

National Pollutant Discharge Elimination System (NPDES) Permit Program

F A C T S H E E T

Regarding a Modification to an NPDES Permit To Discharge to Waters of the State of Ohio  
for the Gallipolis Wastewater Treatment Plant

Public Notice No.: 14-04-028  
Public Notice Date: April 18, 2014  
Comment Period Ends: May 19, 2014

OEPA Permit No.: OPD00001\*OD  
Application No.: OH0020478

Name and Address of Applicant:

City of Gallipolis  
P.O. Box 339  
Gallipolis, Ohio 45631

Name and Address of Facility Where  
Discharge Occurs:

Gallipolis Water Pollution Control Facility  
1547 Chatham Avenue  
Gallipolis, Ohio

Receiving Water: Ohio River

Subsequent  
Stream Network: Mississippi River

Introduction

Development of a Fact Sheet for NPDES permits is mandated by Title 40 of the Code of Federal Regulations, Section 124.8 and 124.56. This document fulfills the requirements established in those regulations by providing the information necessary to inform the public of actions proposed by the Ohio Environmental Protection Agency, as well as the methods by which the public can participate in the process of finalizing those actions.

This Fact Sheet is prepared in order to document the technical basis and risk management decisions that are considered in the determination of water quality based NPDES Permit effluent limitations. The technical basis for the Fact Sheet may consist of evaluations of promulgated effluent guidelines, existing effluent quality, instream biological, chemical and physical conditions, and the relative risk of alternative effluent limitations. This Fact Sheet details the discretionary decision-making process empowered to the Director by the Clean Water Act and Ohio Water Pollution Control Law (ORC 6111). Decisions to award variances to Water Quality Standards or promulgated effluent guidelines for economic or technological reasons will also be justified in the Fact Sheet where necessary.

The director has determined that a lowering of water quality in the Ohio River is necessary. 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 appropriate intergovernmental comments. The lowering of water quality is necessary to accommodate important social or economic development in the area in which the water body is located.

Procedures for Participation in the Formulation of Final Determinations

The proposed modification is tentative but shall become final on the effective date unless (1) an adjudication hearing is requested, (2) the Director withdraws and revises the proposed modification after consideration of the record of a public meeting or written comments, or (3) upon disapproval by the Administrator of the U.S. Environmental Protection Agency.

Within thirty (30) days of publication of this notice, any person may submit written comments, a statement as to why the proposed modification should be changed, a request for a public meeting on the proposed modification

and/or a request for notice of further actions concerning the modification. All communications timely received will be considered in the final formulation of the modification. If significant public interest is shown a public meeting will be held prior to finalization of the modification.

Within thirty (30) days of the issuance of the proposed modification any officer of an agency of the state or of a political subdivision, acting in his representative capacity or any person aggrieved or adversely affected by issuance of it may request an adjudication hearing by submitting a written objection in accordance with Ohio Revised Code Section 3745.07. Since all other conditions of the permit remain in effect, a hearing may not be requested on any issues other than the proposed modification. If an adjudication hearing is requested, the existing NPDES permit will remain in effect until the hearing is resolved. Following the finalization of the modification by the Director, any person who was a party to an adjudication hearing may appeal to the Environmental Review Appeals Commission.

Requests for public meetings shall be in writing and shall state the action of the Director objected to, the questions to be considered, and the reasons the action is contested. Such requests should be addressed to:

**Legal Records Section  
Ohio Environmental Protection Agency  
P.O. Box 1049  
Columbus, Ohio 43216-1049**

Interested persons are invited to submit written comments upon the proposed modification. Comments should be submitted in person or by mail no later than 30 days after the date of this Public Notice. Deliver or mail all comments to:

**Ohio Environmental Protection Agency  
Attention: Division of Surface Water  
Permits and Compliance Section  
P.O. Box 1049  
Columbus, Ohio 43216-1049**

The OEPA permit number and Public Notice numbers should appear on each page of any submitted comments. All comments received no later than 30 days after the date of the Public Notice will be considered.

Citizens may conduct file reviews regarding specific companies or sites. Appointments are necessary to conduct file reviews, because requests to review files have increased dramatically in recent years. The first 250 pages copied are free. For requests to copy more than 250 pages, there is a five-cent charge for each page copied. Payment is required by check or money order, made payable to Treasurer State of Ohio.

For additional information about this fact sheet or the proposed modification, contact Dan Messerly, (740) 380-5218, [Dan.Messerly@epa.ohio.gov](mailto:Dan.Messerly@epa.ohio.gov) .

### Location of Discharge/Receiving Water Use Classification

The Gallipolis Water Pollution Control Facility (WPCF) discharges to the Ohio River at Mile Point 268.6. The approximate location of the facility is shown in Figure 1.

This segment of the Ohio River is described by Ohio EPA River Code: 25-350, USEPA River Reach #: 05090101-017, County: Gallia, Ecoregion: Western Allegheny Plateau. The Ohio River is designated for the following uses under Ohio's WQS (Ohio Administrative Code [OAC] 3745-1-32): Warmwater Habitat (WWH), Agricultural Water Supply (AWS), Industrial Water Supply (IWS), Bathing Waters (BW), and Public Water Supply (PWS).

