898	5/1/2011
May 2011	002	00610	Nitrogen, Ammonia (NH3	7D Qty	0.09	.20898	5/1/2011
May 2011	001	50060	Chlorine, Total Residu	1D Conc	0.019	.06	5/12/2011
May 2011	002	50060	Chlorine, Total Residu	1D Conc	0.019	.8	5/12/2011
May 2011	001	50060	Chlorine, Total Residu	1D Conc	0.019	.11	5/28/2011
June 2011	001	00530	Total Suspended Solids	7D Conc	18	26.	6/1/2011
June 2011	001	00530	Total Suspended Solids	30D Qty	0.46	1.16755	6/1/2011
June 2011	001	00530	Total Suspended Solids	7D Qty	0.68	3.10976	6/1/2011
June 2011	001	00610	Nitrogen, Ammonia (NH3	30D Qty	0.04	.11961	6/1/2011
June 2011	001	00610	Nitrogen, Ammonia (NH3	7D Qty	0.06	.11961	6/1/2011
June 2011	002	00610	Nitrogen, Ammonia (NH3	7D Conc	1.5	1.8	6/1/2011
June 2011	002	00610	Nitrogen, Ammonia (NH3	7D Qty	0.09	.0947	6/1/2011
June 2011	002	50060	Chlorine, Total Residu	1D Conc	0.019	.23	6/10/2011
June 2011	001	50060	Chlorine, Total Residu	1D Conc	0.019	.05	6/14/2011
June 2011	002	00300	Dissolved Oxygen	1D Conc	6.0	4.8	6/14/2011
June 2011	002	00300	Dissolved Oxygen	1D Conc	6.0	4.26	6/21/2011
June 2011	002	00300	Dissolved Oxygen	1D Conc	6.0	4.88	6/27/2011

June 2011	001	50060	Chlorine, Total Residu	1D Conc	0.019	.08	6/28/2011
June 2011	002	50060	Chlorine, Total Residu	1D Conc	0.019	.25	6/28/2011
July 2011	002	00300	Dissolved Oxygen	1D Conc	6.0	5.	7/5/2011
July 2011	001	50060	Chlorine, Total Residu	1D Conc	0.019	.17	7/13/2011
July 2011	002	50060	Chlorine, Total Residu	1D Conc	0.019	.25	7/13/2011
July 2011	002	00300	Dissolved Oxygen	1D Conc	6.0	4.19	7/13/2011
July 2011	002	00300	Dissolved Oxygen	1D Conc	6.0	4.58	7/21/2011
July 2011	001	50060	Chlorine, Total Residu	1D Conc	0.019	.05	7/28/2011
July 2011	002	50060	Chlorine, Total Residu	1D Conc	0.019	.13	7/28/2011
July 2011	002	00300	Dissolved Oxygen	1D Conc	6.0	4.87	7/28/2011
August 2011	002	00300	Dissolved Oxygen	1D Conc	6.0	5.01	8/2/2011
August 2011	001	50060	Chlorine, Total Residu	1D Conc	0.019	.09	8/9/2011
August 2011	002	50060	Chlorine, Total Residu	1D Conc	0.019	.47	8/9/2011
August 2011	002	00300	Dissolved Oxygen	1D Conc	6.0	5.72	8/9/2011
August 2011	002	00300	Dissolved Oxygen	1D Conc	6.0	5.86	8/15/2011
August 2011	001	50060	Chlorine, Total Residu	1D Conc	0.019	.05	8/22/2011
August 2011	002	50060	Chlorine, Total Residu	1D Conc	0.019	.39	8/22/2011
September 2011	002	00300	Dissolved Oxygen	1D Conc	6.0	5.55	9/7/2011
September 2011	001	50060	Chlorine, Total Residu	1D Conc	0.019	.06	9/14/2011
September 2011	002	50060	Chlorine, Total Residu	1D Conc	0.019	.59	9/14/2011
September 2011	002	00300	Dissolved Oxygen	1D Conc	6.0	5.82	9/20/2011
