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

Re: Huron County
City of Bellevue WWTP
NPDES Permit
2PD00037

December 30, 2011

Mr. Jeffrey Crosby
Safety Service Director
City of Bellevue
3000 Seneca Industrial Parkway
Bellevue, Ohio 44811

On December 12, 2011, Andrew Gall conducted an NPDES permit compliance inspection of the wastewater treatment plant serving the City of Bellevue. Mr. Eric MacMichael, Superintendent, was present and provided information on plant operations and maintenance. At the time of the visit, all of the treatment units were in operation and a clear final effluent was being discharged to Snyder's Ditch. No samples were taken to verify compliance with permit limits.

Currently, the City is in significant noncompliance (SNC) for the violations of the Fecal Coliform limit contained in its NPDES permit from May to October 2011. Mr. MacMichael indicated that problems remain with the UV system and that the system requires a significant amount of operator attention and maintenance in order to stay operational. To date, compliance with the fecal coliform limit has not been achieved by the replacement of circuit boards and weekly cleaning of the bulb sleeves. The City's NPDES permit contains a compliance schedule requiring the UV system to be evaluated and if needed upgraded in order to comply with the new E.coli limits that will be effective when the permit is renewed in 2012. An initial evaluation indicates that the Bellevue WWTP cannot meet the new E.coli limit with the existing UV system. The compliance schedule requires submission of a Permit to Install (PTI) for upgrades to the UV system by January 31, 2012. Ohio EPA expects that the City of Bellevue will take the necessary steps to comply with the E.coli limit by May 1, 2012.

The City is also in significant noncompliance (SNC) for violations of the Total Dissolved Solids (TDS) limit from June to September 2011. TDS could also be the cause of the Chronic Toxicity limit violations the past few years. Therefore, we suggest that the City begin looking for possible sources of TDS and see if they can be reduced or eliminated. Potential sources to evaluate include the water treatment plant, industrial users and chemicals used at the wastewater treatment plant for phosphorus removal.

Please be aware that Ohio EPA is currently implementing a new enforcement policy. As a result of this new policy, the potential exists for the City of Bellevue to face a financial penalty if compliance with the E.coli and TDS limits is not achieved.

Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402-9398

419 | 352 8461
419 | 352 8468 (fax)
www.epa.ohio.gov

The 1993 Plant Operations and Maintenance manual is being reviewed and it appears that the plant is currently understaffed by two operators. Mr. MacMichael indicated that the City is currently working with RCAP to complete a sewer and water rate study. This study will help the City determine if additional staff can be hired for the wastewater treatment plant. Ohio EPA recommends that the City consider implementing the sewer rate adjustments recommended by the RCAP study so that the plant can be fully staffed.

In the past year, maintenance has been ongoing at the plant and in the collection system. The rusted safety railings and gratings are being replaced throughout the plant. The intermediate and final clarifiers were drained so that maintenance work could be completed on the mechanicals and so the concrete could be inspected, sandblasted and painted. The Northwest Street pump station was rehabilitated and the Northgate pump station was eliminated by the installation of gravity sanitary sewers.

Our completed inspection report and a copy of violations since our last inspection are enclosed for your review. If you have any questions, please contact Mr. Andrew Gall at (419) 373-3003 or via email at andrew.gall@epa.state.oh.us

Yours truly,

Elizabeth A. Wick, P.E.
Environmental Engineer II/Section Supervisor
Division of Surface Water

AG/jlm

Enclosures

pc: Eric MacMichael, Superintendent, Bellevue WPCF

ec: Inspection Tracking

Permit # : 2PD00037
NPDES #: OH0020672

State of Ohio Environmental Protection Agency
Northwest District Office

NPDES Compliance Inspection Report

Section A: National Data System Coding

Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
2PD00037	OH0020672	12/12/2011	C	S	1

Section B: Facility Data

Name and Location of Facility Inspected	Entry Time	Permit Effective Date
City of Bellevue WPCF 500 Great Lakes Pkwy. Bellevue, OH 44811	10:30 AM	1/1/2011
	Exit Time	**Permit Expiration Date**
	1:00 PM	1/31/2012

