

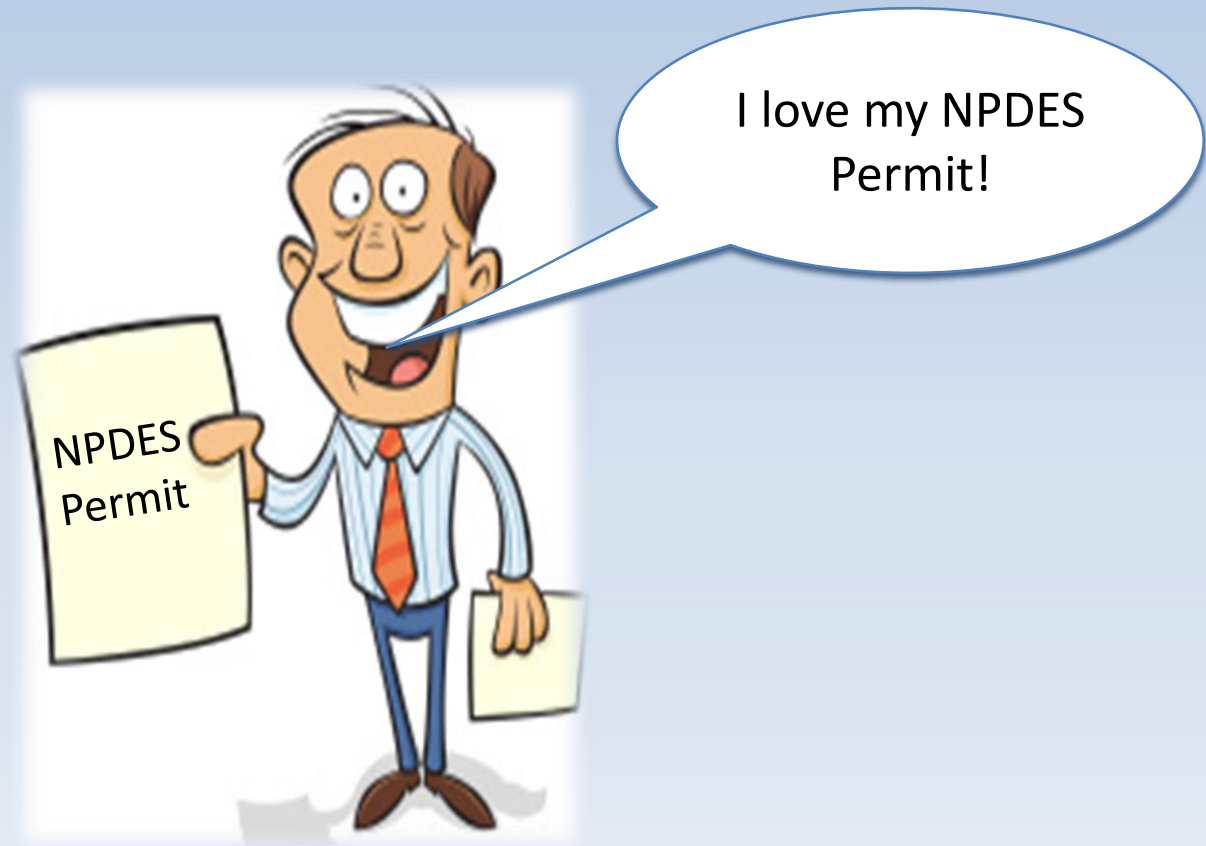
John Kwolek, P.E.

EnviroScience, Inc.

Senior Engineer

Manager – Compliance Services

What NPDES Permit Do You Need?



- **Who needs an NPDES Permit?**

Any person discharging wastewater to “waters of the state”

- **Waters of the State**

- Ditches and Dry Stream Beds,
- Storm Sewers,
- As well as the obvious flowing stream or lake.



DIFFERENT TYPES OF “WASTEWATER”

- 1) Sanitary Sewage
- 2) Stormwater
- 3) Non-contact Cooling Water
- 4) Industrial Process Wastewater

"Industrial waste" means any liquid, gaseous, or solid waste substance resulting from any process of industry, manufacture, trade, or business, or from the development, processing, or recovery of any natural resource, together with such sewage as is present."

DIFFERENT TYPES OF NPDES PERMITS

- **General Permits**

- The easiest of the NPDES permits available from the state
- with the one size fits all

- **Individual NPDES Permit**

- It's all about you!!!