September 2011	002	50060	Chlorine, Total Residu	1D Conc	0.019	.36	9/28/2011
September 2011	002	00300	Dissolved Oxygen	1D Conc	6.0	5.41	9/28/2011
October 2011	001	50060	Chlorine, Total Residu	1D Conc	0.019	.09	10/7/2011
October 2011	002	50060	Chlorine, Total Residu	1D Conc	0.019	.18	10/7/2011
October 2011	001	50060	Chlorine, Total Residu	1D Conc	0.019	.05	10/27/2011
October 2011	002	50060	Chlorine, Total Residu	1D Conc	0.019	.12	10/27/2011
December 2011	001	00530	Total Suspended Solids	30D Qty	0.46	.71915	12/1/2011
December 2011	001	00530	Total Suspended Solids	7D Qty	0.68	.71915	12/1/2011
January 2012	001	00530	Total Suspended Solids	30D Qty	0.46	.49735	1/1/2012
January 2012	002	00530	Total Suspended Solids	7D Conc	18	25.	1/1/2012
May 2012	001	00530	Total Suspended Solids	30D Qty	0.46	1.01135	5/1/2012
May 2012	001	00530	Total Suspended Solids	7D Qty	0.68	1.01135	5/8/2012
May 2012	002	50060	Chlorine, Total Residu	1D Conc	0.019	.42	5/8/2012
May 2012	001	50060	Chlorine, Total Residu	1D Conc	0.019	.05	5/23/2012
May 2012	002	50060	Chlorine, Total Residu	1D Conc	0.019	.86	5/23/2012
May 2012	002	00300	Dissolved Oxygen	1D Conc	6.0	4.57	5/25/2012
June 2012	001	31616	Fecal Coliform	30D Conc	1000	1057.64	6/1/2012
June 2012	002	00300	Dissolved Oxygen	1D Conc	6.0	4.64	6/6/2012
June 2012	002	50060	Chlorine, Total Residu	1D Conc	0.019	.18	6/11/2012
June 2012	002	00300	Dissolved Oxygen	1D Conc	6.0	5.43	6/13/2012
June 2012	002	00300	Dissolved Oxygen	1D Conc	6.0	5.39	6/26/2012
June 2012	002	50060	Chlorine, Total Residu	1D Conc	0.019	.26	6/27/2012
July 2012	001	00530	Total Suspended Solids	30D Qty	0.46	.79031	7/1/2012
July 2012	001	00530	Total Suspended Solids	7D Qty	0.68	.79031	7/1/2012
July 2012	002	00300	Dissolved Oxygen	1D Conc	6.0	5.52	7/5/2012
July 2012	002	50060	Chlorine, Total Residu	1D Conc	0.019	.61	7/11/2012

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July 2012	002	00300	Dissolved Oxygen	1D Conc	6.0	5.12	7/13/2012
July 2012	002	00300	Dissolved Oxygen	1D Conc	6.0	5.59	7/18/2012
July 2012	002	00300	Dissolved Oxygen	1D Conc	6.0	4.91	7/26/2012
July 2012	001	50060	Chlorine, Total Residu	1D Conc	0.019	.07	7/27/2012
July 2012	002	50060	Chlorine, Total Residu	1D Conc	0.019	.75	7/27/2012
August 2012	002	00300	Dissolved Oxygen	1D Conc	6.0	4.75	8/7/2012
August 2012	001	50060	Chlorine, Total Residu	1D Conc	0.019	.11	8/14/2012
August 2012	002	50060	Chlorine, Total Residu	1D Conc	0.019	.58	8/14/2012
August 2012	002	00300	Dissolved Oxygen	1D Conc	6.0	5.3	8/21/2012
August 2012	002	50060	Chlorine, Total Residu	1D Conc	0.019	.43	8/28/2012
August 2012	002	00300	Dissolved Oxygen	1D Conc	6.0	4.76	8/28/2012