Ohio EPA
40 years and moving forward

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

January 8, 2013

Mayor and Council
City of Hillsboro
130 North High Street
Hillsboro, OH 45133

RE: Hillsboro WWTW/Compliance Evaluation Inspection
NPDES Permit No. OH0020389/OEPA - PERMIT NO. 1PC00100*ID

Ladies and Gentlemen:

On December 17, 2012, I conducted a NPDES Compliance Evaluation Inspection at the city of Hillsboro Wastewater Treatment Works (WWTW). Brandon Leeth (ORC) and Randy Barr (Collections Chief) represented the City during the inspection process. Betsy Van Wormer and Jacob Howdyshell, with Ohio EPA Central Office, were also present during the inspection. The purpose of the inspection was to evaluate compliance with the terms and conditions of the NPDES Permit.

Non-Compliance during Construction

EFFLUENT LIMIT VIOLATIONS
(Period of Review: March 2011 – November 2012)

7D = Weekly30D = Monthly 1D = Daily
Conc. = Concentration (mg/l) Qty.= Quantity (Kg/Day)

Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value
April 2011	001	Total Suspended Solids	7D Qty	118.2	133.822
April 2011	001	Nitrogen, Ammonia (NH3)	7D Qty	10.5	11.5113
April 2011	001	CBOD 5 day	7D Qty	104.6	149.652
May 2011	001	Dissolved Oxygen	1D Conc	7.0	6.9
May 2011	001	Dissolved Oxygen	1D Conc	7.0	6.5
May 2011	001	Dissolved Oxygen	1D Conc	7.0	6.1
May 2011	001	pH, Maximum	1D Conc	9.0	9.3
May 2011	001	Total Suspended Solids	7D Qty	81.8	94.0862
September 2011	001	Phosphorus, Total (P)	30D Conc	1.0	2.425
September 2011	001	Phosphorus, Total (P)	30D Qty	4.5	9.27123
September 2011	001	Total Suspended Solids	7D Conc	18	20.3333

September 2011	001	Phosphorus, Total (P)	7D Conc	1.5	3.92
September 2011	001	Phosphorus, Total (P)	7D Qty	6.8	13.1160
September 2011	001	Phosphorus, Total (P)	7D Conc	1.5	2.56
September 2011	001	Phosphorus, Total (P)	7D Qty	6.8	9.43767
September 2011	001	Phosphorus, Total (P)	7D Conc	1.5	2.01
September 2011	001	Phosphorus, Total (P)	7D Qty	6.8	10.3314
October 2011	001	Nitrogen, Ammonia (NH3)	7D Conc	2.3	2.74667
October 2011	001	Phosphorus, Total (P)	7D Conc	1.5	2.05
October 2011	001	Total Suspended Solids	7D Conc	18	19.
November 2011	001	Total Suspended Solids	30D Qty	77.3	97.8600
November 2011	001	Phosphorus, Total (P)	30D Qty	4.5	5.8278
November 2011	001	Mercury, Total (Low Level)	30D Conc	12	15.275
November 2011	001	Phosphorus, Total (P)	7D Conc	1.5	1.61
November 2011	001	Phosphorus, Total (P)	7D Qty	6.8	10.7617
November 2011	001	Total Suspended Solids	7D Qty	118.2	303.685
November 2011	001	CBOD 5 day	7D Qty	104.6	138.069
November 2011	001	Phosphorus, Total (P)	7D Qty	6.8	10.6707
December 2011	001	Total Suspended Solids	30D Conc	17	17.3333
December 2011	001	Total Suspended Solids	7D Conc	26	35.7666
December 2011	001	Total Suspended Solids	30D Qty	77.3	177.485
December 2011	001	Total Suspended Solids	7D Qty	118.2	539.357
December 2011	001	CBOD 5 day	30D Qty	68.2	74.6660
December 2011	001	CBOD 5 day	7D Qty	104.6	207.492
December 2011	001	Phosphorus, Total (P)	7D Conc	1.5	2.75
December 2011	001	Phosphorus, Total (P)	30D Qty	4.5	12.4842
December 2011	001	Phosphorus, Total (P)	7D Qty	6.8	46.6936
December 2011	001	Total Suspended Solids	7D Conc	26	30.9
December 2011	001	Total Suspended Solids	7D Qty	118.2	151.458
January 2012	001	Total Suspended Solids	7D Qty	118.2	142.350
January 2012	001	Phosphorus, Total (P)	7D Qty	6.8	7.50345
April 2012	001	Total Suspended Solids	30D Conc	17	21.5384
April 2012	001	Total Suspended Solids	30D Qty	77.3	89.8602
April 2012	001	Nitrogen, Ammonia (NH3)	30D Conc	1.5	3.38631
April 2012	001	Nitrogen, Ammonia (NH3)	30D Qty	6.8	15.4609
April 2012	001	Phosphorus, Total (P)	30D Conc	1.0	1.48025
April 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	2.3	4.17333
April 2012	001	Nitrogen, Ammonia (NH3)	7D Qty	10.5	12.5807
April 2012	001	Total Suspended Solids	7D Conc	26	77.6666
April 2012	001	Total Suspended Solids	7D Qty	118.2	338.125
April 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	2.3	7.44667
April 2012	001	Nitrogen, Ammonia (NH3)	7D Qty	10.5	38.6288
April 2012	001	CBOD 5 day	7D Conc	23	31.9333
April 2012	001	CBOD 5 day	7D Qty	104.6	159.948
April 2012	001	Phosphorus, Total (P)	7D Conc	1.5	4.34
April 2012	001	Phosphorus, Total (P)	7D Qty	6.8	13.0265
May 2012	001	Total Suspended Solids	7D Conc	18	37.6666
May 2012	001	Total Suspended Solids	30D Qty	54.5	163.622