GENERAL PERMITS

1. A general permit is one permit that covers facilities that have similar operations and type of discharge.
2. General permits are used to cover discharges that will have a minimal affect on the environment.
3. Much easier with a *one-page application* and much faster with a *shorter turn-around* time from Ohio EPA.

- Bridge Maintenance Wastewater
- Coal Surface Mining Activities
- Construction Site Storm Water
- Construction Site Storm Water in the Big Darby Creek Watershed
- Construction Site Storm Water in the Olentangy River Watershed
- Geothermal System Discharges
- Household Sewage Treatment Systems
- Hydrostatic Test Water
- Industrial Storm Water
- Non-contact Cooling Water
- Pesticide Application Discharges
- Petroleum Bulk Storage Facilities
- Petroleum-related Corrective Actions
- Small MS4 Storm Water
- Small Sanitary Discharges
- Small Sanitary Discharges That Cannot Meet BADCT Standards
- Storm Water Discharges Associated with Industrial Activity From Marinas
- Temporary Wastewater Discharges
- Water Treatment Plants

TYPES OF GENERAL PERMITS IN OHIO

Ohio EPA's eBusiness Center is a secure portal for the regulated community and consultants to electronically complete and file Ohio EPA-related reports and permit applications.

New Account

Don't have an account? Click the link below to create a new account.

[Create New Account...](#)

System Support

Do you need assistance or have questions about Ohio EPA eBusiness Center?

[Click here for online help...](#)

Phone: (877) 372-2499 (1-877-EPA-BIZZ)
Hours of live support: 8:00 AM - 5:00 PM weekdays,
except State holidays.

eBusiness Center Login

User ID:

Password:

Login

[Forgot your password?](#)

- Applications for general permits must be submitted through the Ohio EPA *STREAMS* system.
- *STREAMS* - Surface Water Electronic Business Services
- You will need to register with Ohio EPA to get a Username and PIN.



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

Donald Kwolek
6294 Hanna
5070 Stow Road
Ravenna, OH 44266-8528

Thursday, December 15, 2016

Donald Kwolek:

This letter is in response to the PIN request made by the user account "jkwolek" through Ohio EPA's eBusiness Center. You have been assigned the following PIN:

J8ns&tjp

You will need this PIN to submit data. Please protect your PIN as you would a password. Do not allow others to copy, view, or use your PIN.

The next step is to log into Ohio EPA's eBusiness Center and activate your PIN. If you have problems, please contact the eBusiness Center Help Desk via phone at (877) 372-2499 or by e-mail at EPA.eBizPINs@epa.ohio.gov.

Thank you for using Ohio EPA's eBusiness Center!

Request ID #78848

You must activate your PIN by logging into the Ohio EPA eBusiness Center.

Completing the General Permit Process

1. Fill Out the NOI



2. Receive Letter From Ohio EPA with Facility Permit Number



3. Download the General Permit from Ohio EPA Website



4. Read the Permit

Effective Date: June 1, 2017
Expiration Date: May 31, 2022

OHIO ENVIRONMENTAL PROTECTION AGENCY

Ohio EPA JUN 8 '17
Entered Directors Journal

GENERAL PERMIT AUTHORIZATION FOR
TEMPORARY DISCHARGE OF WASTEWATER

THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et. seq., hereafter referred to as "the Act"), and the Ohio Water Pollution Control Act (Ohio Revised Code Chapter 6111), discharges of wastewater, as defined in Part VI. of this permit, are authorized by the Ohio Environmental Protection Agency, hereafter referred to as "Ohio EPA", to discharge from the outfalls at the sites and to the receiving waters identified in the applicant's Notice of Intent application (NOI) on file with Ohio EPA in accordance with the conditions specified in Parts I through VI of this permit.

It has been determined that a lowering of water quality of various waters of the state associated with granting coverage under this permit is necessary to accommodate important social and economic development in the state of Ohio. In accordance with OAC 3745-1-05, this decision was reached only after examining a series of technical alternatives, reviewing social and economic issues related to the degradation, and considering all public and intergovernmental comments received concerning the proposal.

Granting of permit coverage is conditioned upon payment of applicable fees and submittal of the Notice of Intent form.

This permit and the authorization to discharge shall expire at midnight on the expiration date shown above. In order to receive authorization to discharge beyond the above date of expiration, the permittee shall submit such information and forms as are required by the Ohio EPA (see Part II).