Name(s) and Title(s) of On-Site Representatives	Phone Number(s)
Eric MacMichael, Superintendent	(419) 483-7514

Name, Address and Title of Responsible Official	Phone Number
Mr. Jeff Crosby, Safety Service Director City of Bellevue 3000 Seneca Industrial Pkwy. Bellevue, OH 44811	(419)484-8400

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

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

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

Inspector	Reviewer
Andrew Y. Gall 12/28/2011	Thomas Poffenbarger 12/28/11
Date	
Andrew Y. Gall Environmental Specialist II Division of Surface Water Northwest District Office	Thomas Poffenbarger, P.E. Water Quality Engineer II/Unit Supervisor Division of Surface Water Northwest District Office

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) Correct name and location of receiving waters.....	Y
(c) Product(s) and production rates conform with permit application (Industries).....	N/A
(d) Flows and loadings conform with NPDES permit.....	Y
(e) Treatment processes are as described in permit application...	Y
(f) New treatment process(es) added since last inspection.....	N
(g) Notification given to State of new, different or increased discharges.....	Y
(h) All discharges are permitted.....	Y
(i) Number and location of discharge points are as described in permit.....	Y

Comments/Status:

- Flow pattern modified to plug flow from contact stabilization
- Sodium Aluminate now used for phosphorus treatment
- Signs have been placed at the outfall
- As of 12/2011 – Average Daily Flow is 1.3 MGD
- All storm water catch basins drain to pre-aeration tank located between final tanks and sludge press building

Section F: Compliance Schedules/Violations

(a) Any significant violations since the last inspection.....	Y
(b) Permittee is taking actions to resolve violations.....	Y
(c) Permittee has a compliance schedule.....	Y
(d) Compliance schedule contained in NPDES Permit	
(e) Permittee is meeting compliance schedule.....	Y

Comments/Status:

(a) Fecal coliform violations, ongoing maintenance required to keep UV system operating. Ongoing O&M has had diminishing returns City is working with Trojan to evaluate the UV system and determine what upgrades are needed. Compliance schedule requires plan to be submitted by end of permit.
(b) Total Dissolved Solids Violations – Working to identify source

Section G: Operation & Maintenance

Treatment Works:

Treatment facility properly operated and maintained

(a)	Standby power available.....generator ☒ or dual feed ☐.....	Y
(b)	Adequate alarm system available for power or equipment failures..	Y
(c)	All treatment units in service other than backup units.....	Y
(d)	Wastewater Treatment Works classification (OAC 3745-7).....	III
(e)	Operator of Record holds unexpired license of class required by permit.....	Y
	Class: III	
(f)	Copy of certificate of Operator of Record displayed on-site.....	Y
(g)	Minimum operator staffing requirements fulfilled (OAC 3745-7)...	Y
(h)	Routine and preventative maintenance scheduled/performed...	Y
(i)	Any major equipment breakdown since last inspection.....	N
(j)	Operation and maintenance manual provided and maintained.....	Y
(k)	Any plant bypasses since last inspection.....	N
(l)	Regulatory agency notified of bypasses.....	N/A
	On MORs ☐ and/or Spill Hotline (1-800-282-9378) ☐	
(m)	Any hydraulic and/or organic overloads since last inspection.....	N

Record Keeping:

(a)	Log book provided.....	Y
(b)	Format of log book (i.e. computer log, hard bound book)	
	Operators log book kept in operations room Log book is summarized monthly on a computer log kept by superintendent	
(c)	Log book(s) kept onsite (in an area protected from weather).....	Y
(d)	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 operation and maintenance activities (including preventative maintenance, repairs and request for repairs)..... Y
IV. Laboratory results (unless documented on bench sheets)... N
V. Identification of person making log entries..... Y

(d) Has the operator of record submitted written notification 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

Section G: Operation & Maintenance (con't)

Collection System:

