



**Environmental
Protection Agency**

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

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January 31, 2011

Union County Commissioners
County Office Building
233 W. Sixth Street
Marysville, OH 43040

**Re: NPDES / Public
Union County WWTPs
Compliance Inspections
Union County**

Dear Commissioners:

On November 9, 2010, Reconnaissance Inspections were conducted at the Tawa Estates and Parrott Village wastewater treatment plants (WWTP). Mill Creek Estates and Crottinger Estates WWTP were also inspected as all four plants are in the process of having their permits renewed. Present for the inspections were Mary Sampsel, Jeff Stauch, Bill Narducci, and Mike Galloway representing the Union County Commissioners, and Mike Sapp, Kelly Thiel, and myself of the Ohio EPA, Central District Office, Division of Surface Water. The purpose of the inspection was to evaluate compliance with the terms and conditions of the National Pollutant Discharge Elimination System (NPDES) permit.

At the time of the inspections, the overall operation and maintenance of the four facilities has improved since the last inspection; most notably, the tertiary sand filters, alarm systems and a decrease in the number of permit violations. There is room for improvement as the standard wet weather operating procedure for the Mill Creek Estates and Parrott Village WWTP is still unsatisfactory as the plant operator continues to temporarily shut off the air to the aerations tanks in order to help maintain solids inventories within the plant. This practice has been successful in minimizing the period of non-compliance following a rain event; however, it should not be considered a permanent solution to the inflow and infiltration problem in the collection system. As discussed during the inspections with Ms. Sampsel, I am recommending a compliance schedule for inflow and infiltration work at the Mill Creek Estates facility.

One general concern is that the County intends to install remote controls for the aeration blowers that will be used during rain events to turn off the blowers. As mentioned in previous inspection reports, this action should not be considered a permanent operational practice. The County must continue to focus on identifying and eliminating sources of inflow from the collection systems serving these plants.

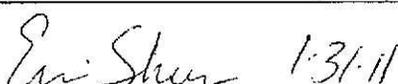
NPDES Compliance Inspection Report

SECTION A: NATIONAL DATA SYSTEM CODING					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
4PG00009*FD	OH0039187	11/9/10	R	M	1

SECTION B: FACILITY DATA		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Tawa Estates WWTP 10655 Betty Lane Claiborne Twp., Union Co.	11:15 am	September 1, 2005
	Exit Time	Permit Expiration Date
	12:00 pm	August 31, 2010
Name(s) and Title(s) of On-Site Representatives		
Mary Sampsel Assistant County Engineer (937) 645-3132	Mike Galloway Plant Operator (937) 645-3018	
Name and Title of Responsible Official		
Union County Commissioners 233 W. Sixth St. Marysville, OH 43040 (937) 645-3018		

SECTION C: AREAS EVALUATED DURING INSPECTION		
Key: S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated		
S	Permit	
S	Records/Reports	
M	Operations & Maintenance	Filamentous bacteria problem, clarifier had scum layer, skimmer was not operational.
M	Facility Site Review	No handrails or true steps.
M	Collection System	I&I problems.
S	Flow Measurement	
N	Laboratory	
S	Effluent/Receiving Waters	No effluent violations since May 2009
N	Sludge Storage/Disposal	
N	Pretreatment	
N	Compliance Schedule	
S	Self-Monitoring Program	

Summary of Findings and Comments

Signatures	
 1-31-11	 1-31-11
Cole Miller, Inspector Compliance & Enforcement Division of Surface Water Central District Office	Erin Sherer, Reviewer Compliance & Enforcement Supervisor Division of Surface Water Central District Office

Tawa Estates WWTP

General

The Tawa Estates Wastewater Treatment Plant has a design treatment capacity of 7,500 gpd with a direct discharge to Ottawa Creek. The plant currently serves approximately 13 homes in the Tawa Estates subdivision. Wet stream process provided at the plant include a trash trap, extended aeration, clarification, tertiary sand filtration, chlorination and dechlorination. Liquid sludge is hauled to the Marysville WWTP for final disposal.