Craig W. Butler
Director

Total Pages: 28

I certify this to be a true and accurate copy of the
official documents as filed in the records of the Ohio
Environmental Protection Agency.

By:  Date: 6-8-17

When you receive the permit:

- Already signed by the Director of Ohio EPA.
- Already Certified by Ohio EPA.
- Permit issued final - effective and expiration date already included.
- No revisions possible.

However:

- Review the permit and understand the requirements.
- Contact Ohio EPA with any questions.

Notice of Intent (NOI) For Coverage Under Ohio Environmental Protection Agency General Permit

(Read accompanying instructions carefully before completing this form)

Submission of this NOI constitutes notice that the party identified in Section I of this form intends to be authorized to discharge into state surface waters under Ohio EPA's NPDES general permit program. Becoming a permittee obligates a discharger to comply with the terms and conditions of the permit. Complete all required information as indicated by the instructions. Forms transmitted by fax will not be accepted. A check for the proper amount must accompany this form and be made payable to "Treasurer, State of Ohio." (See the fee table in Attachment C of the NOI instructions for the appropriate processing fee)

I. Applicant Information/Mailing Address

Company (Applicant) Name: _____

Mailing (Applicant) Address: _____

City: _____ State: _____ Zip Code: _____

Contact Person: _____ Phone: _____ Fax: _____

Contact E-Mail Address: _____

II. Facility/Site Location Information

Facility Name: _____

Facility Address/Location: _____

City: _____ State: Ohio Zip Code: _____

County(ies): _____ Township(s): _____

Facility Contact Person: _____ Phone: _____ Fax: _____

Facility Contact E-Mail Address: _____

Latitude: _____ Longitude: - _____ - _____ *(For Construction & Coal, must complete lat/long & attach map)*

Receiving Stream or MS4: _____

III. General Permit Information

General Permit Number: OH Initial Coverage: Renewal Coverage:

Type of Activity: _____ SIC Code(s): - _____ - _____ - _____

Existing NPDES Permit Number: _____ OONR Coal Mining Application Number: _____

Outfall	Design Flow (MGD)	Associated Permit Effluent Table	Latitude	Longitude

Are These Permits Required? PTI _____ 401 Water Quality Certification _____

Isolated Wetland _____ US Army Corps of Engineers _____ Individual NPDES _____

Proposed Project Start Date (MO DY YR): _____ Estimated Completion Date (MO DY YR): _____

Total Land Disturbance (Acres): _____ MS4 Drainage Area (Square Miles): _____

IV. Payment Information

Check #: _____

Check Amount: _____

Date of Check (MO DY YR): _____

For Ohio EPA Use Only

Check ID (OFA): _____ ORG #: _____

Rev ID: _____ DOC #: _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Applicant Name: _____ Title: _____

Applicant Signature: _____ Date: _____

- Don't forget the Notice of Termination (NOT) when the General Permit has been fulfilled.
- Failure to submit the NOT is a violation of the permit and ORC 6111.



INDIVIDUAL NPDES PERMITS

1. Authorize the discharge of substances at levels that meet water quality standards,

2. Limits are based on site-specific conditions, and

3. Establish other conditions related to issues such as combined sewer overflows.



Water quality surveys are done each year across Ohio and rotate through state by river basins.



Slide by Bill Zawiski – Ohio EPA



Biological and Water Quality Study of the Stillwater River Basin

Darke, Miami and Montgomery Counties



OHIO EPA Technical Report EAS/2014-10-08

Division of Surface Water
Ecological Assessment Section
April 2, 2015

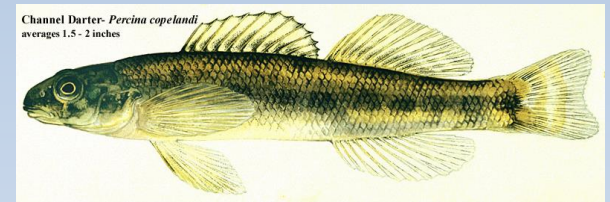


Receiving Stream Biocriteria

- Ohio EPA uses biological water quality criteria as the primary tool to determine compliance with the water quality standards
- Per OAC 3745-1-07, indices of community integrity are used for fish and macroinvertebrates to determine attainment

Fish:

- Index of Biotic Integrity (IBI)
- Modified Index of Well-Being (MIwb)