(a) Percent combined system: 0%
(b) Any collection system overflows since last inspection..... Y
(CSO ☐ and/or SSO ☒)
(c) Regulatory agency notified of overflows (SSOs)..... Y
(d) CSO O&M plan provided and implemented..... N/A
(e) CSOs monitored and reported in accordance with permit..... N/A
(f) Portable pumps used to relieve system..... N
(g) Lift station alarms provided and maintained..... Y
(h) Are lift stations equipped with permanent standby power or equivalent..... Y
(i) Is there an inflow/infiltration problem (separate sewer system), or were there any major repairs to collection system since last inspection..... Y
(j) Any complaints received since last inspection of basement flooding Y
(k) Are any portions of the sewer system at or near capacity..... N

Comments/Status:

Treatment Works:
B. Alarms on main lift station, return pumps, high flow and power failure
G. Plant staffed 7 days/week (7am - 3PM), Down one operator, RCAPP Rate Study being conducted so that another operator can be added
J. O&M manual last updated in 1993, is being reviewed and updated to add most recent upgrades

Installing new grating and hand railings around plant tanks. Relocating brush drop off area so that there will be more room for processing of biosolids compost.

Collection System:
A. I/I problems in system, televising and repairs ongoing
G. Alarms now installed at Atwood, Elm. Street and Main Lift Station, plans in place to

install alarms on remaining lift station over the next few years
I. Rebuilt the Northwest lift station and eliminated the Northgate lift station and replaced with gravity sewer.
J. Basement backups in Spring 2011 due to Northwest lift station problems. City rebuilt lift station following problems.

Section H: Sludge Management

(a) Sludge management plan (SMP)
Submitted date: Approval #: Not submitted ☐ N/A ☒

(b) Sludge management plan current..... Y
(c) Sludge adequately disposed..... Y
(Method:Land Application, Landfill, Composting)
(d) If sludge is incinerated, where is ash disposed of N/A
(e) Is sludge disposal contracted..... Y
(Name:Mapleview Farms does land application)
(f) Has amount of sludge generated changed significantly since last inspection..... N
(g) Adequate sludge storage provided at plant.....Y
(h) Land application sites monitored and inspected per SMP..... Y
(i) Records kept in accordance with State and Federal law..... Y
(j) Any complaints received in last year regarding sludge..... N
(k) Is sludge adequately processed (digestion, pathogen control)..... Y

Comments/Status:

Using belt press to gravity thicken sludge to help reduce hauling frequency.
Working to begin using the composting system on a regular basis.
Primary/Final Sludge is landfilled
Activated Sludge is land applied or composted

Section I: Self-Monitoring Program

Flow Measurement:

(a) Primary flow measuring device operated and maintained..... Y

Type of device: Ultrasonic & Parshall flume ☒ Ultrasonic & Weir ☐ Weir ☐

Calculated from influent ☒ Other ☐(Specify:)

(b) Calibration frequency adequate ..... Y
(Date of last calibration: 10/16/2009)

(c) Secondary instruments operated and maintained..... Y

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

(e) Actual flow discharged is measured..... N

(f) Flow measuring equipment inspection frequency
☒Daily ☐Weekly ☐monthly ☐other

Comments/Status:

B. City electrician has ability to calibrate flow measuring devices, recommend that outside company calibrate at least once a permit cycle.

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

(d) Sample collection procedures are adequate..... Y
- (i) Samples refrigerated during compositing..... Y
- (ii) Proper preservation techniques used..... Y
- (iii) Containers and sample holding times prior to analysis conform with 40 CFR 136.3..... Y

(e) 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

(f) Adequate records maintained of sampling date, time, location, etc.. Y

Permit # : 2PD00037
NPDES #: OH0020672

Laboratory:

General

(a) EPA approved analytical testing procedures used (40 CFR 136.3).. Y
(b) If alternate analytical procedures are used, proper approval has been obtained..... N/A
(c) Analyses being performed more frequently than required by permit. Y
(d) If (c) is yes, are results in permittee's self-monitoring report..... Y
(e) Commercial laboratory used..... Y
Parameters analyzed by commercial lab: Mercury, Metals, Sludge, Oil and Grease, Toxicity