### Facility Description

The existing Gallipolis wastewater plant has an average daily design flow of 1.6 million gallons per day (MGD). The treatment plant was originally constructed in 1958, with the most recent upgrade occurring in 1987. Treatment plant processes include: influent pumping, bar screen, grit removal, comminution, scum removal, flow equalization, primary sedimentation, trickling filter using plastic media, secondary clarification, chlorination and dechlorination. Sludge is processed through anaerobic digestion, and then is air dried. Sludge is ultimately land applied.

The Gallipolis collection system includes only separate sanitary sewers and serves Gallipolis and Jackson Pike to Sun Valley Drive, a total population of approximately 9000 people.

### Description of Existing Discharge

Table 1 presents a summary of unaltered Discharge Monitoring Report (DMR) data for outfall OPD00001001. Data are presented for the period January 2009 through December 2013.

### Basis of the Modification

The City is expanding the wastewater plant to a design flow of 2.0 MGD to accommodate additional flows from county areas. The expansion includes new activated sludge treatment (elimination of primary settling tanks), new intermediate clarifier, an additional final clarifier, upgrading plant pumps and grit removal, upgrading the anaerobic digestion equipment and converting to ultraviolet disinfection.

The expansion project was subject to the public participation and review requirements of Ohio's antidegradation rule, chapter 3745-1-05 of the Ohio Administrative Code. Revised effluent limits are proposed for CBOD<sub>5</sub> (5-day carbonaceous biochemical oxygen demand), total suspended solids, and new summer and winter limits are proposed for ammonia-nitrogen. These limits were developed consistent with the provisions of the antidegradation rule.

The modified effluent limits are presented in Table 2.

