



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

March 8, 2013

RE: BEAVER LOCAL WWTP
13093 STATE ROUTE 7
COMPLIANCE EVALUATION INSPECTION
NPDES PERMIT NO. 3PB00070
MADISON TOWNSHIP
COLUMBIANA COUNTY

Mr. Troy Graft, P.E.
Chief Engineer
Columbiana County Engineer
105 South Market Street
Lisbon, OH 44432

Dear Mr. Graft:

On March 6, 2013, this writer conducted a compliance evaluation inspection of the Columbiana County Beaver Local WWTP located at the above referenced address. The County was represented by Mr. Don Harrison.

The following is a summary of the inspection:

- 1) The wastewater treatment plant consists of a trash trap, flow equalization, extended aeration tanks, settling tanks, flow meter, dosing chamber, rapid sand filters, phosphorus removal and UV disinfection. The facility also has a sludge holding tank.
- 2) At the time of the inspection the plant appeared to be operating well. All units were operational and the plant was discharging a clear effluent to the highway right away leading to the stream. Effluent in the clear well of the rapid sand filter allowed the pump at the bottom to be visible. The County also had Mack Industries replace some of the filter equipment which had not been performing.
- 3) The wastewater treatment plant effluent data was reviewed from May 2011 through January 2013. The effluent violations for this facility are attached to this letter. It must be noted that the plant has performed well since January 2012 with their being only one reported violation. The County has got the operations at the plant turned around since that time. It was curious to note that Influent CBOD₅ was abnormally high at the plant with reported values being between 400-700 mg/l frequently. Normal domestic sewage is typically 200 mg/l. The Agency is interested in the County's opinion for this parameter. It is not creating any violations yet, however, it could reduce the design capacity available at the plant.
- 4) The County has added some additional staffing and all the plants are better maintained. Also, additional supervision, Mr. Don Harrison, has been employed and there is now a regimented maintenance schedule that facilitates repairs at all the treatment plants. The

Mr. Troy Graft, P.E.
Columbiana County Beaver Local WWTP
March 8, 2013
Page 2

County now has multiple spare parts available and repairs to the various systems are completed in a timely fashion.

- 5) The Agency was dismayed to learn the Middle School has not been connected. The new wastewater Treatment Plant has been operational since 2010 and this building has yet to be connected. The County has indicated a new school is in the process of being designed and constructed. Beaver Local Schools must provide the Ohio EPA with a schedule for connecting the existing building and the new one as well as the location of the new building relative to the current facilities. Beaver Local Schools must provide the Agency with an explanation and schedule for the future connection of this building within 21 days of the receipt of this letter.

This is a relatively new plant that discharges to a river with a very high water quality designation (State Wild and Scenic). The County has done a good job returning this facility to continued and reliable compliance since January 2012.

Should you have any comments or questions, feel free to contact me at (330) 963-1193.

Respectfully,



Joseph E. Trocchio, P.E.
Environmental Engineer
Division of Surface Water

JET:bo

enclosure(s)

pc: Lori J. Barnes, Columbiana County Health Dept.
Bert Dawson, P.E., Columbiana County Engineer
Don Harrison, Columbiana County Engineers
Kent Polan, Beaver Local School District Superintendent
Columbiana County Commissioners