Lab name: MASI and Environmental Science

Quality Control/Quality Assurance

(f) Quality assurance manual provided and maintained..... Y
(g) Satisfactory calibration and maintenance of instruments/equipment. Y
(h) Adequate records maintained..... Y
(i) Results of latest USEPA quality assurance performance sampling program: ☒ Satisfactory ☐ Marginal ☐ Unsatisfactory
Date: 7/2011

Comments/Status:

Section J: Effluent/Receiving Water Observations

Outfall Number	Oil sheen	Grease	Turbidity	Visible Foam	Visible Floating Solids	Color	Other
001	None	None	None	Very slight	None	Clear	

Permit # : 2PD00037
NPDES #: OH0020672

Comments/Status:

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:

Form Approved
OMB No. 158-R0035

F. GUIDE - VISUAL OBSERVATION - UNIT PROCESS

RATING CODES: **S** = Satisfactory; **U** = Unsatisfactory; **M** = Marginal; **IN** = In Operation; **OUT** = Out of Operation

CONDITION OR APPEARANCE		RATING	COMMENTS
General	Grounds	S	
	Buildings	S	
	Potable Water Supply Protection	S	
	Safety Features	S	Metal Safety Chains Installed, Metal grating installed over valves
	Bypasses	-	
	Stormwater Overflows	-	
	Alternate Power Source	S	Generator , Run once/week and load tested once/quarter
Preliminary	Maintenance of Collection Systems	S	I/I reduction through smoke testing and installing manhole dishes
	Pump Station	In	
	Ventilation	S	
	Bar Screen	In	
	Disposal of Screenings / Grit	S	Landfill
	Grit Chamber	In	
	Septage Receiving Station	In	Station in use by several haulers, must call ahead ½ hr. before arriving
	Alum Feed System	In	Switched to sodium aluminate
Primary	Settling Tanks	In	New Drive Unit Installed in 2010
	Scum Removal	-	
	Sludge Removal	-	
	Effluent	S	
Sludge Disposal	Digesters	In	4 aerobic, using belt press to gravity thicken sludge to 6%-7% solids
	Temperature and pH	-	Diffusers cleaned in two of the digesters
	Gas Production	-	
	Heating Equipment	-	
	Sludge Pumps	In	4 Moyno sludge pumps – Being Rehabbed as needed
	Sludge Belt Filter Press	In	Ashbrook Belt Filter Press
	Disposal of Sludge	S	Mapleview Farms – Land Applies Liquid, Mid-Ohio hauls primary to landfill
	In-Vessel Compost Bins	OUT	Bins were filled, working on developing a rotation ,
Other	Flow Meter and Recorder	In	Influent Flow Meter
	Records	S	Operators Log Book
	Lab Controls	S	New pH meter and new Ammonia probe
	Chemical Treatment	In	Sodium Aluminate, Defoamer
Secondary-Tertiary List items as required	Nitrification Towers	In	2 Filters online
	Aeration Tanks	In	3 tanks, operating in plug flow mode – Light Foam
	Intermediate Clarifiers	In	3 tanks online, low foam, low scum,
	Filtrate Clarifier	In	Used when sludge press is operated, effluent routed to primary clarifier
	Final Clarifiers	In	2 in operation, Both drained and repainted this year
Disinfection	Effluent	S	Clean, very light foam Foam, No Odor
	Disinfection System	In	(UV) – System overhauled last winter, bulbs cleaned every week
	Effective Dosage	-	Outfall signs in place
	Contact Time	-	
	Contact Tank	-	