1. At the time of the inspection, the following general observations were made with the operational and maintenance practices at the plant:
 - a. The clarifier had a stagnant looking scum layer on top. The plant operator also indicated that the skimmer was inoperable. While the skimmer would likely alleviate the scum problem, you may want to inspect the pretreatment area to determine a cause. The clarifier walls should also be scraped more frequently.
 - b. The aeration and clarifier tanks had no handrails or grating. Also, the steps to get to into the area were made of cinderblocks.
 - c. The trash trap is pumped out every six months.
 - d. Centrifuge spin tests and 30-minute settleabilities are performed once a week for operation controls.
 - e. A new blower building was installed since the previous inspection.
 - f. The plant is not equipped with a back-up blower; however, the County has plans to install one in the near future.
 - g. Geysers pumps were installed for sludge returns 2-3 years ago.
 - h. Aeration blowers are run in an on/off mode of operation (30 minutes on followed by 30 minutes off).
2. The attached table contains a list of NPDES permit violations for the time period between November 2004 and September 2010. The other table summarizes flow since November 2004. It appears that progress has been made in eliminating I&I problems and the peak flow in 2010 was less than the design capacity.
3. Since the previous inspection, the County has undertaken repairs in the collection system to substantially reduce inflow and infiltration. The most notable repairs/improvements include replacing a cracked section of truss pipe and installing a storm tile to improve stormwater drainage.

**NPDES Permit Violations for Tawa Estates WWTP
November 2004 – September 2010**

Reporting Period	Parameter	Units	Limit Type	Limit	Reported Value
January 2005	Total Suspended Solids	mg/L	30D Conc	12	18.
May 2005	Chlorine, Total Residu	mg/L	1D Conc	0.019	.07
April 2006	Dissolved Oxygen	mg/L	1D Conc	6.0	5.5
May 2006	Dissolved Oxygen	mg/L	1D Conc	6.0	5.2
July 2006	Dissolved Oxygen	mg/L	1D Conc	6.0	4.2
July 2006	Dissolved Oxygen	mg/L	1D Conc	6.0	5.6
August 2006	Dissolved Oxygen	mg/L	1D Conc	6.0	5.1
August 2006	Dissolved Oxygen	mg/L	1D Conc	6.0	5.
August 2006	Dissolved Oxygen	mg/L	1D Conc	6.0	5.
August 2006	Dissolved Oxygen	mg/L	1D Conc	6.0	5.
September 2006	Dissolved Oxygen	mg/L	1D Conc	6.0	5.
September 2006	Dissolved Oxygen	mg/L	1D Conc	6.0	5.
September 2006	Dissolved Oxygen	mg/L	1D Conc	6.0	5.
September 2006	Dissolved Oxygen	mg/L	1D Conc	6.0	5.
October 2006	Dissolved Oxygen	mg/L	1D Conc	6.0	5.
October 2006	Dissolved Oxygen	mg/L	1D Conc	6.0	5.
October 2006	Dissolved Oxygen	mg/L	1D Conc	6.0	5.
April 2007	Dissolved Oxygen	mg/L	1D Conc	6.0	5.
June 2007	Dissolved Oxygen	mg/L	1D Conc	6.0	5.1
June 2007	Dissolved Oxygen	mg/L	1D Conc	6.0	5.7
July 2007	Dissolved Oxygen	mg/L	1D Conc	6.0	5.2
April 2008	Nitrogen, Ammonia (NH ₃)	mg/L	30D Conc	3.0	3.2
May 2009	Total Suspended Solids	mg/L	30D Conc	12	21.6666
May 2009	Total Suspended Solids	mg/L	7D Conc	18	37.
May 2009	Fecal Coliform	#/100 mL	7D Conc	2000	3500.
May 2009	Total Suspended Solids	mg/L	7D Conc	18	25.

**Flow Information for Tawa Estates WWTP
November 2004 – September 2010**

	Flow(gpd)	Date Occurred
Highest since last inspection	68731	1/12/2005
Highest in 2008	25920	3/5/2008
Highest in 2009	17604	1/22/2009
Highest in 2010	6840	3/23/2010
Average Nov '04 - Sept '10	1980	
Average Jan '08 - Sept '10	2010	
Design Capacity	7500	