Benthic Macroinvertebrates (Aquatic Insects):

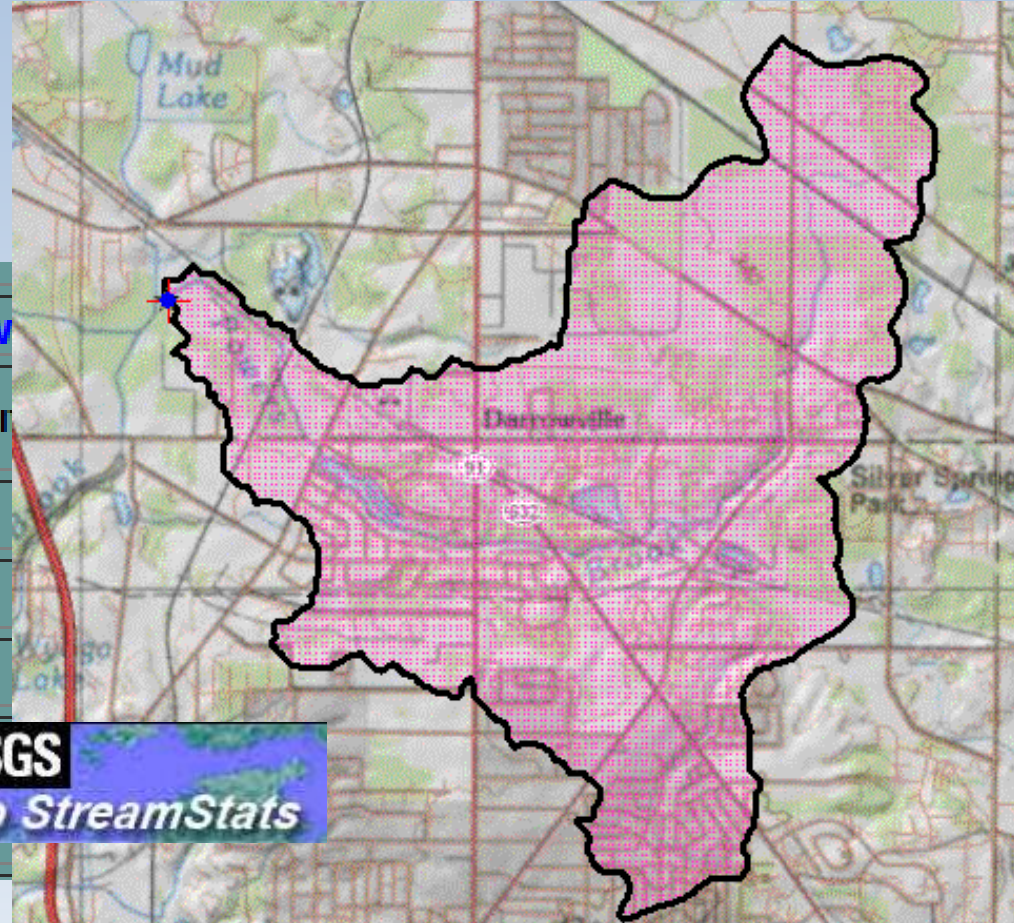
- Invertebrate Community Index (ICI)



Procedure to Determine the 7Q10 of an Un-gaged Receiving Stream at the Point of Discharge

Low-Flow SIR 2012_5138 Streamflow

Statistic	Flow (ft ³ /s)	Standard Error (percent)
D80	0.12	
M1D10Y	0.03	
M7D10Y	0.0353	
M30D10Y	0.049	
M90D10Y	0.0657	



Process is data driven.

Application No. OH0024741

Issue Date: June 30, 2010

Effective Date: August 1, 2010

Expiration Date: July 31, 2015

Ohio Environmental Protection Agency
Authorization to Discharge Under the
National Pollutant Discharge Elimination System

In compliance with the provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et. seq., hereinafter referred to as the "Act"), and the Ohio Water Pollution Control Act (Ohio Revised Code Section 6111),

City of Columbus, Ohio

is authorized by the Ohio Environmental Protection Agency, hereinafter referred to as "Ohio EPA," to discharge from the Southerly Wastewater Treatment Plant wastewater