Get New Data

Permit No	Reporting Period	Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
2PD00037*JD	September 2010	001	00665	Phosphorus, Total (P)	30D Conc	1.0	2.025	9/1/2010
2PD00037*JD	September 2010	001	00665	Phosphorus, Total (P)	7D Conc	1.5	5.	9/1/2010
2PD00037*JD	September 2010	001	00665	Phosphorus, Total (P)	30D Qty	9.1	9.35747	9/1/2010
2PD00037*JD	September 2010	001	00665	Phosphorus, Total (P)	7D Qty	13.6	22.1422	9/1/2010
2PD00037*JD	September 2010	001	61426	Chronic Toxicity, Ceri	30D Conc	1.0	1.41	9/1/2010
2PD00037*KD	January 2011	001	00515	Residue, Total Dissolv	30D Conc	1505	1880.	1/1/2011
2PD00037*KD	February 2011	001	00515	Residue, Total Dissolv	30D Conc	1505	2010.	2/1/2011
2PD00037*KD	March 2011	001	50092	Mercury, Total (Low Le	30D Qty	0.0000	.00006	3/1/2011
2PD00037*KD	June 2011	001	00515	Residue, Total Dissolv	30D Conc	1505	1660.	6/1/2011
2PD00037*KD	July 2011	001	00515	Residue, Total Dissolv	30D Conc	1505	2030.	7/1/2011
2PD00037*KD	July 2011	001	31616	Fecal Coliform	30D Conc	1000	3744.53	7/1/2011
2PD00037*KD	July 2011	001	31616	Fecal Coliform	7D Conc	2000	3114.53	7/1/2011
2PD00037*KD	July 2011	001	31616	Fecal Coliform	7D Conc	2000	3735.03	7/8/2011
2PD00037*KD	July 2011	001	31616	Fecal Coliform	7D Conc	2000	17465.7	7/22/2011
2PD00037*KD	July 2011	001	00300	Dissolved Oxygen	1D Conc	5.0	3.9	7/23/2011
2PD00037*KD	July 2011	001	00300	Dissolved Oxygen	1D Conc	5.0	3.6	7/25/2011
2PD00037*KD	July 2011	001	00300	Dissolved Oxygen	1D Conc	5.0	4.9	7/26/2011
2PD00037*KD	August 2011	001	31616	Fecal Coliform	7D Conc	2000	2567.69	8/1/2011
2PD00037*KD	August 2011	001	00515	Residue, Total Dissolv	30D Conc	1505	1940.	8/1/2011
2PD00037*KD	August 2011	001	50092	Mercury, Total (Low Le	30D Conc	5.4	6.83	8/1/2011
2PD00037*KD	August 2011	001	31616	Fecal Coliform	7D Conc	2000	10052.6	8/15/2011
2PD00037*KD	August 2011	001	31616	Fecal Coliform	7D Conc	2000	6814.73	8/22/2011
2PD00037*KD	September 2011	001	61426	Chronic Toxicity, Ceri	30D Conc	1.0	2.82	9/1/2011
2PD00037*KD	September 2011	001	00515	Residue, Total Dissolv	30D Conc	1505	1700.	9/1/2011
2PD00037*KD	October 2011	001	00515	Residue, Total Dissolv	30D Conc	1505	1860.	10/1/2011

Get New Data

Permit No	Reporting Period	Station	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
2PD00037*JD	October 2010	801	31616	Fecal Coliform			AK	10/20/2010
2PD00037*KD	October 2011	001	31648	E. coli			AK	10/11/2011
2PD00037*KD	October 2011	001	31616	Fecal Coliform			AK	10/11/2011
2PD00037*KD	October 2011	001	31648	E. coli			AK	10/4/2011
2PD00037*KD	September 2011	001	31616	Fecal Coliform			AK	9/27/2011
2PD00037*KD	September 2011	001	31648	E. coli			AK	9/27/2011
2PD00037*KD	September 2011	001	31616	Fecal Coliform			AK	9/20/2011
2PD00037*KD	September 2011	001	31648	E. coli			AK	9/20/2011
2PD00037*KD	August 2011	001	31616	Fecal Coliform			AK	8/10/2011
2PD00037*KD	May 2011	001	31648	E. coli			AK	5/4/2011
2PD00037*KD	July 2011	001	31648	E. coli			AK	7/13/2011
2PD00037*KD	February 2011	801	00300	Dissolved Oxygen			AF	2/9/2011
2PD00037*KD	February 2011	801	00400	pH			AF	2/9/2011
2PD00037*KD	February 2011	801	00610	Nitrogen, Ammonia (NH3			AF	2/9/2011
2PD00037*KD	February 2011	801	00010	Water Temperature			AF	2/9/2011