May 2012	001	Total Suspended Solids	7D Qty	81.8	646.589
May 2012	001	Nitrogen, Ammonia (NH3)	30D Conc	1.5	6.28957
May 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	2.3	2.41467
May 2012	001	Nitrogen, Ammonia (NH3)	30D Qty	6.8	41.8367
May 2012	001	Nitrogen, Ammonia (NH3)	7D Qty	10.5	27.9606
May 2012	001	CBOD 5 day	30D Qty	45.5	62.7146
May 2012	001	CBOD 5 day	7D Qty	68.2	161.855
May 2012	001	Phosphorus, Total (P)	30D Conc	1.0	2.0466
May 2012	001	Phosphorus, Total (P)	30D Qty	4.5	19.0244
May 2012	001	Phosphorus, Total (P)	7D Qty	6.8	7.68617
May 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	2.3	3.63333
May 2012	001	Nitrogen, Ammonia (NH3)	7D Qty	10.5	23.9870
May 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	2.3	9.07333
May 2012	001	Nitrogen, Ammonia (NH3)	7D Qty	10.5	73.7693
May 2012	001	Phosphorus, Total (P)	7D Conc	1.5	7.28
May 2012	001	Phosphorus, Total (P)	7D Qty	6.8	71.5873
May 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	2.3	8.14
May 2012	001	Nitrogen, Ammonia (NH3)	7D Qty	10.5	53.4641
June 2012	001	Nitrogen, Ammonia (NH3)	30D Conc	1.2	3.56583
June 2012	001	Nitrogen, Ammonia (NH3)	30D Qty	6.8	10.3689
June 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	1.8	2.76333
June 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	1.8	11.5
June 2012	001	Nitrogen, Ammonia (NH3)	7D Qty	10.5	32.4756
July 2012	001	Nitrogen, Ammonia (NH3)	30D Conc	1.2	5.69714
July 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	1.8	8.92667
July 2012	001	Nitrogen, Ammonia (NH3)	30D Qty	6.8	16.0287
July 2012	001	Nitrogen, Ammonia (NH3)	7D Qty	10.5	22.0895
July 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	1.8	6.70667
July 2012	001	Nitrogen, Ammonia (NH3)	7D Qty	10.5	19.1655
July 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	1.8	2.68333
July 2012	001	Dissolved Oxygen	1D Conc	7.0	6.4
July 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	1.8	5.82
July 2012	001	Nitrogen, Ammonia (NH3)	7D Qty	10.5	18.5575
July 2012	001	Dissolved Oxygen	1D Conc	7.0	6.6
July 2012	001	Dissolved Oxygen	1D Conc	7.0	6.
August 2012	001	Nitrogen, Ammonia (NH3)	30D Conc	1.2	6.15562
August 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	1.8	5.73667
August 2012	001	Nitrogen, Ammonia (NH3)	30D Qty	6.8	18.9141
August 2012	001	Nitrogen, Ammonia (NH3)	7D Qty	10.5	21.8994
August 2012	001	Phosphorus, Total (P)	30D Conc	0.8	1.35825
August 2012	001	Phosphorus, Total (P)	7D Conc	1.2	1.59
August 2012	001	Phosphorus, Total (P)	30D Qty	4.5	5.21525
August 2012	001	Phosphorus, Total (P)	7D Qty	6.8	8.7865
August 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	1.8	8.82333
August 2012	001	Nitrogen, Ammonia (NH3)	7D Qty	10.5	25.7932
August 2012	001	Phosphorus, Total (P)	7D Conc	1.2	1.24
August 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	1.8	7.89667