File: Public/Permit Compliance/Columbiana County/Beaver Local WWTP

Columbiana County Beaver Local WWTP effluent violations: May 11 - Jan 13

Permit No	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	30D Conc	1.0	1.2	5/1/2011
3PB00070*AD	00530	Total Suspended Solids	30D Conc	12	32.75	6/1/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	30D Conc	1.0	8.34	6/1/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	7D Conc	1.5	13.9	6/1/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	7D Qty	0.568	.63134	6/1/2011
3PB00070*AD	80082	CBOD 5 day	30D Conc	10	12.125	6/1/2011
3PB00070*AD	00400	pH	1D Conc	6.5	6.06	6/7/2011
3PB00070*AD	00530	Total Suspended Solids	7D Conc	18	52.	6/8/2011
3PB00070*AD	80082	CBOD 5 day	7D Conc	15	15.2	6/8/2011
3PB00070*AD	00400	pH	1D Conc	6.5	5.1	6/14/2011
3PB00070*AD	00530	Total Suspended Solids	7D Conc	18	52.	6/15/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	7D Conc	1.5	2.78	6/15/2011
3PB00070*AD	00400	pH	1D Conc	6.5	6.12	6/28/2011
3PB00070*AD	00530	Total Suspended Solids	30D Conc	12	16.625	7/1/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	30D Conc	1.0	4.585	7/1/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	7D Conc	1.5	4.21	7/1/2011
3PB00070*AD	80082	CBOD 5 day	30D Conc	10	16.0475	7/1/2011
3PB00070*AD	00665	Phosphorus, Total (P)	30D Conc	1.0	3.22	7/1/2011
3PB00070*AD	00665	Phosphorus, Total (P)	7D Conc	1.5	3.22	7/1/2011
3PB00070*AD	00400	pH	1D Conc	6.5	4.45	7/5/2011
3PB00070*AD	80082	CBOD 5 day	7D Conc	15	22.	7/8/2011
3PB00070*AD	00400	pH	1D Conc	6.5	5.38	7/12/2011
3PB00070*AD	00530	Total Suspended Solids	7D Conc	18	23.	7/15/2011
3PB00070*AD	80082	CBOD 5 day	7D Conc	15	26.1	7/15/2011
3PB00070*AD	00400	pH	1D Conc	6.5	5.36	7/19/2011
3PB00070*AD	00530	Total Suspended Solids	7D Conc	18	21.5	7/22/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	7D Conc	1.5	4.96	7/22/2011
3PB00070*AD	00400	pH	1D Conc	6.5	5.6	7/27/2011
3PB00070*AD	00300	Dissolved Oxygen	1D Conc	6.0	5.4	7/27/2011
3PB00070*AD	00530	Total Suspended Solids	30D Conc	12	23.25	8/1/2011
3PB00070*AD	00530	Total Suspended Solids	7D Conc	18	47.	8/1/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	30D Conc	1.0	4.57	8/1/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	7D Conc	1.5	5.02	8/1/2011
3PB00070*AD	80082	CBOD 5 day	30D Conc	10	12.895	8/1/2011
3PB00070*AD	00665	Phosphorus, Total (P)	30D Conc	1.0	2.9	8/1/2011
3PB00070*AD	00665	Phosphorus, Total (P)	7D Conc	1.5	2.9	8/1/2011
3PB00070*AD	00400	pH	1D Conc	6.5	5.12	8/2/2011
3PB00070*AD	00530	Total Suspended Solids	7D Conc	18	28.	8/8/2011
3PB00070*AD	00400	pH	1D Conc	6.5	5.12	8/9/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	7D Conc	1.5	4.12	8/15/2011
3PB00070*AD	00400	pH	1D Conc	6.5	5.45	8/16/2011
3PB00070*AD	00400	pH	1D Conc	6.5	5.01	8/23/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	30D Conc	1.0	5.92	9/1/2011

Columbiana County Beaver Local WWTP effluent violations: May 11 - Jan 13

Permit No	Reporting Code	Parameter	Limit Type	Limit	Reported Value	Violation Date
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	7D Conc	1.5	9.	9/1/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	30D Qty	0.379	.38344	9/1/2011
3PB00070*AD	80082	CBOD 5 day	30D Conc	10	10.565	9/1/2011
3PB00070*AD	00665	Phosphorus, Total (P)	30D Conc	1.0	1.88	9/1/2011
3PB00070*AD	00665	Phosphorus, Total (P)	7D Conc	1.5	1.88	9/1/2011
3PB00070*AD	00400	pH	1D Conc	6.5	5.8	9/6/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	7D Conc	1.5	3.96	9/8/2011
3PB00070*AD	00400	pH	1D Conc	6.5	5.44	9/13/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	7D Conc	1.5	5.74	9/15/2011
3PB00070*AD	00400	pH	1D Conc	6.5	4.87	9/20/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	7D Conc	1.5	4.98	9/22/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	7D Qty	0.568	.65973	9/22/2011
3PB00070*AD	00400	pH	1D Conc	6.5	4.67	9/27/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	30D Conc	1.0	1.94	10/1/2011
3PB00070*AD	00610	Nitrogen, Ammonia (NH3)	7D Conc	1.5	3.82	10/1/2011
3PB00070*AD	00665	Phosphorus, Total (P)	30D Conc	1.0	1.72	10/1/2011
3PB00070*AD	00400	pH	1D Conc	6.5	5.1	10/4/2011
3PB00070*AD	00400	pH	1D Conc	6.5	4.74	10/11/2011
3PB00070*AD	00400	pH	1D Conc	6.5	5.72	10/18/2011
3PB00070*AD	00665	Phosphorus, Total (P)	7D Conc	1.5	1.72	10/22/2011
3PB00070*AD	00400	pH	1D Conc	6.5	5.44	10/25/2011
3PB00070*AD	00665	Phosphorus, Total (P)	30D Conc	1.0	1.5	11/1/2011
3PB00070*AD	00400	pH	1D Conc	6.5	5.1	11/1/2011
3PB00070*AD	00400	pH	1D Conc	6.5	5.98	11/8/2011
3PB00070*AD	80082	CBOD 5 day	30D Conc	10	13.9625	12/1/2011
3PB00070*AD	80082	CBOD 5 day	7D Conc	15	20.5	12/1/2011
3PB00070*AD	00665	Phosphorus, Total (P)	30D Conc	1.0	1.23	12/1/2011
3PB00070*AD	00300	Dissolved Oxygen	1D Conc	6.0	2.5	12/7/2011
3PB00070*AD	00400	pH	1D Conc	6.5	6.13	12/13/2011
3PB00070*AD	00665	Phosphorus, Total (P)	30D Conc	1.0	1.29	2/1/2012