Monthly Operating Report (MOR) Statistics for: Columbus Southerly WWTP; 4PF00001

Season	Year	# of Obs.	# Below Detection	Minimum	Percentiles					
					5th	25th	50th	75th	95th	99th
Monitoring Station 001;		Reporting Code: 00300;		Parameter Name: Dissolved Oxygen (mg/l)						
Summer	2011	122	0	8.2	8.505	9	9.1	9.3	9.5	9.7
Summer	2012	120	0	8.2	8.895	9.1	9.2	9.3	9.5	9.581
Summer	2013	122	0	7.6	8.3	8.6	8.7	8.9	9.195	9.279
Summer	2014	122	0	7.6	8.2	8.7	8.9	9	9.2	9.637
Summer Overall	2011-2015	486	0	7.6	8.4	9	9.2	9.4	9.4	9.7
Winter	2011	90	0	8	8.8	9.1	9.2	9.3	9.5	9.7
Winter	2012	91	0	8.7	8.8	9.1	9.2	9.3	9.5	9.7
Winter	2013	90	0	8.7	8.725	9	9.2	9.3	9.5	9.7
Winter	2014	90	0	8.7	8.8	9	9.2	9.3	9.5	9.7
Winter	2015	90	0	8.8	9.025	9.4	9.7	10	10.022	10.022
Winter Overall	2011-2015	420	0	8.8	9.4	10.05	10.7	11.005	11.3	11.3
Annual	2011	120	0	8.2	8.7	9.2	9.7	10.4	11	11.2
Annual	2012	120	0	8.2	9	9.2	9.7	10.425	10.985	11.137
Annual	2013	120	0	5.1	8.4	8.7	9.2	10.2	10.9	11.1
Annual	2014	120	0	7.6	8.42	8.8	9	9.7	11	11.972
Annual	2015	120	0	8.4	8.995	9.4	9.6	9.9	10.205	10.481
Annual Overall	2011-2015	1579	0	8.1	8.5	9	9.4	10.2	10.9	11.3

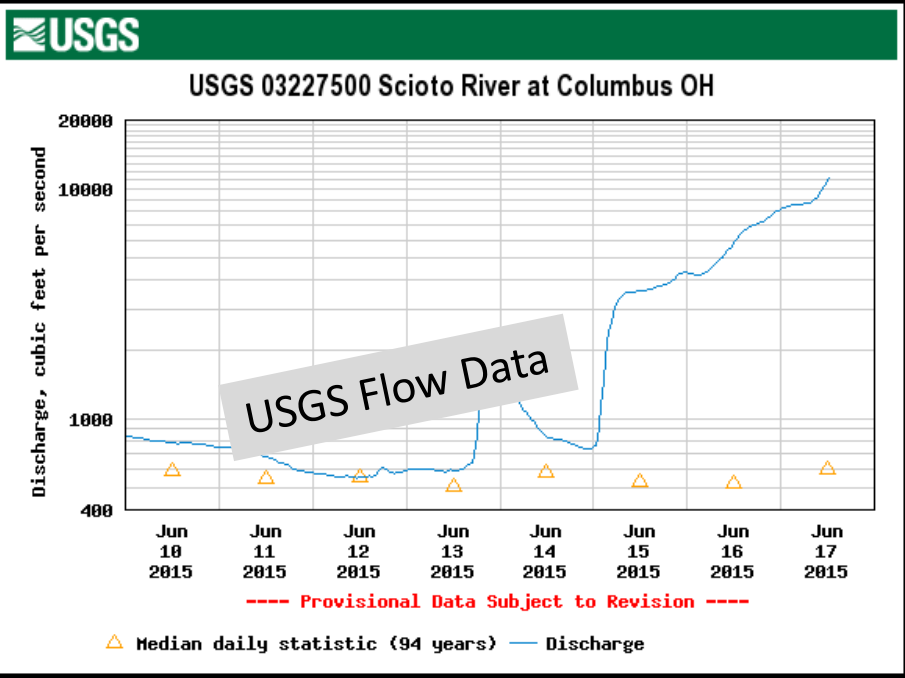
Discharger Reports

OhioEPA Division of Environmental Services Laboratory Inorganic Analysis Data Report

Sample 174314	Date Received 04/21/2015 1:07 PM	Matrix SW	Collected by LEWIS, JEFFREY
Begin	End 04/21/2015 10:45 AM	Sample Type AMBIENT	Station ID 601300
Date Collected	Program CDO-DSW	Customer ID 153JWL0421	External ID 133320
Client DSW	OEPA Division DSW	County PICKAWAY	
Location 2 - BIG DARBY CK @ SR 316 AT DARBYVILLE			