August 2012	001	Nitrogen, Ammonia (NH3)	7D Qty	10.5	21.0298
August 2012	001	Nitrogen, Ammonia (NH3)	7D Conc	1.8	3.461
August 2012	001	Nitrogen, Ammonia (NH3)	7D Qty	10.5	11.1165
August 2012	001	Phosphorus, Total (P)	7D Conc	1.2	1.94
September 2012	001	Phosphorus, Total (P)	30D Conc	0.8	1.18875
September 2012	001	Phosphorus, Total (P)	7D Conc	1.2	1.59
September 2012	001	Phosphorus, Total (P)	30D Qty	4.5	5.26478
September 2012	001	Phosphorus, Total (P)	7D Qty	6.8	11.3622
September 2012	001	Mercury, Total (Low Level)	30D Conc	12	59.1
September 2012	001	Mercury, Total (Low Level)	30D Qty	0.00008	.00015
September 2012	001	pH, Maximum	1D Conc	9.0	9.1
September 2012	001	pH, Maximum	1D Conc	9.0	9.1
September 2012	001	Phosphorus, Total (P)	7D Conc	1.2	1.54
October 2012	001	Phosphorus, Total (P)	30D Conc	0.8	1.1435
October 2012	001	Phosphorus, Total (P)	7D Conc	1.2	3.14
October 2012	001	Phosphorus, Total (P)	7D Qty	6.8	8.15304

As you can see from the chart above, the Hillsboro WWTW staff has reported numerous violations over the last two years. They believe most of the violations can be attributed to three issues:

1. Reduced storage/treatment capacity caused by the ongoing WWTW construction project; thereby causing insufficient treatment when higher than normal flows are received during precipitation events;
2. The ongoing issue of inflow and infiltration (I&I) in the City's sewage collection system. Between 2011 and 2012, the city of Hillsboro water treatment plant treated and distributed an average of 700,000 gallons of drinking water/day. From March of 2011 to November of 2012, the WWTW discharged an average of 1.3 Million gallons/day (MGD). The 30 highest discharge flow days during this same period of time averaged 3.74 MGD. *This means that, on average, the WWTW is treating nearly twice the water volume than the water treatment plant is producing. On certain wet weather days, this ratio can expand up to 8 times the water treatment plant distribution flow.*
3. Inadequate performance from new Return Activated Sludge (RAS) Pumps. According to WWTW staff, the new RAS Pumps are unable to convey the necessary volume of settled mixed liquor to the vertical loop reactors. Currently, all of the new 6.5 horsepower pumps, *including the dedicated stand-by pumps*, are needed to properly operate the system. **The City and their engineer have a plan to change out the pumps in the north RAS wet well with 11Hp pumps. This work shall be completed by no later than March 8, 2013.** Once this is completed, they will monitor the return rates in the south RAS wet well. The engineer believes the existing south pumps will benefit from the larger pumps in the north RAS wet well (interconnected piping). The City will replace the south RAS wet well pumps if needed.

Inflow and Infiltration Work and Remaining SSOs

During 2012, the City reported the following Sanitary Sewer Overflows (SSO's):

1/17/12 – 223 Railroad Street, 146 Holmes, John/Holmes, South Lift Station
1/26/12 – 146 Holmes, John/Holmes, 428 S. West
5/2/12 – South Lift Station
5/5/12 – 146 Holmes, John/Holmes, 108 Lanewood, 428 S. West, South Lift Station

In 2011, the City reported 12 SSO's at the South Lift Station and 10 at John St./Holmes St.