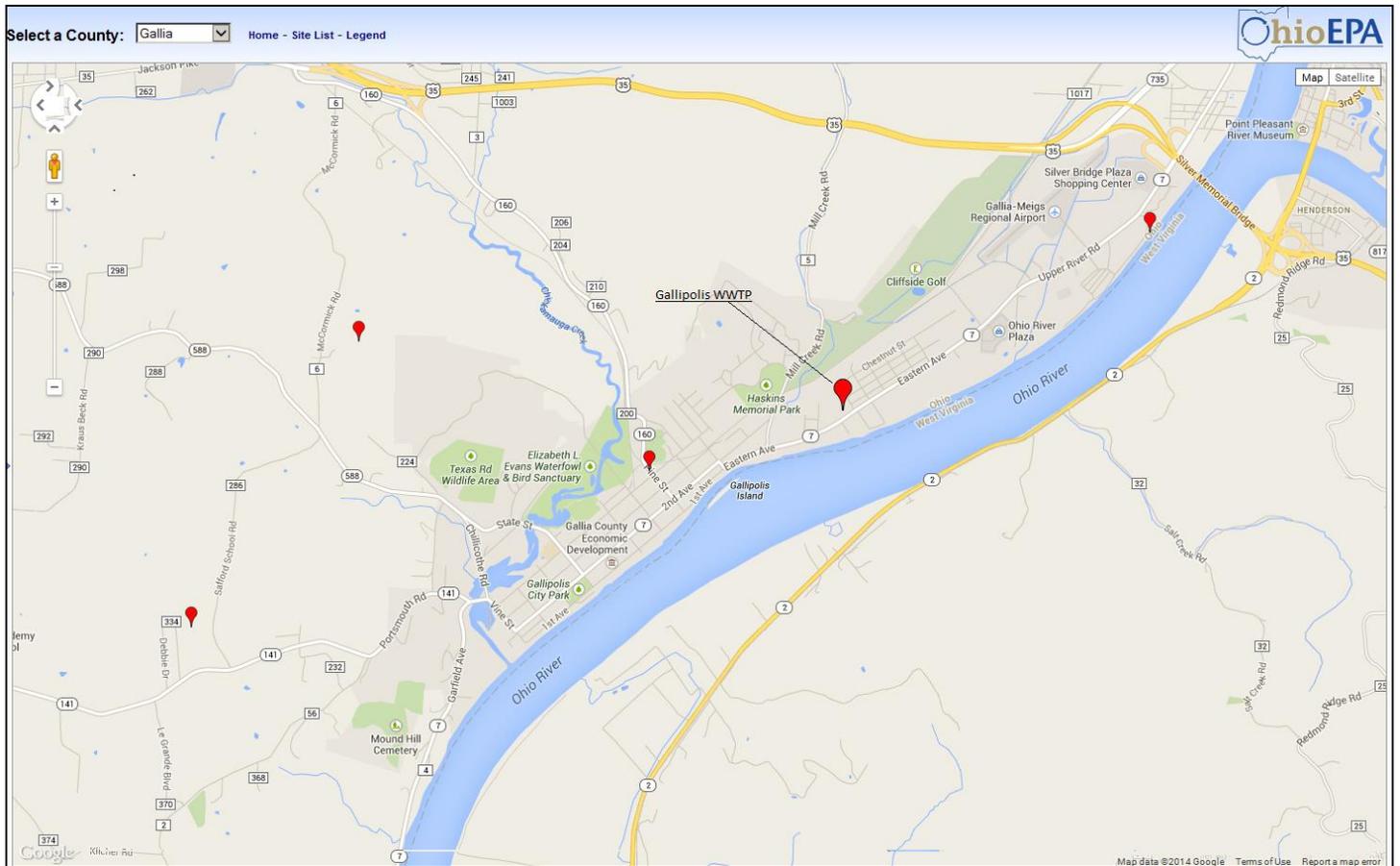


Figure 1. Location of Gallipolis wastewater treatment plant.

**Table 1. Effluent Characterization Using Self-Monitoring Data**

Summary of unaltered discharge monitoring report data for Gallipolis outfall OPD00001001 (January 2009 - December 2013). All values are based on annual records unless otherwise indicated.

Parameter	Season	Units	# Obs.	Percentiles		Data Range
				50 <sup>th</sup>	95 <sup>th</sup>	
Water Temperature	Annual	C	1249	18	24	8-33
Dissolved Oxygen	Summer	mg/l	641	5.1	6.8	2.2-25
Dissolved Oxygen	Winter	mg/l	608	6.4	8.77	3-10.4
pH	Annual	S.U.	1249	7.1	7.4	6.4-9
Total Suspended Solids	Annual	mg/l	517	11	26	0.001-60
Oil and Grease, Total	Annual	mg/l	43	0	0	0-7.32
Oil and Grease, Hexane	Annual	mg/l	17	0	7.4	0-7.4
Nitrogen, Ammonia (NH3)	Summer	mg/l	261	0.9	3	0.1-4.8
Nitrogen, Ammonia (NH3)	Winter	mg/l	256	1.45	4.9	0.001-7
Nitrogen Kjeldahl, Total	Annual	mg/l	6	2.66	7.71	1.34-8.6
Nitrite Plus Nitrate, Total	Annual	mg/l	17	9.05	46.7	0.15-50.9
Ortho Phosphate, Total	Annual	mg/l	6	2.93	3.51	1.15-3.68
Phosphorus, Total (P)	Annual	mg/l	6	2.45	4.65	0.124-4.86
Cyanide, Free	Annual	mg/l	20	0	0.0258	0-0.04
Zinc, Total Recoverable	Annual	ug/l	20	28.7	46.5	0-75.3
Lead, Total Recoverable	Annual	ug/l	20	0	2.83	0-56.5
Copper, Total Recoverable	Annual	ug/l	60	0	0.51	0-74
Chromium, Dissolved Hexavalent	Annual	ug/l	49	0	0	0-0
Fecal Coliform	Annual	#/100 ml	517	4	570	1-6700
Flow Rate	Summer	MGD	920	0.797	2.16	0.348-4.85
Flow Rate	Winter	MGD	906	0.898	2.52	0.372-5.58
Flow Rate	Annual	MGD	1826	0.845	2.4	0.348-5.58
Chlorine, Total Residual	Annual	mg/l	1249	0.001	0.002	0-0.034
Mercury, Total (Low Level)	Annual	ng/l	32	4.68	15	0-26.5
Acute Toxicity, <i>C. dubia</i>	Annual	TUa	2	0	0	0-0
Acute Toxicity, <i>P. promelas</i>	Annual	TUa	2	0	0	0-0
Residue, Total Filterable	Annual	mg/l	6	600	680	320-700
CBOD 5 day	Summer	mg/l	261	7	14	1-30
CBOD 5 day	Winter	mg/l	256	10	15	1-19

**Table 2. Modified Effluent Limits**

Parameter	Units	Effluent Limitations				Basis <sup>b</sup>
		Concentration		Loading (kg/day) <sup>a</sup>		
		Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	
Suspended Solids	mg/l	26.4	39.6 <sup>c</sup>	200	300 <sup>c</sup>	AD/BADCT
Ammonia-N	mg/l					
Summer		10.6	15.9 <sup>c</sup>	81	121 <sup>c</sup>	AD/BADCT
Winter		11.0	16.5 <sup>c</sup>	84	125 <sup>c</sup>	AD/BADCT
Copper, T. R	ug/l	--	33*	--	0.25	BEJ
Mercury, T.	ng/l	1700*	12.0*	0.01286	0.000090	BEJ
CBOD <sub>5</sub>	mg/l	22	33 <sup>c</sup>	167	250 <sup>c</sup>	AD/BADCT

<sup>a</sup> Effluent loadings based on average design discharge flow of 2.0 MGD.

<sup>b</sup> Definitions: AD/BADCT = Antidegradation required treatment technology [OAC 3745-1-05(C)(2)] - weighted average of existing flows at existing limits and new flows at BADCT (Table 5-1 of Antidegradation Rule; BEJ = Best engineering judgment

<sup>c</sup> Weekly average limit.

\* No change from current permit.