Analysis	Parameter	Storet	Result	Value	DF	RL	MDL	Units	Date	Qualifier
Solids_Diss	Total Dissolved Solids	P1034	416	416	1	10	3	mg/L	04/22/15	
Solids_Susp	Total Suspended Solids	P1042	64	64	1	5	1	mg/L	04/22/15	
ICPMS_(WAT)	Arsenic	P1051	1.5	1.5	1	2	0.1	ug/L	05/22/15	U+
ICPMS_(WAT)	Cadmium	P1067	0.2	0.2	1	0.2	0.02	ug/L	05/22/15	U+
ICPMS_(WAT)	Chromium	P1034	2	2	1	2	0.1	ug/L	05/22/15	U+
ICPMS_(WAT)	Copper	P1042	2.4	2.4	1	0.2	0.2	ug/L	05/22/15	
ICPMS_(WAT)	Lead	P1051	<2.0	1.2	1	0.1	0.1	ug/L	05/22/15	U+
ICPMS_(WAT)	Nickel	P1067	3.7	3.7	1	0.1	0.1	ug/L	05/22/15	
ICPMS_(WAT)	Selenium	P1147	<2.0	0.7	1	0.1	0.1	ug/L	05/22/15	U+
ICP_(WAT)	Aluminum	P1105	1140	1140	1	200	200	ug/L	05/14/15	
ICP_(WAT)	Barium	P1007	94	94	1	15	3	ug/L	05/14/15	

Ohio EPA Stream Data



USGS Flow Data



Slide by Bill Zawiski – Ohio EPA



WLA - Wasteload allocation, the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution



PEL - Preliminary effluent limit, the most stringent applicable WLA expressed as both an average and a maximum

PEQ - Projected effluent quality, estimated level of a pollutant in an effluent

RP - Reasonable potential, the likelihood of a pollutant to cause or contribute to an excursion of a water quality standard

WQBEL - Water quality based effluent limit, an effluent limitation determined on the basis of water quality standards set forth in Chapter 3745-1

1. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee shall discharge in accordance with the following limitations and monitoring requirements from the following outfall: 31 OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 001 - Final

Effluent Characteristic Parameter	Discharge Limitations							Measuring Frequency	Monitoring
	Concentration Specified Units				Loading* kg/day				
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly		
00010 - Water Temperature - C	-	-	-	-	-	-	-	1/Day	M
00300 - Dissolved Oxygen - mg/l	-	5.0	-	-	-	-	-	1/Day	T
00530 - Total Suspended Solids - mg/l	-	-	24	16	-	15897	10598	5/Week	C
00552 - Oil and Grease, Hexane Extr Method - mg/l	10	-	-	-	-	-	-	1 / 2 Weeks	G
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	7.5	5.0	-	4968	3312	5/Week	24
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	12.0	8.0	-	7949	5299	5/Week	24
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	2.6	1.7	-	1722	1126	5/Week	24
00625 - Nitrogen Kjeldahl, Total - mg/l	-	-	-	-	-	-	-	1 / 2 Weeks	24
00630 - Nitrite Plus Nitrate, Total - mg/l	-	-	-	-	-	-	-	1 / 2 Weeks	24
00665 - Phosphorus, Total (P) - mg/l	-	-	1.1	0.70	-	729	464	2/Week	24

Part II, Other Requirements

A. Operator Certification Requirements

1. Classification

a. In accordance with Ohio Administrative Code 3745-7-04, the sewage treatment facility at this facility shall be classified as a Class IV facility.

b. All sewerage (collection) systems that are tributary to this treatment works are Class II sewerage systems in accordance with paragraph (B)(1)(a) of rule 3745-7-04 of the Ohio Administrative Code.

2. Operator of Record

a. The permittee shall designate one or more operator of record to oversee the technical operation of the treatment works and sewerage (collection) system in accordance with paragraph (A)(2) of rule 3745-7-02 of the Ohio Administrative Code.

b. Each operator of record shall have a valid certification of a class equal to or greater than the classification of the treatment works as defined in Part II, Item A.1 of this

record, the permittee shall notify the form acceptable to Ohio EPA. The site:

ert/Operator_of_Record

the permittee shall notify the form acceptable to Ohio EPA.