Please be advised that sanitary sewer overflows are a violation of Ohio Revised Code 6111 "Acts of Pollution Prohibited" and owners of the sewage collection system are subject to enforcement action and monetary penalties.

Ohio EPA acknowledges that the City has invested capital in the I&I Remediation Program. Various projects have been documented in past inspections and the following work was completed by the sewage collection crew in 2012:

- CCTV inspection of 2,250 lineal feet of eight-inch clay pipe in the southwest section of the City.
- CCTV and routine cleaning of 1,600 lineal feet of eight-inch clay pipe in the northwest section of the City.
- CCTV and routine cleaning of 800 lineal feet in the southeast section.
- 10 manhole ring & lids were replaced.
- 2 spot repairs of sewer mains.
- The City has contracted with McCarty & Associates to update the GIS for the sanitary sewer system.

With that said, it is critical that the City continually investigate/prioritize/remediate sources of clean water in the sewage collection system. ***Since it appears that chronic overflows are occurring at the South Lift Station and the John St./Holmes St. manholes, the City should prioritize these drainage areas for further attention.*** If residential construction in these areas pre-date the City's sewer use ordinance, there may be illegal clean water connections on private property (downspouts, basement drains, driveway drains, etc.) that are contributing to the overall wet weather issues in the sewage collection system. In some circumstances there may be other contributing causes to wet weather overflows, such as debris/grease build-up in sewer mains and design flaws in the sewer mains, and those should be investigated as well.

Laboratory Standard Operating Procedures

As a follow-up to the inspection, a review was conducted of the City's standard operation procedures (SOP) for dissolved oxygen, temperature, and pH monitoring. All of the SOPs are in need of modification in order to reflect the format prescribed by Standard Methods 1020A. Example SOPs have been forwarded to Mr. Leeth, which included the approved method for the Hach LDO meter. **The City shall complete the modified SOPs by no later than March 2, 2013. Ohio EPA will be available for technical assistance and feedback during this time.**

WWTW Influent Control Structure

As mentioned in the report, the influent control structure at the WWTW is equipped with an actuator valve that will close a gate in order to restrict incoming flows. The actuator valve is moderated by a level sensor located in the influent channel. The restriction should only occur during periods in which influent flow intensity/volume would cause damage to the WWTW equipment. **During times in which the control gate closes (never 100% closed), the influent sewer will be utilized for storage. Because of this, wastewater collection crews should be notified when the gate begins to close so that any SSOs can be identified and reported to Ohio EPA. It is Ohio EPA's expectation that the WWTW hydraulic treatment capacity is maximized during times in which the influent flows are restricted.**

If you should have any questions, feel free to contact me by telephone at (937) 285-6029 or by electronic mail at joshua.jackson@epa.ohio.gov.

Respectfully,

Joshua Jackson
Environmental Specialist II
Division of Surface Water

JJ/tb

Attachment

cc: Brandon Leeth, City of Hillsboro

State of Ohio Environmental Protection Agency
Southwest District Office

NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	**NPDES#**	**Month/Day/Year**	**Inspection Type**	**Inspector**	**Facility Type**
1PC00100*ID	OH0020389	12/17/2012	C	S	1

Section B: Facility Data		
Name and Location of Facility Inspected	**Entry Time**	**Permit Effective Date**
City of Hillsboro WWTW 1520 North High Street Hillsboro, Highland County	9:30 a.m.	9/1/2009
	Exit Time	**Permit Expiration Date**
	2:30 p.m.	7/31/2012
Name(s) and Title(s) of On-Site Representatives	**Phone Number(s)**	
Brandon Leeth, Supt. and ORC Brian Williamson and Bob Creamer, Class III Operators	937-393-4831	
Name, Address and Title of Responsible Official	**Phone Number**	
Mayor & Council City of Hillsboro 130 North High Street Hillsboro, OH 45133	937-393-5219	

Section C: Areas Evaluated During Inspection
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

S	Permit	S	Flow Measurement	N	Pretreatment
S	Records/Reports	M	Laboratory	M	Compliance Schedule
S	Operations & Maintenance	S	Effluent/Receiving Waters	S	Self-Monitoring Program
M	Facility Site Review	N	Sludge Storage/Disposal	N	Other
M	Collection System				

Section D: Summary of Findings (Attach additional sheets if necessary)

See Attached Report.

Inspector	Reviewer
1-9-2013	1/9/2013
Joshua Jackson Division of Surface Water Southwest District Office Date	Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office Date

Permit # : 1PC00100*ID
NPDES #: OH0020389

Sections E thru K: Complete on all inspections as appropriate
Y – Yes, N – No, N/A – Not Applicable, N/E – Not Evaluated

Section E: Permit Verification

Inspection observations verify the permit

(a) Correct name and mailing address of permittee	Y
(b) Flows and loadings conform with NPDES permit.....	Y
(c) Treatment processes are as described in permit application...	Y
(d) All discharges are permitted.....	Y
(e) Number and location of discharge points are as described in permit.....	Y
(f) Storm water discharges properly permitted.....	Y

Comments/Status:

According to Mr. Leeth, all drains convey water to the headworks. Most storm water sheet flows off-site.

Section F: Compliance

(a) Any significant violations since the last inspection.....	Y
(b) Appropriate Non-compliance notification of violations.....	Y
(c) Permittee is taking actions to resolve violations.....	Y
(d) Permittee has a compliance schedule.....	Y
(e) Compliance schedule contained in...NPDES Permit Compliance Schedule	
(f) Permittee is in compliance with schedule.....	N
(g) Has biomonitoring shown toxicity in discharge since last inspection	N/E

Comments/Status:

See comments about effluent limit non-compliance in the cover letter.
Current permit compliance schedule requires completion of WWTW construction by no later than June 1, 2012. On May 11, 2012, Ohio EPA received a request from the city for a 3-month extension of the schedule to due extreme flooding and equipment damage that occurred at the WWTW on May 2, 2012. The city remained in non-compliance after September 1, 2012, due to design flaws in the RAS pumps (as the city has described them). The city believes the pumps do not have the horsepower to handle the RAS requirements and are planning to replace each of the 6.5 HP pumps with 11 HP pumps. This work shall be done by no later than March 8, 2013.
The city did not report any effluent violations for November. Mr. Leeth believes the new impellors on the existing 6.5 RAS pumps are an adequate interim measure until the pumps are replaced.

Section G: Operation & Maintenance

Treatment Works:

Treatment facility properly operated and maintained

(a) Standby power available.....generator ☒ or dual feed ☐..... Y

i. What does the back-up power source operate.....

1250 KW generator has the ability to provide power to the entire WWTW during a power outage.

ii. How often is the generator tested under load.....

The generator is tested under load 1/year. The generator is powered up 1/week.

(b) Which components have an alarm system available for power or equipment failures.....

Alarms are provided for power outages, high wet well levels, manhole control valve closures, and fire alarms.

(c) All treatment units in service other than backup units..... N

(d) What method is used for scheduling routine & preventative maintenance (calendar, software, etc.).....

Calendar.

(e) Any major equipment breakdown since last inspection..... N/A

(f) Operatio n and maintenance manual provided and maintained..... Y

(g) Any plant bypasses since last inspection..... Y

(h) Any plant upsets since last inspection..... Y

Comments/Status:

The existing VLR was not online (the new VLR was operating). The tanks were cleaned out and the internal components had been replaced. It was anticipated that the existing VLR will be operational in December and staff were researching the best method for start-up.
CH2MHill will be updating the O&M manual.
On May 2, 2012, heavy rainfall within a short period of time (coupled with existing I&I issues) caused a strong surge in WWTW influent flow. The surge caused flooding of the influent building (both dry and wet wells), which was under construction, and damaged various electrical devices, pumps, actuator valves, meters, etc. This event caused a delay in the construction and lead to the installation of a control sensor/actuator valve/gate at the influent manhole. Once influent flows reach a certain level, a gate begins to restrict these flows. Since the structure was installed, there has not been a storm event with the intensity needed to trigger the gate.