PART III - GENERAL CONDITIONS (1/29/10)

1. DEFINITIONS

"Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

"Average weekly" discharges" over a calendar

Part IV. Storm Water Control Measures and Pollution Prevention Programs

In Part IV and in Part VI, the term "minimize" means reduce and/or eliminate to the extent achievable using control measures (including BMPs) that are technologically available and economically practicable and achievable in light of best industry practice.

A Case History To Consider

The Importance of Reviewing Your Draft Permit

Or ...

Would You Sign a Contract Without Reading it First



Important Issues to Remember

- A 2013 NPDES Permit modification for one of our clients that included
 - A compliance schedule for continued implementation of a Toxicity Reduction Evaluation (TRE)
 - A target Whole Effluent Toxicity (WET) limit of 1.0 TU_c
- The coordination between the client and Ohio EPA to review the information used to develop the permit
- The importance of reviewing the draft NPDES Permit and coordinating with Ohio EPA with any questions about the permit



The original issuance of the 2009 NPDES Permit required the company to conduct a Toxicity Reduction Evaluation (TRE) of their facility.

A summary of TRE results include:

- Low level chronic *C. dubia* toxicity was noted in the final effluent; however, the toxicity was widely scattered, intermittent and proved not to be persistent over time
- These factors limited the lab's ability to carry out extensive Toxicity Identification Evaluation (TIE) procedures
- A facility-specific data review and site evaluation was performed in January 2010
- Both the TIE and the facility site review failed to identify likely toxicity sources

The 2013 NPDES permit modification included:

- Bi-monthly monitoring for chronic toxicity using both *C. dubia* and fathead minnows
- Screening bioassays for *C. dubia* required in alternate months for one year
- In-stream monitoring required for percent affected organisms
- A compliance schedule for Toxicity Reduction Evaluation (TRE)
- Within three years submit a plan to achieve a WET target of 1.0 TU_c

After discussions with Ohio EPA, it was agreed that a re-evaluation of information was warranted.

- ➔ Assumption of zero low-flow receiving stream did not appear valid since EWH streams are probably not going to be zero low-flow streams
 - Results of a 2011 water quality survey of the receiving stream were available from Ohio EPA for review
 - Additional chronic toxicity test results were available for review

Recalculated Waste Load Allocation

- Using a critical low flow value of 1.081 cfs instead of 0 cfs, EnviroScience and Ohio EPA calculated a WET limit of 1.42 TU_c instead of 1.0 TU_c
- This change in the WET limit reduced the biomonitoring requirements in the permit, eliminated the WET target of 1.0 TU_c, and eliminated the requirement for continuation of the TRE

Parameter	Measuring Frequency	
	2013 Permit	2014 Permit
Chronic Toxicity, <i>Ceriodaphnia dubia</i> - TU _c	1 / 2months	1 / 2months
Chronic Toxicity, <i>Pimephales Promelas</i> - TU _c	1 / 2months	2 / year

Remember the three points to re-visit with Ohio EPA?

- Assumption of zero low-flow receiving stream did not appear valid and stream flow affects the WLA calculation. EWH streams are probably not going to be zero low-flow stream.

Stream Flow was recalculated to be 1.081 cfs

➔ Results of a 2011 water quality survey of the receiving stream were available from Ohio EPA for review.

- Additional chronic toxicity test results were available for review

Ohio EPA 2011 Water Quality Survey

All sites in full attainment for the EWH Biocriteria except for RM 1.60 (partial attainment)

- At RM 1.6 the MIwb was below the criterion
- Causes and sources listed as “unknown” per Ohio EPA

RM (Fish/Macros)	DA (mi ²)	QHEI	IBI	MIwb	ICI	Attainment Status
14.80/14.80	5.6	75.5	52	-	VG	FULL
11.50/11.40	15.0	65.5	48 ^{NS}	-	52	FULL
5.30/5.28	26.0	81.5	56	9.30 ^{NS}	48	FULL
4.50/4.45	31.0	72.8	49 ^{NS}	9.25 ^{NS}	58	FULL
1.60/1.60	50.0	73.0	49 ^{NS}	8.45*	E	PARTIAL

EWH Criteria:

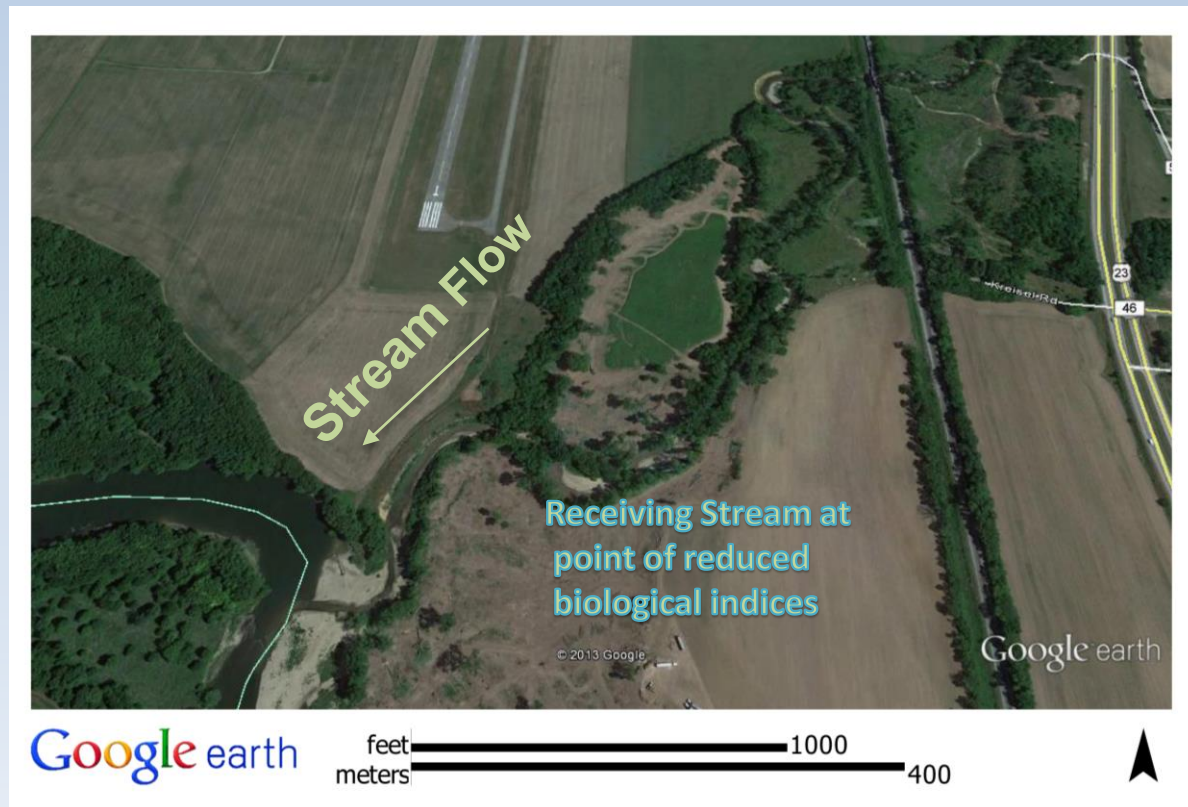
- IBI ≥ 50
- MIwb ≥ 9.40
- ICI ≥ 46

NS: Non-significant departure from criterion

* : Significant departure from criterion

Potential Source of Stream Instability

- Aerial photos reveal evidence of channel modifications in the area of depressed biological entities.
- These modifications may have caused a head cut to migrate upstream.



Implications of Water Quality Survey Results

- Results of the Ohio EPA survey indicate that intermittent low levels of chronic toxicity in the regulated outfall is not affecting attainment of the water quality criteria
- Problems found in the receiving stream relate to the fish community, while the detected chronic toxicity in the effluent using *C. dubia* affects macroinvertebrates
- The macroinvertebrate community in the receiving stream is in better condition downstream of regulated discharge
- Cause of partial attainment at RM 1.60 listed as “unknown” – regulated discharge not implicated

Outcome of Study

- What are the important takeaways?

For the client, the important takeaways that resulted from coordinating with Ohio EPA were the changes to the permit.

1. The results of the TRE evaluation, the results of the 2011 Ohio EPA water quality survey, and the updated WLA calculations for WET showed that the regulated discharge represented a low risk of water quality violations for WET in the receiving stream.
2. The 2014 NPDES contained no specific WET limits, compliance schedule or further TRE requirements. This is a significant reduction in oversight relative to the 2009 NPDES Permit

This saved the client \$\$\$\$\$\$\$\$ and was protective of the receiving stream... win win

Questions?



Thank you!

John Kwolek, P.E.
EnviroScience, Inc.

(330) 688-0111

jkwolek@enviroscienceinc.com