Section G: Operation & Maintenance con't

Record Keeping/Operator of Record:

(a) Wastewater Treatment Works classification (OAC 3745-7)..... III
(b) Operator of Record holds unexpired license of class required by Permit..... Y
(c) Copy of certificate of Operator of Record displayed on-site..... Y
(d) Has the Operator of Record submitted an ORC Notification form.. Y
(e) Minimum operator staffing requirements fulfilled (OAC 3745-7).... Y
(f) If a Staffing Reduction plan has been approved, are the stipulations of the plan being met.....Y
(g) Operator of Record log book provided..... Y
(h) Format of log book (e.g. computer log, hard bound book)

Hard bound.

(i) Log book kept onsite (in an area protected from weather)..... Y
(j) Log book contains the following:
  I. Identification of treatment works..... Y
  II. Date/times of arrival/departure for Operator of Record and any other operator required by OAC 3745-7..... Y
  iii. Daily record of operator and maintenance activities (including preventative maintenance, repairs and request for repairs, process control test results, etc.)..... Y
  iv. Laboratory results (unless documented on bench sheets)... Y
  v. Identification of person making entries..... Y
(k) Has the Operator of Record submitted written notifications to the permittee, Ohio EPA and, if applicable, any local environmental agencies when a collection system overflow, treatment plant bypass or effluent limit violation has occurred..... Y

Comments/Status:

Section G: Operation & Maintenance con't

Collection System:

(a) Are there pump stations in the collection system..... Y
- i. How many publicly-owned pump stations equipped with permanent standby power or equivalent.....7
- ii. How many pump stations have telemetered alarms.....7
- iii. How many pump stations have operable alarms.....7

(b) Any chronic collection system overflows since last inspection..... Y
(c) Regulatory agency notified of all overflows..... Y
(d) Are there CSOs in the collection system..... N
if so, what is the LTCP status.....

(e) How are CSOs monitored (chalk, block, level sensor, etc.).....

(f) Portabl e pumps available for collection system maintenance..... Y
(g) RDII Program established and active..... Y
(h) Any WIB complaint received since last inspection..... N
(i) Is there a WIB response plan..... Y
(j) Is any portion of the collection system at or near dry weather capacity..... N

Comments/Status:

The city owns a 4" Thompson bypass pump.
I&I work and SSOs are discussed in the cover letter.
The city provides a backflow preventer valve to those residents who experience sewage back-ups within their home. Even though the valve is furnished by the city, the residents would then need to contract with a plumber to install the valve.

Section H: Sludge Management

(a) Method of Sludge Disposal... ☒ Land Application
☐ Haul to Another NPDES Permitee
☐ Haul to a Mixed Solid Waste Landfill

*if one of the selected methods is land application, complete applicable charts.

Class B Sewage Sludge (monitoring station 581)

Pathogen Reduction Alternative	84370 Vector Attraction Reduction Options									
	Option 1 -38% Volatile Solids Reduction	Option 2 -Anaerobic Bench Scale Analysis	Option 3 – Aerobic Bench Scale Analysis	Option 4 – Specific Oxygen Uptake Rate	Option 5 – Aerobic Time and Temperature	Option 6 – Alkali Addition	Option 7 – >75% Percent Solids without Unstabilized	Option 8 - >75% Percent Solids with Unstabilized	Option 9 – Land Injection	Option 10 – Immediate Incorporation
Alternative 1 - Geometric Mean of Seven Fecal Samples (84369)	☒	☐	☐	☐	☐	☐	☐	☐	☐	☒

(b) Has amount of sludge generated changed significantly since the last inspection..... N/E

(c) How much sludge storage is provided at the plant.....

>180 days - Geotextile woven bags on 8 drainage bays and 413,000 gallons of aerobic digestion.

(d) Records kept in accordance with State and Federal law (5 years according to OAC 3745-40-06)..... N/E

(e) Any complaints received in last year regarding sludge..... N/E

(f) 5/8" scree n at headworks for facilities that land apply sludge..... Y

(g) Are sludge application sites inspected to verify compliance with NPDES permit..... N/E

(h) Is a contractor used for sludge disposal..... N

If so, what is the name of the contractor.....

Comments/Status:

Jacob Howdyshell and Betsy VanWormer from Ohio EPA Central Office completed a separate sludge inspection.

Section I: Self-Monitoring Program

Flow Measurement:

(a) Primary/Secondary flow measuring devices (e.g. weir with ultrasonic level sensor):

Magmeter

(b) Flow meter calibrated annually ..... Y
(Date of last calibration: Spring 2012)

(c) 24-hour recording instruments operated and maintained..... Y

(d) Flow measurement equipment adequate to handle full range of flows..... Y

(e) All discharged flow is measured..... Y

Comments/Status:

According to Mr. Leeth, the effluent magmeter was installed in the spring of 2012. The city plans to contract with 3rd party technician to provide annual calibrations on the magmeter.

Section I: Self-Monitoring Program (con't)

Sampling:

(a) Sampling location(s) are as specified by permit..... Y

(b) Parameters and sampling frequency agree with permit..... Y

(c) Permittee uses required sampling method..... Y
(see GLC page)

(d) Monitoring records (i.e., flow, pH, DO) maintained for a minimum of three years including all original strip chart recordings (i.e, continuous monitoring instrumentation, calibration and maintenance records)..... Y

Comments/Status:

At the time of inspection, the influent flow-proportioned composite sampler was not operational due to a broken pump motor shaft that occurred two weeks prior to the inspection. Since the sampler is off-line, staff are taking manual composite samples. It is expected that the sampler will be operational by no later than January 13, 2013.

The effluent composite sampler thermometer was checked twice during the inspection. One of the readings indicated 8 degrees Celsius, which is outside the acceptable range for sample storage. Operations staff document sampler temperature readings but had not experience a reading outside the acceptable range. The city should investigate the sampler settings and the thermometer to verify proper operation.

Section I: Self-Monitoring Program (con't)

Laboratory:

General

(a) Does the Quality Assurance Manual contain written Standard Operating Procedures (SOP's) for all analysis performed onsite..... Y

(b) Do SOP's include the following if applicable..... N

- Title
- Scope and Application
- Summary
- Sample Handling and Preservation
- Interferences
- Apparatus and Materials
- Reagents
- Procedure
- Calculations
- Quality Control
- Maintenance
- Corrective Action
- Reference (Parent Method)

Note: Standard Methods 1020A establishes that "Quality assurance (QA) is the definitive program for laboratory operation that specifies the measure required to produce defensible data of know precision and accuracy. Standard operating procedures are to be used in the laboratory in sufficient detail that a competent analyst unfamiliar with the method can conduct a reliable review and/or obtain acceptable results." SOPs should be developed for each analytical procedure.

(c) EPA approved analytical testing procedures used (40 CFR 136.3).. Y

(d) If alternate analytical procedures are used, proper approval has been obtained..... N/A

(e) Analyses being performed more frequently than required by permit. N

(f) If (e) is yes, are results in permittee's self-monitoring report..... N/A

(g) Satisfactory calibration and maintenance of instruments/equipment. Y (see score from GLC page)

(h) Commercial laboratory used..... Y
Parameters analyzed by commercial lab: All but DO, temperature and pH.

Lab name: Belmont Labs

Discharge Monitoring Report Quality Assurance (DMRQA)

(a) Participation in latest USEPA quality assurance performance sampling..... Y
Date: June 2012

(b) Were any parameters "Unsatisfactory"..... N

(c) Reasons for "Unsatisfactory" parameters.....

Comments/Status:

Section J: Effluent/Receiving Water Observations

Outfall # 001
Outfall Description: Sample taken from the effluent pump station wet well.

Receiving Stream: Clear Creek
Receiving Stream Description: Effluent clear with algae present at the outfall.

Comments/Status:

Outfall sign acceptable.
Clear Creek contains large quanties of sediment (not attributed to the WWTW, but to erosion) both upstream and downstream of the discharge.

Section K: Multimedia Observations

(a) Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories..... N
(b) Do you notice staining or discoloration of soils, pavement or floors.. N
(c) Do you notice distressed (unhealthy, discolored, dead) vegetation.. N
(d) Do you see unidentified dark smoke or dust clouds coming from sources other than smokestacks..... N
(e) Do you notice any unusual odors or strong chemical smells..... N
(f) Do you see any open or unmarked drums, unsecured liquids, or damaged containment facilities..... N

If any of the above are observed, ask the following questions:
(1) What is the cause of the condition?
(2) Is the observed condition or source a waste product?
(3) Where is the suspected contaminant normally disposed?
(4) Is this disposal permitted?
(5) How long has the condition existed and when did it begin?

Comments/Status: