

Public Works &  
Utilities Department

Administration, Engineering  
& Laboratory  
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1201 S. Nappanee St.  
Elkhart, Indiana 46516



Rod Roberson  
Mayor

Laura Kolo  
Environmental Resources

Tory Irwin, P.E.  
Engineering Services

January 7, 2024

Sent via U.S. Postal Service to:  
Chief, Environmental Enforcement Section  
Environment and Natural Resources Division  
United States Department of Justice  
Post Office Box 7611, Ben Franklin Station  
Washington, D.C. 20044-7611  
Re: DOJ No. 90-5-1-1-08182

United States Environmental Protection Agency, Region 5  
Water Division  
Water Enforcement and Compliance Assurance Branch  
77 West Jackson Boulevard (WC-15J)  
Chicago, Illinois 60604

Sent via email to:  
Wayne Ault at [Wayne.Ault@usdoj.gov](mailto:Wayne.Ault@usdoj.gov)  
Ryan Bahr at [bahr.ryan@epa.gov](mailto:bahr.ryan@epa.gov)  
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Kara Wendholt at [KWendhol@idem.IN.gov](mailto:KWendhol@idem.IN.gov)  
Beth Admire at [BADMIRE@idem.IN.gov](mailto:BADMIRE@idem.IN.gov)

To Whom It May Concern:

Please find enclosed the City of Elkhart's Six Month Status Report for the period of July 1 – December 31, 2024, as required by the Consent Decree. If you have any questions, please contact me at (574) 293-2572.

Sincerely,

A handwritten signature in black ink, appearing to read "Tory Irwin", with a long, sweeping underline.

Tory Irwin, P.E.  
City Engineer



City of Elkhart  
*Public Works and Utilities*

# City of Elkhart Public Works and Utilities

## Combined Sewer Overflow Long-Term Control Plan Six-Month Status Report

July 1 – December 31, 2024

1201 S Nappanee St  
Elkhart, IN 46516  
[www.elkhartindiana.org](http://www.elkhartindiana.org)



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    and Bypasses that Elkhart submitted to IDEM in accordance with Elkhart's Current Permits  
    during the Reporting period

LTCP Six-Month Status Report: July 1 – December 31, 2024

Consent Decree Deadline Compliance

Section VII Paragraph 25(a)

1. A statement of all deadlines that this Consent Decree requires Elkhart to meet during the six-month period, whether and to what extent Elkhart met those requirements, and the reasons for any noncompliance. Notification to the United States and Indiana of any anticipated delay shall not, by itself, excuse the delay.

The following includes a summary of the City of Elkhart's (the "City's") compliance with applicable Consent Decree deadlines and terms from July 1 – December 31, 2024 (the "Reporting Period").

Full operation of the Wastewater Treatment Plant Upgrades was achieved on November 8, 2024 (Deadline November 15, 2024).

The bid date requirement for the Lower St. Joseph River CSO Control was met on September 27, 2007 (Deadline November 15, 2024).

The design date requirement for the Riverside Drive Control was met on April 1, 2007 (Deadline November 15, 2024).

Appendix 1 contains a table of all past and future deadlines; and the current status of all Control Measures. Please note that some previously reported dates related to the Upper St. Joseph River CSO Control and Upper Elkhart River CSO Control were amended to better reflect completed dates. Additionally, some changes were made to dates for the Oakland Avenue Control to give a greater level of detail. None of the changes impacted compliance with deadlines.

LTCP Six-Month Status Report: July 1 – December 31, 2024

General Description of Work Completed and Projected Work to be Completed

Section VII Paragraph 25(a)

2. A general description of the work completed within the six-month period, and a projection of work to be performed pursuant to this Consent Decree during the next six-month period

a. During the Reporting Period the following work was completed:

- Construction on a portion of the Upper St. Joseph River CSO Control continued
- Design of other portions of the Upper St. Joseph River CSO Control continued
- Construction on a portion of the Oakland Avenue Control continued
- Design of other portions of the Oakland Avenue Control continued
- Construction on the additional wastewater treatment plant upgrades was completed

b. Within the next six-month period:

- Construction on a portion of the Upper St. Joseph River CSO Control will be completed
- Design of other portions of the Upper St. Joseph River CSO Control will continue
- Construction on a portion of the Oakland Avenue Control will continue
- Design of other portions of the Oakland Avenue Control will continue

LTCP Six-Month Status Report: July 1 – December 31, 2024

Information Generated Pursuant to the Requirements of Appendix A

Section VII Paragraph 25(a)

3. Information generated pursuant to the requirements of Appendix A, Long Term Control Plan required by Paragraph 10 of this Decree; and any Supplemental Compliance Plan required by Paragraph 13 of this Decree.

The attached Appendix 2 contains copies of all information generated during the Reporting Period.

Included information:

- Copies of river monitoring data collected during the reporting period\*

\* As noted in the last report, the walking bridge previously used for sampling at High Dive Park was demolished. The City of Elkhart Parks Department previously indicated that a pier would replace the demolished bridge; however, the pier may no longer be built. Until a structure to sample from is constructed, samples will be collected by wading into the water. The water is shallow and has coarse, secure substrate. Wading does not appear to increase sediment in the water.

LTCP Six-Month Status Report: July 1 – December 31, 2024

Monthly Monitoring Reports and Other Reports Pertaining to CSO Discharges and Bypassing

Section VII Paragraph 25(a)

4. Copies of all Monthly Monitoring Reports and other reports pertaining to CSO Discharges and Bypasses that Elkhart submitted to IDEM in accordance with Elkhart's Current Permits during the six-month period.

The attached Appendix 3 contains numbered copies of monthly monitoring reports and other reports submitted to IDEM pertaining to CSOs and bypasses during the Reporting Period.

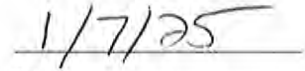
LTCP Six-Month Status Report: July 1 – December 31, 2024

Certification Statement

I certify under penalty of law 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 the 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.



Tory S. Irwin, P.E.  
City Engineer



Date



LTCP Six-Month Status Report: July 1 – December 31, 2024

Appendix 1

General Description of Work Completed during the Reporting Period; All past and future deadlines and current status of all Control Measures

CSO Measure	CSO Number	Control Measure Elements	Description	Design Criteria	Performance Criteria	Critical Milestones	Design Date	Bid Date	Date of Full Operation	
<b>Christiana Creek CSO Control</b>							<b>Required Dates</b>	Nov-15-2010	Nov-15-2011	Nov-15-2014
							<b>Compliance Date</b>	May-8-2008	Mar-10-2010	Apr-27-2011
1	14	High Dive Park - 1.0 MG Facility for Storage & Pumping and Redirection of CSO 14 Basin Flow from NE Elkhart to the North Interceptor System	Construction of a 1 MG off-line storage tank to reduce overflows at CSO 14 and construct a LS to redirect flow to the North Interceptor System	Provide storage capacity of 1 MG and lift station designed per City of Elkhart Standards and Ten State Standards	When incorporated with the rest of the Christiana Creek Watershed, achieve no more than 9 overflow events on a system wide basis	Design Date - Nov 15, 2010 Bid date - Nov 15, 2011 Date of Full Operation - Nov 15, 2014				
							<b>Progress Dates for Elements of Control Measure</b>			
CSO 14			High Dive Park 1 MG Storage			Actual Dates	Aug-5-2008	Mar-10-2010	Apr-27-2011	
CSO 14			High Dive Park Pump Station			Actual Dates	Aug-5-2008	Mar-10-2010	Apr-27-2011	
CSO 14			Force Main: High Dive Park			Actual Dates	Aug-5-2008	Mar-10-2010	Apr-27-2011	

<b>Upper Elkhart River CSO Control</b>							<b>Required Dates</b>	Nov-15-2013	Nov-15-2014	Nov-15-2018
							<b>Compliance Date</b>	Apr-7-2009	Oct-22-2009	Mar-22-2016
2	4, 30, 31 & 33	EEC - 80,000 gal. Storage & Pump at CSO 31 and various levels of separations at CSO's 4, 30 & 33	Construction of a 80,000 gallon off-line storage tank to reduce overflows at CSO 31 and separation and rehabilitation of sewers to reduce stormwater flow and minimize CSO's 4, 30 & 33	Provide storage capacity of 80,000 gal. and sanitary and storm sewers designed per City of Elkhart Standards and Ten State Standards	When incorporated with the rest of the system upgrades, no more than 9 overflow events on a system wide basis	Design Date - Nov 15, 2013 Bid Date - Nov 15, 2014 Date of Full Operation - Nov 15, 2018				
							<b>Progress Dates for Elements of Control Measure</b>			
CSO 4			Separation - Partial			Actual Dates	Apr-7-2009	Oct-22-2009	Apr-27-2011	
CSO 30			Separation			Actual Dates	Apr-7-2009	Oct-22-2009	Apr-27-2011	
CSO			EEC 80,000-Gal. Storage &			Actual Dates	Dec-16-2014	May-19-2015	Mar-22-2016	
CSO			Separation - Partial			Actual Dates	Jul-5-2011	Jun-6-2013	May-14-2014	

<b>WWTP Upgrades*</b>							<b>Required Dates</b>	Nov-15-2015	Nov-15-2017	Nov-15-2024
							<b>Compliance Date</b>	Mar-19-2013	Jul-15-2014	Nov-8-2024
3	WWTP	WWTP system improvements provide a peak capacity of 60 MGD through secondary or CDMF treatment and disinfection	Modifications to the influent pumping, preliminary treatment, improvements to primary influent channels, diffuser replacement, aeration blower replacement, RAS system replacement, and cloth media disk filtration installation with a capacity of 30MGD.	System improvement designed per Ten State Standards CDMF Filter Area: 5,164.8SF Max. Hydraulic Loading: 4.4gpm/SF Max. Solids Loading: 15.8lbs/d/SF Average TSS Removal: >85%	Provide peak capacity of 60 MGD - a minimum of 30 MGD through secondary, and up to 30 MGD through CDMF treatment, and 60 MGD disinfection. WWTP Outfall shall meet NPDES permit effluent limits.	Design Date- Nov 15, 2015 Bid Date- Nov 15, 2017 Date of Full Operation - Nov 15, 2024				
							<b>Progress Dates for Elements of Control Measure</b>			
WWTP			Preliminary and Additional Disinfection for 60 MGD			Actual Dates	Mar-19-2013	Jul-15-2014	Mar-11-2016	
WWTP			Cloth Media Disks and Piping			Actual Dates	Aug-21-2018	Sep-22-2021	Nov-8-2024	
WWTP			Aeration Process Improvements			Actual Dates	Aug-21-2018	Sep-22-2021	Nov-8-2024	
WWTP			RAS System Replacement and Pump Capacity Improvements			Actual Dates	Aug-21-2018	Sep-22-2021	Nov-8-2024	
WWTP			Primary Clarification System Improvements			Actual Dates	Aug-21-2018	Sep-22-2021	Nov-8-2024	

\*Preliminary Improvements for 60MGD were completed on March-11-2016; however, the 2021 Amendment to the Consent Decree removed the PE pumping and step feed requirements, added new requirements, and changed the compliance date for date of full operation to November 15, 2024

<b>Lower Elkhart River CSO Control</b>							<b>Required Dates</b>	Nov-15-2016	Nov-15-2018	Nov-15-2021
							<b>Compliance Date</b>	Nov-5-2013	Jul-15-2014	Jan-1-2016
4	6&7	Jackson Street - 1.0 MG Storage and Pumping facility and redirection of system flows to Oakland Avenue Control Facility <sup>3</sup>	Construction of a 1 MG off-line storage tank to reduce overflows at CSOs 6 & 7 with upgrades to the system to allow the redirection of flow to Oakland Avenue Control Measure when it is completed. <sup>3</sup>	Provide storage capacity of 1 MG with lift station and system improvements designed per City of Elkhart Standards and Ten State Standards	When incorporated with the rest of the system upgrades, achieve no more than 9 overflow events on a system wide basis	Design Date - Nov 15, 2016 Bid Date - Nov 15, 2018 Date of Full Operation - Nov 15, 2021 <sup>3</sup>				
CSO 6 & 7			Direct East Waterfall Dr to Jackson Blvd. Storage Facility			Actual Dates	Nov-5-2013	Jul-15-2014	Jan-1-2016	
CSO 6 & 7			Jackson Street 1.0 MG storage facility			Actual Dates	Nov-5-2013	Jul-15-2014	Jan-1-2016	
CSO 6 & 7			Jackson Street Storage Facility Lift Station			Actual Dates	Nov-5-2013	Jul-15-2014	Jan-1-2016	

CSO Measure	CSO Numbe	Control Measure Elements	Description <sup>1</sup>	Design Criteria <sup>1</sup>	Performance Criteria <sup>2</sup>	Critical Milestones	Design Date	Bid Date	Date of Full Operation
<b>Oakland Avenue Control</b>						<b>Required Dates</b>	Nov-15-2021	Nov-15-2023	Nov-15-2028
						<b>Compliance Date</b>	Oct-20-2020	<b>May-11-2023</b>	
5	24 & 37	CSO 24 - LS 1.1 MG Storage and Pump Force Main from CSO 24 LS to WWTP	Construction of a 1.1 MG off-line storage and pump tank with system additions to allow the redirection of flow to CSO 24 & 37 LS and then to the WWTP to reduce overflows at CSOs 24 & 37	Provide storage capacity of 1.1 MG with lift station and system improvements designed per City of Elkhart Standards and Ten State Standards	When incorporated with the rest of the system upgrades, no more than 9 overflow events on a system wide basis	Design Date - Nov 15, 2021 Bid Date - Nov 15, 2023 Date of Full Operation - Nov 15, 2028			
						<b>Progress Dates for Elements of Control Measure</b>			
CSOs 24 & 37			Force Main from Oakland Ave. LS to WWTP		Actual Dates	Oct-20-2020	May-11-2023		
CSOs 24 & 37			Interceptor of CSO 37 Overflow (CSO 37.0 )		Actual Dates	May-6-2023	Dec-3-2024		
CSOs 24 & 37			Interceptor of CSO 37 Overflow (CSO 37.02)		Actual Dates	May-6-2023	Dec-3-2024		
CSOs 24 & 37			Interceptor of CSO 37 Overflow (CSO 37.03)		Actual Dates	May-6-2023	Dec-3-2024		
CSOs 24 & 37			Interceptor of CSO 37 Overflow + Jackson LS		Actual Dates	May-21-2024			
CSOs 24 & 37			Interceptor of Flow to CSO#24 L-TUFF 1		Actual Dates	Oct-20-2020	May-11-2023		
CSOs 24 & 37			Interceptor of Flow to CSO#24 L-TUFF 1B		Actual Dates	Oct-20-2020	May-11-2023		
CSOs 24 & 37			LS 8 Force Main To Oakland Ave. Storage facility		Actual Dates	May-21-2024			
CSOs 24 & 37			CSO 24 LS 1.1 MG Storage and Pump		Actual Dates	May-6-2023	Dec-3-2024		

<b>Upper St Joe River CSO Control</b>						<b>Required Dates</b>	Nov-15-2022	Nov-15-2023	Nov-15-2026
						<b>Compliance Date</b>	Aug-2-2022	<b>Nov-1-2023</b>	
6	13, 25, 29 & 39	Basin Separations, Lift Station Improvements, system improvements and CSO eliminations	Separation, flow redirection and rehabilitation of sewers to reduce stormwater flow and minimize or eliminate CSOs	System modifications designed per City of Elkhart Standards and Ten State Standards	When incorporated with the rest of the system upgrades, no more than 9 overflow events on a system wide basis	Design Date - Nov 15, 2022 Bid Date - Nov 15, 2023 Date of Full Operation - Nov 15, 2026			
						<b>Progress Dates for Elements of Control Measure</b>			
CSO 13			Separation - Partial		Actual Dates	Aug-2-2022			
CSO 25			Effluent Line Upgrade: CSO 25 to Interceptor		Actual Dates				
CSO 29			Plug Overflow (Jefferson)		Actual Dates				
CSO 28			Plug Overflow (Washington)		Actual Dates				
CSO 39			Separation		Actual Dates	Jan-11-2023	Nov-1-2023		

<b>Lower St Joe River CSO Control</b>						<b>Required Dates</b>	Nov-15-2023	Nov-15-2024	Dec-31-2029
						<b>Compliance Date</b>	Feb-1-2007	<b>Sep-27-2007</b>	
7	17, 18, 21 & 23	Basin Separations, Lift Station Improvements, system improvements and CSO eliminations and system redirections	Separation, flow redirection and rehabilitation of sewers to reduce stormwater flow and minimize or eliminate CSOs	System modifications designed per City of Elkhart Standards and Ten State Standards	When incorporated with the rest of the system upgrades, no more than 9 overflow events on a system wide basis	Design Date - Nov 15, 2023 Bid Date - Nov 15, 2024 Date of Full Operation - Dec 31, 2029			
						<b>Progress Dates for Elements of Control Measure</b>			
CSO 18			Plug Overflow (McNaughton Park)		Actual Dates				
CSO 27			Plug Overflow (Navajo)		Actual Dates				
CSOs 17 & 18			Redirect Flow to North Interceptor		Actual Dates	Feb-18-2014	May-15-2014		
CSO 21			Separation		Actual Dates	Feb-1-2007	Sep-27-2007	Jun-24-2008	
CSO 23			Effluent Line Upgrade CSO#23 to LS#4		Actual Dates				
CSO 23			LS 4 Force Main		Actual Dates				
CSO 23			LS 4 (8th & Franklin) Improvements		Actual Dates				
CSO 23			Separation - Partial		Actual Dates				

<b>Riverside Drive Control</b>						<b>Required Dates</b>	Nov-15-2024	Nov-15-2025	Dec-31-2029
						<b>Compliance Date</b>	Apr-1-2007	<b>Sep-27-2007</b>	
8	15	Riverside Dr. - 0.43 MG Storage & Pump with sewer separations and system redirection	Construction of a 0.43 MG off-line storage tank with NW Elkhart sewer system redirection and partial basin separation to reduce overflows at CSO 15	Provide storage capacity of 0.43 MG and system improvements designed per City of Elkhart Standards and Ten State Standards	When incorporated with the other work in CSO 15 basin and downstream improvements, achieve no more than 9 overflow events on a system wide basis	Design Date - Nov 15, 2024 Bid Date - Nov 15, 2025 Date of Full Operation - Dec 31, 2029			
						<b>Progress Dates for Elements of Control Measure</b>			
CSO 15			AACOA Redirection		Actual Dates	Apr-1-2007	Sep-27-2007	Nov-29-2007	
CSO 15			Riverside Dr. 0.43 MG Storage & Pump		Actual Dates				
CSO 15			Separation - Partial		Actual Dates				

LTCP Six-Month Status Report: July 1 – December 31, 2024

Appendix 2

Copies of all information generated during the Reporting Period

# City of Elkhart

## River Water Quality Data

**1/30/2024**

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	248	12.0	6.8												4	4.0	4.0	
	YMCA	488	11.8	7.7												2	4.0	4.0	
<b>St. Joseph River</b>	Ash Rd	261	12.8	8.1												1	4.0	4.0	
	Lexington Ave	276	12.8	7.7												1	4.0	4.0	
	Six Span	196	12.6	7.1												2	4.0	3.0	
<b>Christiana Cree</b>	High Dive	88	13	7.5												3	4	2.0	
	High Dive 2	101	12	7.5												1	4	2.0	

Comments

**2/6/2024**

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	80	12.6	8.3												4	3.0	2.0	
	YMCA	82	12.4	8.4												3	3.0	4.0	
<b>St. Joseph River</b>	Ash Rd	64	12.8	8.3												3	3.0	1.0	
	Lexington Ave	71	13.2	8.2												3	3.0	1.0	
	Six Span	45	12.4	8.2												4	3.0	1.0	
<b>Christiana Cree</b>	High Dive	15	11	8.1												5	3	1.0	
	High Dive 2	27	13	8.2												4	3	1.0	

Comments

3/4/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	18	10.8	7.7												11	3.0	1.0	
	YMCA	56	11.1	8.3												11	3.0	1.0	
<b>St. Joseph River</b>	Ash Rd	13	11.2	8.3												11	2.0	1.0	
	Lexington Ave	45	11.2	8.3												11	2.0	1.0	
	Six Span	15	10.8	8.0												11	3.0	1.0	
<b>Christiana Cree</b>	High Dive	18	11	8.1												11	3	1.0	
	High Dive 2	21	11	8.1												10	3	1.0	

Comments

4/2/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	4106	10.4	7.2												9	3.0	4.0	3
	YMCA	3683	10.6	7.7												9	5.0	4.0	3
<b>St. Joseph River</b>	Ash Rd	1633	10.4	7.6												9	4.0	4.0	3
	Lexington Ave	1454	11.0	7.8												9	5.0	4.0	3
	Six Span	1034	11.0	7.7												9	3.0	1.0	
<b>Christiana Cree</b>	High Dive	63	10	7.9												9	4	1.0	
	High Dive 2	49	11	7.8												9	4	1.0	

Comments

4/15/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
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4/15/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	55	9.8	8.0												17	1.0	1.0	
	YMCA	50	9.2	8.2												17	1.0	3.0	
<b>St. Joseph River</b>	Ash Rd	28	10.0	8.1												16	1.0	2.0	
	Lexington Ave	39	9.8	8.2												18	1.0	3.0	
	Six Span	21	9.8	8.2												17	1.0	1.0	
<b>Christiana Cree</b>	High Dive	48	10	7.9												17	1	1.0	
	High Dive 2	51	11	8.2												15	1	1.0	

Comments

5/13/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	141	9.7	7.8												21	1.0	3.0	
	YMCA	101	8.6	7.7												20	1.0	3.0	
<b>St. Joseph River</b>	Ash Rd	53	8.6	7.7												21	1.0	2.0	
	Lexington Ave	66	8.6	7.9												20	1.0	3.0	
	Six Span	21	8.8	7.0												21	1.0	1.0	
<b>Christiana Cree</b>	High Dive	387	9	7.4												21	1	1.0	
	High Dive 2	75	9	7.6												21	1	1.0	

Comments

5/21/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
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5/21/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	83	7.6	7.8												22	1.0	2.0	
	YMCA	162	7.4	8.0												22	1.0	2.0	
<b>St. Joseph River</b>	Ash Rd	54	7.0	7.9												24	1.0	1.0	
	Lexington Ave	52	7.6	7.9												24	1.0	3.0	
	Six Span	59	7.2	8.0												23	1.0	1.0	2
<b>Christiana Cree</b>	High Dive	172	8	7.8												21	1	1.0	
	High Dive 2	248	8	8.0												22	1	1.0	

Comments

6/10/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	74	9.8	7.3												19	1.0	1.0	
	YMCA	98	9.0	8.9												19	1.0	3.0	
<b>St. Joseph River</b>	Ash Rd	31	8.0	8.9												21	1.0	1.0	
	Lexington Ave	58	9.0	8.9												19	1.0	1.0	
	Six Span	55	7.8	8.4												20	1.0	1.0	
<b>Christiana Cree</b>	High Dive	131	7	8.7												19	1	1.0	1
	High Dive 2	172	9	8.6												19	1	1.0	

Comments

6/24/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
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6/24/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	225	7.2	7.6												24	1.0	1.0	3
	YMCA	488	9.2	7.9												25	1.0	4.0	
<b>St. Joseph River</b>	Ash Rd	59	8.0	7.8												27	1.0	2.0	
	Lexington Ave	113	8.4	8.1												26	1.0	1.0	
	Six Span	55	7.4	7.9												26	1.0	1.0	
<b>Christiana Cree</b>	High Dive	1414	5	7.4												22	1	3.0	1,7
	High Dive 2	276	8	8.0												24	1	1.0	

Comments

6/26/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	5172	7.0	7.7												23	3.0	3.0	
	YMCA	12997	7.0	7.8												22	3.0	3.0	
<b>St. Joseph River</b>	Ash Rd	2282	7.0	7.8												24	3.0	3.0	
	Lexington Ave	1733	7.4	7.8												24	3.0	4.0	
	Six Span	613	6.8	7.8												24	3.0	1.0	
<b>Christiana Cree</b>	High Dive	3255	5	7.4												21	3	3.0	
	High Dive 2	435	8	7.6												23	3	3.0	

Comments

7/11/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
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7/11/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	12997	7.4	6.7												21	2.0	4.0	
	YMCA	24196	6.8	7.2												22	1.0	4.0	
<b>St. Joseph River</b>	Ash Rd	6488	7.0	7.2												23	2.0	4.0	
	Lexington Ave	15531	6.4	7.3												22	1.0	4.0	
	Six Span	4352	7.0	7.1												23	1.0	3.0	
<b>Christiana Cree</b>	High Dive	1120	7	7.1												21	1	2.0	
	High Dive 2	921	8	7.4												22	1	2.0	

Comments

7/22/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	88	7.7	7.6												22	3.0	3.0	
	YMCA	184	7.6	7.7												23	2.0	4.0	
<b>St. Joseph River</b>	Ash Rd	79	7.4	7.7												25	2.0	3.0	
	Lexington Ave	83	7.6	7.7												24	1.0	4.0	
	Six Span	52	7.0	7.6												23	3.0	1.0	
<b>Christiana Cree</b>	High Dive	236	7	7.7												26	2	2.0	
	High Dive 2	276	8	7.7												26	2	1.0	

Comments

8/20/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
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8/20/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	131	8.1	7.9												20	1.0	1.0	
	YMCA	99	8.6	8.0												21	1.0	1.0	
<b>St. Joseph River</b>	Ash Rd	74	8.0	8.0												23	1.0	1.0	
	Lexington Ave	60	9.0	8.1												23	1.0	1.0	
	Six Span	59	7.6	7.9												21	1.0	1.0	
<b>Christiana Cree</b>	High Dive	770	7	7.9												20	1	1.0	
	High Dive 2	186	8	8.0												20	1	1.0	

Comments

8/28/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18		7.6	7.2												28	1.0	1.0	
	YMCA		8.6	7.8												27	1.0	1.0	
<b>St. Joseph River</b>	Ash Rd		7.0	7.9												27	1.0	1.0	
	Lexington Ave		8.0	8.0												27	1.0	1.0	
	Six Span		7.6	7.5												27	1.0	1.0	
<b>Christiana Cree</b>	High Dive		8	7.7												26	1	1.0	
	High Dive 2		8	7.8												27	1	1.0	

Comments

9/9/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
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9/9/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	115	9.0	6.5												18	1.0	1.0	
	YMCA	172	9.8	7.3												19	1.0	1.0	
<b>St. Joseph River</b>	Ash Rd	60	9.2	7.7												21	1.0	1.0	
	Lexington Ave	36	10.2	7.4												20	1.0	1.0	
	Six Span	20	8.8	7.2												19	1.0	1.0	
<b>Christiana Cree</b>	High Dive	52	8	7.4												18	1	1.0	
	High Dive 2	133	5	7.3												18	1	1.0	

Comments

10/8/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	96	8.6	7.9												15	1.0	1.0	
	YMCA	117	10.6	8.2												15	1.0	1.0	
<b>St. Joseph River</b>	Ash Rd	51	10.0	8.3												18	1.0	2.0	
	Lexington Ave	37	9.8	8.3												19	1.0	1.0	
	Six Span	32	8.6	8.2												16	1.0	1.0	
<b>Christiana Cree</b>	High Dive	74	8	7.8												17	1	1.0	
	High Dive 2	150	10	78.2												15	1	1.0	

Comments

11/13/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
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11/13/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	88	11.4	8.3												10	3.0	1.0	
	YMCA	46	12.4	8.7												9	3.0	1.0	
<b>St. Joseph River</b>	Ash Rd	27	10.2	8.7												10	3.0	1.0	
	Lexington Ave	31	12.0	8.6												10	3.0	1.0	
	Six Span	25	10.2	8.6												9	3.0	1.0	
<b>Christiana Cree</b>	High Dive	91	9	8.2												11	3	1.0	
	High Dive 2	49	12	8.6												9	3	1.0	

Comments

12/9/2024

Rain Event

		e coli	DO	pH	TSS	NH3	PO4	BOD	Cd	Cr	Cu	Ni	Pb	Ag	Zn	Water Temp	*Weather Conditions	**Water App	***Add App
<b>Elkhart River</b>	CR 18	0	12.0	7.9												6	2.0	1.0	
	YMCA	91	12.6	8.3												7	2.0	1.0	
<b>St. Joseph River</b>	Ash Rd	326	12.8	8.5												5	1.0	1.0	
	Lexington Ave	249	13.4	8.4												5	2.0	1.0	
	Six Span	816	12.2	8.1												5	2.0	1.0	
<b>Christiana Cree</b>	High Dive	21	9	8.0												10	2	1.0	2
	High Dive 2	52	12	8.0												7	2	1.0	

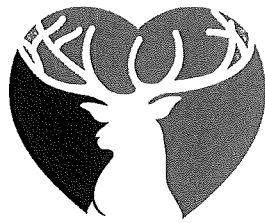
Comments

*Weather Conditions 1=clear/sunny 2=partly sunny 3=cloudy 5=rain 7=snow	4=light rain 6=light snow 8=windy	**Water Appearance 1=clear 2=cloudy 3=murky 4=muddy	***Additional appearance notes 1=large floatables present 3=brown color observed 5=strong odor observed 7=large amounts of algae present 9=other	2=small floatables present 4=other color observed 6=slight odor observed 8=small amounts algae present
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LTCP Six-Month Status Report: July 1 – December 31, 2024

Appendix 3

Copies of all Monthly Monitoring Reports and other reports pertaining to CSO Discharges and Bypasses that Elkhart submitted to IDEM in accordance with Elkhart's Current Permits during the Reporting period



**City of Elkhart**  
*Public Works and Utilities*

Date Jul 31, 2024  
Memo To Board of Public Works  
Memo From Laura Kolo, Utility Services Manager *lk*  
Subject Wastewater Utility Monthly Report of Operations  
for the month of June, 2024

***Wastewater MRO Highlights***

Parameter	Monthly Avg	Permit Limit
Suspended Solids mg/L	5	30
cBOD5 mg/L	2	25
Phosphorus mg/L	0.79	1.0
Ammonia mg/L	0.19	4.4 (Dec-Apr) 4.2 (May-Nov)
Avg Daily Flow MGD	16.39	Design - 20
Total Monthly Flow MGD	492	Report

***Incident Reports Filed***

Date	Location	Volume (gal)	Cause
06/02/24	MH 140-20	226,150	SCADA programming out of service
06/03/24	MH 140-20	90,460	

***Wet Weather Overflows***

Number of Events	Total Overflow Volume (MG)
6	14.4567

*Biomonitoring TRE 2/3 (June) passed and was submitted*

<a href="#">Add Copy of Submission</a>	<a href="#">View Completed DMR</a>	<a href="#">Add Comments to Email Notification</a>	Permit ID	Facility	Permitted Feature	Discharge #	Discharge Description	Monitoring Period End Date	DMR Due Date	Status
			IN0025674	ELKHART WWTP	035	035-A	20 MGD CLASS IV ACTIVATED SLUDGE - TO ST JOSEPH RIVER	06/30/24	07/28/24	McDMR Validated

Attachments	
Name	Type
IN0025674_035_MRO_2024_05.pdf	pdf
IN0025674_035_MRO_2024_05_mw.pdf	pdf
IN0025674_035_MRO_2024_05.pdf	pdf

[View All Copies of Submissions](#) | [DMR/COR Search](#)

## Signing Process Confirmation - CDX Activity ID: \_612c13c6-6109-4969-8c32-841b5fcb214

Your DMRs are undergoing the Signing Process

Permit ID	Facility	Permitted Feature	Discharge #	Discharge Description	Monitoring Period End Date	DMR Due Date
IN0025674	ELKHART WWTP	035	035-A	20 MGD CLASS IV ACTIVATED SLUDGE - TO ST JOSEPH RIVER	06/30/24	07/28/24





**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility <b>Elkhart</b>		Permit Number <b>IN0025674</b>	
Month <b>June</b>	Year <b>2024</b>	Plant Design Flow <b>20.00 mgd</b>	Telephone Number <b>574/293-2572</b>
E-mail address: <b>laura.kolo@coei.org</b>			<b>035</b> <b>A</b>
Certified Operator: Name <b>Laura E. Kolo</b>		Class <b>IV</b>	Certificate Number <b>15094</b>
		Expiration Date <b>06/30/2027</b>	

Day of Month	Day of Week	Man-Hours at Plant (Plants less than 1 MGD only)	Air Temperature (optional)	Total= 4.64 Precipitation - Inches	Bypass At Plant Site ("X" if Occurred)	Sanitary Sewer Overflow ("X" if Occurred)	CHEMICALS USED			RAW SEWAGE						
							Chlorine - Lbs/day	Ferric Chloride Lbs/Day or Gal./Day	Lbs/Day or Gal./Day	Influent Flow Rate (if metered) MGD	pH	CBOD5 - mg/l	CBOD5 - lbs/day	Susp. Solids - mg/l	Susp. Solids - lbs/day	Phosphorus - mg/l
1	Sat			0.34				212	15.825	7.4	85	11,218	94	12,406	2.92	17.20
2	Sun			0.03		X	(REV 7/31)	212	13.320	7.3	67	7,443	60	6,665	2.01	11.20
3	Mon							215	14.042	7.6	100	11,711	200	23,422	3.30	14.30
4	Tue							200	14.167	6.9	114	13,469	172	20,322	3.52	15.70
5	Wed			0.22				220	14.875	7.1	96	11,910	112	13,894	2.16	16.40
6	Thu							220	14.026	7.5	106	12,400	100	11,698	3.62	15.30
7	Fri							220	13.700	6.9	88	10,055	108	12,340	3.38	18.60
8	Sat			0.10				220	13.125	7.1	67	7,334	96	10,508	2.88	14.10
9	Sun							213	13.000	7.0	72	7,806	108	11,709	2.31	13.60
10	Mon							202	12.700	7.1	125	13,240	100	10,592	2.98	16.20
11	Tue							202	12.455	7.0	137	14,231	134	13,919	3.53	16.80
12	Wed							200	13.100	7.2	143	15,623	226	24,691	3.34	18.50
13	Thu			0.27				228	13.625	7.1	118	13,409	136	15,454	4.24	16.70
14	Fri			0.01				213	13.242	7.0	90	9,939	98	10,823	4.00	14.00
15	Sat							200	11.950	7.1	98	9,767	90	8,970	3.02	13.40
16	Sun			0.08				200	11.842	7.4	86	8,494	82	8,099	3.10	13.20
17	Mon			0.46				200	14.917	7.2	122	15,178	118	14,680	6.56	14.50
18	Tue			0.01				245	12.377	7.4	114	11,768	252	26,012	5.92	19.80
19	Wed							259	12.133	7.1	117	11,839	186	18,821	4.76	18.40
20	Thu							200	12.667	7.0	89	9,402	126	13,311	3.83	17.60
21	Fri							200	11.783	7.1	116	11,399	176	17,296	6.32	18.50
22	Sat							200	12.392	7.3	114	11,782	126	13,022	3.62	16.00
23	Sun			0.97				243	16.000	7.4	132	17,614	196	26,154	2.92	13.50
24	Mon							234	11.692	7.2	97	9,459	238	23,208	4.44	16.70
25	Tue			1.60				225	19.442	6.9	97	15,728	190	30,808	2.38	10.70
26	Wed							200	13.867	7.2	86	9,946	136	15,729	3.12	16.20
27	Thu							200	12.600	7.4	128	13,451	144	15,132	3.75	16.90
28	Fri			0.16				237	12.358	7.0	98	10,100	108	11,131	3.41	16.50
29	Sat			0.39				210	14.733	7.2	98	12,042	90	11,059	2.75	13.80
30	Sun							202	12.291	7.1	87	8,918	76	7,791	4.76	14.00
31																
Average				0.36				214	13.475		103	11,556	136	15,322	3.63	15.61
Maximum				1.60				259	19.442	7.6	143	17,614	252	30,808	6.56	19.80
Minimum				0.01				200	11.692	6.9	67	7334	60	6665	2.01	10.70

# of Data	0	13	0	0	0	0	30	0	30	30	30	30	30	30	30	30	0
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<p>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 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.</p>	<p>Prepared by or under the direction of (Certified Operat</p> <p><i>Laura Kolo</i></p>	<p>Date (month, day, year)</p> <p>7/31/24 (rev)</p> <p>7/26/24</p>
	<p>Signature of principal executive officer or authorized agent (or attested by NetDMR subscriber agreement)</p> <p><i>Laura Kolo</i></p>	<p>Date (month, day, year)</p> <p>7/31/24 (rev)</p> <p>7/26/24</p>



# BYPASS / OVERFLOW INCIDENT REPORT

State Form 48373 (R7 / 4-16)  
Indiana Department of Environmental Management  
Office of Water Quality

Follow-up to Bypass report  
previously sent on: \_\_\_\_\_

**INSTRUCTIONS:** Complete all parts of this form and email signed copies to [wwreports@idem.IN.gov](mailto:wwreports@idem.IN.gov). Submittal of this report will satisfy the Office of Water Quality (OWQ) telephone and written bypass/overflow reporting requirements of your NPDES permit. Please use and the second page of this form as necessary to identify separate locations caused by the same event. If you have any questions while filling out the report form, please contact Renee Repar at (317) 232-6770 or [rrepar@idem.in.gov](mailto:rrepar@idem.in.gov).

To report a spill or if the release is resulting in a fish kill or other severe environmental damage, immediately report the release to the Emergency Response Section spill response line at: (317) 233-7745 or toll free within Indiana at (888) 233-7745.

## GENERAL INFORMATION

(1) Facility Name (Organization) Elkhart Public Works	(2) Mailing Address (reporting organization) 1201 S. Nappanee Street	(3) County Elkhart	(4) NPDES Permit IN00025674
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## RELEASE INFORMATION (Location 1)

(5) Outfall Number	(6) Date (mm/dd/yy) and Time Release Began 06/02/24 1:25 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	(7) Date (mm/dd/yy) and Time Release Stopped 06/02/24 1:50 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	(8) Location of Release (streets address or Manhole, Lift Station, Force Main etc.) MH 140-20 @ Edgewater Park	(9) Latitude (Deg Min Sec) 41 40 47 N	(9) Longitude (Deg Min Sec) 85 59 58 W
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(10) Amount of Flow Released (Always provide a volume.) Check one: <input checked="" type="checkbox"/> Estimated <input type="checkbox"/> Actual 226,150 Gallons	(11) WWTP Flow During Release est 13.8 MGD	(12) WWTP Peak Design Flow Rate 44.0 MGD
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(13) Overflow Type (Select one.) <input type="checkbox"/> Sanitary Sewer Overflow <input type="checkbox"/> Treatment Bypass (at wastewater plant) <input type="checkbox"/> Prohibited Combined Sewer Overflow <input type="checkbox"/> Dry Weather Combined Sewer Overflow <input checked="" type="checkbox"/> Combined Sewer System Release	(14) Describe any damage to aquatic life or receiving stream: n/a
---	--

(15) Reason for Bypass / Overflow (Select one or more.) <input type="checkbox"/> Construction Related <input checked="" type="checkbox"/> Power Failure <input type="checkbox"/> Equipment Failure <input type="checkbox"/> Unknown <input type="checkbox"/> Exceeded Max Capacity <input type="checkbox"/> Precipitation Inches
---

(16) System Component(s) (Select one or more.) <input checked="" type="checkbox"/> Manhole <input type="checkbox"/> House Lateral <input type="checkbox"/> Pipe Failure <input type="checkbox"/> Pump Station Failure <input type="checkbox"/> Treatment Bypassed <input type="checkbox"/> Other <input type="checkbox"/> Influent Structure <input type="checkbox"/> Air Relief Valve <input type="checkbox"/> Sewer Clean Out  Describe Other: (in the box below)	(17) Additional Description of the Bypass / Overflow Event: At approximately 12:30 pm on June 6, during a routine review of CSO activity of the past week, it was realized that MH 140-20 near Edgewater Park had overflowed twice it the days prior. Upon investigation it was found both events occurred during a power outage at the WWTP. Early warning notifications that had been put in place following previous similar occurrences failed. This failure was immediately corrected with the contractor responsible for implementing this notification. The site affected area was cleaned up and it does not appear that any flows reached the near-by St Joe River.	(18) Description of the Area Impacted (Check all that apply.) <input type="checkbox"/> Affected Private Property <input type="checkbox"/> Basement Backup <input type="checkbox"/> Occurred at Treatment Plant <input checked="" type="checkbox"/> Reached Public Land <input type="checkbox"/> Reached Receiving Water  Name of Receiving Water Impacted: n/a
--	---	--

(19) Additional organizations notified by facility, if necessary (Select one or more.) <input type="checkbox"/> IDEM Emergency Response <input type="checkbox"/> Health Dept. <input type="checkbox"/> DNR Fish and Wildlife <input type="checkbox"/> Local Emergency Management <input type="checkbox"/> Other:  n/a
--

(20) Actions Taken to Prevent, Minimize, or Mitigate Damage including Clean-up and Treatment of Affected Area (Select one or more of the following, then add a written description.) <input type="checkbox"/> Removed Blockage <input type="checkbox"/> Repaired Pipe <input type="checkbox"/> Repaired Pump Station <input checked="" type="checkbox"/> Other <input type="checkbox"/> Lime <input type="checkbox"/> Clean-Up Debris cause for power failures remain unconfirmed
---

(21) Resolution: Actions Taken or Planned to Prevent Recurrence investigation is on-going and we are working with local electrical contractor to plan an extensive evaluate of the electrical systems to and through the entire wastewater plant
---

## CERTIFICATION AND SIGNATURE

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. (The area below is for a handwritten signature or an electronic substitute then fax or scan to PDF for emailing.)

SIGNATURE: <u>Laura Kolo</u>	DATE (month, day, year): <u>06/07/24</u>			
Individual Making Report (printed) Laura Kolo	Telephone Number (574) 293-2572	Contact Email laura.kolo@coei.org	Date (month, day, year) / Time IDEM Notified 06/07/24 appx 7:00	<input checked="" type="checkbox"/> AM <input type="checkbox"/> PM



# BYPASS / OVERFLOW REPORT (Supplemental Locations)

State Form 48373 (R7 / 4-16)  
Indiana Department of Environmental Management  
Office of Water Quality

Follow-up to Bypass report  
previously sent on: \_\_\_\_\_

(23) Complete all parts of each table for additional discharge locations caused by the same event as on the first page.  
For any locations identified in the NPDES permit, include the Outfall number for that location from the permit.

RELEASE INFORMATION (Location 2)					
Outfall Number	Date (mm/dd/yy) and Time Release Began	Date (mm/dd/yy) and Time Release Stopped	Location of Release (streets address or Manhole, Lift Station, Force Main etc.)	Latitude (Deg Min Sec)	Longitude (Deg Min Sec)
	06/03/24 8:40 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	06/03/24 8:50 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	MH 140-20 @ Edgewater Park	41 40 47 N	85 59 58 W
Amount of Flow Released <input checked="" type="checkbox"/> Estimated <input type="checkbox"/> Actual 90,460 Gallons		Description of the Area Impacted (Check all that apply.) <input type="checkbox"/> Affected Private Property <input type="checkbox"/> Basement Backup <input checked="" type="checkbox"/> Reached Public Land <input type="checkbox"/> Reached Receiving Water		Name of Receiving Water Impacted n/a	
RELEASE INFORMATION (Location 3)					
Outfall Number	Date (mm/dd/yy) and Time Release Began	Date (mm/dd/yy) and Time Release Stopped	Location of Release (streets address or Manhole, Lift Station, Force Main etc.)	Latitude (Deg Min Sec)	Longitude (Deg Min Sec)
	<input type="checkbox"/> AM <input type="checkbox"/> PM	<input type="checkbox"/> AM <input type="checkbox"/> PM			
Amount of Flow Released <input type="checkbox"/> Estimated <input type="checkbox"/> Actual Gallons		Description of the Area Impacted (Check all that apply.) <input type="checkbox"/> Affected Private Property <input type="checkbox"/> Basement Backup <input type="checkbox"/> Reached Public Land <input type="checkbox"/> Reached Receiving Water		Name of Receiving Water Impacted	
RELEASE INFORMATION (Location 4)					
Outfall Number	Date (mm/dd/yy) and Time Release Began	Date (mm/dd/yy) and Time Release Stopped	Location of Release (streets address or Manhole, Lift Station, Force Main etc.)	Latitude (Deg Min Sec)	Longitude (Deg Min Sec)
	<input type="checkbox"/> AM <input type="checkbox"/> PM	<input type="checkbox"/> AM <input type="checkbox"/> PM			
Amount of Flow Released <input type="checkbox"/> Estimated <input type="checkbox"/> Actual Gallons		Description of the Area Impacted (Check all that apply.) <input type="checkbox"/> Affected Private Property <input type="checkbox"/> Basement Backup <input type="checkbox"/> Reached Public Land <input type="checkbox"/> Reached Receiving Water		Name of Receiving Water Impacted	
RELEASE INFORMATION (Location 5)					
Outfall Number	Date (mm/dd/yy) and Time Release Began	Date (mm/dd/yy) and Time Release Stopped	Location of Release (streets address or Manhole, Lift Station, Force Main etc.)	Latitude (Deg Min Sec)	Longitude (Deg Min Sec)
	<input type="checkbox"/> AM <input type="checkbox"/> PM	<input type="checkbox"/> AM <input type="checkbox"/> PM			
Amount of Flow Released <input type="checkbox"/> Estimated <input type="checkbox"/> Actual Gallons		Description of the Area Impacted (Check all that apply.) <input type="checkbox"/> Affected Private Property <input type="checkbox"/> Basement Backup <input type="checkbox"/> Reached Public Land <input type="checkbox"/> Reached Receiving Water		Name of Receiving Water Impacted	
RELEASE INFORMATION (Location 6)					
Outfall Number	Date (mm/dd/yy) and Time Release Began	Date (mm/dd/yy) and Time Release Stopped	Location of Release (streets address or Manhole, Lift Station, Force Main etc.)	Latitude (Deg Min Sec)	Longitude (Deg Min Sec)
	<input type="checkbox"/> AM <input type="checkbox"/> PM	<input type="checkbox"/> AM <input type="checkbox"/> PM			
Amount of Flow Released <input type="checkbox"/> Estimated <input type="checkbox"/> Actual Gallons		Description of the Area Impacted (Check all that apply.) <input type="checkbox"/> Affected Private Property <input type="checkbox"/> Basement Backup <input type="checkbox"/> Reached Public Land <input type="checkbox"/> Reached Receiving Water		Name of Receiving Water Impacted	
RELEASE INFORMATION (Location 7)					
Outfall Number	Date (mm/dd/yy) and Time Release Began	Date (mm/dd/yy) and Time Release Stopped	Location of Release (streets address or Manhole, Lift Station, Force Main etc.)	Latitude (Deg Min Sec)	Longitude (Deg Min Sec)
	<input type="checkbox"/> AM <input type="checkbox"/> PM	<input type="checkbox"/> AM <input type="checkbox"/> PM			
Amount of Flow Released <input type="checkbox"/> Estimated <input type="checkbox"/> Actual Gallons		Description of the Area Impacted (Check all that apply.) <input type="checkbox"/> Affected Private Property <input type="checkbox"/> Basement Backup <input type="checkbox"/> Reached Public Land <input type="checkbox"/> Reached Receiving Water		Name of Receiving Water Impacted	

(ATTACH ADDITIONAL SHEETS IF NECESSARY.)

### CERTIFICATION AND SIGNATURE

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.

SIGNATURE: Laura K 16870

DATE (month, day, year): 06/07/24

**Kolo, Laura**

---

**From:** postmaster@state.in.us  
**Sent:** Friday, June 7, 2024 6:43 AM  
**To:** Kolo, Laura  
**Subject:** EXTERNAL: Relayed: IN0025674\_INC\_RPT\_2024\_06\_01  
**Attachments:** EXTERNAL: Relayed: IN0025674\_INC\_RPT\_2024\_06\_01

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**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility Elkhart	Permit Number IN0025674	Month June	Year 2024
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Day Of Month	PRIMARY EFFLUENT		AERATION							SECONDARY EFFLUENT		FINAL EFFLUENT						
	CBOD5 - mg/l	Susp. Solids - mg/l	MIXED LIQUOR				RETURN SLUDGE			CBOD5 - mg/l	Susp. Solids - mg/l	Residual Chlorine - Final	Residual Chlorine - Contact Tank	E. Coli - colony/100 ml	pH - daily low (or single sample)	pH - daily high (if multiple samples)	Dissolved Oxygen - mg/l	Oil & Grease (mg/l)
			Settleable Solids % in 30 minutes	Susp. Solids - mg/l	Sludge Vol. Index - ml/gm	Dissolved Oxygen - mg/l	Temperature - F	Volume - MG	Susp. Solids - mg/l									
1	62	45	170	2,872	59	4.3	17	6.262	6,500					6	7.0		8.8	
2	53	48	158	3,376	47	4.5	17	6.478	3,420					13	7.0		8.4	
3	50	55	166	3,500	47	4.7	17	5.010	5,660					8	7.0		8.6	
4	61	64	156	2,860	55	3.9	18	6.217	5,880					12	7.5		8.9	
5	60	54	167	2,648	63	4.4	18	6.487	6,160					6	7.0		8.8	
6	71	55	162	2,688	60	4.5	17	6.379	5,840					10	7.0		8.7	
7	61	70	164	2,648	62	4.3	18	6.487	5,920					16	7.0		8.8	
8	53	48	150	2,752	55	4.7	17	6.487	5,820					10	7.0		8.4	
9	50	52	146	3,200	46	5.0	17	6.487	6,300					5	7.5		8.4	
10	61	64	145	4,776	30	4.8	17	6.433	6,080					26	7.4		8.6	
11	88	55	144	2,332	62	4.0	17	6.442	4,260					26	7.2		8.5	
12	75	67	148	2,536	58	4.2	17	6.487	6,020					19	7.0		8.3	
13	86	61	144	2,736	53	4.1	18	6.487	5,080					20	7.0		8.2	
14	73	48	151	2,396	63	4.4	18	6.487	4,860					17	7.1		7.9	
15	69	52	149	2,560	58	4.6	18	6.487	4,660					30	7.0		8.5	
16	64	52	138	2,804	49	4.6	18	6.487	5,000					23	7.0		8.3	
17	71	66	118	4,260	28	3.3	20	6.487	5,300					21	7.0		7.9	
18	66	75	143	2,532	56	3.7	18	6.487	4,860					10	7.0		8.5	
19	76	70	149	2,520	59	4.6	18	6.487	5,300					19	7.4		8.1	
20	59	43	142	2,380	60	4.3	19	6.487	5,040					15	7.0		8.1	
21	92	88	139	2,364	59	4.4	20	6.523	3,720					15	7.0		8.3	
22	80	59	143	2,476	58	4.4	19	6.487	4,280					15	7.0		8.1	
23	81	71	106	2,680	40	4.2	21	6.487	6,520					30	7.0		8.1	
24	60	52	130	2,864	45	4.2	19	6.487	4,840					11	7.1		8.2	
25	66	88	128	2,364	54	4.5	20	6.469	5,200					13	7.3		8.0	
26	64	58	126	2,432	52	3.4	19	6.474	5,660					3	7.0		8.0	
27	78	64	130	2,344	56	3.4	19	6.487	4,820					10	7.0		8.2	
28	78	46	130	2,588	50	4.7	19	6.487	5,500					17	7.2		8.5	
29	84	55	128	2,368	54	4.4	20	6.487	5,320					20	7.0		8.4	
30	63	36	124	2,568	48	4.4	19	6.487	5,880					24	7.3		8.4	
31																		
Avg.	69	59	143	2,781	53	4.3	18	6.414	5,323					16			8.4	
Max	92	88	170	4,776	63	5.0	21	6.523	6,520					30		7.5	8.9	
Min.	50	36	106	2332	28	3.3	17	5.010	3420					3		7.00	7.9	
Daily Max														30				
# of Days above 235														0				
Date	30	30	30	30	30	30	30	30	30	0	0	1	0	30	30	0	30	0

Comments for the Month (major repairs, breakdowns, process upsets and their causes, inplant treatment process bypass, etc.):  
 The 06/01/24 the E. Coli sample was collected at 8:13 am and put in the incubator at 8:21 am. On 6/2/24 at 12:24 am the plant lost power for appx 1.5 hours. On 6/2/24 at 6 am, the lab found the incubator temp at 29 degrees and reset the temp. Because the sample result read at 8:30 am and then again at 12:20 pm had not changed, our confidence level in the result reported is very high.

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility Elkhart	Permit Number IN0025674	Month June	Year 2024
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		FINAL EFFLUENT															
Day Of Month	Day of Week	Flow		BOD				Total Suspended Solids				Ammonia				Phosphorus	
		Effluent Flow Rate (MGD)	Effluent Flow Weekly Average	CBOD5 - mg/l	CBOD5 - mg/l Weekly Average	CBOD5 - lbs/day	CBOD5 - lbs/day Weekly Average	Susp. Solids - mg/l	Susp. Solids - mg/l Weekly Average	Susp. Solids - lbs/day	Susp. Solids - lbs/day Weekly Average	Ammonia - mg/l	Ammonia - mg/l Weekly Average	Ammonia - lbs/day	Ammonia - lbs/day Weekly Average	Phosphorus - mg/l	Phosphorus - lbs/day
1	Sat	18.838		2		314		5		786		0.04		6.3		0.86	135
2	Sun	16.828		2		281		4		547		0.04		5.6		0.78	109
3	Mon	18.542		2		309		3		495		0.35		54.1		0.79	122
4	Tue	16.731		2		279		4		516		0.24		33.5		0.85	119
5	Wed	17.935		2		299		5		703		0.45		67.3		0.74	111
6	Thu	16.047		3		401		4		522		0.49		65.6		1.00	134
7	Fri	15.460		2		258		5		683		0.20		25.8		0.83	107
8	Sat	16.211	16.822	2	2.14	270	300	6	4.40	825	613	0.34	0.30	46.0	43	0.98	132
9	Sun	14.590		2		243		6		681		0.09		11.0		0.86	105
10	Mon	15.474		2		258		6		710		0.06		7.7		0.79	102
11	Tue	15.577		2		260		6		779		0.06		7.8		0.78	101
12	Wed	15.992		2		267		8		1,040		0.05		6.7		0.80	107
13	Thu	16.069		2		268		10		1,313		0.05		6.7		0.70	94
14	Fri	14.479		2		242		10		1,159		0.62		74.9		0.70	85
15	Sat	13.863	15.149	3	2.14	347	269	8	7.44	902	941	0.06	0.14	6.9	17	0.70	81
16	Sun	14.632		2		244		6		708		0.69		84.2		0.92	112
17	Mon	18.806		3		471		6		878		0.07		11.0		0.40	63
18	Tue	14.823		2		247		3		396		0.28		34.6		0.58	72
19	Wed	14.781		2		247		3		394		0.23		28.4		0.67	83
20	Thu	14.378		2		240		3		396		0.05		6.0		0.70	84
21	Fri	14.531		2		242		3		364		0.19		23.0		0.71	86
22	Sat	14.227	15.168	2	2.14	237	275	2	3.77	273	487	0.11	0.23	13.1	29	0.96	114
23	Sun	20.455		3		512		5		836		0.19		32.4		1.21	206
24	Mon	14.760		2		246		4		443		0.14		17.2		0.83	102
25	Tue	25.927		2		432		4		843		0.34		73.5		0.74	160
26	Wed	16.919		2		282		4		494		0.09		12.7		0.41	58
27	Thu	15.865		3		397		4		463		0.05		6.6		0.53	70
28	Fri	15.357		2		256		3		435		0.11		14.1		0.67	86
29	Sat	18.542	18.261	2	2.29	309	348	4	3.77	557	582	0.06	0.14	9.3	24	0.91	141
30	Sun	15.046		2		251		4		439		0.04		5.0		1.16	146
31																	
Avg		16.390		2		297		5		653		0.19		26.6		0.79	108
Max		25.927	18.261	3	2.29	512	348	10	7.44	1,313	941	0.69	0.30	84.2	43	1.2	206
Min		13.863	15.149	2	2.14	237	269	2	3.77	273	487	0.04	0.14	5.0	17	0.4	58
Data		30	4	30	4	30	4	30	4	30	4	30	4	30	4	30	30

MONTHLY REMOVAL SUMMARY					Total Monthly Flow: (million gallons) 492
Percent Removal	BOD5	S.S.	Ammonia	Phosphorus	
Primary Treatment	33.43	56.8			
Secondary Treatment	96.8	91.6			Percent Capacity (actual flow/design) 82%
Overall Treatment	97.89	96.4	98.8	78.4	
Phosphorus limit would be	75 % removal. (compliance achieved)				

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

Slate Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	June	2024

Day Of Month	SLUDGE TO DIGESTER		DIGESTER OPERATION											
	Primary SludgeGal. x 100	Waste Act. Sludge Gal. x 1000	Anaerobic Only			Supernatant Withdrawn hrs. or Gal. x 1000	Supernatant BOD5 mg/l or NH3-N mg/l	Total Solids in Incoming Sludge - %	Total Solids in Digested Sludge - %	Volatile Solids in Incoming Sludge - %	Volatile Solids in Digested Sludge - %	Digested Sludge Withdrawn hrs. or Gal. x 1000		
			pH	Gas Production Cubic Ft. x 1000	Temperature - F									
1	35.48	216.00	7.1		96	14.148		5.51	1.99	74.19	55.92			
2	31.27	216.00	7.2		96	0.000		4.89	2.02	74.40	57.43			
3	23.01	216.00	7.3		96	0.000		3.59	2.06	79.02	57.14			
4	21.78	216.00	7.4		97	10.611		4.55	2.12	76.36	57.06	130.07		
5	43.70	216.00	7.3		97	17.685		4.97	2.10	74.60	58.66	130.49		
6	39.13	216.00	7.3		96	7.074		4.24	1.96	73.68	56.00	111.59		
7	32.63	234.72	7.2		96			4.56	1.89	75.39	58.97			
8	47.91	239.04	7.0		90			4.61	1.52	76.26	57.00			
9	25.11	239.04	6.9		86			4.46	2.64	78.08	61.80			
10	31.96	237.60	7.0		96	17.685		5.21	2.16	78.90	58.52			
11	24.73	239.04	7.1		96	17.685		4.53	2.14	76.94	56.95	129.86		
12	18.03	239.04	7.2		96	17.685		3.54	2.20	73.71	55.41	92.68		
13	41.37	239.04	7.1		96	17.685		3.62	2.24	72.35	57.25	130.91		
14	41.68	239.04	7.2		96			4.23	2.19	76.42	57.47			
15	40.98	239.04	7.3		96	7.074		4.80	2.18	77.46	58.72			
16	24.39	239.04	7.2		96			3.93	2.30	82.76	57.74			
17	43.07	239.04	7.2		97	21.222		4.66	2.33	67.72	57.39	117.15		
18	36.72	239.04	7.2		97	14.148		4.50	2.31	67.63	57.81	131.92		
19	45.21	239.04	7.3		98	10.611		4.54	2.39	67.02	57.89			
20	40.38	252.00	7.3		98	7.074		3.61	2.37	72.60	56.99	127.74		
21	45.87	254.88	7.2		98	7.074		4.13	2.45	68.20	58.03	70.54		
22	40.97	254.88	7.3		98	14.148		1.87	2.26	67.37	55.04			
23	45.43	254.88	7.3		98	49.518		4.80	2.44	72.54	58.19			
24	29.57	254.88	7.3		98	0.000		4.73	2.50	72.94	57.53	112.30		
25	39.51	257.76	7.4		97	10.611		3.68	2.42	64.22	56.80	48.67		
26	46.81	241.92	7.3		94	14.148		5.40	2.44	63.19	57.39	122.30		
27	38.08	239.04	7.4		98	3.537		4.72	2.39	68.08	56.83	121.44		
28	41.48	234.72	7.3		97			2.74	2.31	67.34	54.71			
29	44.48	250.56	7.3		98	3.537		4.47	2.40	71.86	57.56			
30	13.14	250.56	7.2		97	3.537		4.89	2.35	74.44	56.91			
31														
Avg.	35.80	238.13			96	11.937		4.33	2.24	72.86	57.37	112.69		
Max.	47.91	257.76	7.4		98	49.518		5.51	2.64	82.76	61.80	131.92		
Min.	13.14	216.00	6.9		86	0.000		1.87	1.52	63.19	54.71	48.67		
Data	30	30	30	0	30	24	0	30	30	30	30	14	0	0

Once completed, this form should be converted to a pdf document, named appropriately & attached to the corresponding netDMR for submittal

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	June	2024

Substitute for State Form 30530

Day Of Month	Final Effluent				Ag - Influent mg/l	Ag - Effluent mg/L	Cd - Influent mg/L	Cd - Effluent mg/L	CN - Influent mg/L	CN - Effluent mg/L	Cr - Influent mg/L	Cr - Effluent mg/L	Cu - Influent mg/L	Cu - Effluent mg/L	Hg - Influent ng/L	Hg - Effluent ng/L
	Chloride		Total Nitrogen													
	Chloride - mg/l	Chloride - lbs/day	Total Nitrogen- mg/l	Total Nitrogen- lbs/day												
1																
2																
3			12.70	1,964	0.0002											
4						0.0002										
5																
6																
7																
8																
9																
10					0.0002											
11						0.0002										
12																
13																
14																
15																
16																
17																
18					0.0006	0.0002										
19																
20																
21																
22																
23																
24	185	22,773			0.0009											
25						0.0002										
26																
27																
28																
29																
30																
31																
Avg.	185	22,773	12.70	1,964	0.0005	0.0002										
Max.	185	22,773			0.0009	0.0002										
Min.	185	22,773	12.70	1964	0.0002	0.0002										
Data	1	1	1	1	4	4	0	0	0	0	0	0	0	0	0	0



**WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	June	2024

Substitute for State Form 30530

Day Of Month	Ni - Influent mg/L	Ni - Effluent mg/L	Pb - Influent mg/L	Pb - Effluent mg/L	Zn - Influent mg/L	Zn - Effluent mg/L													
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
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26																			
27																			
28																			
29																			
30																			
31																			
Avg.																			
Max.																			
Min.																			
Date	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart				Page 1 of 9				Permit Number: IN0025674												
Facility: Elkhart Public Works & Utilities				Public Notification Requirements Met? Y																
Monitoring Period: June 2024				Enter "X" if no CSO discharge occurred for the month:																
Design Peak Hourly Flow (MGD): 44				Design Average Flow (MGD): 20				Measured/Metered (M) or Estimated (E) must be specified												
WWTP Influent Data			Precipitation Data					CSO Outfall No. 005					CSO Outfall No. 006							
Day of Month	Average Daily Flow (MGD)	Peak Hourly Flow (MGD)	Time Precip. Began (am/pm)	Precip. Duration (Hours)	Total Daily Precip. (Inches)	Peak Intensity (Inch/hr)	Measurement Interval (hr, 30 m, 15 m)	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
1	15.83	24.30	3:16 PM	6.25	0.34	0.32	15 min													
2	13.32	14.50	2:31 AM	4.17	0.03	0.04	15 min													
3	14.04	16.30					15 min													
4	14.17	16.10					15 min													
5	14.88	20.20	4:26 AM	14.67	0.22	0.48	15 min													
6	14.03	17.10					15 min													
7	13.70	16.80					15 min													
8	13.13	16.10	9:26 PM	1.25	0.10	0.16	15 min													
9	13.00	16.50					15 min													
10	12.70	15.00					15 min													
11	12.46	14.20					15 min													
12	13.10	14.80					15 min													
13	13.63	18.10	5:36 PM	1.55	0.27	0.80	15 min													
14	13.24	15.70	4:51 AM	0.08	0.01	0.04	15 min													
15	11.95	13.50					15 min													
16	11.84	13.00	11:31 PM	0.55	0.08	0.20	15 min													
17	14.92	28.00	12:01 AM	2.58	0.46	1.16	15 min							12:18 AM	M	0.17	M	0.0148	M	
18	12.38	13.40	11:54 AM	0.20	0.01	0.04	15 min													
19	12.13	15.00					15 min													
20	12.67	15.40					15 min													
21	11.78	13.60					15 min													
22	12.39	15.40					15 min													
23	16.00	35.40	2:16 AM	5.97	0.97	1.24	15 min													
24	11.69	13.20					15 min													
25	19.44	42.30	9:06 AM	3.72	1.60	2.36	15 min							9:33 AM	M	1.00	M	0.957	M	
26	13.87	17.00					15 min													
27	12.60	13.90					15 min													
28	12.36	16.10	3:21 PM	8.72	0.16	0.36	15 min													
29	14.73	23.30	12:01 AM	21.08	0.39	0.52	15 min													
30	12.29	14.80					15 min													
<b>Totals:</b>	404.25			70.79	4.64			0	Days	0.00		0		2	Days	1.17		0.9718		



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart		Page 2 of 9		Permit Number: IN0025574																				
Facility: Elkhart Public Works & Utilities						Public Notification Requirements Met? Y																		
Monitoring Period: June 2024			Enter "x" if no CSO discharge occurred for the month:																					
Design Peak Flow (Hourly) (MGD): 44			Design Flow (MGD): 20			Measured/Metered (M) or Estimated (E) must be specified																		
CSO Outfall No. 007						CSO Outfall No. 008						CSO Outfall No. 009						CSO Outfall No. 011						
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E
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14																								
15																								
16																								
17	12:27 AM	M	0.58	M	0.1013	M							12:41 AM	M	0.42	M	0.0181	M	12:19 AM	M	0.17	M	0.0147	M
18																								
19																								
20																								
21																								
22																								
23																								
24																								
25	9:37 AM	M	2.25	M	0.3879	M	9:30 AM	M	0.57	M	0.0752	M	9:46 AM	M	2.08	M	0.0903	M	9:29 AM	M	0.92	M	0.0862	M
26																								
27																								
28																								
29																								
30																								
<b>Totals:</b>	2	Days	2.83		0.4892		1	Days	0.57		0.0752		2	Days	2.50		0.1084		2	Days	1.09		0.1009	



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 3 of 9					Permit Number: IN0025574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y															
Monitoring Period: June 2024										Enter "x" if no CSO discharge occurred for the month:															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 012										CSO Outfall No. 013					CSO Outfall No. 14B					CSO Outfall No. 015					
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
1																									
2																									
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12																									
13																									
14																									
15																									
16																									
17	2:27 AM	M	0.17	M	0.0028	M														2:35 AM	M	0.17	M	0.0009	M
18																									
19																									
20																									
21																									
22																									
23	2:42 AM	M	0.33	M	0.0097	M														2:56 AM	M	0.50	M	0.0172	M
24																									
25	9:42 AM	M	1.00	M	0.1059	M	9:32 AM	M	1.00	M	0.1481	M							9:36 AM	M	1.92	M	0.5966	M	
26																									
27																									
28																									
29	2:32 AM	M	0.08	M	0.0007	M																			
30																									
<b>Totals:</b>	4	Days	1.58		0.1191		1	Days	1.00		0.1481		0	Days	0.00		0.0000		3	Days	2.59		0.6147		



National Pollutant Discharge Elimination System (NPDES)  
CSO Monthly Report of Operation (CSO MRO)

Slate Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 4 of 9					Permit Number: IN0025574									
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y														
Monitoring Period: June 2024										Enter "x" if no CSO discharge occurred for the month:														
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified														
CSO Outfall No. 016					CSO Outfall No. 017					CSO Outfall No. 018					CSO Outfall No. 019									
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E
1																								
2																								
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16																								
17													12:40 AM	M	1.73	M	0.0536	M						
18																								
19																								
20																								
21																								
22																								
23													3:04 AM	M	2.50	M	0.0772	M						
24																								
25	9:40 AM	M	0.92	M	0.1524	M	8:38 AM	M	1.67	M	0.3974	M	9:35 AM	M	1.08	M	0.0421	M	9:39 AM	M	1.33	M	0.0761	M
26																								
27																								
28																								
29																								
30																								
<b>Totals:</b>	1	Da ys	0.92		0.1524		1	Da ys	1.67		0.3974		3	Da ys	5.31		0.1729		1	Da ys	1.33		0.0761	



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 5 of 9					Permit Number: IN0025574									
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y														
Monitoring Period: June 2024										Enter "x" if no CSO discharge occurred for the month:														
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified														
CSO Outfall No. 020						CSO Outfall No. 023						CSO Outfall No. 024						CSO Outfall No. 025						
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E
1																								
2																								
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9																								
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11																								
12																								
13																								
14																								
15																								
16																								
17	12:15 AM	M	0.58	M	0.0337	M	12:12 AM	M	0.67	M	0.0290	M	12:35 AM	M	0.25	M	0.0073	M	12:16 AM	M	0.50	M	0.0484	M
18																								
19																								
20																								
21																								
22																								
23							2:42 AM	M	0.25	M	0.0027	M							2:36 AM	M	0.42	M	0.0202	M
24																								
25	9:35 AM	M	1.58	M	0.0984	M	9:32 AM	M	1.25	M	0.1100	M	9:45 AM	M	1.75	M	0.3526	M	9:26 AM	M	1.25	M	0.2858	M
26																								
27																								
28																								
29							2:17 AM	M	0.17	M	0.0028	M							2:16 AM	M	0.17	M	0.0212	M
30																								
<b>Totals:</b>	2	Da ys	2.16		0.1321		4	Da ys	2.34		0.1445		2	Da ys	2.00		0.3599		4	Da ys	2.34		0.3756	



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 6 of 9					Permit Number: IN0025574									
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y														
Monitoring Period: June 2024										Enter "x" if no CSO discharge occurred for the month:														
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified														
CSO Outfall No. 026						CSO Outfall No. 027						CSO Outfall No. 028					CSO Outfall No. 029							
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E
1																								
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17							2:06 AM	M	0.17	M	0.0008	M												
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22																								
23																								
24																								
25	9:35 AM	M	1.00	M	0.0553	M	9:31 AM	M	0.75	M	0.0592	M							9:33 AM	M	0.92	M	0.0327	M
26																								
27																								
28																								
29																								
30																								
<b>Totals:</b>	1	Days	1.00		0.0553		2	Days	0.92		0.0600		0	Days	0.00		0.0000		1	Days	0.92		0.0327	



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 7 of 9					Permit Number: IN0025574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y															
Monitoring Period: June 2024										Enter "x" if no CSO discharge occurred for the month:															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 031					CSO Outfall No. 032					CSO Outfall No. 033					CSO Outfall No. 034										
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
1																									
2							1:30 AM	M	2.42	M	0.2561	M													
3							8:40 AM	M	0.25	M	0.0434	M													
4																									
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17													12:27 AM	M	0.42	M	0.1072	M							
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22																									
23																									
24																									
25	9:37 AM	M	9.75	M	3.1560	M	9:35 AM	M	1.75	M	0.2396	M	9:32 AM	M	4.75	M	2.8419	M	9:31 AM	M	0.42	M	0.0283	M	
26																									
27																									
28																									
29																									
30																									
<b>Totals:</b>	1	Da ys	9.75		3.1560		3	Da ys	4.42		0.5391		2	Da ys	5.17		2.9491		1	Da ys	0.42		0.0283		





National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 8 of 9					Permit Number: IN0025574									
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y														
Monitoring Period: June 2024										Enter "x" if no CSO discharge occurred for the month:														
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified														
CSO Outfall No. 037					CSO Outfall No. 039					CSO Outfall No. 040					CSO Outfall No.									
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E
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17	12:22 AM	M	1.25	M	0.7111	M	12:06 AM	M	0.50	M	0.0151	M	2:15 AM	M	0.17	M	0.0048	M						
18																								
19																								
20																								
21																								
22																								
23							2:31 AM	M	0.42	M	0.0078	M	4:15 AM	M	0.75	M	0.0213	M						
24																								
25	9:42 AM	M	2.17	M	2.1935	M	9:26 AM	M	1.42	M	0.0438	M	9:35 AM	M	2.73	M	0.1957	M						
26																								
27																								
28																								
29							2:11 AM	M	0.17	M	0.0048	M												
30																								
<b>Totals:</b>	2	Days	3.42		2.9046		4	Days	2.51		0.0715		3	Days	3.65		0.2218		0	Days	0.00		0.0000	



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)  
 State Form 50546 (R4 / 9-15)  
 INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart	Page: 9 of 9	Permit Number: IN0025574
Facility: Elkhart Public Works & Utilities	Public Notification Requirements Met? Y	
Monitoring Period: June 2024	Enter "x" if no CSO discharge occurred for the month:	
Design Peak Hourly Flow (MGD): 44	Design Average Flow (MGD): 20	

Day of Month	Comments (further explanation as to why each CSO event occurred)
1	
2	precipitation
3	precipitation
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	precipitation
18	
19	
20	
21	
22	
23	precipitation
24	
25	precipitation
26	
27	
28	
29	precipitation
30	
31	

Typed or Printed Name and Title of Principal Executive Officer or Authorized Agent <b>Laura E. Kolo, Utilities Services Manager</b>	Telephone <b>574-293-2572</b>
--	----------------------------------

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 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.

Signature of Principal Executive Officer or Authorized Agent <i>Laura Kolo</i>	Date (mm/dd/yy) <b>7/26/2024</b>
---	-------------------------------------

## Kolo, Laura

---

**From:** postmaster@state.in.us  
**Sent:** Friday, July 26, 2024 9:49 AM  
**To:** Kolo, Laura  
**Subject:** EXTERNAL: Relayed: IN0025674 POST TRE 2/3  
**Attachments:** EXTERNAL: Relayed: IN0025674 POST TRE 2/3

Caution: This email originated from outside of the organization. Please take care when clicking links or opening attachments. When in doubt, contact your IT Department

# Biomonitor

<b>Permittee/Location</b> Elkhart WWTP Elkhart, IN			<b>Permit Number:</b> IN0025674			<b>Outfall Number:</b> 035	
<b>Laboratory Name and Contact:</b> Biomonitor Michael Britton			<b>Report Due Date:</b>			<b>Report Date:</b> June 2024	
<b>WETT Reporting Frequency or Type:</b> (mark one)	Monthly	Quarterly	Semi-annual <b>X</b>	Annual	TRE	Post TRE	Second (per Reporting Frequency)

Test Organism	Test	Endpoint [1]	Units	Result	Compliance Value in TUs	Pass/Fail	Reporting
<i>Ceriodaphnia dubia</i>	7-day Survival and Reproduction Definitive Static-Renewal	NOEC Survival	%	100			
			TU <sub>c</sub>	1			
		NOEC Reproduction	%	100			
			TU <sub>c</sub>	1			
		IC25 Reproduction	%	100			
			TU <sub>c</sub>	1			
	48 hr. LC50	%	>100				
		TU <sub>a</sub>	<1				
	Toxicity (acute)	TU <sub>a</sub>	<1	1.0	<b>Pass</b>	Laboratory Report <u>and</u> NetDMR (Parameter Code 61425)	
	Toxicity (chronic)	TU <sub>c</sub>	1	8.0	<b>Pass</b>	Laboratory Report <u>and</u> NetDMR (Parameter Code 61426)	

<i>Pimephales promelas</i>	7-day Larval Survival and Growth Definitive Static-Renewal	NOEC Survival	%	100			
			TU <sub>c</sub>	1			
		NOEC Growth	%	100			
			TU <sub>c</sub>	1			
		IC25 Growth	%	100			
			TU <sub>c</sub>	1			
	96 hr. LC50	1 %	>100				
		TU <sub>a</sub>	<1				
	Toxicity (acute)	TU <sub>a</sub>	1	1.0	<b>Pass</b>	Laboratory Report <u>and</u> NetDMR (Parameter Code 61427)	
	Toxicity (chronic)	TU <sub>c</sub>	1	8.0	<b>Pass</b>	Laboratory Report <u>and</u> NetDMR (Parameter Code 61428)	

**Biomonitor**

8802 West Washington Street  
Indianapolis, IN 46231  
(317) 297-7713

*Whole Effluent  
Toxicity Test*

ELKHART  
WASTEWATER TREATMENT PLANT

IN0025674

Elkhart, Indiana

June 2024

**GLP (Good Laboratory Practices)  
COMPLIANCE STATEMENT**

Project Name: Elkhart Wastewater Treatment Plant

Project Date: June 2024

This project has been conducted under GLP standards, as stated in 40 CFR Part 160, with the following exceptions:

*Greg R. Bright*

Quality Assurance Officer  
Date: 6/20/24

*Michael Britton*

Project Director  
Date: 6/20/24

Other Participating Personnel:

Mukang'andu Ng'andwe  
Arizona Fox  
Melody Myers-Kinzie

Copies of the raw data and final report are maintained in the archives of Biomonitor for five years from the date of completion.

Section 1  
Executive Summary

Biomonitor conducted whole effluent toxicity testing for the Elkhart, IN Wastewater Treatment Plant during June 2024. The purpose of the testing was to fulfill the biomonitoring requirement for the NPDES permit.

Three samples were collected June 2-6, 2024. The water flea, *Ceriodaphnia dubia*, and Fathead minnow, *Pimephales promelas*, were used as the test organisms.

A total of six toxicity endpoints were measured. The following results were obtained:

*Ceriodaphnia dubia* test

48-hr LC <sub>50</sub>	> 100% effluent	TU <sub>a</sub> < 1.0
NOEL for survival	= 100% effluent	TU <sub>c</sub> = 1.0
NOEL for reproduction	= 100% effluent	TU <sub>c</sub> = 1.0

*Pimephales promelas* test

48-hr LC <sub>50</sub>	> 100% effluent	TU <sub>a</sub> < 1.0
NOEL for survival	= 100% effluent	TU <sub>c</sub> = 1.0
NOEL for growth	= 100% effluent	TU <sub>c</sub> = 1.0

The acute toxicity limits in the NPDES permit require the 48 and/or 96-hr LC<sub>50</sub> to be greater than 100% effluent (a TU<sub>a</sub> not to exceed 1.0). The effluent samples passed the acute toxicity limits during this testing period for *Ceriodaphnia dubia* but not *Pimephales promelas*.

The chronic toxicity limits in the NPDES permit require a NOEL (No Observable Effect Level) of 12.5% effluent (a TU<sub>c</sub> not to exceed 8.0). According to the NPDES permit, there was not a "Demonstration of Toxicity" during this sampling period.

Section 2  
Introductory Information

**Table I**  
**General**

---

<b>Permit number:</b>	IN0025674
<b>Toxicity testing requirements:</b>	Fathead minnow larval survival and growth test  Ceriodaphnia survival and reproduction test
<b>Plant location:</b>	Elkhart Wastewater Treatment Plant 1201 Nappanee St. Elkhart, Indiana 46516
<b>Name of receiving water body:</b>	St. Joseph River
<b>Name of WET testing laboratory:</b>	Biomonitor 8802 West Washington St. Indianapolis, IN 46231 (317) 297-7713

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**Table II**  
**Plant Operations**

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<b>Type of discharger:</b>	Publicly owned treatment works Wastewater consists of treated sanitary and industrial wastes	
<b>Type of waste treatment:</b>	Class IV. Activated sludge	
<b>Design flow:</b>	20 – MGD	
<b>Volume of wastewater flow during the sampling period:</b>	June 2, 2024	-MGD
	June 4, 2024	-MGD
	June 6, 2024	-MGD

---

**Table III**  
**Source of effluent and dilution water**

**I. Effluent samples**

<b>Sampling point:</b>	Outfall 035	
<b>Collection dates and times:</b>	June 2, 2024	11:00 p.m.
	June 4, 2024	11:00 p.m.
	June 6, 2024	11:00 p.m.
<b>Sample collection:</b>	24-hour composite samples	
<b>Physical and chemical data:</b>	See Tables 9 and 15	

**II. Dilution water samples**

<b>Source:</b>	Moderately Hard Synthetic Water (MHSW)	
	Collection date and time:	N/A
<b>Pretreatment:</b>	None	
<b>Physical and chemical data:</b>	See Tables 9 and 15	

Section 3  
Test Methods and Results

**CERIODAPHNIA SURVIVAL AND REPRODUCTION TEST**

**Table IV**  
**METHODOLOGY**  
*Ceriodaphnia* Survival and Reproduction Test

---

<b>Toxicity test method used:</b>	<i>Ceriodaphnia</i> survival and reproduction test	
<b>Endpoints of test:</b>	Survival and reproduction (LC <sub>50</sub> , NOEL, and LOEL)	
<b>Reference method:</b>	EPA-821-R-02-013	
<b>Deviations from method:</b>	Test was completed in eight days because control animals did not produce an average of greater than 15 young per female until day eight.	
<b>Date and time test initiated:</b>	June 4, 2024	10:20 a.m.
<b>Date and time test terminated</b>	June 12, 2024	2:00 p.m.
<b>Type of test chambers:</b>	Polyethylene	30 ml
<b>Volume of solution used per chamber:</b>	15 ml	
<b>Number of organisms per chamber:</b>	1	
<b>Number of replicate chambers per treatment:</b>	10	
<b>Test temperature range:</b>	25°C (no deviations)	

---

**Table V**  
**ORGANISMS USED**  
*Ceriodaphnia* Survival and Reproduction Test

---

<b><u>Scientific name:</u></b>	<i>Ceriodaphnia dubia</i>
<b><u>Age:</u></b>	<24 hours
<b><u>Life stage:</u></b>	neonates
<b><u>Mean length and weight:</u></b>	Not applicable
<b><u>Source</u></b>	Laboratory culture in moderately hard reconstituted water
<b><u>Diseases and treatment</u></b>	Not applicable

---

**Table VI**  
**RESULTS**  
***Ceriodaphnia* Survival and Reproduction Test**

---

**Raw Data:**

See Table 8

**LC<sub>50</sub> or NOEL obtained:**

48-hr LC<sub>50</sub> = greater than 100% effluent

NOEL for survival = 100% effluent

NOEL for reproduction = 100% effluent

Control survival was 100% after eight days. Control reproduction averaged greater than 15 per surviving female.

**Methods used to calculate endpoints:**

Fisher's Exact Test for the survival endpoint.

Dunnett's Test for the reproduction endpoint.

No calculations necessary for the acute endpoint.

---

**Table VII**  
**QUALITY ASSURANCE**  
***Ceriodaphnia* Survival and Reproduction Test**

---

<b><u>Reference Toxicant used and source:</u></b>	Copper chloride, reagent grade, from Carolina Biological
<b><u>Date and time of most recent test:</u></b>	May 28 – June 3, 2024
<b><u>Dilution water used in test:</u></b>	Moderately hard synthetic water
<b><u>Results:</u></b>	48-hr LC <sub>50</sub> = 87 µg/L as Cu NOEL (reproduction) = 20 µg/L as Cu LOEL (reproduction) = 40 µg/L as Cu
<b><u>Comparison to recommended range:</u></b>	Within the laboratory control range for both acute and chronic endpoints (see attachment)

---

**Table VIII**  
**TEST DATA**  
*Ceriodaphnia* Survival and Reproduction Test

Effluent Concentration	Day No.	Number of Young Reproduced										Young Per Female	Total Live Breeders
		Replicate											
		A	B	C	D	E	F	G	H	I	J		
Control	1	0	0	0	0	0	0	0	0	0	0	15.7	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	0	0	0	0	0	0	0	0	0	0		10
	4	2	0	0	0	0	0	0	0	0	0		10
	5	2	2	3	2	0	2	2	2	0	2		10
	6	4	2	3	2	3	3	2	4	2	3		10
	7	0	4	0	0	6	5	5	9	5	0		10
	8	8	12	9	7	9	10	7	5	0	9		10
6.25%	1	0	0	0	0	0	0	0	0	0	0	18.4	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	0	0	0	0	0	0	0	0	0	0		10
	4	0	2	0	0	0	0	0	0	0	0		10
	5	2	0	2	0	0	0	0	0	2	2		10
	6	4	4	2	2	4	4	2	4	4	4		10
	7	5	8	0	4	6	6	6	9	5	0		10
	8	9	9	7	7	9	9	9	11	9	12		10
12.5%	1	0	0	0	0	0	0	0	0	0	0	18.6	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	0	0	0	0	0	0	0	0	0	0		10
	4	1	0	0	0	0	0	0	0	0	0		10
	5	0	3	2	0	0	0	0	2	2	2		10
	6	2	0	0	2	4	2	4	0	4	4		10
	7	4	8	7	4	6	6	7	8	7	8		10
	8	6	10	10	6	7	7	10	11	10	10		10
	9	6	10	10	6	7	7	10	11	10	10		10



Table VIII (cont.)  
**TEST DATA**  
*Ceriodaphnia* Survival and Reproduction Test

Effluent Concentration	Day No.	Number of Young Reproduced										Young Per Female	Total Live Breeders
		Replicate											
		A	B	C	D	E	F	G	H	I	J		
25%	1	0	0	0	0	0	0	0	0	0	0	16.0	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	0	0	0	0	0	0	0	0	0	0		10
	4	2	0	0	0	0	2	0	0	0	0		10
	5	0	0	2	0	2	0	0	3	0	2		10
	6	5	0	2	2	3	4	5	0	3	4		10
	7	0	8	7	3	5	9	6	4	4	6		10
	8	7	9	10	6	9	0	9	8	0	9		10
50%	1	0	0	0	0	0	0	0	0	0	0	17.2	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	0	0	0	0	0	0	0	0	0	0		10
	4	1	0	0	0	0	0	0	2	0	0		10
	5	2	2	2	4	0	2	0	0	2	2		10
	6	7	6	4	0	2	4	2	3	4	4		10
	7	0	7	0	5	4	8	5	0	6	0		10
	8	8	0	11	13	6	7	9	13	5	10		10
100%	1	0	0	0	0	0	0	0	0	0	0	17.0	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	0	0	0	0	0	0	0	0	0	0		10
	4	0	0	0	0	0	2	0	0	0	0		10
	5	2	2	2	2	0	0	0	2	0	2		10
	6	0	2	0	4	5	3	0	2	4	0		10
	7	11	5	7	0	10	8	5	5	5	11		10
	8	12	3	11	8	12	0	0	13	10	0		10

**Table IX**  
**WATER CHEMISTRY**  
*Ceriodaphnia* Survival and Reproduction Test

<b>Effluent Concentration</b>	<b>D.O. <u>Range</u> mg/L</b>	<b>Temp. <u>Range</u> °C</b>	<b>pH <u>Range</u> S.U.</b>	<b>Alk. <u>Range</u> CaCO<sub>3</sub></b>	<b>Hardness <u>Range</u> CaCO<sub>3</sub></b>	<b>Cond. <u>Range</u> µS</b>
CONTROL	7.6 – 8.8	25	7.5 – 8.1	30-40	100-110	310-350
6.25%	7.6 – 8.8	25	7.4 – 8.1			320-370
25%	7.7 – 8.7	25	7.4 – 8.1			390-470
100%	7.7 – 9.7	25	7.4 – 8.2	90-100	225-	660-830

## FATHEAD MINNOW LARVAL SURVIVAL AND GROWTH TEST

**Table X**  
**METHODOLOGY**  
**Fathead Minnow Larval Survival and Growth Test**

---

<b><u>Toxicity test method used:</u></b>	7-day fathead minnow larval survival and growth test	
<b><u>Endpoints of test:</u></b>	96-hr LC <sub>50</sub> and no observable effect level (NOEL) for survival and growth. TU <sub>c</sub> for survival and growth.	
<b><u>Reference method:</u></b>	EPA-821-R-02-013	
<b><u>Deviations from method:</u></b>	No Deviations	
<b><u>Date and time test initiated:</u></b>	June 4, 2024	10:30 a.m.
<b><u>Date and time test terminated</u></b>	June 11, 2024	10:30 a.m.
<b><u>Type of test chambers:</u></b>	Polyethylene	300 ml
<b><u>Volume of solution used per chamber:</u></b>	250 ml	
<b><u>Number of organisms per chamber:</u></b>	ten	
<b><u>Number of replicate chambers per treatment:</u></b>	four	
<b><u>Test temperature range:</u></b>	25°C (no deviations)	

---

**Table XI**  
**ORGANISMS USED**  
**Fathead Minnow Survival and Growth Test**

---

<b><u>Scientific name:</u></b>	<i>Pimephales promelas</i>
<b><u>Age:</u></b>	<24 hours
<b><u>Life stage:</u></b>	larvae
<b><u>Mean length and weight:</u></b>	Not applicable
<b><u>Source</u></b>	Biomonitor Lab Cultures
<b><u>Diseases and treatment</u></b>	Not applicable

---

**Table XII**  
**RESULTS**  
**Fathead Minnow Larval Survival and Growth Test**

---

<b><u>Raw Data:</u></b>	See Table 14
<b><u>LC<sub>50</sub> or NOEL obtained:</u></b>	96-hr LC <sub>50</sub> = >100% effluent  NOEL for survival = 100% effluent  NOEL for growth = 100% effluent  Control survival and growth fell within the acceptable range
<b><u>Methods used to calculate endpoints:</u></b>	Steel's Many-One Rank Test was required for the survival endpoint because the homogeneity of variance assumptions could not be met.  Dunnett's Test for the growth endpoint.  No calculations necessary for the acute endpoint.

---

**Table XIII**  
**QUALITY ASSURANCE**  
**Fathead Minnow Larval Survival and Growth Test**

---

<b><u>Reference Toxicant used and source:</u></b>	Potassium chloride, reagent grade, from Sigma-Aldrich
<b><u>Date and time of most recent test:</u></b>	May 28 – June 4, 2024
<b><u>Dilution water used in test:</u></b>	Moderately Hard Synthetic Water
<b><u>Results:</u></b>	96-hr LC <sub>50</sub> = 1169 mg /L as KCl  NOEL (growth) = 500 mg/L as KCl  LOEL (growth) = 1000 mg/L as KCl
<b><u>Comparison to recommended range:</u></b>	Within the laboratory control range for both acute and chronic endpoints (see attachment)

---

**Table XIV**  
**TEST DATA**  
**Fathead Minnow Larval Survival and Growth Test**

Effluent Concentration	<u>% Survival in Each Replicate</u>				<u>Average Dry Weight (<math>\mu\text{g}</math>) in Each Replicate</u>			
	A	B	C	D	A	B	C	D
Control	100	100	100	100	390	390	440	450
6.25%	100	100	100	100	330	290	430	460
12.5%	100	100	100	100	420	520	450	420
25%	100	100	100	100	460	460	400	510
50%	100	100	100	100	400	420	460	430
100%	100	90	100	70	450	410	450	440



**Table XV**  
**WATER CHEMISTRY**  
**Fathead Minnow Larval Survival and Growth Test**

<b>Effluent Concentration</b>	<b>D.O. Range mg/L</b>	<b>Temp. Range °C</b>	<b>pH Range S.U.</b>	<b>Alk. Range CaCO<sub>3</sub></b>	<b>Hardness Range CaCO<sub>3</sub></b>	<b>Cond. Range μS</b>
CONTROL	6.2 – 8.5	25	7.4 – 8.0	30-40	100-110	320-330
6.25%	6.1 – 8.6	25	7.4 – 7.9	/	/	320-340
25%	5.8 – 8.9	25	7.4 – 7.9	/	/	390-450
100%	5.8 – 9.8	25	7.4 – 7.8	90-100	225-	670-770







**Ceriodaphnia dubia**

Reference Toxicant - Copper sulfate/chloride as Cu

Dilution Water - Moderately Hard Reconstituted Water

Date	LC <sub>50</sub>	NOEL	LOEL	IC <sub>25</sub>
mm/yy	48-hr µg/L	µg/L (repro.)	µg/L (repro.)	µg/L (repro.)
08/21	87	40	80	23
09/21	92	40	80	49
10/21	73	40	80	52
11/21	113	40	160	59
12/21	75	40	80	48
2/22	105	40	80	54
3/22	75	40	80	51
4/22	113	40	80	57
5/22	95	40	80	30
6/22	113	40	80	41
7/22	75	40	80	33
8/22	86	20	40	30
9/22	80	40	80	32
11/22	70	40	80	40
12/22	77	40	80	48
1/23	75	40	80	48
2/23	86	40	80	52
4/23	80	40	80	37
5/23	80	40	80	39
06/23	113	40	160	59
07/23	75	40	80	55
09/23	80	40	80	15
10/23	113	40	80	58
11/23	86	40	80	50
01/24	99	20	40	30
02/24	86	40	80	48
03/24	80	40	80	48
04/24	80	40	80	51
06/24	87	20	40	32
<u>Average</u>	88	<u>Mode</u> 40	80	44
<u>St. Dev.</u>	14			11
<u>Upper Limit</u>	115	80	160	67
<u>Lower Limit</u>	60	20	40	21

**Pimephales promelas**

Reference Toxicant - Potassium chloride

Dilution Water - Moderately Hard Reconstituted Water

Date	LC <sub>50</sub>	NOEL	LOEL	IC <sub>25</sub>
mm/yy	96-hr mg/L	mg/L (grwth)	mg/L (grwth)	mg/L (grwth)
11/21	1129	1000	2000	939
12/21	1129	500	1000	810
02/22	812	500	1000	612
03/22	946	500	1000	707
04/22	917	500	1000	703
05/22	1110	1000	2000	1223
06/22	856	500	1000	710
07/22	1130	500	1000	736
08/22	1093	500	1000	925
09/22	1278	1000	2000	950
11/22	1035	500	1000	684
12/22	1053	1000	2000	805
01/23	795	500	1000	664
02/23	1091	500	1000	741
04/23	1231	1000	2000	1121
05/23	1189	1000	2000	1110
06/23	951	500	1000	669
07/23	1091	500	1000	1091
09/23	1000	500	1000	702
10/23	1124	500	1000	768
11/23	1253	500	1000	849
01/24	1128	500	1000	699
02/24	952	1000	2000	798
03/24	1189	500	1000	908
04/24	1189	1000	2000	1037
06/24	1169	500	1000	899
<u>Average</u>	1071	<u>Mode</u> 500	1000	841
<u>St. Dev.</u>	130			164
<u>Upper Limit</u>	1330	1000	2000	1168
<u>Lower Limit</u>	812	250	500	514

Client: Elkhart WWTP

Project # \_\_\_\_\_

Analysts: MMB, MN, AF, MMK

**Test Dates**

Start Date: 6/4/2024

Start Time: 1:20

End Date: 6/12/2024

End Time: 1400

Template # B

Comments:

0 = Number of Live Young  
 / = Test Organism Dead  
 y = Male  
 M = Lost or Missing

Row 10	Day	1	2	3	4	5	6
	1	0	0	0	0	0	0
	2	0	0	0	0	0	0
	3	0	0	0	0	0	0
	4	0	0	0	0	0	0
	5	2	2	2	2	2	2
	6	4	3	4	0	4	4
	7	0	0	6	11	0	8
		12	9	9	0	10	10

Row 9	Day	1	2	3	4	5	6
	1	0	0	0	0	0	0
	2	0	0	0	0	0	0
	3	0	0	0	0	0	0
	4	0	0	0	0	0	0
	5	0	0	2	2	0	2
	6	2	2+1	4	4	4	4
	7	4+1	4	6	5	5	7
		0	0	5	9	10	10

Row 8	Day	1	2	3	4	5	6
	1	0	0	0	0	0	0
	2	0	0	0	0	0	0
	3	0	0	0	0	0	0
	4	0	1+1	0	0	0	0
	5	0	0	2	2	2	3
	6	4	3	0	4	2	0
	7	9	0	8	9	5	4
		11	13	11	5	13	8

Row 7	Day	1	2	3	4	5	6
	1	0	0	0	0	0	0
	2	0	0	0	0	0	0
	3	0	0	0	0	0	0
	4	0	0	0	0	0	0
	5	0	0	2	0	0	0
	6	2	4	2	2	5	0
	7	6	7	5	5	6	5
		9	10	7	9	9	0

Row 6	Day	1	2	3	4	5	6
	1	0	0	0	0	0	0
	2	0	0	0	0	0	0
	3	0	0	0	0	0	0
	4	0	2	2	0	0	0
	5	2	0	0	0	0	2
	6	4	4	3	2	4	3
	7	8	9	8	6	6	5
		7	0	0	7	9	10

Row 5	Day	1	2	3	4	5	6
	1	0	0	0	0	0	0
	2	0	0	0	0	0	0
	3	0	0	0	0	0	0
	4	0	0	0	0	0	0
	5	0	0	0	2	0	0
	6	5	3	4	3	2	4
	7	10	6	9	5	4	6
		12	9	9	9	6	7

Row 4	Day	1	0	0	0	0	0	0
		2	0	0	0	0	0	0
		3	0	0	0	0	0	0
		4	0	0	0	0	0	0
		5	0	2	0	0	2	4
		6	2	3+	2	2	2	0
		7	3+	0	4	3	0	5
			6	8	7	6	7	13
Row 3	Day	1	0	0	0	0	0	0
		2	0	0	0	0	0	0
		3	0	0	0	0	0	0
		4	0	0	0	0	0	0
		5	2	2	2	2	2	3
		6	4	2	0	0	2	3
		7	0	0	7	7	7	0
			11	7	10	11	10	9
Row 2	Day	1	0	0	0	0	0	0
		2	0	0	0	0	0	0
		3	0	0	0	0	0	0
		4	0	0	0	1+	0	0
		5	0	3	2	0	2	2
		6	0	0	5+	4	2	2
		7	8	8	7	8	4	5
			9	10	0	9	12	3
Row 1	Day	1	0	0	0	0	0	0
		2	0	0	0	0	0	0
		3	0	0	0	0	0	0
		4	2	0	2	0	1	1
		5	2	2	0	2	0	2
		6	4	4	5	0	2	6+
		7	0	5	0	11	4	0
			8	9	7	12	6	8

Discharger: Elkhart WWTP      Analyst: MMB, MN, MIMK  
 Location: Elkhart, IN      Test Start- Date/Time: 6/4/24 / 1020  
 Date Sample Collected: 6/2,4,6/24      Test Stop- Date/Time: 6/12/24 / 1400

Conc.	Day	Replicate										No. of Young Adults	No. of Adults	Young per Adult		
		1	2	3	4	5	6	7	8	9	10					
Control	1	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0.0
	2	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0.0
	3	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0.0
	4	2	0	0	0	0	0	0	0	0	0	0	0	10	2	0.2
	5	2	2	3	2	0	2	2	2	2	0	2	0	10	17	1.7
	6	4	2	3	2	3	3	2	4	2	4	2	3	10	28	2.8
	7	0	4	0	0	6	5	5	9	5	5	0	0	10	34	3.4
	8	8	12	9	7	9	10	7	5	0	5	0	9	10	76	7.6
Total	16	20	15	11	18	20	16	20	7	16	20	7	14	157	10	15.7

Conc.	Day	Replicate										No. of Young Adults	No. of Adults	Young per Adult		
		1	2	3	4	5	6	7	8	9	10					
6%	1	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0.0
	2	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0.0
	3	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0.0
	4	0	2	0	0	0	0	0	0	0	0	0	2	10	2	0.2
	5	2	0	2	0	0	0	0	0	0	0	0	2	10	8	0.8
	6	4	4	2	2	4	4	2	4	4	4	4	4	10	34	3.4
	7	5	8	0	4	6	6	6	9	5	6	9	5	10	49	4.9
	8	9	9	7	7	9	9	9	11	9	9	11	9	10	91	9.1
Total	20	23	11	13	19	19	17	24	20	17	24	20	18	184	10	18.4

Conc.	Day	Replicate										No. of Young Adults	No. of Adults	Young per Adult		
		1	2	3	4	5	6	7	8	9	10					
12%	1	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0.0
	2	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0.0
	3	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0.0
	4	1	0	0	0	0	0	0	0	0	0	0	0	10	1	0.1
	5	0	3	2	0	0	0	0	2	2	0	2	2	10	11	1.1
	6	2	0	0	2	4	2	4	0	4	4	0	4	10	22	2.2
	7	4	8	7	4	6	6	7	8	7	8	7	8	10	65	6.5
	8	6	10	10	6	7	7	10	11	10	10	11	10	10	87	8.7
Total	13	21	19	12	17	15	21	21	23	21	24	20	24	186	10	18.6



Conc.	Day	Replicate										No. of Young	No. of Adults	Young per Adult	
		1	2	3	4	5	6	7	8	9	10				
25%	1	0	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	2	0	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	3	0	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	4	2	0	0	0	0	2	0	0	0	0	0	0	10	0.4
	5	0	0	2	0	2	0	0	0	3	0	2	9	10	0.9
	6	5	0	2	2	3	4	5	0	0	3	4	28	10	2.8
	7	0	8	7	3	5	9	6	4	4	5	6	52	10	5.2
	8	7	9	10	6	9	0	9	8	0	9	9	67	10	6.7
Total	14	17	21	11	19	15	20	15	7	21	160	10	16.0		

Conc.	Day	Replicate										No. of Young	No. of Adults	Young per Adult	
		1	2	3	4	5	6	7	8	9	10				
50%	1	0	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	2	0	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	3	0	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	4	1	0	0	0	0	0	0	2	0	0	0	3	10	0.3
	5	2	2	2	4	0	2	0	0	2	2	16	10	10	1.6
	6	7	6	4	0	2	4	2	3	4	4	36	10	10	3.6
	7	0	7	0	5	4	8	5	0	6	0	35	10	10	3.5
	8	8	0	11	13	6	7	9	13	5	10	82	10	10	8.2
Total	18	15	17	22	12	21	16	18	17	16	172	10	17.2		

Conc.	Day	Replicate										No. of Young	No. of Adults	Young per Adult	
		1	2	3	4	5	6	7	8	9	10				
100%	1	0	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	2	0	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	3	0	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	4	0	0	0	0	0	2	0	0	0	0	2	10	10	0.2
	5	2	2	2	2	0	0	0	2	0	2	12	10	10	1.2
	6	0	2	0	4	5	3	0	2	4	0	20	10	10	2.0
	7	11	5	7	0	10	8	5	5	5	11	67	10	10	6.7
	8	12	3	11	8	12	0	0	13	10	0	69	10	10	6.9
Total	25	12	20	14	27	13	5	22	19	13	170	10	17.0		

Elkhart 6.24

File: ceriorep

Transform: NO TRANSFORMATION

Chi-square test for normality: actual and expected frequencies

---

INTERVAL	<-1.5	-1.5 to <-0.5	-0.5 to 0.5	>0.5 to 1.5	>1.5
EXPECTED	4.020	14.520	22.920	14.520	4.020
OBSERVED	6	9	25	19	1

---

Calculated Chi-Square goodness of fit test statistic = 6.9135

Table Chi-Square value (alpha = 0.01) = 13.277

Data PASS normality test. Continue analysis.

Elkhart 6.24

File: ceriorep

Transform: NO TRANSFORMATION

Hartley test for homogeneity of variance

---

Calculated H statistic (max Var/min Var) = 5.60

Closest, conservative, Table H statistic = 12.1 (alpha = 0.01)

Used for Table H ==> R (# groups) = 6, df (# reps-1) = 9

Actual values ==> R (# groups) = 6, df (# avg reps-1) = 9.00

---

Data PASS homogeneity test. Continue analysis.

NOTE: This test requires equal replicate sizes. If they are unequal but do not differ greatly, the Hartley test may still be used as an approximate test (average df are used).

SUMMARY OF FISHERS EXACT TESTS

GROUP	IDENTIFICATION	NUMBER EXPOSED	NUMBER DEAD	SIG (P=.05)
	CONTROL	10	0	
1	6%	10	0	
2	12%	10	0	
3	25%	10	0	
4	50%	10	0	
5	100%	10	0	

Elkhart 6.24  
File: ceriorep

Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 1 of 2

---

GRP	IDENTIFICATION	N	MIN	MAX	MEAN
1	control	10	7.000	20.000	15.700
2	6.25%	10	11.000	24.000	18.400
3	12.5%	10	12.000	24.000	18.600
4	25%	10	7.000	21.000	16.000
5	50%	10	12.000	22.000	17.200
6	100%	10	5.000	27.000	17.000

---

Elkhart 6.24  
File: ceriorep

Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 2 of 2

---

GRP	IDENTIFICATION	VARIANCE	SD	SEM
1	control	18.011	4.244	1.342
2	6.25%	16.044	4.006	1.267
3	12.5%	17.378	4.169	1.318
4	25%	20.889	4.570	1.445
5	50%	8.178	2.860	0.904
6	100%	45.778	6.766	2.140

---

Elkhart 6.24  
File: ceriorep

Transform: NO TRANSFORMATION

ANOVA TABLE

---

SOURCE	DF	SS	MS	F
Between	5	71.150	14.230	0.676
Within (Error)	54	1136.500	21.046	
Total	59	1207.650		

---

Critical F value = 2.45 (0.05,5,40)

Since  $F < \text{Critical } F$  FAIL TO REJECT  $H_0$ :All groups equal

Elkhart 6.24  
File: ceriorep

Transform: NO TRANSFORMATION

DUNNETTS TEST - TABLE 1 OF 2 Ho:Control<Treatment

GROUP	IDENTIFICATION	TRANSFORMED MEAN	MEAN CALCULATED IN ORIGINAL UNITS	T STAT	SIG
1	control	15.700	15.700		
2	6.25%	18.400	18.400	-1.316	
3	12.5%	18.600	18.600	-1.414	
4	25%	16.000	16.000	-0.146	
5	50%	17.200	17.200	-0.731	
6	100%	17.000	17.000	-0.634	

Dunnett table value = 2.31 (1 Tailed Value, P=0.05, df=40,5)

Elkhart 6.24  
File: ceriorep

Transform: NO TRANSFORMATION

DUNNETTS TEST - TABLE 2 OF 2 Ho:Control<Treatment

GROUP	IDENTIFICATION	NUM OF REPS	Minimum Sig Diff (IN ORIG. UNITS)	% of CONTROL	DIFFERENCE FROM CONTROL
1	control	10			
2	6.25%	10	4.739	30.2	-2.700
3	12.5%	10	4.739	30.2	-2.900
4	25%	10	4.739	30.2	-0.300
5	50%	10	4.739	30.2	-1.500
6	100%	10	4.739	30.2	-1.300



Discharger: Elkhart WWTP  
 Location: Elkhart, IN

Test Dates: 6/4/24 - 6/12/24  
 Analysts: MMB, MN, AF, MMK

		Day							Remarks
Conc:	25%	1	2	3	4	5	6	7	
Temp.		25	25	25	25	25	25	25	
D. O.	Initial	8.5	8.5	8.5	8.7	8.6	8.6	8.2	
	Final	8.3	8.5	8.4	8.4	8.2	7.7	7.9	
pH	Initial	8.0	7.4	7.6	7.7	7.6	7.6	7.8	
	Final	7.6	8.0	8.1	8.1	8.1	8.1	7.8	
Alkalinity									
Hardness									
Conductivity		390		470		440			
Chlorine									

		Day							Remarks
Conc:	50%	1	2	3	4	5	6	7	
Temp.		25	25	25	25	25	25	25	
D. O.	Initial	8.6	8.7	8.6	8.7	8.6	8.6	8.2	
	Final	8.2	8.6	8.6	8.5	8.2	7.7	7.8	
pH	Initial	7.8	7.4	7.5	7.6	7.5	7.5	7.8	
	Final	7.6	8.0	8.2	8.1	8.1	8.1	7.9	
Alkalinity									
Hardness									
Conductivity		490		590		550			
Chlorine									

		Day							Remarks
Conc:	100%	1	2	3	4	5	6	7	
Temp.		25	25	25	25	25	25	25	
D. O.	Initial	9.2	9.7	9.1	8.7	8.8	8.9	8.3	
	Final	8.2	8.7	8.7	8.6	8.3	7.7	7.7	
pH	Initial	7.7	7.4	7.4	7.5	7.4	7.4	7.7	
	Final	7.9	7.9	8.2	8.1	8.1	8.2	8.1	
Alkalinity		90		100		100			
Hardness		225		225		225			
Conductivity		660		830		760			
Chlorine		ND		N.D.		N.D.			
Ammonia		ND		N.D.		0.25			

Discharger: Elkhart WWTP  
 Location: Elkhart, IN

Test Dates 6/4/24 -6/11/24  
 Analysts: MMB, MN, AF, MMK

		No. Surviving Organisms							
Conc:	Rep. #	Day							Remarks
		1	2	3	4	5	6	7	
Control	A	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	
6.25%	A	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	
12.5%	A	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	
25%	A	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	
50%	A	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	
100%	A	10	10	10	10	10	10	10	
	B	10	10	10	9	9	9	9	
	C	10	10	10	10	10	10	10	
	D	10	10	9	7	7	7	7	

Comments: Start Time: 1030

FHM Source: Biomonitor Lab Cultures



Elkhart 6.24  
File: fhmsurv            Transform: ARC SINE(SQUARE ROOT(Y))

Shapiro Wilks test for normality

---

D =     0.118

W =     0.485

Critical W (P = 0.05) (n = 24) = 0.916

Critical W (P = 0.01) (n = 24) = 0.884

---

Data FAIL normality test. Try another transformation.

Warning - The two homogeneity tests are sensitive to non-normal data and  
          should not be performed.

Elkhart 6.24  
File: fhmsurv            Transform: ARC SINE(SQUARE ROOT(Y))

Hartley test for homogeneity of variance  
Bartlett's test for homogeneity of variance

---

These two tests can not be performed because at least one group has  
zero variance.

Data FAIL to meet homogeneity of variance assumption.  
Additional transformations are useless.

---

Elkhart 6.24  
File: fhmsurv

Transform: ARC SINE(SQUARE ROOT(Y))

STEELS MANY-ONE RANK TEST

-

Ho:Control<Treatment

GROUP	IDENTIFICATION	TRANSFORMED MEAN	RANK SUM	CRIT. VALUE	df	SIG
1	control	1.412				
2	6.25%	1.412	18.00	10.00	4.00	
3	12.5%	1.412	18.00	10.00	4.00	
4	25%	1.412	18.00	10.00	4.00	
5	50%	1.412	18.00	10.00	4.00	
6	100%	1.266	14.00	10.00	4.00	

Critical values use  $k = 5$ , are 1 tailed, and  $\alpha = 0.05$

Discharge: Elkhart WWTP      Test Date(s): 6/4-11/24      Drying Temp (°C): 100  
 Location: Elkhart, IN      Weighing Date: 6/12/24      Drying Time (h): 6  
 Analyst: MMB, MN, AF, MMK

Conc.	Rep. No.	Wgt. of boat (g)	Dry wgt. foil and larvae (g)	Total dry wgt of larvae (mg)	No. of larvae	Mean dry wgt of larvae (g)	Remarks
Control	A	0.92130	0.92520	3.90	10	0.390	
	B	0.91600	0.91990	3.90	10	0.390	
	C	0.91980	0.92420	4.40	10	0.440	
	D	0.92420	0.92870	4.50	10	0.450	
Conc: 6.25%	A	0.92800	0.93130	3.30	10	0.330	
	B	0.92280	0.92570	2.90	10	0.290	
	C	0.92380	0.92810	4.30	10	0.430	
	D	0.92020	0.92480	4.60	10	0.460	
Conc: 12.5%	A	0.92330	0.92750	4.20	10	0.420	
	B	0.91640	0.92160	5.20	10	0.520	
	C	0.91210	0.91660	4.50	10	0.450	
	D	0.92820	0.93240	4.20	10	0.420	
Conc: 25%	A	0.92670	0.93130	4.60	10	0.460	
	B	0.91870	0.92330	4.60	10	0.460	
	C	0.91800	0.92200	4.00	10	0.400	
	D	0.92900	0.93410	5.10	10	0.510	
Conc: 50%	A	0.92500	0.92900	4.00	10	0.400	
	B	0.92130	0.92550	4.20	10	0.420	
	C	0.92360	0.92820	4.60	10	0.460	
	D	0.92100	0.92530	4.30	10	0.430	
Conc: 100%	A	0.92730	0.93180	4.50	10	0.450	
	B	0.92560	0.92970	4.10	9	0.410	
	C	0.91900	0.92350	4.50	10	0.450	
	D	0.92070	0.92510	4.40	7	0.440	

Elkhart 6.24

File: fhm\_grow

Transform: NO TRANSFORMATION

Chi-square test for normality: actual and expected frequencies

---

INTERVAL	<-1.5	-1.5 to <-0.5	-0.5 to 0.5	>0.5 to 1.5	>1.5
EXPECTED	1.608	5.808	9.168	5.808	1.608
OBSERVED	0	9	6	9	0

---

Calculated Chi-Square goodness of fit test statistic = 7.8193  
Table Chi-Square value (alpha = 0.01) = 13.277

Data PASS normality test. Continue analysis.

Elkhart 6.24

File: fhm\_grow

Transform: NO TRANSFORMATION

Hartley test for homogeneity of variance

---

Calculated H statistic (max Var/min Var) = 18.12  
Closest, conservative, Table H statistic = 184.0 (alpha = 0.01)

Used for Table H ==> R (# groups) = 6, df (# reps-1) = 3  
Actual values ==> R (# groups) = 6, df (# avg reps-1) = 3.00

---

Data PASS homogeneity test. Continue analysis.

NOTE: This test requires equal replicate sizes. If they are unequal but do not differ greatly, the Hartley test may still be used as an approximate test (average df are used).

Elkhart 6.24  
File: fhm\_grow

Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 1 of 2

---

GRP	IDENTIFICATION	N	MIN	MAX	MEAN
1	control	4	0.390	0.450	0.418
2	6.25%	4	0.290	0.460	0.378
3	12.5%	4	0.420	0.520	0.453
4	25%	4	0.400	0.510	0.457
5	50%	4	0.400	0.460	0.428
6	100%	4	0.410	0.450	0.438

---

Elkhart 6.24  
File: fhm\_grow

Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 2 of 2

---

GRP	IDENTIFICATION	VARIANCE	SD	SEM
1	control	0.001	0.032	0.016
2	6.25%	0.006	0.081	0.040
3	12.5%	0.002	0.047	0.024
4	25%	0.002	0.045	0.023
5	50%	0.001	0.025	0.012
6	100%	0.000	0.019	0.009

---

Elkhart 6.24  
File: fhm\_grow

Transform: NO TRANSFORMATION

ANOVA TABLE

---

SOURCE	DF	SS	MS	F
Between	5	0.017	0.003	1.500
Within (Error)	18	0.038	0.002	
Total	23	0.055		

---

Critical F value = 2.77 (0.05, 5, 18)

Since  $F < \text{Critical } F$  FAIL TO REJECT  $H_0$ : All groups equal

Elkhart 6.24  
 File: fhm\_grow

Transform: NO TRANSFORMATION

DUNNETTS TEST - TABLE 1 OF 2 Ho:Control<Treatment

---

GROUP	IDENTIFICATION	TRANSFORMED MEAN	MEAN CALCULATED IN ORIGINAL UNITS	T STAT	SIG
1	control	0.418	0.418		
2	6.25%	0.378	0.378	1.265	
3	12.5%	0.453	0.453	-1.107	
4	25%	0.457	0.457	-1.265	
5	50%	0.428	0.428	-0.316	
6	100%	0.438	0.438	-0.632	

---

Dunnett table value = 2.41 (1 Tailed Value, P=0.05, df=18,5)

Elkhart 6.24  
 File: fhm\_grow

Transform: NO TRANSFORMATION

DUNNETTS TEST - TABLE 2 OF 2 Ho:Control<Treatment

---

GROUP	IDENTIFICATION	NUM OF REPS	Minimum Sig Diff (IN ORIG. UNITS)	% of CONTROL	DIFFERENCE FROM CONTROL
1	control	4			
2	6.25%	4	0.076	18.3	0.040
3	12.5%	4	0.076	18.3	-0.035
4	25%	4	0.076	18.3	-0.040
5	50%	4	0.076	18.3	-0.010
6	100%	4	0.076	18.3	-0.020

---



Discharger: Elkhart WWTP  
 Location: Elkhart, IN

Test Dates: 6/4/24 -6/11/24  
 Analysts: MMB, MN, AF, MMK

		Day							Remarks
Conc:	25%	1	2	3	4	5	6	7	
Temp.		25	25	25	25	25	25	25	
D.O.	Initial	8.9	8.5	8.1	8.1	8.0	8.0	8.4	
	Final	6.9	7.0	6.5	6.5	6.5	5.8	6.7	
pH	Initial	7.9	7.8	7.7	7.7	7.6	7.6	7.6	
	Final	7.5	7.5	7.5	7.6	7.4	7.4	7.5	
Alkalinity									
Hardness									
Conductivity		390		430		450			
Chlorine									

		Day							Remarks
Conc:	50%	1	2	3	4	5	6	7	
Temp.		25	25	25	25	25	25	25	
D.O.	Initial	9.1	8.8	8.4	8.2	8.0	8.0	8.5	
	Final	6.9	6.8	6.5	6.3	6.3	5.8	6.8	
pH	Initial	7.8	7.7	7.6	7.6	7.5	7.5	7.5	
	Final	7.6	7.5	7.5	7.6	7.4	7.5	7.6	
Alkalinity									
Hardness									
Conductivity		490		530		550			
Chlorine									

		Day							Remarks
Conc:	100%	1	2	3	4	5	6	7	
Temp.		25	25	25	25	25	25	25	
D.O.	Initial	9.8	9.4	8.8	8.5	8.3	8.4	8.6	
	Final	6.8	6.7	6.3	6.1	6.1	5.8	6.8	
pH	Initial	7.6	7.5	7.5	7.5	7.4	7.4	7.5	
	Final	7.8	7.7	7.7	7.7	7.6	7.7	7.7	
Alkalinity		90		100		100			
Hardness		225		225		225			
Conductivity		670		760		770			
Chlorine		ND		ND		ND			
Ammonia		ND		N.A		0.25			



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Your DMRs are undergoing the Signing Process

IN0025674	ELKHART WWTP	005	005-C	CSO- ARCH/BAR, NW OF INTERSECTION	06/30/24	07/28/24
IN0025674	ELKHART WWTP	006	006-C	CSO- JACKSON, N OF BRIDGE, W OF ELKHART RIVER	06/30/24	07/28/24
IN0025674	ELKHART WWTP	007	007-C	CSO- JACKSON, N OF BRIDGE, E OF ELKHART RIVER	06/30/24	07/28/24
IN0025674	ELKHART WWTP	008	008-C	CSO- HUG/EAST BLVD	06/30/24	07/28/24
IN0025674	ELKHART WWTP	009	009-C	CSO- NIBCO PRKWY - FKA JR. ACHIEVEMENT (Y DR N)	06/30/24	07/28/24
IN0025674	ELKHART WWTP	011	011-C	CSO- ELKHART/FRANKLIN	06/30/24	07/28/24
IN0025674	ELKHART WWTP	012	012-C	CSO- CASSOPOLIS/BEARDSLEY	06/30/24	07/28/24
IN0025674	ELKHART WWTP	013	013-C	CSO- JOHNSON/BEARDSLEY	06/30/24	07/28/24
IN0025674	ELKHART WWTP	014	014-C	CSO- DAM AT COME/ERWIN	06/30/24	07/28/24
IN0025674	ELKHART WWTP	015	015-C	CSO- MICHIGAN/FULTON	06/30/24	07/28/24
IN0025674	ELKHART WWTP	016	016-C	CSO- DAN @ GOSHEN/SUPERIOR	06/30/24	07/28/24
IN0025674	ELKHART WWTP	017	017-C	CSO- W. BOULEVARD/MCNAUGHTON	06/30/24	07/28/24
IN0025674	ELKHART WWTP	018	018-C	CSO- MCNAUGHTON PARK WEST	06/30/24	07/28/24
IN0025674	ELKHART WWTP	019	019-C	CSO-MICHIGAN @ RVR, S. OF LEX.	06/30/24	07/28/24
IN0025674	ELKHART WWTP	020	020-C	CSO- BRIDGE AND HUDSON	06/30/24	07/28/24
IN0025674	ELKHART WWTP	023	023-C	CSO- FRANKLIN/8TH	06/30/24	07/28/24
IN0025674	ELKHART WWTP	024	024-C	CSO- INDIANA/FRANKLIN	06/30/24	07/28/24
IN0025674	ELKHART WWTP	025	025-C	CSO- POTTAWATOMI/SECOND	06/30/24	07/28/24
IN0025674	ELKHART WWTP	026	026-C	CSO- MAIN/POTTAWATOMI	06/30/24	07/28/24
IN0025674	ELKHART WWTP	027	027-C	CSO- EDGEWATER/NAVAJO	06/30/24	07/28/24
IN0025674	ELKHART WWTP	028	028-C	CSO- WASHINGTON AT RIVER	06/30/24	07/28/24
IN0025674	ELKHART WWTP	029	029-C	CSO- JEFFERSON AT THE RIVER	06/30/24	07/28/24
IN0025674	ELKHART WWTP	031	031-C	CSO- ELIZABETH/LUSHER	06/30/24	07/28/24
IN0025674	ELKHART WWTP	032	032-C	CSO- EDGEWATER/OKEMA	06/30/24	07/28/24
IN0025674	ELKHART WWTP	033	033-C	CSO- EVANS/GRACE	06/30/24	07/28/24
IN0025674	ELKHART WWTP	034	034-C	CSO- LEXINGTON/6TH	06/30/24	07/28/24
IN0025674	ELKHART WWTP	035	035-A	20 MGD CLASS IV ACTIVATED SLUDGE - TO ST JOSEPH RIVER	06/30/24	07/28/24
IN0025674	ELKHART WWTP	035	035-AQ	QUARTERLY REPORTING	06/30/24	07/28/24
IN0025674	ELKHART WWTP	037	037-C	CSO- FRANKLIN/KRAU	06/30/24	07/28/24
IN0025674	ELKHART WWTP	039	039-C	CSO- WEST HIGH AT RIVER	06/30/24	07/28/24
IN0025674	ELKHART WWTP	040	040-C	CSO- MCNAUGHTON PARK SOUTH	06/30/24	07/28/24

**Permit**

**Permit ID:** IN0025674  
**Permittee:** ELKHART WWTP  
**Facility:** ELKHART WWTP  
**Permitted Feature:** 035 - External Outfall  
**Major:** 229 SOUTH 2ND ST  
ELKHART , IN46516  
**Permittee Address:** 1201 S NAPPANEE ST  
ELKHART , IN46516  
**Facility Location:** 035-A - 20 MGD CLASS IV ACTIVATED SLUDGE - TO ST JOSEPH RIVER  
**Discharge:**  
**DMR Due Date:** 07/28/24

**Report Dates & Status**

**Monitoring Period:** From 06/01/24 to 06/30/24  
**Status:** NetDMR Validated

**Considerations for Form Completion**

THE FLOW METER(S) SHALL BE CALIBRATED AT LEAST ONCE EVERY TWELVE MONTHS. REPORT QUARTERLY PARAMETERS ON 035-AQ NETDMR. MUNICIPAL MAJOR ELKHART COUNTY

**Principal Executive Officer**

**First Name:** Laura  
**Title:** Utility Services Manager  
**Last Name:** Kolo  
**Telephone:** 574-293-2572

**No Data Indicator (NODI)**

**Form NODI:** -



Code	Name	Value 1	Units	Value 1	Value 2	Units	Value 2	Value 3	Units	Ex.	Analysis	Type
Season: 0	Req.	<=0.063 MO AVG	<=0.13 DAILY MX	26 - lb/d	<=0.00038 MO AVG	<=0.00077 DAILY MX	19 - mg/L	01/07 - Weekly	24 - COMP24			
NODI: -												
01079	Silver total recoverable											
G - Raw Sewage Influent	Req.											
Season: 0	Req.											
NODI: -												
50050	Flow, in conduit or thru treatment plant											
1 - Effluent Gross	Smpl.	=16.39	03 - MGD									
Season: 0	Req.	Req Mon MO AVG										
NODI: -												
51041	E. coli, colony forming units [CFU]											
1 - Effluent Gross	Smpl.											
Season: 1	Req.											
NODI: -												
71901	Mercury, total recoverable											
1 - Effluent Gross	Smpl.											
Season: 0	Req.											
NODI: -												
71901	Mercury, total recoverable											
G - Raw Sewage Influent	Smpl.											
Season: 0	Req.											
NODI: -												

Code	Name	Value 1	Value 2	Units	Value 1	Value 2	Value 3	Units	Ex.	Analysis	Type
80082	BOD, carbonaceous [5 day, 20 C]	Smpl. =297.0	=348.0	26 - lb/d		=2.0	=2.0	19 - mg/L	0	01/01 - Daily	24 - COMP24
1 - Effluent Gross											
Season: 0	Req.	<=6259.0 MO AVG	<=10014.0 MX WK AV	26 - lb/d		<=25.0 MO AVG	<=40.0 MX WK AV	19 - mg/L		01/01 - Daily	24 - COMP24
NODI: -											
81012	Phosphorus, total percent removal				=78.4			23 - %	0	01/30 - Monthly	CA - CALCTD
K - Percent Removal											
Season: 0	Req.				>=75.0 MO AV MN			23 - %		01/30 - Monthly	CA - CALCTD
NODI: -											
82220	Flow, total								0	01/30 - Monthly	RT - RCOTOT
1 - Effluent Gross											
Season: 0	Req.		Req Mon MO TOTAL	80 - Mgal/mo						01/30 - Monthly	RT - RCOTOT
NODI: -											

**Submission Note**

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

**Edit Check Errors**

No errors.

**Comments**

**Attachments**

Name	Type	Size
IN0025674_035a_MRO_2024_06.pdf	pdf	1036023.0
IN0025674_CSO_MRO_2024_06.pdf	pdf	1337557.0

**Report Last Saved By**

**ELKHART WWTP**

User: Payton88  
Name: Laura Kolo  
E-Mail: laura.kolo@coei.org  
Date/Time: 2024-07-26 09:39 (Time Zone: -04:00)

**Report Last Signed By**

User: Payton88  
Name: Laura Kolo  
E-Mail: laura.kolo@coei.org  
Date/Time: 2024-07-26 09:39 (Time Zone: -04:00)

**Permit**

**Permit ID:** IN0025674      **Major:** 229 SOUTH 2ND ST  
**Permittee:** ELKHART WWTP      **Permittee Address:** ELKHART , IN46516  
**Facility:** ELKHART WWTP      **Facility Location:** 1201 S NAPPANEE ST  
**Permitted Feature:** 035 - External Outfall      **Discharge:** ELKHART , IN46516  
**Report Dates & Status**      **DMR Due Date:** 07/28/24  
**Monitoring Period:** From 04/01/24 to 06/30/24

**Status:** **NetDMR Validated**

**Considerations for Form Completion**

REPORT MONTHLY SAMPLING ON THE 001-A NETDMR. MUNICIPAL MAJOR ELKHART COUNTY

**Principal Executive Officer**

**First Name:** Laura      **Last Name:** Kolo  
**Title:** Utility Services Manager      **Telephone:** 574-293-2572

**No Data Indicator (NODI)**

**Form NODI:** -







Code	Name	Value 1	Value 2	Units	Value 1	Value 2	Value 3	Units	Ex.	Analysis	Type
01119	Copper, total recoverable						=0.0415	19 - mg/L		02/90 - Twice Every Quarter	24 - COMP24
	G - Raw Sewage Influent						Req Mon DAILY MX	19 - mg/L		01/90 - Quarterly	24 - COMP24
Season:	0										
Req.:											
NODI:	-										

**Submission Note**

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

**Edit Check Errors**

No errors.

**Comments**

**Attachments**

No attachments.

**Report Last Saved By**

**ELKHART WWTP**

User: Payton88

Name: Laura Kolo

E-Mail: laura.kolo@coei.org

Date/Time: 2024-07-26 09:15 (Time Zone: -04:00)

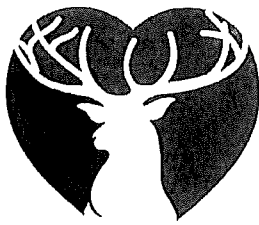
**Report Last Signed By**

User: Payton88

Name: Laura Kolo

E-Mail: laura.kolo@coei.org

Date/Time: 2024-07-26 09:39 (Time Zone: -04:00)



**City of Elkhart**  
*Public Works and Utilities*

Date Sep 10, 2024  
 Memo To Board of Public Works  
 Memo From Laura Kolo, Utility Services Manager *W*  
 Subject Wastewater Utility Monthly Report of Operations  
 for the month of July, 2024

*REVISED 09/12/24*

**Wastewater MRO Highlights**

Parameter	Monthly Avg	Permit Limit
Suspended Solids mg/L	4	30
cBOD5 mg/L	2	25
Phosphorus mg/L	0.69	1.0
Ammonia mg/L	0.14	4.4 (Dec-Apr) 4.2 (May-Nov)
Avg Daily Flow MGD	21.73	Design - 20
Total Monthly Flow MGD	674	Report

**Incident Reports Filed**

Date	Location	Volume (gal)	Cause
07/01/24	1200 S. Main	44	grease
07/14/24	MH -1630	547,800	pumps not programmed
07/19/24	1626 ElReno	1159	grease and roots

*revised 9/10/24*

**Wet Weather Overflows**

Number of Events	Total Overflow Volume (MG)
11	23.9775



**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

Slate Form 10829 (R4 / 01-20)

Name of Facility Elkhart			Permit Number IN0025674		
Month July	Year 2024	Plant Design Flow 20.00 mgd	Telephone Number 574/293-2572		
E-mail address: laura.kolo@coei.org				035	A
Certified Operator: Name Laura E. Kolo		Class IV	Certificate Number 15094	Expiration Date 06/30/2027	

Day Of Month	Day of Week	Man-Hours at Plant (Plants less than 1 MGD only)	Air Temperature (optional)	CHEMICALS USED			RAW SEWAGE									
				Total= 7.25 Precipitation - Inches	Bypass At Plant Site("X" if Occurred)	Sanitary Sewer Overflow("X" if Occurred)	Chlorine - Lbs/day	Ferric Chloride Lbs/Day or Gal./Day	Lbs/Day or Gal./Day	Influent Flow Rate (if metered) MGD	pH	CBOD5 - mg/l	CBOD5 - lbs/day	Susp. Solids - mg/l	Susp. Solids - lbs/day	Phosphorus - mg/l
1	Mon					X		228	11.925	7.1	108	10,741	244	24,267	3.15	17.20
2	Tue							198	11.983	7.2	105	10,494	116	11,593	3.19	16.90
3	Wed							243	12.164	7.0	102	10,348	216	21,913	4.00	19.60
4	Thu			0.91				236	14.042	7.3	99	11,594	114	13,351	2.98	15.40
5	Fri			0.07				252	12.158	7.0	75	7,605	92	9,329	2.67	13.20
6	Sat							249	11.683	7.1	78	7,600	76	7,405	2.79	15.50
7	Sun							271	11.100	7.2	145	13,423	82	7,591	2.54	15.70
8	Mon							243	11.883	7.2	99	9,811	138	13,676	2.92	18.30
9	Tue			2.19				243	14.683	7.0	118	14,450	174	21,307	3.59	15.70
10	Wed			1.29				250	25.716	7.2	58	12,439	98	21,018	1.82	9.24
11	Thu			0.27				228	19.483	7.2	72	11,699	110	17,874	2.46	13.90
12	Fri			0.01				140	20.341	7.0	79	13,402	90	15,268	2.49	9.93
13	Sat							228	17.258	7.1	63	9,068	56	8,060	2.17	11.90
14	Sun			0.79		X		225	18.859	7.0	82	12,897	124	19,503	1.87	8.55
15	Mon			0.54				225	20.483	7.5	72	12,300	162	27,674	2.91	11.00
16	Tue			0.23				234	20.525	7.1	67	11,469	116	19,857	2.52	11.90
17	Wed							228	20.333	7.1	88	14,923	172	29,167	3.89	13.20
18	Thu							252	18.725	7.1	78	12,181	132	20,614	3.79	12.70
19	Fri					X		231	16.833	7.0	65	9,125	80	11,231	2.78	12.30
20	Sat							225	16.042	7.4	73	9,767	50	6,690	2.41	12.30
21	Sun							205	15.633	7.0	69	8,996	72	9,387	1.97	11.00
22	Mon			0.10				221	17.191	7.3	66	9,463	108	15,484	2.22	12.80
23	Tue			0.06				203	15.817	7.1	101	13,323	162	21,370	2.51	13.10
24	Wed			0.38				200	18.400	7.2	98	15,039	174	26,701	2.66	12.30
25	Thu							200	15.208	7.2	71	9,005	144	18,264	3.38	13.70
26	Fri							144	14.317	7.3	71	8,478	98	11,702	2.83	13.20
27	Sat							200	14.383	7.2	88	10,556	102	12,235	2.48	12.70
28	Sun							167	14.375	7.1	80	9,591	64	7,673	2.16	12.10
29	Mon			0.40				197	16.341		95	12,947	136	18,535	2.76	13.10
30	Tue			0.01				143	14.933	7.2	102	12,703	156	19,428	3.69	15.20
31	Wed							235	14.725	7.2	104	12,772	126	15,474	2.61	15.30
Average				0.52				218	16.050		86	11,233	122	16,246	2.78	13.51
Maximum				2.19				271	25.716	7.5	145	15,039	244	29,167	4.00	19.60
Minimum				0.01				140	11.100	7.0	58	7600	50	6690	1.82	8.55

# of Data	0	14	0	3	0	31	0	31	30	31	31	31	31	31	31	0
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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 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.

Prepared by or under the direction of (Certified Operat	Date (month, day, year)
<i>Laura Kolo</i>	Revised 9/12/24
Signature of principal executive officer or authorized agent (or attested by NetDMR subscriber agreement)	Date (month, day, year)
<i>Laura Kolo</i>	Revised 9/12/24



# BYPASS / OVERFLOW INCIDENT REPORT

State Form 48373 (R7 / 4-16)  
Indiana Department of Environmental Management  
Office of Water Quality

Follow-up to Bypass report  
previously sent on 07/15/23 *uk*

**INSTRUCTIONS:** Complete all parts of this form and email signed copies to [wwreports@idem.in.gov](mailto:wwreports@idem.in.gov). Submittal of this report will satisfy the Office of Water Quality (OWQ) telephone and written bypass/overflow reporting requirements of your NPDES permit. Please use and the second page of this form as necessary to identify separate locations caused by the same event. If you have any questions while filling out the report form, please contact Renee Repar at (317) 232-6770 or [rrepar@idem.in.gov](mailto:rrepar@idem.in.gov).

To report a spill or if the release is resulting in a fish kill or other severe environmental damage, immediately report the release to the Emergency Response Section spill response line at: (317) 233-7745 or toll free within Indiana at (888) 233-7745.

GENERAL INFORMATION					
(1) Facility Name (Organization) Elkhart Public Works		(2) Mailing Address (reporting organization) 1201 S. Nappanee Street		(3) County Elkhart	(4) NPDES Permit IN00025674
RELEASE INFORMATION (Location 1)					
(5) Outfall Number	(6) Date (mm/dd/yy) and Time Release Began 07/01/24 10:51 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	(7) Date (mm/dd/yy) and Time Release Stopped 07/01/24 12:16 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM	(8) Location of Release (streets address or Manhole, Lift Station, Force Main etc.) 1200 S. Main	(9) Latitude (Deg Min Sec) 41 40 36 N	(9) Longitude (Deg Min Sec) 85 57 50W
(10) Amount of Flow Released (Always provide a volume.) Check one: <input checked="" type="checkbox"/> Estimated <input type="checkbox"/> Actual 44 Gallons			(11) WWTP Flow During Release 12.1 MGD	(12) WWTP Peak Design Flow Rate 44.0 MGD	
(13) Overflow Type (Select one.) <input type="checkbox"/> Sanitary Sewer Overflow <input type="checkbox"/> Treatment Bypass (at wastewater plant) <input type="checkbox"/> Prohibited Combined Sewer Overflow <input checked="" type="checkbox"/> Dry Weather Combined Sewer Overflow <input type="checkbox"/> Combined Sewer System Release			(14) Describe any damage to aquatic life or receiving stream: none		
(15) Reason for Bypass / Overflow (Select one or more.) <i>grease</i> <input type="checkbox"/> Construction Related <input type="checkbox"/> Power Failure <input type="checkbox"/> Equipment Failure <input type="checkbox"/> Unknown <input type="checkbox"/> Exceeded Max Capacity <input type="checkbox"/> Precipitation Inches					
(16) System Component(s) (Select one or more.) <input type="checkbox"/> Manhole <input type="checkbox"/> House Lateral <input type="checkbox"/> Pipe Failure <input type="checkbox"/> Pump Station Failure <input type="checkbox"/> Treatment Bypassed <input type="checkbox"/> Other <input type="checkbox"/> Influent Structure <input type="checkbox"/> Air Relief Valve <input type="checkbox"/> Sewer Clean Out  Describe Other: (in the box below) grease		(17) Additional Description of the Bypass / Overflow Event: call came in at 10:51 am, Crews found line plugged with grease. Plug removed and flows returned to normal at 12:16 pm.		(18) Description of the Area Impacted (Check all that apply.) <input type="checkbox"/> Affected Private Property <input checked="" type="checkbox"/> Basement Backup <input type="checkbox"/> Occurred at Treatment Plant <input type="checkbox"/> Reached Public Land <input type="checkbox"/> Reached Receiving Water  Name of Receiving Water Impacted: none	
(19) Additional organizations notified by facility, if necessary (Select one or more.) <input type="checkbox"/> IDEM Emergency Response <input type="checkbox"/> Health Dept. <input type="checkbox"/> DNR Fish and Wildlife <input type="checkbox"/> Local Emergency Management <input type="checkbox"/> Other:  n/a					
(20) Actions Taken to Prevent, Minimize, or Mitigate Damage including Clean-up and Treatment of Affected Area (Select one or more of the following, then add a written description.) <input checked="" type="checkbox"/> Removed Blockage <input type="checkbox"/> Repaired Pipe <input type="checkbox"/> Repaired Pump Station <input type="checkbox"/> Other <input type="checkbox"/> Lime <input type="checkbox"/> Clean-Up Debris cleared plug of grease within 1.5 hours of being informed of problem					
(21) Resolution: Actions Taken or Planned to Prevent Recurrence will be sending fliers of proper grease disposal to residents in area					

(22)

CERTIFICATION AND SIGNATURE			
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. (The area below is for a handwritten signature or an electronic substitute then fax or scan to PDF for emailing.)			
SIGNATURE: <i>Laura Kolo</i>		DATE (month, day, year): 07/02/24	
Individual Making Report (printed) Laura Kolo	Telephone Number (574) 293-2572	Contact Email laura.kolo@coei.org	Date (month, day, year) / Time IDEM Notified 07/02/24 10:40 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM

**Kolo, Laura**

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**From:** postmaster@state.in.us  
**Sent:** Tuesday, July 2, 2024 10:46 AM  
**To:** Kolo, Laura  
**Subject:** EXTERNAL: Relayed: Inc rpt attached  
**Attachments:** EXTERNAL: Relayed: Inc rpt attached

Caution: This email originated from outside of the organization. Please take care when clicking links or opening attachments. When in doubt, contact your IT Department



# BYPASS / OVERFLOW INCIDENT REPORT

State Form 48373 (R7 / 4-16)  
Indiana Department of Environmental Management  
Office of Water Quality

Follow-up to Bypass report  
previously sent on: \_\_\_\_\_

**INSTRUCTIONS:** Complete all parts of this form and email signed copies to [wwreports@idem.in.gov](mailto:wwreports@idem.in.gov). Submittal of this report will satisfy the Office of Water Quality (OWQ) telephone and written bypass/overflow reporting requirements of your NPDES permit. Please use and the second page of this form as necessary to identify separate locations caused by the same event. If you have any questions while filling out the report form, please contact Renee Repar at (317) 232-6770 or [rrepar@idem.in.gov](mailto:rrepar@idem.in.gov).

To report a spill or if the release is resulting in a fish kill or other severe environmental damage, immediately report the release to the Emergency Response Section spill response line at: (317) 233-7745 or toll free within Indiana at (888) 233-7745.

GENERAL INFORMATION					
(1) Facility Name (Organization) Elkhart Public Works		(2) Mailing Address (reporting organization) 1201 S. Nappanee Street		(3) County Elkhart	(4) NPDES Permit IN00025674
RELEASE INFORMATION (Location 1)					
(5) Outfall Number	(6) Date (mm/dd/yy) and Time Release Began 07/14/24 4:40 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	(7) Date (mm/dd/yy) and Time Release Stopped 07/14/24 5:40 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	(8) Location of Release (streets address or Manhole, Lift Station, Force Main etc.) Edgewater Park MH-1630	(9) Latitude (Deg Min Sec) 41 40 45 N	(9) Longitude (Deg Min Sec) 86 00 2 W
(10) Amount of Flow Released (Always provide a volume.) Check one: <input checked="" type="checkbox"/> Estimated <input type="checkbox"/> Actual 547,800 Gallons			(11) WWTP Flow During Release 31 MGD	(12) WWTP Peak Design Flow Rate 44.0 MGD	
(13) Overflow Type (Select one.) <input type="checkbox"/> Sanitary Sewer Overflow <input type="checkbox"/> Treatment Bypass (at wastewater plant) <input type="checkbox"/> Prohibited Combined Sewer Overflow <input type="checkbox"/> Dry Weather Combined Sewer Overflow <input checked="" type="checkbox"/> Combined Sewer System Release			(14) Describe any damage to aquatic life or receiving stream: none		
(15) Reason for Bypass / Overflow (Select one or more.) <input type="checkbox"/> Construction Related <input type="checkbox"/> Power Failure <input type="checkbox"/> Equipment Failure <input checked="" type="checkbox"/> Operator errors <input type="checkbox"/> Unknown <input type="checkbox"/> Exceeded Max Capacity <input type="checkbox"/> Precipitation Inches					
(16) System Component(s) (Select one or more.) <input type="checkbox"/> Manhole <input type="checkbox"/> House Lateral <input type="checkbox"/> Pipe Failure <input type="checkbox"/> Pump Station Failure <input type="checkbox"/> Treatment Bypassed <input checked="" type="checkbox"/> Other <input type="checkbox"/> Influent Structure <input type="checkbox"/> Air Relief Valve <input type="checkbox"/> Sewer Clean Out  Describe Other: (In the box below) Procedural		(17) Additional Description of the Bypass / Overflow Event: following heavy rain on 07/14/24, it was discovered in the late morning of 07/15/24 that MH-00001630 had backed up and overflowed onto the ground. Upon further investigation, a combination of miscommunication between operators at shift change and inexperience of optimizing wet weather flows resulted in an Operator turning off pumps at the head of the WWTP, at LS 44.		(18) Description of the Area Impacted (Check all that apply.) <input type="checkbox"/> Affected Private Property <input type="checkbox"/> Basement Backup <input type="checkbox"/> Occurred at Treatment Plant <input checked="" type="checkbox"/> Reached Public Land <input type="checkbox"/> Reached Receiving Water  Name of Receiving Water Impacted: none	
(19) Additional organizations notified by facility, if necessary (Select one or more.) <input type="checkbox"/> IDEM Emergency Response <input type="checkbox"/> Health Dept. <input type="checkbox"/> DNR Fish and Wildlife <input type="checkbox"/> Local Emergency Management <input checked="" type="checkbox"/> Other:  n/a					
(20) Actions Taken to Prevent, Minimize, or Mitigate Damage including Clean-up and Treatment of Affected Area (Select one or more of the following, then add a written description.) <input type="checkbox"/> Removed Blockage <input type="checkbox"/> Repaired Pipe <input type="checkbox"/> Repaired Pump Station <input checked="" type="checkbox"/> Other <input type="checkbox"/> Lime <input type="checkbox"/> Clean-Up Debris crews sent to clean debris surrounding MH-0001630					
(21) Resolution: Actions Taken or Planned to Prevent Recurrence Training is being scheduled to help Operators understand the importance of comprehensive pass downs at shift change and also the bigger picture of decisions they make at the WWTP.					

## (22) CERTIFICATION AND SIGNATURE

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. (The area below is for a handwritten signature or an electronic substitute then fax or scan to PDF for emailing.)

SIGNATURE: <u>Laura Kolo</u>		DATE (month, day, year): <u>07/16/24</u>	
Individual Making Report (printed) Laura Kolo	Telephone Number (574) 293-2572	Contact Email laura.kolo@coei.org	Date (month, day, year) / Time IDEM Notified 07/16/24 appx 10:20 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM



**Kolo, Laura**

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**From:** postmaster@state.in.us  
**Sent:** Tuesday, July 16, 2024 10:15 AM  
**To:** Kolo, Laura  
**Subject:** EXTERNAL: Relayed: IN0027564\_INC\_RPT\_2024\_07\_2  
**Attachments:** EXTERNAL: Relayed: IN0027564\_INC\_RPT\_2024\_07\_2

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# BYPASS / OVERFLOW INCIDENT REPORT

State Form 48373 (R7 / 4-16)  
Indiana Department of Environmental Management  
Office of Water Quality

Follow-up to Bypass report  
previously sent on: \_\_\_\_\_

**INSTRUCTIONS:** Complete all parts of this form and email signed copies to [wwreports@idem.in.gov](mailto:wwreports@idem.in.gov). Submittal of this report will satisfy the Office of Water Quality (OWQ) telephone and written bypass/overflow reporting requirements of your NPDES permit. Please use and the second page of this form as necessary to identify separate locations caused by the same event. If you have any questions while filling out the report form, please contact Renee Repar at (317) 232-6770 or [rrepar@idem.in.gov](mailto:rrepar@idem.in.gov).

To report a spill or if the release is resulting in a fish kill or other severe environmental damage, immediately report the release to the Emergency Response Section spill response line at: (317) 233-7745 or toll free within Indiana at (888) 233-7745.

GENERAL INFORMATION					
(1) Facility Name (Organization) Elkhart Public Works		(2) Mailing Address (reporting organization) 1201 S. Nappanee Street		(3) County Elkhart	(4) NPDES Permit IN00025674
RELEASE INFORMATION (Location 1)					
(5) Outfall Number	(6) Date (mm/dd/yy) and Time Release Began 07/19/24 7:49 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM	(7) Date (mm/dd/yy) and Time Release Stopped 07/19/24 9:24 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM	(8) Location of Release (streets address or Manhole, Lift Station, Force Main etc.) 1626 El Reno	(9) Latitude (Deg Min Sec) 41 40 20 N	(9) Longitude (Deg Min Sec) 85 59 53 W
(10) Amount of Flow Released (Always provide a volume.) Check one: <input checked="" type="checkbox"/> Estimated <input type="checkbox"/> Actual 1159 Gallons			(11) WWTP Flow During Release 17.8 MGD	(12) WWTP Peak Design Flow Rate 44.0 MGD	
(13) Overflow Type (Select one.) <input type="checkbox"/> Sanitary Sewer Overflow <input type="checkbox"/> Treatment Bypass (at wastewater plant) <input type="checkbox"/> Prohibited Combined Sewer Overflow <input type="checkbox"/> Dry Weather Combined Sewer Overflow <input checked="" type="checkbox"/> Combined Sewer System Release			(14) Describe any damage to aquatic life or receiving stream: none		
(15) Reason for Bypass / Overflow (Select one or more.) <input type="checkbox"/> Construction Related <input type="checkbox"/> Power Failure <input type="checkbox"/> Equipment Failure <input type="checkbox"/> Unknown <input type="checkbox"/> Exceeded Max Capacity <input type="checkbox"/> Precipitation <input type="checkbox"/> Inches <i>Grease/roots</i>					
(16) System Component(s) (Select one or more.) <input type="checkbox"/> Manhole <input type="checkbox"/> House Lateral <input type="checkbox"/> Pipe Failure <input type="checkbox"/> Pump Station Failure <input type="checkbox"/> Treatment Bypassed <input checked="" type="checkbox"/> Other <input type="checkbox"/> Influent Structure <input type="checkbox"/> Air Relief Valve <input type="checkbox"/> Sewer Clean Out  Describe Other: (In the box below) grease and roots		(17) Additional Description of the Bypass / Overflow Event: crews called out at 7:49, obstruction of grease and roots was cleared at 9:24.  IDEM spill response notified at 10:37 am on 072024 (Nolan) IDEM Inc # 113475 assigned at 11:11 am on 072024 (David)		(18) Description of the Area Impacted (Check all that apply.) <input type="checkbox"/> Affected Private Property <input checked="" type="checkbox"/> Basement Backup <input type="checkbox"/> Occurred at Treatment Plant <input type="checkbox"/> Reached Public Land <input type="checkbox"/> Reached Receiving Water  Name of Receiving Water Impacted: none	
(19) Additional organizations notified by facility, if necessary (Select one or more.) <input type="checkbox"/> IDEM Emergency Response <input type="checkbox"/> Health Dept. <input type="checkbox"/> DNR Fish and Wildlife <input type="checkbox"/> Local Emergency Management <input checked="" type="checkbox"/> Other:  n/a					
(20) Actions Taken to Prevent, Minimize, or Mitigate Damage including Clean-up and Treatment of Affected Area (Select one or more of the following, then add a written description.) <input type="checkbox"/> Removed Blockage <input type="checkbox"/> Repaired Pipe <input type="checkbox"/> Repaired Pump Station <input checked="" type="checkbox"/> Other <input type="checkbox"/> Lime <input type="checkbox"/> Clean-Up Debris crews sent to clear obstruction of grease and roots					
(21) Resolution: Actions Taken or Planned to Prevent Recurrence Will send information to neighborhood on proper grease disposal					

(22)

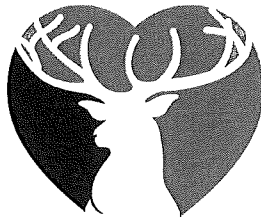
CERTIFICATION AND SIGNATURE				
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of 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. (The area below is for a handwritten signature or an electronic substitute then fax or scan to PDF for emailing.)				
SIGNATURE: <i>Laura Kolo</i>				DATE (month, day, year): 07/21/24
Individual Making Report (printed) Laura Kolo	Telephone Number (574) 293-2572	Contact Email laura.kolo@coei.org	Date (month, day, year) / Time IDEM Notified 07/21/24 appx 9:30	<input checked="" type="checkbox"/> AM <input type="checkbox"/> PM

## Kolo, Laura


---

**From:** postmaster@state.in.us  
**Sent:** Sunday, July 21, 2024 9:29 AM  
**To:** Kolo, Laura  
**Subject:** EXTERNAL: Relayed: IN0025674\_INC\_RPT\_2024\_07\_3  
**Attachments:** EXTERNAL: Relayed: IN0025674\_INC\_RPT\_2024\_07\_3

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City of Elkhart  
*Public Works and Utilities*

Date Aug 26, 2024  
Memo To Board of Public Works  
Memo From Laura Kolo, Utility Services Manager   
Subject Wastewater Utility Monthly Report of Operations  
for the month of July, 2024

**Wastewater MRO Highlights**

Parameter	Monthly Avg	Permit Limit
Suspended Solids mg/L	4	30
cBOD5 mg/L	2	25
Phosphorus mg/L	0.69	1.0
Ammonia mg/L	0.14	4.4 (Dec-Apr) 4.2 (May-Nov)
Avg Daily Flow MGD	21.73	Design - 20
Total Monthly Flow MGD	674	Report

**Incident Reports Filed**

Date	Location	Volume (gal)	Cause
None			

**Wet Weather Overflows**

Number of Events	Total Overflow Volume (MG)
11	23.9775

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 **Signing Process Confirmation - CDX Activity ID: `_1fa27173-cb79-4c9a-9535-d5552bd5bc71`**

Your DMRs are undergoing the Signing Process

IN0025674	ELKHA	WWTP	005	005-C	CSO- ARCH/BAR, NW OF INTERSECTION	07/31/24	08/28/24
IN0025674	ELKHA	WWTP	006	006-C	CSO- JACKSON, N OF BRIDGE, OF ELKHART RIVER	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	007	007-C	CSO- JACKSON, N OF BRIDGE, E OF ELKHART RIVER	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	008	008-C	CSO- HUG/EAST BLVD	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	009	009-C	CSO- NIBCO PRKWAY - FKA JR. ACHIEVEMENT (Y DR N)	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	011	011-C	CSO- ELKHART/FRANKLIN	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	012	012-C	CSO- CASSOPOLIS/BEARDSLEY	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	013	013-C	CSO- JOHNSON/BEARDSLEY	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	014	014-C	CSO- DAM AT CONE/ERWIN	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	015	015-C	CSO- MICHIGAN/FULTON	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	016	016-C	CSO- DAN @ GOSHEN/SUPERIOR	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	017	017-C	CSO- W. BOULEVARD/MCNAUGHTON	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	018	018-C	CSO- MCNAUGHTON PARK WEST	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	019	019-C	CSO-MICHIGAN @ RVR, S. OF LEX.	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	020	020-C	CSO- BRIDGE AND HUDSON	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	023	023-C	CSO- FRANKLIN/8TH	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	024	024-C	CSO- INDIANA/FRANKLIN	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	025	025-C	CSO- POTTAWATOMI/SECOND	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	026	026-C	CSO- MAIN/POTTAWATOMI	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	027	027-C	CSO- EDGEWATER/NAVAJO	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	028	028-C	CSO- WASHINGTON AT RIVER	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	029	029-C	CSO- JEFFERSON AT THE RIVER	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	031	031-C	CSO- ELIZABETH/LUSHER	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	032	032-C	CSO- EDGEWATER/OKEMA	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	033	033-C	CSO- EVANS/GRACE	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	034	034-C	CSO- LEXINGTON/6TH	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	035	035-A	20 MGD CLASS IV ACTIVATED SLUDGE - TO ST JOSEPH RIVER	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	037	037-C	CSO- FRANKLIN/KRAU	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	039	039-C	CSO- WEST HIGH AT RIVER	07/31/24	08/28/24
IN0025674	ELKHART	WWTP	040	040-C	CSO- MCNAUGHTON PARK SOUTH	07/31/24	08/28/24

✓ View Certification |  Download COR

**DMR Copy of Submission**

Expand Notices

Form Approved OMB No. 2040-0004 expires on 07/31/2026

**Permit**

Permit ID: IN0025674

Permittee: ELKHART WWTP

Facility: ELKHART WWTP

Permitted Feature: 035 - External Outfall

**Report Dates & Status**

Monitoring Period: From 07/01/24 to 07/31/24

Status: **NetDMR Validated**

**Considerations for Form Completion**

THE FLOW METER(S) SHALL BE CALIBRATED AT LEAST ONCE EVERY TWELVE MONTHS. REPORT QUARTERLY PARAMETERS ON 035-AQ NETDMR. MUNICIPAL MAJOR ELKHART COUNTY

**Principal Executive Officer**

First Name: Laura

Title: Utility Services Manager

Last Name: Kolo

Telephone: 574-293-2572

**No Data Indicator (NODI)**

Form NODI: -

**Major:**

Permittee Address: 429 SOUTH 2ND ST  
ELKHART , IN46516

Facility Location: 1201 S NAPPANEE ST  
ELKHART , IN46516

Discharge: 035-A - 20 MGD CLASS IV ACTIVATED SLUDGE - TO ST JOSEPH RIVER

DMR Due Date: 08/28/24







Code	Name	Value 1	Value 2	Units	Value 1	Value 2	Value 3	Units	of Ex.	Analysis	Type
Season: 0	Req.		Req Mon MO TOTAL	80 - Mgal/mo						01/2024 - Monthly	RT - RCOTOT
NODI: -	NODI										

**Submission Note**

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

**Edit Check Errors**

No errors.

**Comments**

**Attachments**

Name	Type	Size
IN0025674_CSO_MRO_2024_07.pdf	pdf	1157312.0
IN0025674_035a_2024_07.pdf	pdf	1017603.0

**Report Last Saved By**

**ELKHART WWTP**

User: Payton88  
 Name: Laura Kolo  
 E-Mail: laura.kolo@coei.org  
 Date/Time: 2024-08-26 15:59 (Time Zone: -04:00)

**Report Last Signed By**

User: Payton88  
 Name: Laura Kolo  
 E-Mail: laura.kolo@coei.org  
 Date/Time: 2024-08-26 16:00 (Time Zone: -04:00)



**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility Elkhart			Permit Number IN0025674		
Month July	Year 2024	Plant Design Flow 20.00 mgd	Telephone Number 574/293-2572		
E-mail address: laura.kolo@coei.org				035	A
Certified Operator: Name Laura E. Kolo		Class IV	Certificate Number 15094	Expiration Date 06/30/2027	

Day of Month	Day of Week	Man-Hours at Plant (Plants less than 1 MGD only)	Air Temperature (optional)	Total= 7.25 Precipitation - Inches	Bypass At Plant Site("x" if Occurred)	Sanitary Sewer Overflow("x" if Occurred)	CHEMICALS USED			RAW SEWAGE								
							Chlorine - Lbs/day	Ferric Chloride Lbs/Day or Gal./Day	Lbs/Day or Gal./Day	Influent Flow Rate (if metered) MGD	pH	CBOD5 - mg/l	CBOD5 - lbs/day	Susp. Solids - mg/l	Susp. Solids - lbs/day	Phosphorus - mg/l	Ammonia - mg/l	
1	Mon								228		11.925	7.1	108	10,741	244	24,267	3.15	17.20
2	Tue								198		11.983	7.2	105	10,494	116	11,593	3.19	16.90
3	Wed								243		12.164	7.0	102	10,348	216	21,913	4.00	19.60
4	Thu			0.91					236		14.042	7.3	99	11,594	114	13,351	2.98	15.40
5	Fri			0.07					252		12.158	7.0	75	7,605	92	9,329	2.67	13.20
6	Sat								249		11.683	7.1	78	7,600	76	7,405	2.79	15.50
7	Sun								271		11.100	7.2	145	13,423	82	7,591	2.54	15.70
8	Mon								243		11.883	7.2	99	9,811	138	13,676	2.92	18.30
9	Tue			2.19					243		14.683	7.0	118	14,450	174	21,307	3.59	15.70
10	Wed			1.29					250		25.716	7.2	58	12,439	98	21,018	1.82	9.24
11	Thu			0.27					228		19.483	7.2	72	11,699	110	17,874	2.46	13.90
12	Fri			0.01					140		20.341	7.0	79	13,402	90	15,268	2.49	9.93
13	Sat								228		17.258	7.1	63	9,068	56	8,060	2.17	11.90
14	Sun			0.79					225		18.859	7.0	82	12,897	124	19,503	1.87	8.55
15	Mon			0.54					225		20.483	7.5	72	12,300	162	27,674	2.91	11.00
16	Tue			0.23					234		20.525	7.1	67	11,469	116	19,857	2.52	11.90
17	Wed								228		20.333	7.1	88	14,923	172	29,167	3.89	13.20
18	Thu								252		18.725	7.1	78	12,181	132	20,614	3.79	12.70
19	Fri								231		16.833	7.0	65	9,125	80	11,231	2.78	12.30
20	Sat								225		16.042	7.4	73	9,767	50	6,690	2.41	12.30
21	Sun								205		15.633	7.0	69	8,996	72	9,387	1.97	11.00
22	Mon			0.10					221		17.191	7.3	66	9,463	108	15,484	2.22	12.80
23	Tue			0.06					203		15.817	7.1	101	13,323	162	21,370	2.51	13.10
24	Wed			0.38					200		18.400	7.2	98	15,039	174	26,701	2.66	12.30
25	Thu								200		15.208	7.2	71	9,005	144	18,264	3.38	13.70
26	Fri								144		14.317	7.3	71	8,478	98	11,702	2.83	13.20
27	Sat								200		14.383	7.2	88	10,556	102	12,235	2.48	12.70
28	Sun								167		14.375	7.1	80	9,591	64	7,673	2.16	12.10
29	Mon			0.40					197		16.341	7.1	95	12,947	136	18,535	2.76	13.10
30	Tue			0.01					143		14.933	7.2	102	12,703	156	19,428	3.69	15.20
31	Wed								235		14.725	7.2	104	12,772	126	15,474	2.61	15.30
Average				0.52					218		16.050		86	11,233	122	16,246	2.78	13.51
Maximum				2.19					271		25.716	7.5	145	15,039	244	29,167	4.00	19.60
Minimum				0.01					140		11.100	7.0	58	7600	50	6690	1.82	8.55

# of Data	0	14	0	0	0	31	0	31	30	31	31	31	31	31	31	31	0
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<p>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 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.</p>	Prepared by or under the direction of (Certified Operat	Date (month, day, year)
	<p>Signature of principal executive officer or authorized agent (or attested by NetDMR subscriber agreement)</p> <p><i>Laura Kolo</i></p>	<p>8/26/24</p>

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	July	2024

Day Of Month	PRIMARY EFFLUENT		AERATION							SECONDARY EFFLUENT		FINAL EFFLUENT						
	CBOD5 - mg/l	Susp. Solids - mg/l	MIXED LIQUOR				RETURN SLUDGE			CBOD5 - mg/l	Susp. Solids - mg/l	Residual Chlorine - Final	Residual Chlorine - Contact Tank	E. Coli - colony/100 ml	pH - daily low (or single sample)	pH - daily high (if multiple samples)	Dissolved Oxygen - mg/l	Oil & Grease (mg/l)
			Settleable Solids % in 30 minutes	Susp. Solids - mg/l	Sludge Vol. Index - ml/gm	Dissolved Oxygen - mg/l	Temperature - F	Volume - MG	Susp. Solids - mg/l									
1	60	60	118	2,428	49	3.9	19	6.487	4,800					10	7.0		8.3	
2	77	60	116	2,240	52	3.5	19	6.487	4,780					10	7.2		8.2	
3	59	57	106	2,548	42	4.8	18	6.487	4,620					8	7.0		8.4	
4	58	49	116	2,256	52	4.4	19	6.487	5,640					6	7.6		8.3	
5	53	58	113	2,272	50	4.6	19	6.487	4,980					12	7.0		8.1	
6	58	43	106	2,336	45	4.6	19	6.487	4,540					17	7.2		8.2	
7	58	47	107	2,376	45	4.8	19	6.487	4,960					17	7.1		8.8	
8	81	63	102	2,244	45	4.4	19	6.487	4,620					23	7.0		8.1	
9	74	97	106	2,116	50	3.6	19	6.487	2,680					54	7.3		8.4	
10	44	53	96	1,964	488	3.8	20	6.487	6,380					16	7.1		7.6	
11	52	62	115	2,208	52	3.3	20	6.487	5,620					11	7.0		7.6	
12	59	55	105	2,152	49	4.0	20	6.487	6,560					22	7.0		7.5	
13	46	37	121	2,352	52	4.2	19	6.487	6,240					17	7.0		7.8	
14	49	40	122	2,532	48	4.3	20	6.487	6,720					39	7.0		7.8	
15	51	88	134	2,504	54	3.9	20	6.487	6,480					37	7.0		7.6	
16	48	53	129	2,384	54	4.0	20	6.487	7,100					44	7.0		7.5	
17	61	92	126	2,316	55	3.8	20	6.483	6,400					26	7.1		7.4	
18	86	62	131	2,520	52	4.1	19	6.487	6,780					21	7.0		7.6	
19	57	49	138	2,684	52	4.3	19	6.487	6,720					23	7.0		8.0	
20	54	35	140	2,700	52	4.6	19	6.487	6,680					11	7.0		8.1	
21	51	37	141	2,896	49	4.5	19	6.487	7,340					15	7.3		8.6	
22	45	47	142	2,784	51	4.6	19	6.487	6,820					22	7.0		8.4	
23	53	48	132	2,672	49	4.0	19	6.487	6,260					10	7.0		8.1	
24	60	60	148	2,432	61	6.7	20	6.487	4,220					12	7.0		8.4	
25	50	60	144	2,476	58	3.5	19	6.487	7,020					28	7.0		8.1	
26	58	58	168	2,920	58	4.1	19	6.487	5,780					21	7.0		8.1	
27	63	15	178	2,992	60	4.5	19	7.785	5,320					39	7.0		8.3	
28	56	40	177	3,112	57	4.5	19	7.785	5,540					26	7.2		8.5	
29	50	55	175	3,200	55	3.6	19	7.785	6,300					36	7.1		8.1	
30	70	91	175	2,984	59	3.6	20	7.298	5,760					17	6.9		7.8	
31	62	61	170	2,860	59	4.00	20	6.487	6,180					24	7.0		8.6	
Avg.	58	56	132	2,531	66	4.2	19	6.639	5,801					22			8.1	
Max	86	97	178	3,200	488	6.7	20	7.785	7,340					54		7.6	8.8	
Min.	44	15	96	1964	42	3.3	18	6.483	2680					6		6.90	7.4	
Daily Max														54				
# of Days above 235														0				
Date	31	31	31	31	31	31	31	31	31	0	0	1	0	31	31	0	31	0

Comments for the Month (major repairs, breakdowns, process upsets and their causes, inplant treatment process bypass, etc.):

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	July	2024

Day Of Month	Day of Week	FINAL EFFLUENT															
		Flow		BOD				Total Suspended Solids				Ammonia				Phosphorus	
		Effluent Flow Rate (MGD)	Effluent Flow Weekly Average	CBOD5 - mg/l	CBOD5 - mg/l Weekly Average	CBOD5 - lbs/day	CBOD5 - lbs/day Weekly Average	Susp. Solids - mg/l	Susp. Solids - mg/l Weekly Average	Susp. Solids - lbs/day	Susp. Solids - lbs/day Weekly Average	Ammonia - mg/l	Ammonia - mg/l Weekly Average	Ammonia - lbs/day	Ammonia - lbs/day Weekly Average	Phosphorus - mg/l	Phosphorus - lbs/day
1	Mon	15.319		2		256		4		447		0.03		3.8		1.11	142
2	Tue	15.180		2		253		4		468		0.04		5.1		0.74	94
3	Wed	14.853		2		248		4		446		0.04		5.0		0.71	88
4	Thu	18.608		2		310		7		1,086		0.10		15.5		1.01	157
5	Fri	15.325		2		256		4		447		0.05		6.4		0.71	91
6	Sat	14.213	15.506	2	2.00	237	259	4	4.06	427	537	0.04	0.05	4.7	7	0.75	89
7	Sun	14.103		2		235		4		412		0.05		5.9		0.85	100
8	Mon	14.753		2		246		4		529		0.04		4.9		0.73	90
9	Tue	21.466		3		537		4		716		0.11		19.7		0.75	134
10	Wed	33.853		3		847		6		1,638		0.21		59.3		0.65	184
11	Thu	30.195		2		504		3		831		0.58		146.1		0.47	118
12	Fri	28.505		3		713		5		1,165		0.19		45.2		0.51	121
13	Sat	23.344	23.746	3	2.57	584	524	4	4.21	720	859	0.05	0.18	9.7	42	0.60	117
14	Sun	27.324		3		684		4		1,003		0.04		9.1		0.65	148
15	Mon	30.436		2		508		4		888		0.16		40.6		0.57	145
16	Tue	30.014		2		501		4		901		0.44		110.1		0.65	163
17	Wed	29.329		2		489		4		905		0.29		70.9		0.59	144
18	Thu	26.583		2		443		4		798		0.09		20.0		0.55	122
19	Fri	23.776		2		397		4		833		0.38		75.4		0.58	115
20	Sat	22.189	27.093	3	2.29	555	511	4	3.80	666	856	0.04	0.21	7.4	48	0.60	111
21	Sun	21.452		2		358		4		644		0.03		5.4		0.77	138
22	Mon	23.216		2		387		3		600		0.20		38.7		0.67	130
23	Tue	22.027		2		367		3		606		0.05		9.2		0.59	108
24	Wed	25.085		3		628		4		774		0.71		148.5		0.60	126
25	Thu	21.284		2		355		6		1,030		0.00		0.0		0.52	92
26	Fri	18.315		2		305		4		565		0.05		7.6		0.64	98
27	Sat	18.186	21.366	2	2.14	303	386	3	3.76	470	670	0.04	0.15	6.1	31	0.82	124
28	Sun	17.633		2		294		2		338		0.06		8.8		0.90	132
29	Mon	20.839		2		348		3		469		0.14		24.3		0.83	144
30	Tue	18.321		2		306		3		474		0.07		10.7		0.75	115
31	Wed	17.957	18.086	3	2.14	449	345	4	3.11	554	473	0.67	0.07	9.0	11	0.67	100
Avg		21.732		2		416		4		705		0.16		30.1		0.69	122
Max		33.853	27.093	3	2.57	847	524	7	4.21	1,638	859	0.71	0.21	148.5	48	1.1	184
Min		14.103	15.506	2	2.00	235	259	2	3.11	338	473	0.00	0.05	0.0	7	0.5	88
Data		31	5	31	5	31	5	31	5	31	5	31	5	31	5	31	31

MONTHLY REMOVAL SUMMARY					Total Monthly Flow:
Percent Removal	BOD5	S.S.	Ammonia	Phosphorus	(million gallons) 674
Primary Treatment	32.50	54.2			
Secondary Treatment	96.1	92.8			Percent Capacity (actual flow/design) 109%
Overall Treatment	97.38	96.7	98.8	75.0	
Phosphorus limit would be	70 % removal. (compliance achieved)				

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	July	2024

Day Of Month	SLUDGE TO DIGESTER		DIGESTER OPERATION											
	Primary SludgeGal. x 100	Waste Act. Sludge Gal. x 1000	Anaerobic Only				Supernatant Withdrawn hrs. or Gal. x 1000	Supernatant BOD5 mg/l or NH3-N mg/l	Total Solids in Incoming Sludge - %	Total Solids in Digested Sludge - %	Volatile Solids in Incoming Sludge - %	Volatile Solids in Digested Sludge - %	Digested Sludge Withdrawn hrs. or Gal. x 1000	
			pH	Gas Production Cubic Ft. x 1000	Temperature - F									
1	16.28	247.68	7.3		97	14.148		4.31	2.39	77.94	56.54	126.49		
2	17.27	223.20	7.3		99	17.685		4.53	2.37	75.81	55.43	121.75		
3	38.20	217.44	7.3		98			4.93	2.30	75.21	55.76			
4	45.57	218.88	7.3		98			4.11	2.25	73.66	55.37			
5	21.26	214.56	7.3		98	10.611		5.12	2.33	75.11	56.16	75.24		
6	38.76	213.12	7.5		99	10.611		2.30	2.28	76.51	56.55			
7	13.74	211.68	7.4		98			2.73	2.39	81.64	56.55			
8	15.33	211.68	7.4		99	3.537		2.81	2.42	77.07	57.14	61.06		
9	21.72	221.76	7.4		100	7.074		3.80	2.35	78.74	56.47	113.55		
10	39.34	191.52	7.4		99	3.537		4.68	2.32	66.95	55.62			
11	45.54	187.20	7.4		98	10.611		5.29	2.38	72.85	57.40	131.15		
12	37.71	188.64	7.4		99	7.074		4.60	2.34	73.16	56.41	67.15		
13	16.11	188.64	7.4		99			2.51	2.38	71.74	58.06			
14	22.47	190.08	7.4		100	17.685		3.75	2.43	75.46	57.07			
15	37.61	190.08	7.4		69			4.61	2.31	74.65	55.90	105.51		
16	35.40	187.20	7.4		99	10.611		5.31	2.32	69.94	55.41	131.73		
17	31.57	187.20	7.4		99	3.537		4.75	2.35	70.16	57.14	130.64		
18	46.22	188.64	7.4		98			4.94	2.28	68.46	57.23	74.51		
19	57.70	188.64	7.4		99	3.537		4.70	2.34	68.97	56.98			
20	31.93	174.24	7.3		98	0.000		4.61	2.38	69.03	57.89			
21	20.56	169.92	7.3		100	0.000		4.57	2.30	74.60	57.51			
22	14.98	168.48	7.3		100	0.000		3.90	2.38	78.21	56.08			
23	34.69	168.48	7.3		100	3.537		3.76	2.45	72.00	56.54	113.18		
24	44.21	204.48	7.3		100	17.685		5.03	2.40	68.64	57.02	131.36		
25	42.24	133.92	7.3		90	14.148		4.75	2.39	67.57	57.30	130.84		
26	19.82	168.48	7.3		100			4.49	2.35	67.98	55.36			
27	42.18	168.48	7.2		101	3.537		5.05	2.37	67.75	57.89			
28	25.08	168.48	7.3		100	0.000		4.51	2.45	72.45	55.08			
29	14.89	168.48	7.4		99	3.537		3.67	2.33	77.88	55.87	131.07		
30	40.22	168.48	7.4		99	7.074		5.05	2.23	74.21	57.96	130.71		
31	25.86	168.48	7.3		101			4.74	2.28	66.33	55.62	92.73		
Avg.	30.79	190.27			98	7.382		4.32	2.35	72.93	56.56	109.92		
Max.	57.70	247.68	7.5		101	17.685		5.31	2.45	81.64	58.06	131.73		
Min.	13.74	133.92	7.2		69	0.000		2.30	2.23	66.33	55.08	61.06		
Data	31	31	31	0	31	23	0	31	31	31	31	17	0	0

Once completed, this form should be converted to a pdf document, named appropriately & attached to the corresponding netDMR for submittal

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility Elkhart	Permit Number IN0025674	Month July	Year 2024
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Substitute for State Form 30530

Day Of Month	Final Effluent				Ag - Influent mg/l	Ag - Effluent mg/L	Cd - Influent mg/L	Cd - Effluent mg/L	CN - Influent mg/L	CN - Effluent mg/L	Cr - Influent mg/L	Cr - Effluent mg/L	Cu - Influent mg/L	Cu - Effluent mg/L	Hg - Influent ng/L	Hg - Effluent ng/L
	Chloride		Total Nitrogen													
	Chloride - mg/l	Chloride - lbs/day	Total Nitrogen- mg/l	Total Nitrogen- lbs/day												
1																
2					0.0005	0.0002	0.0006	0.0002			0.0050	0.0020	0.1020	0.0109		
3																
4																
5																
6																
7																
8			17.60	2,166					0.0020	0.0020						
9					0.0002	0.0002										
10															85.7000	1.0300
11																
12																
13																
14																
15					0.0008											
16						0.0002										
17	143	34,978														
18																
19																
20																
21																
22					0.0002											
23						0.0002										
24																
25																
26																
27																
28																
29																
30					0.0002	0.0002										
31																
Avg.	143	34,978	17.60	2,166	0.0004	0.0002	0.0006	0.0002	0.0020	0.0020	0.0050	0.0020	0.1020	0.0109	85.7000	1.0300
Max.	143	34,978			0.0008	0.0002	0.0006	0.0002	0.0020	0.0020	0.0050	0.0020	0.1020	0.0109	85.7000	1.0300
Min.	143	34,978	17.60	2166	0.0002	0.0002	0.0006	0.0002	0.0020	0.0020	0.0050	0.0020	0.1020	0.0109	85.7000	1.0300
Data	1	1	1	1	5	5	1	1	1	1	1	1	1	1	1	1



# WASTEWATER TREATMENT PLANT

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	July	2024

Substitute for State Form 30530

Day Of Month	Ni - Influent mg/L	Ni - Effluent mg/L	Pb - Influent mg/L	Pb - Effluent mg/L	Zn - Influent mg/L	Zn - Effluent mg/L												
1																		
2	0.0138	0.0048	0.0043	0.0010	0.1790	0.0186												
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
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23																		
24																		
25																		
26																		
27																		
28																		
29																		
30																		
31																		
Avg.	0.0138	0.0048	0.0043	0.0010	0.1790	0.0186												
Max	0.0138	0.0048	0.0043	0.0010	0.1790	0.0186												
Min.	0.0138	0.0048	0.0043	0.0010	0.1790	0.0186												
Date	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)  
 State Form 50546 (R4 / 9-15)  
 INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart		Page 1 of 9		Permit Number: IN0025574																
Facility: Elkhart Public Works & Utilities				Public Notification Requirements Met? Y																
Monitoring Period: July 2024		Enter "x" if no CSO discharge occurred for the month:																		
Design Peak Hourly Flow (MGD): 44		Design Average Flow (MGD): 20		Measured/Metered (M) or Estimated (E) must be specified																
WWTP Influent Data			Precipitation Data				CSO Outfall No. 005				CSO Outfall No. 006									
Day of Month	Average Daily Flow (MGD)	Peak Hourly Flow (MGD)	Time Precip. Began (am/pm)	Precip. Duration (Hours)	Total Daily Precip. (Inches)	Peak Intensity (Inch/hr)	Measurement Interval (hr, 30 m, 15 m)	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
1	11.93	13.40					15 min													
2	11.98	13.60					15 min													
3	12.16	13.30					15 min													
4	14.04	32.70	2:06 PM	4.55	0.91	2.64	15 min													
5	12.16	13.70	3:11 AM	9.58	0.07	0.24	15 min													
6	11.68	13.00					15 min													
7	11.10	12.80					15 min													
8	11.88	13.30					15 min													
9	14.68	31.60	5:26 PM	6.63	2.19	1.84	15 min							6:43 PM	M	1.17	M	0.6123	M	
10	25.72	40.00	12:01 AM	14.00	1.29	0.80	15 min							12:03 AM	M	2.75	M	1.0857	M	
11	19.48	22.60	9:41 PM	0.58	0.27	0.84	15 min													
12	20.34	30.50	1:21 AM	9.42	0.01	0.04	15 min													
13	17.26	19.20					15 min													
14	18.86	31.00	2:36 AM	10.58	0.79	1.24	15 min													
15	20.48	29.00	2:01 AM	20.42	0.54	0.52	15 min													
16	20.53	24.90	12:21 AM	1.83	0.23	0.52	15 min													
17	20.33	22.20					15 min													
18	18.73	23.40					15 min													
19	16.83	19.10					15 min													
20	16.04	17.70					15 min													
21	15.63	16.80					15 min													
22	17.19	20.30	6:36 PM	0.97	0.10	0.32	15 min													
23	15.82	17.20	2:51 PM	0.17	0.06	0.24	15 min													
24	18.40	36.10	7:31 AM	0.38	0.38	1.52	15 min							7:43 AM	M	0.25	M	0.0381	M	
25	15.21	17.00					15 min													
26	14.32	15.40					15 min													
27	14.38	16.40					15 min													
28	14.38	15.90					15 min													
29	16.34	27.10	1:36 PM	7.33	0.40	0.88	15 min													
30	14.93	16.80	7:06 AM	0.08	0.01	0.04	15 min													
31	14.73	16.60					15 min													
<b>Totals:</b>	<b>497.54</b>			<b>86.52</b>	<b>7.25</b>			<b>0</b>	<b>Days</b>	<b>0.00</b>		<b>0</b>		<b>3</b>	<b>Days</b>	<b>4.17</b>		<b>1.7361</b>		



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 2 of 9		Permit Number: IN0025574														
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y																
Monitoring Period: July 2024										Enter "x" if no CSO discharge occurred for the month:																
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified																
CSO Outfall No. 007						CSO Outfall No. 008					CSO Outfall No. 009				CSO Outfall No. 011											
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E		
1																										
2																										
3																										
4	3:07 PM	M	0.65	M	0.1158	M							3:15 PM	M	0.67	M	0.0289	M								
5																										
6																										
7																										
8																										
9	10:22 PM	M	1.58	M	0.2750	M	11:19 PM	M	0.17	M	0.0066	M	10:30 PM	M	1.42	M	0.0588	M	11:09 PM	M	0.50	M	0.0371	M		
10	12:02 AM	M	4.83	M	0.8396	M							12:01 AM	M	4.38	M	0.1842	M	12:25 AM	M	0.50	M	0.0374	M		
11																										
12																										
13																										
14																										
15																										
16																										
17																										
18																										
19																										
20																										
21																										
22																										
23																										
24	7:57 AM	M	0.33	M	0.0579	M							8:11 AM	M	0.08	M	0.0011	M	7:45 AM	M	0.17	M	0.0012	M		
25																										
26																										
27																										
28																										
29	9:12 PM	M	0.33	M	0.0500	M							9:21 PM	M	0.25	M	0.0049	M								
30																										
31																										
<b>Totals:</b>	5	Da ys	7.72		1.3383		1	Da ys	0.17		0.0066		5	Da ys	6.80		0.2779		3	Da ys	1.17		0.0757			



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 3 of 9			Permit Number: IN0025574													
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y																
Monitoring Period: Jul 2024										Enter "x" if no CSO discharge occurred for the month:																
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified																
	CSO Outfall No. 012					CSO Outfall No. 013					CSO Outfall No. 14B					CSO Outfall No. 015										
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E		
1																										
2																										
3																										
4	LOSS OF POWER																			3:11 PM	M	0.67	M	0.0572	M	
5																										
6																										
7																										
8																										
9	11:02 PM	M	0.33	M	0.0194	M	11:17 PM	M	0.50	M	0.0372	M							7:11 PM	M	1.58	M	0.2565	M		
10	12:02 AM	M	0.92	M	0.0431	M	12:27 AM	M	0.67	M	0.0383	M							12:01 AM	M	3.08	M	0.3842	M		
11																										
12																										
13																										
14																										
15																										
16																										
17																										
18																										
19																										
20																										
21																										
22																										
23																										
24	7:57 AM	M	0.17	M	0.0015	M													7:51 AM	M	0.67	M	0.0458	M		
25																										
26																										
27																										
28																										
29	8:52 PM	M	0.33	M	0.0077	M	9:02 PM	M	0.08	M	0.0004	M							9:01 PM	M	0.42	M	0.0129	M		
30																										
31																										
<b>Totals:</b>	4	Da ys	1.75		0.0717		3	Da ys	1.25		0.0759		0	Da ys	0.00		0.0000		5	Da ys	6.42		0.7566			



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 4 of 9					Permit Number: IN0025574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y															
Monitoring Period: July 2024										Enter "x" if no CSO discharge occurred for the month:															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 016						CSO Outfall No. 017						CSO Outfall No. 018						CSO Outfall No. 019							
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
1																									
2																									
3																									
4							3:19 PM	M	0.33	M	0.0125	M	2:59 PM	M	1.83	M	0.1553	M							
5																									
6																									
7																									
8																									
9	11:25 PM	M	0.33	M	0.0052	M	7:14 PM	M	1.17	M	0.2597	M	6:50 PM	M	1.67	M	0.0459	M	10:59 PM	M	1.08	M	0.0486	M	
10	12:35 AM	M	0.25	M	0.0035	M	12:04 AM	M	2.50	M	0.4694	M	12:04 AM	M	1.92	M	0.0175	M	12:04 AM	M	3.00	M	0.0899	M	
11																									
12																									
13																									
14													3:24 AM	M	3.08	M	0.3111	M							
15													2:59 AM	M	3.17	M	0.2017	M							
16													8:54 AM	M	3.00	M	0.0883	M							
17																									
18																									
19													2:04 PM	M	0.08	M	0.0011	M							
20																									
21																									
22																									
23																									
24													7:54 AM	M	0.75	M	0.0197	M							
25																									
26																									
27																									
28																									
29																									
30																									
31																									
<b>Totals:</b>	2	Days	0.58		0.0087		3	Days	4.00		0.7416		8	Days	15.50		0.8406		2	Days	4.08		0.1385		



National Pollutant Discharge Elimination System (NPDES)  
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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 5 of 9					Permit Number: IN0025574									
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y														
Monitoring Period: July 2024										Enter "x" if no CSO discharge occurred for the month:														
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified														
CSO Outfall No. 020										CSO Outfall No. 023					CSO Outfall No. 024					CSO Outfall No. 025				
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E
1																								
2																								
3																								
4	2:55 PM	M	0.58	M	0.0368	M	2:52 PM	M	0.50	M	0.0140	M	3:15 PM	M	0.58	M	0.0212	M	2:46 PM	M	0.58	M	0.1012	M
5																								
6																								
7																								
8																								
9	6:40 PM	M	1.58	M	0.1029	M	6:37 PM	M	2.17	M	0.0571	M	6:50 PM	M	4.75	M	0.5830	M	6:46 PM	M	1.83	M	0.3390	M
10	12:00 AM	M	2.08	M	0.1212	M	12:02 AM	M	1.67	M	0.0528	M	12:00 AM	M	4.08	M	0.5709	M	12:01 AM	M	2.00	M	0.3169	M
11	10:00 PM	M	0.33	M	0.0036	M	9:52 PM	M	0.17	M	0.0016	M							9:51 PM	M	0.25	M	0.0212	M
12																								
13																								
14													3:50 AM	M	0.17	M	0.0007	M						
15																								
16																								
17																								
18																								
19																								
20																								
21																								
22																								
23																								
24	7:50 AM	M	0.17	M	0.0063	M	7:42 AM	M	0.33	M	0.0114	M							7:41 AM	M	0.33	M	0.0803	M
25																								
26																								
27																								
28																								
29																								
30																								
31																								
<b>Totals:</b>	5	Da ys	4.74		0.2708		5	Da ys	4.84		0.1369		4	Da ys	9.58		1.1758		6	Da ys	5.24		0.8696	



National Pollutant Discharge Elimination System (NPDES)  
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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 6 of 9					Permit Number: IN0025574									
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y														
Monitoring Period: July 2024										Enter "x" if no CSO discharge occurred for the month:														
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified														
	CSO Outfall No. 026					CSO Outfall No. 027					CSO Outfall No. 028					CSO Outfall No. 029								
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E
1																								
2																								
3																								
4							2:51 PM	M	0.42	M	0.0084	M							2:53 PM	M	0.25	M	0.0081	M
5																								
6																								
7																								
8																								
9	6:50 PM	M	0.75	M	0.0084	M	6:41 PM	M	1.08	M	0.0757	M							6:48 PM	M	0.50	M	0.0089	M
10	12:15 AM	M	0.67	M	0.0079	M	12:31 AM	M	0.58	M	0.0032	M							12:38 AM	M	0.17	M	0.0020	M
11	9:10 PM	M	2.42	M	0.0531	M																		
12	12:00 AM	M	4.17	M	0.0425	M																		
13																								
14																								
15																								
16	1:45 PM	M	0.25	M	0.0010	M																		
17	11:00 AM	M	2.42	M	0.0164	M																		
18	3:45 AM	M	0.08	M	0.0002	M																		
19																								
20																								
21																								
22																								
23																								
24							7:41 AM	M	0.17	M	0.0035	M												
25																								
26																								
27																								
28																								
29																								
30																								
31																								
<b>Totals:</b>	7	Da ys	10.76		0.1295		4	Da ys	2.25		0.0908		0	Da ys	0.00		0.0000		3	Da ys	0.92		0.0190	



National Pollutant Discharge Elimination System (NPDES)  
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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 7 of 9					Permit Number: IN0025574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y															
Monitoring Period: July 2024										Enter "x" if no CSO discharge occurred for the month:															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 031						CSO Outfall No. 032						CSO Outfall No. 033						CSO Outfall No. 034							
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
1																									
2																									
3																									
4							2:54 PM	M	0.08	M	0.0047	M	2:55 PM	M	0.67	M	0.1759	M							
5																									
6																									
7																									
8																									
9	8:11 PM	M	3.83	M	1.0646	M	6:50 PM	M	2.08	M	0.2391	M	8:00 PM	M	1.25	M	0.4314	M							
10	12:01 AM	M	12.25	M	2.0197	M	12:04 AM	M	4.58	M	0.7738	M	12:00 AM	M	1.83	M	0.5696	M							
11																									
12																									
13																									
14							4:40 AM	M	1.25	M	0.2106	M													
15																									
16																									
17																									
18																									
19																									
20																									
21																									
22																									
23																									
24							7:44 AM	M	0.08	M	0.0010	M													
25																									
26																									
27																									
28																									
29																									
30																									
31																									
<b>Totals:</b>	2	Da ys	16.08		3.0843		5	Da ys	8.07		1.2292		3	Da ys	3.75		1.1769		0	Da ys	0.00		0.0000		





National Pollutant Discharge Elimination System (NPDES)  
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City: Elkhart										Page 8 of 9					Permit Number: IN0025574									
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y														
Monitoring Period: July 2024										Enter "x" if no CSO discharge occurred for the month:														
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified														
CSO Outfall No. 037						CSO Outfall No. 039						CSO Outfall No. 040						CSO Outfall No.						
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E
1																								
2																								
3																								
4	3:07 PM	M	1.17	M	0.2746	M	2:46 PM	M	0.50	M	0.0142	M	2:50 PM	M	1.58	M	0.0775	M						
5																								
6																								
7																								
8																								
9	6:42 PM	M	5.33	M	3.0150	M	6:41 PM	M	2.75	M	0.0708	M	6:45 PM	M	5.23	M	0.4365	M						
10	12:02 AM	M	4.50	M	4.0645	M	12:01 AM	M	1.92	M	0.0546	M	12:00 AM	M	13.92	M	0.7594	M						
11							9:46 PM	M	0.25	M	0.0066	M	10:05 PM	M	0.50	M	0.0152	M						
12																								
13																								
14	3:32 AM	M	1.92	M	0.6504	M							3:40 AM	M	2.33	M	0.1009	M						
15	3:27 AM	M	0.83	M	0.0363	M							3:40 AM	M	1.42	M	0.0233	M						
16													11:30 AM	M	0.32	M	0.0030	M						
17																								
18																								
19																								
20																								
21																								
22	7:47 PM	M	0.17	M	0.0007	M																		
23																								
24	8:07 AM	M	0.75	M	0.0889	M																		
25																								
26																								
27																								
28																								
29																								
30																								
31																								
<b>Totals:</b>	7	Days	14.67		8.1304		4	Days	5.42		0.1462		7	Days	25.30		1.4158		0	Days	0.00		0.0000	

RS OFFLINE FOR CONSTRUCTION PH



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)  
 State Form 50546 (R4 / 9-15)  
 INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart	Page: 9 of 9	Permit Number: IN0025574
Facility: Elkhart Public Works & Utilities	Public Notification Requirements Met? Y	
Monitoring Period: July 2024	Enter "x" if no CSO discharge occurred for the month:	
Design Peak Hourly Flow (MGD): 44	Design Average Flow (MGD): 20	

Day of Month	Comments (further explanation as to why each CSO event occurred)
1	
2	
3	
4	precipitation
5	
6	
7	
8	
9	precipitation
10	precipitation
11	precipitation
12	precipitation
13	
14	precipitation
15	precipitation
16	precipitation
17	
18	
19	precipitation
20	
21	
22	
23	
24	precipitation
25	
26	
27	
28	
29	precipitation
30	
31	

Typed or Printed Name and Title of Principal Executive Officer or Authorized Agent <b>Laura E. Kolo, Utilities Services Manager</b>	Telephone <b>574-293-2572</b>
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 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.	
Signature of Principal Executive Officer or Authorized Agent <i>Laura Kolo</i>	Date (mm/dd/yy) <b>08/26/24</b>

# Biomonitor

<b>Permittee/Location</b> Elkhart WWTP Elkhart, IN			<b>Permit Number:</b> IN0025674			<b>Outfall Number:</b> 035		
<b>Laboratory Name and Contact:</b> Biomonitor Michael Britton			<b>Report Due Date:</b>			<b>Report Date:</b> July 2024		
<b>WETT Reporting Frequency or Type:</b> (mark one)	Monthly	Quarterly	Semi-annual	Annual	TRE	Post TRE	3/3 (per Reporting Frequency)	
					<b>X</b>		Consecutive Months	

Test Organism	Test	Endpoint [1]	Units	Result	Compliance Value in TUs	Pass/Fail	Reporting			
<i>Ceriodaphnia dubia</i>	7-day Survival and Reproduction Definitive Static-Renewal	NOEC Survival	%	100						
			TU <sub>c</sub>	1						
		NOEC Reproduction	%	100						
			TU <sub>c</sub>	1						
		IC25 Reproduction	%	100						
			TU <sub>c</sub>	1						
		48 hr. LC50	%	>100						
			TU <sub>a</sub>	<1						
		Toxicity (acute)	TU <sub>a</sub>	<1				1.0	Pass	Laboratory Report and NetDMR (Parameter Code 61425)
		Toxicity (chronic)	TU <sub>c</sub>	1				8.0	Pass	Laboratory Report and NetDMR (Parameter Code 61426)

<i>Pimephales promelas</i>	7-day Larval Survival and Growth Definitive Static-Renewal	NOEC Survival	%	100						
			TU <sub>c</sub>	1						
		NOEC Growth	%	100						
			TU <sub>c</sub>	1						
		IC25 Growth	%	100						
			TU <sub>c</sub>	1						
		96 hr. LC50	1 %	>100						
			TU <sub>a</sub>	<1						
		Toxicity (acute)	TU <sub>a</sub>	1				1.0	Pass	Laboratory Report and NetDMR (Parameter Code 61427)
		Toxicity (chronic)	TU <sub>c</sub>	1				8.0	Pass	Laboratory Report and NetDMR (Parameter Code 61428)

**Biomonitor**

8802 West Washington Street  
Indianapolis, IN 46231  
(317) 297-7713

*Whole Effluent  
Toxicity Test*

ELKHART  
WASTEWATER TREATMENT PLANT

IN0025674

Elkhart, Indiana

July 2024

**GLP (Good Laboratory Practices)  
COMPLIANCE STATEMENT**

Project Name: Elkhart Wastewater Treatment Plant

Project Date: July 2024

This project has been conducted under GLP standards, as stated in 40 CFR Part 160, with the following exceptions:

*Greg R. Bright*

Quality Assurance Officer  
Date: 7/22/24

*Michael Britten*

Project Director  
Date: 7/22/24

Other Participating Personnel:

Mukang'andu Ng'andwe  
Arizona Fox  
Melody Myers-Kinzie

Copies of the raw data and final report are maintained in the archives of Biomonitor for five years from the date of completion.

Section 1  
Executive Summary

Biomonitor conducted whole effluent toxicity testing for the Elkhart, IN Wastewater Treatment Plant during July 2024. The purpose of the testing was to fulfill the biomonitoring requirement for the NPDES permit.

Three samples were collected July 7-11, 2024. The water flea, *Ceriodaphnia dubia*, and Fathead minnow, *Pimephales promelas*, were used as the test organisms.

A total of six toxicity endpoints were measured. The following results were obtained:

*Ceriodaphnia dubia* test

48-hr LC <sub>50</sub>	> 100% effluent	TU <sub>a</sub> < 1.0
NOEL for survival	= 100% effluent	TU <sub>c</sub> = 1.0
NOEL for reproduction	= 100% effluent	TU <sub>c</sub> = 1.0

*Pimephales promelas* test

48-hr LC <sub>50</sub>	> 100% effluent	TU <sub>a</sub> < 1.0
NOEL for survival	= 100% effluent	TU <sub>c</sub> = 1.0
NOEL for growth	= 100% effluent	TU <sub>c</sub> = 1.0

The acute toxicity limits in the NPDES permit require the 48 and/or 96-hr LC<sub>50</sub> to be greater than 100% effluent (a TU<sub>a</sub> not to exceed 1.0). The effluent samples passed the acute toxicity limits during this testing period for *Ceriodaphnia dubia* but not *Pimephales promelas*.

The chronic toxicity limits in the NPDES permit require a NOEL (No Observable Effect Level) of 12.5% effluent (a TU<sub>c</sub> not to exceed 8.0). According to the NPDES permit, there was not a "Demonstration of Toxicity" during this sampling period.

Section 2  
Introductory Information

**Table I**  
**General**

---

<b>Permit number:</b>	IN0025674
<b>Toxicity testing requirements:</b>	Fathead minnow larval survival and growth test  Ceriodaphnia survival and reproduction test
<b>Plant location:</b>	Elkhart Wastewater Treatment Plant 1201 Nappanee St. Elkhart, Indiana 46516
<b>Name of receiving water body:</b>	St. Joseph River
<b>Name of WET testing laboratory:</b>	Biomonitor 8802 West Washington St. Indianapolis, IN 46231 (317) 297-7713

---

**Table II**  
**Plant Operations**

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<b>Type of discharger:</b>	Publicly owned treatment works	
	Wastewater consists of treated sanitary and industrial wastes	
<b>Type of waste treatment:</b>	Class IV. Activated sludge	
<b>Design flow:</b>	20 – MGD	
<b>Volume of wastewater flow during the sampling period:</b>	July 7, 2024	-MGD
	July 9, 2024	-MGD
	July 11, 2024	-MGD

---



**Table III**  
**Source of effluent and dilution water**

**I. Effluent samples**

<b>Sampling point:</b>	Outfall 035	
<b>Collection dates and times:</b>	July 7, 2024	11:00 p.m.
	July 9, 2024	11:00 p.m.
	July 11, 2024	11:00 p.m.
<b>Sample collection:</b>	24-hour composite samples	
<b>Physical and chemical data:</b>	See Tables 9 and 15	

**II. Dilution water samples**

<b>Source:</b>	Moderately Hard Synthetic Water (MHSW)	
	Collection date and time:	N/A
<b>Pretreatment:</b>	None	
<b>Physical and chemical data:</b>	See Tables 9 and 15	

Section 3  
Test Methods and Results

**CERIODAPHNIA SURVIVAL AND REPRODUCTION TEST**

**Table IV**  
**METHODOLOGY**  
*Ceriodaphnia* Survival and Reproduction Test

---

<b>Toxicity test method used:</b>	<i>Ceriodaphnia</i> survival and reproduction test	
<b>Endpoints of test:</b>	Survival and reproduction (LC <sub>50</sub> , NOEL, and LOEL)	
<b>Reference method:</b>	EPA-821-R-02-013	
<b>Deviations from method:</b>	Test was completed in six days because control animals produced an average of greater than 15 young per female by day six.	
<b>Date and time test initiated:</b>	July 9, 2024	10:45 a.m.
<b>Date and time test terminated</b>	July 15, 2024	10:55 a.m.
<b>Type of test chambers:</b>	Polyethylene	30 ml
<b>Volume of solution used per chamber:</b>	15 ml	
<b>Number of organisms per chamber:</b>	1	
<b>Number of replicate chambers per treatment:</b>	10	
<b>Test temperature range:</b>	25°C (no deviations)	

---

**Table V**  
**ORGANISMS USED**  
*Ceriodaphnia* Survival and Reproduction Test

---

<b><u>Scientific name:</u></b>	<i>Ceriodaphnia dubia</i>
<b><u>Age:</u></b>	<24 hours
<b><u>Life stage:</u></b>	neonates
<b><u>Mean length and weight:</u></b>	Not applicable
<b><u>Source</u></b>	Laboratory culture in moderately hard reconstituted water
<b><u>Diseases and treatment</u></b>	Not applicable

---

**Table VI**  
**RESULTS**  
***Ceriodaphnia* Survival and Reproduction Test**

**Raw Data:**

See Table 8

**LC<sub>50</sub> or NOEL obtained:**

48-hr LC<sub>50</sub> = greater than 100% effluent

NOEL for survival = 100% effluent

NOEL for reproduction = 100% effluent

Control survival was 100% after six days. Control reproduction averaged greater than 15 per surviving female.

**Methods used to calculate endpoints:**

Fisher's Exact Test for the survival endpoint.

Dunnett's Test for the reproduction endpoint.

No calculations necessary for the acute endpoint.

**Table VII**  
**QUALITY ASSURANCE**  
***Ceriodaphnia* Survival and Reproduction Test**

---

<b><u>Reference Toxicant used and source:</u></b>	Copper chloride, reagent grade, from Carolina Biological
<b><u>Date and time of most recent test:</u></b>	July 16-23, 2024
<b><u>Dilution water used in test:</u></b>	Moderately hard synthetic water
<b><u>Results:</u></b>	48-hr LC <sub>50</sub> = 99 µg/L as Cu NOEL (reproduction) = 20 µg/L as Cu LOEL (reproduction) = 40 µg/L as Cu
<b><u>Comparison to recommended range:</u></b>	Within the laboratory control range for both acute and chronic endpoints (see attachment)

---

**Table VIII  
TEST DATA  
*Ceriodaphnia* Survival and Reproduction Test**

Effluent Concentration	Day No.	Number of Young Reproduced										Young Per Female	Total Live Breeders
		Replicate											
		A	B	C	D	E	F	G	H	I	J		
Control	1	0	0	0	0	0	0	0	0	0	0	18.3	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	4	2	2	0	4	4	2	2	3	0		10
	4	7	4	4	0	5	6	0	4	4	6		10
	5	0	0	8	8	0	0	10	0	9	6		10
	6	0	9	9	11	13	12	13	12	0	0		10
6.25%	1	0	0	0	0	0	0	0	0	0	0	19.0	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	4	2	0	0	2	4	0	4	4	0		10
	4	8	2	5	0	5	7	0	5	2	2		10
	5	0	0	9	5	0	0	7	0	7	4		10
	6	12	13	14	9	11	14	13	16	0	0		10
12.5%	1	0	0	0	0	0	0	0	0	0	0	17.6	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	2	2	0	0	0	3	3	0	3	0		10
	4	9	0	0	0	5	7	0	5	3	0		10
	5	0	0	4	8	0	10	11	0	0	8		10
	6	16	12	14	12	11	0	14	10	4	0		10

**Table VIII (cont.)  
TEST DATA  
*Ceriodaphnia* Survival and Reproduction Test**

Effluent Concentration	Day No.	Number of Young Reproduced										Young Per Female	Total Live Breeders
		Replicate											
		A	B	C	D	E	F	G	H	I	J		
25%	1	0	0	0	0	0	0	0	0	0	0	17.1	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	4	0	0	0	2	2	0	0	0	0		10
	4	7	6	4	0	7	3	0	6	0	0		10
	5	0	0	9	6	0	8	10	0	0	8		10
	6	16	11	15	10	15	0	11	11	0	0		10
50%	1	0	0	0	0	0	0	0	0	0	0	16.7	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	0	0	0	0	0	4	0	4	0	1		10
	4	7	1	0	0	4	8	0	6	2	6		10
	5	0	0	7	9	0	10	9	0	5	9		10
	6	13	2	14	0	13	0	15	18	0	0		10
100%	1	0	0	0	0	0	0	0	0	0	0	14.9	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	1	2	0	0	6	3	0	0	0	0		10
	4	8	0	0	9	0	5	0	8	0	9		10
	5	0	0	8	0	0	0	0	0	0	11		10
	6	18	5	18	14	8	0	0	16	0	0		10



**Table IX  
WATER CHEMISTRY  
*Ceriodaphnia* Survival and Reproduction Test**

<b>Effluent Concentration</b>	<b>D.O. Range mg/L</b>	<b>Temp. Range °C</b>	<b>pH Range S.U.</b>	<b>Alk. Range CaCO<sub>3</sub></b>	<b>Hardness Range CaCO<sub>3</sub></b>	<b>Cond. Range µS</b>
CONTROL	7.3 – 9.1	25	7.8 – 8.4	40-	100-110	300-360
6.25%	7.3 – 9.1	25	7.8 – 8.3			310-360
25%	7.3 – 9.3	25	7.7 – 8.1			410-420
100%	7.4 – 9.7	25	7.5 – 8.4	90-100	225-275	660-730

## FATHEAD MINNOW LARVAL SURVIVAL AND GROWTH TEST

**Table X**  
**METHODOLOGY**  
**Fathead Minnow Larval Survival and Growth Test**

---

<b><u>Toxicity test method used:</u></b>	7-day fathead minnow larval survival and growth test	
<b><u>Endpoints of test:</u></b>	96-hr LC <sub>50</sub> and no observable effect level (NOEL) for survival and growth. TU <sub>c</sub> for survival and growth.	
<b><u>Reference method:</u></b>	EPA-821-R-02-013	
<b><u>Deviations from method:</u></b>	No Deviations	
<b><u>Date and time test initiated:</u></b>	July 9, 2024	10:30 a.m.
<b><u>Date and time test terminated</u></b>	July 16, 2024	10:30 a.m.
<b><u>Type of test chambers:</u></b>	Polyethylene	300 ml
<b><u>Volume of solution used per chamber:</u></b>	250 ml	
<b><u>Number of organisms per chamber:</u></b>	ten	
<b><u>Number of replicate chambers per treatment:</u></b>	four	
<b><u>Test temperature range:</u></b>	25°C (no deviations)	

---

**Table XI  
ORGANISMS USED  
Fathead Minnow Survival and Growth Test**

---

<b><u>Scientific name:</u></b>	<i>Pimephales promelas</i>
<b><u>Age:</u></b>	<24 hours
<b><u>Life stage:</u></b>	larvae
<b><u>Mean length and weight:</u></b>	Not applicable
<b><u>Source</u></b>	Biomonitor Lab Cultures
<b><u>Diseases and treatment</u></b>	Not applicable

---

**Table XII**  
**RESULTS**  
**Fathead Minnow Larval Survival and Growth Test**

---

<b><u>Raw Data:</u></b>	See Table 14
<b><u>LC<sub>50</sub> or NOEL obtained:</u></b>	96-hr LC <sub>50</sub> = >100% effluent  NOEL for survival = 100% effluent  NOEL for growth = 100% effluent  Control survival and growth fell within the acceptable range
<b><u>Methods used to calculate endpoints:</u></b>	Steel's Many-One Rank Test was required for the survival endpoint because the homogeneity of variance assumptions could not be met.  Dunnett's Test for the growth endpoint.  No calculations necessary for the acute endpoint.

---

**Table XIII  
QUALITY ASSURANCE  
Fathead Minnow Larval Survival and Growth Test**

---

<b><u>Reference Toxicant used and source:</u></b>	Potassium chloride, reagent grade, from Sigma-Aldrich
<b><u>Date and time of most recent test:</u></b>	July 16-23, 2024
<b><u>Dilution water used in test:</u></b>	Moderately Hard Synthetic Water
<b><u>Results:</u></b>	96-hr LC <sub>50</sub> = 1091 mg /L as KCl  NOEL (growth) = 1000 mg/L as KCl  LOEL (growth) = 2000 mg/L as KCl
<b><u>Comparison to recommended range:</u></b>	Within the laboratory control range for both acute and chronic endpoints (see attachment)

---

**Table XIV**  
**TEST DATA**  
**Fathead Minnow Larval Survival and Growth Test**

Effluent Concentration	<u>% Survival in Each Replicate</u>				<u>Average Dry Weight (µg) in Each Replicate</u>			
	A	B	C	D	A	B	C	D
<b>Control</b>	100	100	100	100	440	390	430	350
<b>6.25%</b>	100	100	100	100	400	430	550	430
<b>12.5%</b>	100	100	100	90	350	460	370	390
<b>25%</b>	90	100	100	90	380	380	400	330
<b>50%</b>	90	100	90	100	330	420	410	390
<b>100%</b>	90	90	100	90	330	380	450	370

**Table XV**  
**WATER CHEMISTRY**  
**Fathead Minnow Larval Survival and Growth Test**

<b>Effluent Concentration</b>	<b>D.O. <u>Range</u> mg/L</b>	<b>Temp. <u>Range</u> °C</b>	<b>pH <u>Range</u> S.U.</b>	<b>Alk. <u>Range</u> CaCO<sub>3</sub></b>	<b>Hardness <u>Range</u> CaCO<sub>3</sub></b>	<b>Cond. <u>Range</u> µS</b>
CONTROL	5.8 – 9.3	25	7.5 – 8.1	40-	100-110	310-320
6.25%	5.7 – 9.3	25	7.5 – 8.0	/	/	320-340
25%	5.9 – 9.6	25	7.6 – 7.8	/	/	400-420
100%	5.6 – 10.1	25	7.5 – 8.1	90-100	225-275	650-740





# Biomonitor

8802 W. Washington Street  
Indianapolis, IN 46231  
317-297-7713  
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## SAMPLE SUMMARY AND CHAIN OF CUSTODY

CLIENT NAME: Elkhart WWTP

PURPOSE OF SAMPLE: Whole Effluent Toxicity

SAMPLE IDENTIFICATION: Elkhart - 2                      Wed.                      July 2024

DESCRIPTION: Outfall

DATE SAMPLE COLLECTED: Start Date 7-9-24                      Start Time 1 am  
End Date 7-9-24                      End Time 11 pm

NAME OF PERSON COLLECTING SAMPLE: Sec Operations

SAMPLE VOLUME: 8 Liters

NUMBER OF CONTAINERS: Two, HDPE

SAMPLE STORAGE: Refrigerated/iced

PRESERVATIVES: none

Relinquished by: Barry Abell  
Date: 7-10-24                      Time: 11:50 am

Received by: CPA, JL  
Date: 7/10/24                      Time: 11:50 =

Relinquished by: \_\_\_\_\_  
Date: \_\_\_\_\_                      Time: \_\_\_\_\_

Received by: \_\_\_\_\_  
Date: \_\_\_\_\_                      Time: \_\_\_\_\_

TEMP 8.8 °C

COMMENTS:

# Biomonitor

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Indianapolis, IN 46231  
317-297-7713  
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## SAMPLE SUMMARY AND CHAIN OF CUSTODY

CLIENT NAME: Elkhart WWTP

PURPOSE OF SAMPLE: Whole Effluent Toxicity

SAMPLE IDENTIFICATION: Elkhart - 3 Fri. July 2024

DESCRIPTION: Outfall

DATE SAMPLE COLLECTED: Start Date 7-11-2024 Start Time 1 am  
End Date 7-11-2024 End Time 11 pm

NAME OF PERSON COLLECTING SAMPLE: Operations

SAMPLE VOLUME: 8 Liters

NUMBER OF CONTAINERS: Two, HDPE

SAMPLE STORAGE: Refrigerated/iced

PRESERVATIVES: none  
Relinquished by: [Signature]

Date: 7-12-2024 Time: 12:06pm

Received by: [Signature]

Date: 7/12/24 Time: 12:06p-

Relinquished by: \_\_\_\_\_  
Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: \_\_\_\_\_  
Date: \_\_\_\_\_ Time: \_\_\_\_\_

TEMP: 9 °C

COMMENTS:

**Ceriodaphnia dubia**

Reference Toxicant - Copper sulfate/chloride as Cu

Dilution Water - Moderately Hard Reconstituted Water

Date mm/yy	LC <sub>50</sub> 48-hr µg/L	NOEL µg/L (repro.)	LOEL µg/L (repro.)	IC <sub>25</sub> µg/L (repro.)
08/21	87	40	80	23
09/21	92	40	80	49
10/21	73	40	80	52
11/21	113	40	160	59
12/21	75	40	80	48
2/22	105	40	80	54
3/22	75	40	80	51
4/22	113	40	80	57
5/22	95	40	80	30
6/22	113	40	80	41
7/22	75	40	80	33
8/22	86	20	40	30
9/22	80	40	80	32
11/22	70	40	80	40
12/22	77	40	80	48
1/23	75	40	80	48
2/23	86	40	80	52
4/23	80	40	80	37
5/23	80	40	80	39
06/23	113	40	160	59
07/23	75	40	80	55
08/23	80	40	80	15
10/23	113	40	80	58
11/23	86	40	80	50
01/24	99	20	40	30
02/24	86	40	80	48
03/24	80	40	80	48
04/24	80	40	80	51
06/24	87	20	40	32
07/24	99	20	40	20
<u>Average</u>	88	<u>Mode</u> 40	80	43
<u>St. Dev.</u>	14			12
<u>Upper Limit</u>	116	80	160	67
<u>Lower Limit</u>	61	20	40	19

**Plimphales promelas**

Reference Toxicant - Potassium chloride

Dilution Water - Moderately Hard Reconstituted Water

Date mm/yy	LC <sub>50</sub> 96-hr mg/L	NOEL mg/L (grwth)	LOEL mg/L (grwth)	IC <sub>25</sub> mg/L (grwth)
11/21	1129	1000	2000	939
12/21	1129	500	1000	810
02/22	812	500	1000	612
03/22	946	500	1000	707
04/22	917	500	1000	703
05/22	1110	1000	2000	1223
06/22	856	500	1000	710
07/22	1130	500	1000	736
08/22	1093	500	1000	925
09/22	1278	1000	2000	950
11/22	1035	500	1000	684
12/22	1053	1000	2000	805
01/23	795	500	1000	664
02/23	1091	500	1000	741
04/23	1231	1000	2000	1121
05/23	1189	1000	2000	1110
06/23	951	500	1000	669
07/23	1091	500	1000	1091
09/23	1000	500	1000	702
10/23	1124	500	1000	768
11/23	1253	500	1000	849
01/24	1128	500	1000	699
02/24	952	1000	2000	798
03/24	1189	500	1000	908
04/24	1189	1000	2000	1037
06/24	1169	500	1000	899
07/24	1091	1000	2000	989
<u>Average</u>	1072	<u>Mode</u> 500	1000	846
<u>St. Dev.</u>	127			163
<u>Upper Limit</u>	1326	1000	2000	1172
<u>Lower Limit</u>	817	250	500	520

Client: Elkhart WWTP

Project # \_\_\_\_\_

Analysts: MMB, MN, AF

Start Date: 7/9/2024

Start Time: 1045

End Date: 7/15/2024

End Time: 1055

Test Dates

Template # B

Comments:

0 = Number of Live Young  
 / = Test Organism Dead  
 y = Male  
 M = Lost or Missing

Row 10	Day	1	2	3	4	5	6	7
	1	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0
	3	0	0	0	0	1	0	0
	4	2	6	0	9	6	0	0
	5	4	6	8	11	9	8	0
	6	0	0	0	0	0	0	0
	7							

Row 9	Day	1	2	3	4	5	6	7
	1	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0
	3	3	0	0	4	0	3	0
	4	4	0	2	2	0	3	0
	5	9	0	5	7	0	0	0
	6	0	0	0	0	0	4	0
	7							

Row 8	Day	1	2	3	4	5	6	7
	1	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0
	3	4	4	0	2	0	0	0
	4	5	6	5	4	8	6	0
	5	0	0	0	0	0	0	0
	6	16	18	10	12	16	11	0
	7							

Row 7	Day	1	2	3	4	5	6	7
	1	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0
	3	0	3	2	0	0	0	0
	4	0	0	0	0	0	0	0
	5	7	11	10	9	10	0	0
	6	13	14	13	15	11	0	0
	7							

Row 6	Day	1	2	3	4	5	6	7
	1	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0
	3	4	2	3	3	4	4	0
	4	8	3	5	7	7	6	0
	5	10	8	0	10	0	0	0
	6	0	0	0	0	14	12	0
	7							

Row 5	Day	1	2	3	4	5	6	7
	1	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0
	3	6	4	2	2	0	0	0
	4	0	5	5	7	4	5	0
	5	0	0	0	0	0	0	0
	6	8	13	11	15	13	11	0
	7							

Row 4	Day	1	0	0	0	0	0	0
		2	0	0	0	0	0	0
		3	0	0	0	0	0	0
		4	0	9	0	0	0	0
		5	8	0	5	6	8	8+1
		6	12	14	9	10	11	0
		7						
Row 3	Day	1	0	0	0	0	0	0
		2	0	0	0	0	0	0
		3	0	0	0	0	0	2
		4	0	5	0	0	4	4
		5	7	9	4	8	9	8
		6	14	14	14	18	15	9
		7						
Row 2	Day	1	0	0	0	0	0	0
		2	0	0	0	0	0	0
		3	0	2	0	2	2	2
		4	6	0	1	2	4	0
		5	0	0	0	0	0	0
		6	11	12	2	13	9	5
		7						
Row 1	Day	1	0	0	0	0	0	0
		2	0	0	0	0	0	0
		3	4	4	4	1	2	0
		4	7	8	7	8	9	7
		5	0	0	0	0	0	0
		6	0	12	16	18	16	13
		7						

Discharger: Elkhart WWTP Analyst: MMB, MN, AF  
 Location: Elkhart, IN Test Start- Date/Time: 7/9/24 / 1045  
 Date Sample Collected: 7/7,9,11/24 Test Stop- Date/Time: 7/15/24 / 1055

Conc.	Day	Replicate										No. of Young	No. of Adults	Young per Adult
		1	2	3	4	5	6	7	8	9	10			
Control	1	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	2	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	3	4	2	2	0	4	2	2	3	0	0	23	10	2.3
	4	7	4	4	0	5	0	4	4	6	0	40	10	4.0
	5	0	0	8	8	0	0	10	0	9	6	41	10	4.1
	6	0	9	9	11	13	12	13	12	0	0	79	10	7.9
<b>Total</b>	<b>11</b>	<b>15</b>	<b>23</b>	<b>19</b>	<b>22</b>	<b>25</b>	<b>18</b>	<b>16</b>	<b>12</b>	<b>183</b>	<b>10</b>	<b>18.3</b>		

Conc.	Day	Replicate										No. of Young	No. of Adults	Young per Adult
		1	2	3	4	5	6	7	8	9	10			
6%	1	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	2	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	3	4	2	0	0	2	4	0	4	4	0	20	10	2.0
	4	8	2	5	0	5	7	0	5	2	2	36	10	3.6
	5	0	0	9	5	0	0	7	0	7	4	32	10	3.2
	6	12	13	14	9	11	14	13	16	0	0	102	10	10.2
<b>Total</b>	<b>24</b>	<b>17</b>	<b>28</b>	<b>14</b>	<b>18</b>	<b>25</b>	<b>25</b>	<b>13</b>	<b>6</b>	<b>190</b>	<b>10</b>	<b>19.0</b>		

Conc.	Day	Replicate										No. of Young	No. of Adults	Young per Adult
		1	2	3	4	5	6	7	8	9	10			
12%	1	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	2	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	3	2	2	0	0	0	3	0	3	0	0	13	10	1.3
	4	9	0	0	0	5	7	0	5	3	0	29	10	2.9
	5	0	0	4	8	0	10	11	0	0	8	41	10	4.1
	6	16	12	14	12	11	0	14	10	4	0	93	10	9.3
<b>Total</b>	<b>27</b>	<b>14</b>	<b>18</b>	<b>20</b>	<b>16</b>	<b>20</b>	<b>28</b>	<b>15</b>	<b>10</b>	<b>176</b>	<b>10</b>	<b>17.6</b>		

Conc.	Day	Replicate										No. of Young	No. of Adults	Young per Adult	
		1	2	3	4	5	6	7	8	9	10				
25%	1	0	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	2	0	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	3	4	0	0	0	2	2	0	0	0	0	8	10	10	0.8
	4	7	6	4	0	7	3	0	6	0	0	33	10	10	3.3
	5	0	0	9	6	0	8	10	0	0	0	41	10	10	4.1
	6	16	11	15	10	15	0	11	11	0	0	89	10	10	8.9
Total	27	17	28	16	24	13	21	17	0	8	171	10	10	17.1	

Conc.	Day	Replicate										No. of Young	No. of Adults	Young per Adult	
		1	2	3	4	5	6	7	8	9	10				
50%	1	0	0	0	0	0	0	0	0	0	0	0	10	0.0	
	2	0	0	0	0	0	0	0	0	0	0	0	10	0.0	
	3	0	0	0	0	0	4	0	4	0	1	9	10	10	0.9
	4	7	1	0	0	4	8	0	6	2	6	34	10	10	3.4
	5	0	0	7	9	0	10	9	0	5	9	49	10	10	4.9
	6	13	2	14	0	13	0	15	18	0	0	75	10	10	7.5
Total	20	3	21	9	17	22	24	28	7	16	167	10	10	16.7	

Conc.	Day	Replicate										No. of Young	No. of Adults	Young per Adult	
		1	2	3	4	5	6	7	8	9	10				
100%	1	0	0	0	0	0	0	0	0	0	0	0	10	0.0	
	2	0	0	0	0	0	0	0	0	0	0	0	10	0.0	
	3	1	2	0	0	6	3	0	0	0	0	12	10	10	1.2
	4	8	0	0	9	0	5	0	8	0	9	39	10	10	3.9
	5	0	0	8	0	0	0	0	0	0	11	19	10	10	1.9
	6	18	5	18	14	8	0	0	16	0	0	79	10	10	7.9
Total	27	7	26	23	14	8	0	24	0	20	149	10	10	14.9	



Elkhart 7.24  
File: ceriorep

Transform: NO TRANSFORMATION

Chi-square test for normality: actual and expected frequencies

---

INTERVAL	<-1.5	-1.5 to <-0.5	-0.5 to 0.5	>0.5 to 1.5	>1.5
EXPECTED	4.020	14.520	22.920	14.520	4.020
OBSERVED	4	14	21	20	1

---

Calculated Chi-Square goodness of fit test statistic = 4.5165  
Table Chi-Square value (alpha = 0.01) = 13.277

Data PASS normality test. Continue analysis.

Elkhart 7.24  
File: ceriorep

Transform: NO TRANSFORMATION

Hartley test for homogeneity of variance

---

Calculated H statistic (max Var/min Var) = 4.89  
Closest, conservative, Table H statistic = 12.1 (alpha = 0.01)

Used for Table H ==> R (# groups) = 6, df (# reps-1) = 9  
Actual values ==> R (# groups) = 6, df (# avg reps-1) = 9.00

---

Data PASS homogeneity test. Continue analysis.

NOTE: This test requires equal replicate sizes. If they are unequal but do not differ greatly, the Hartley test may still be used as an approximate test (average df are used).

SUMMARY OF FISHERS EXACT TESTS

GROUP	IDENTIFICATION	NUMBER EXPOSED	NUMBER DEAD	SIG (P=.05)
	CONTROL	10	0	
1	6%	10	0	
2	12%	10	0	
3	25%	10	0	
4	50%	10	0	
5	100%	10	0	

Elkhart 7.24  
File: ceriorep

Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 1 of 2

---

GRP	IDENTIFICATION	N	MIN	MAX	MEAN
1	control	10	11.000	25.000	18.300
2	6.25%	10	6.000	28.000	19.000
3	12.5%	10	8.000	28.000	17.600
4	25%	10	0.000	28.000	17.100
5	50%	10	3.000	28.000	16.700
6	100%	10	0.000	27.000	14.900

---

Elkhart 7.24  
File: ceriorep

Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 2 of 2

---

GRP	IDENTIFICATION	VARIANCE	SD	SEM
1	control	22.678	4.762	1.506
2	6.25%	46.000	6.782	2.145
3	12.5%	42.267	6.501	2.056
4	25%	74.767	8.647	2.734
5	50%	64.456	8.028	2.539
6	100%	110.989	10.535	3.331

---

Elkhart 7.24  
File: ceriorep

Transform: NO TRANSFORMATION

ANOVA TABLE

---

SOURCE	DF	SS	MS	F
Between	5	101.333	20.267	0.337
Within (Error)	54	3250.400	60.193	
Total	59	3351.733		

---

Critical F value = 2.45 (0.05,5,40)

Since  $F < \text{Critical } F$  FAIL TO REJECT  $H_0$ : All groups equal

Elkhart 7.24  
 File: ceriorep

Transform: NO TRANSFORMATION

DUNNETTS TEST - TABLE 1 OF 2 Ho:Control<Treatment

---

GROUP	IDENTIFICATION	TRANSFORMED MEAN	MEAN CALCULATED IN ORIGINAL UNITS	T STAT	SIG
1	control	18.300	18.300		
2	6.25%	19.000	19.000	-0.202	
3	12.5%	17.600	17.600	0.202	
4	25%	17.100	17.100	0.346	
5	50%	16.700	16.700	0.461	
6	100%	14.900	14.900	0.980	

---

Dunnett table value = 2.31 (1 Tailed Value, P=0.05, df=40,5)

Elkhart 7.24  
 File: ceriorep

Transform: NO TRANSFORMATION

DUNNETTS TEST - TABLE 2 OF 2 Ho:Control<Treatment

---

GROUP	IDENTIFICATION	NUM OF REPS	Minimum Sig Diff (IN ORIG. UNITS)	% of CONTROL	DIFFERENCE FROM CONTROL
1	control	10			
2	6.25%	10	8.015	43.8	-0.700
3	12.5%	10	8.015	43.8	0.700
4	25%	10	8.015	43.8	1.200
5	50%	10	8.015	43.8	1.600
6	100%	10	8.015	43.8	3.400

---



Discharger: Elkhart WWTP  
 Location: Elkhart, IN

Test Dates: 7/9/24 - 7/15/24  
 Analysts: MMB, MN, AF

		Day							Remarks
Conc: 25%		1	2	3	4	5	6	7	
Temp.		25	25	25	25	25	25	25	
D.O.	Initial	9.3	8.0	8.1	8.1	8.0	8.1		
	Final	7.7	7.5	7.3	7.8	8.0	8.0		
pH	Initial	8.1	7.8	7.8	8.0	7.7	7.7		
	Final	8.0	8.1	8.1	8.1	8.1	8.0		
Alkalinity									
Hardness									
Conductivity		420		420		410			
Chlorine									

		Day							Remarks
Conc: 50%		1	2	3	4	5	6	7	
Temp.		25	25	25	25	25	25	25	
D.O.	Initial	9.4	8.2	8.1	8.1	8.0	8.0		
	Final	7.7	7.5	7.3	7.9	8.0	8.0		
pH	Initial	8.0	7.8	7.8	8.0	7.6	7.6		
	Final	8.1	8.2	8.1	8.2	8.2	8.1		
Alkalinity									
Hardness									
Conductivity		490		520		490			
Chlorine									

		Day							Remarks
Conc: 100%		1	2	3	4	5	6	7	
Temp.		25	25	25	25	25	25	25	
D.O.	Initial	9.7	8.8	8.5	8.5	8.3	8.4		
	Final	7.6	7.5	7.4	8.1	8.2	8.0		
pH	Initial	7.9	7.9	7.8	8.0	7.6	7.5		
	Final	8.3	8.4	8.3	8.2	8.2	8.2		
Alkalinity		100		90		90			
Hardness		225		275		275			
Conductivity		680		730		660			
Chlorine		N.D.		ND		0.2			
Ammonia		N.D.		ND		1.0			

Discharger: Elkhart WWTP  
 Location: Elkhart, IN

Test Dates 7/9/24 -7/16/24  
 Analysts: MMB, MN, AF

		No. Surviving Organisms							Remarks
Conc:	Rep. #	Day							
		1	2	3	4	5	6	7	
Control	A	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	
6.25%	A	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	
12.5%	A	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	
25%	A	10	10	10	10	10	9	9	
	B	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	
50%	A	10	10	10	10	10	9	9	
	B	10	10	10	10	10	10	10	
	C	10	10	10	10	9	9	9	
	D	10	10	10	10	10	10	10	
100%	A	10	10	10	10	10	9	9	
	B	10	10	10	9	9	9	9	
	C	10	10	10	10	10	10	10	
	D	10	10	10	9	9	9	9	

Comments: Start Time: 1030

FHM Source: Biomonitor Lab Cultures

Elkhart 7.24  
File: fhmsurv            Transform: ARC SINE(SQUARE ROOT(Y))

Shapiro Wilks test for normality

---

D =     0.093

W =     0.949

Critical W (P = 0.05) (n = 24) = 0.916

Critical W (P = 0.01) (n = 24) = 0.884

---

Data PASS normality test at P=0.01 level. Continue analysis.

Elkhart 7.24  
File: fhmsurv            Transform: ARC SINE(SQUARE ROOT(Y))

Hartley test for homogeneity of variance  
Bartlett's test for homogeneity of variance

---

These two tests can not be performed because at least one group has zero variance.

Data FAIL to meet homogeneity of variance assumption.  
Additional transformations are useless.

---



Elkhart 7.24  
File: fhmsurv

Transform: ARC SINE(SQUARE ROOT(Y))

STEELS MANY-ONE RANK TEST

-

Ho:Control<Treatment

---

GROUP	IDENTIFICATION	TRANSFORMED MEAN	RANK SUM	CRIT. VALUE	df	SIG
1	control	1.412				
2	6.25%	1.412	18.00	10.00	4.00	
3	12.5%	1.371	16.00	10.00	4.00	
4	25%	1.331	14.00	10.00	4.00	
5	50%	1.331	14.00	10.00	4.00	
6	100%	1.290	12.00	10.00	4.00	

---

Critical values use k = 5, are 1 tailed, and alpha = 0.05

Discharge: Elkhart WWTP      Test Date(s): 7/9-16/24      Drying Temp (°C): 100  
 Location: Elkhart, IN      Weighing Date: 7/17/24      Drying Time (h): 6  
 Analyst: MMB, MN, AF, MMK

Conc:	Rep. No.	Wgt. of boat (g)	Dry wgt. foil and larvae (g)	Total dry wgt of larvae (mg)	No. of larvae	Mean dry wgt of larvae (g)	Remarks
<b>Control</b>	A	0.92340	0.92780	4.40	10	0.440	
	B	0.92520	0.92910	3.90	10	0.390	
	C	0.93080	0.93510	4.30	10	0.430	
	D	0.92330	0.92680	3.50	10	0.350	
<b>Conc: 6.25%</b>	A	0.92700	0.93100	4.00	10	0.400	
	B	0.93210	0.93640	4.30	10	0.430	
	C	0.92110	0.92660	5.50	10	0.550	
	D	0.91720	0.92150	4.30	10	0.430	
<b>Conc: 12.5%</b>	A	0.93070	0.93420	3.50	10	0.350	
	B	0.92740	0.93200	4.60	10	0.460	
	C	0.92210	0.92580	3.70	10	0.370	
	D	0.92380	0.92770	3.90	9	0.390	
<b>Conc: 25%</b>	A	0.92410	0.92790	3.80	9	0.380	
	B	0.92740	0.93120	3.80	10	0.380	
	C	0.93440	0.93840	4.00	10	0.400	
	D	0.92590	0.92920	3.30	9	0.330	
<b>Conc: 50%</b>	A	0.92710	0.93040	3.30	9	0.330	
	B	0.92440	0.92860	4.20	10	0.420	
	C	0.92450	0.92860	4.10	9	0.410	
	D	0.93210	0.93600	3.90	10	0.390	
<b>Conc: 100%</b>	A	0.92530	0.92860	3.30	9	0.330	
	B	0.91650	0.92030	3.80	9	0.380	
	C	0.91110	0.91560	4.50	10	0.450	
	D	0.92770	0.93140	3.70	9	0.370	

Elkhart 7.24  
File: fhm\_grow            Transform: NO TRANSFORMATION

Chi-square test for normality: actual and expected frequencies

---

INTERVAL	<-1.5	-1.5 to <-0.5	-0.5 to 0.5	>0.5 to 1.5	>1.5
EXPECTED	1.608	5.808	9.168	5.808	1.608
OBSERVED	0	6	10	8	0

---

Calculated Chi-Square goodness of fit test statistic = 4.1251  
Table Chi-Square value (alpha = 0.01) = 13.277

Data PASS normality test. Continue analysis.

Elkhart 7.24  
File: fhm\_grow            Transform: NO TRANSFORMATION

Hartley test for homogeneity of variance

---

Calculated H statistic (max Var/min Var) = 4.96  
Closest, conservative, Table H statistic = 184.0 (alpha = 0.01)

Used for Table H ==>    R (# groups) = 6,    df (# reps-1) = 3  
Actual values        ==>    R (# groups) = 6,    df (# avg reps-1) = 3.00

---

Data PASS homogeneity test. Continue analysis.

NOTE: This test requires equal replicate sizes. If they are unequal but do not differ greatly, the Hartley test may still be used as an approximate test (average df are used).

Elkhart 7.24  
File: fhm\_grow

Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 1 of 2

---

GRP	IDENTIFICATION	N	MIN	MAX	MEAN
1	control	4	0.350	0.440	0.403
2	6.25%	4	0.400	0.550	0.453
3	12.5%	4	0.350	0.460	0.392
4	25%	4	0.330	0.400	0.372
5	50%	4	0.330	0.420	0.387
6	100%	4	0.330	0.450	0.383

---

Elkhart 7.24  
File: fhm\_grow

Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 2 of 2

---

GRP	IDENTIFICATION	VARIANCE	SD	SEM
1	control	0.002	0.041	0.021
2	6.25%	0.004	0.067	0.033
3	12.5%	0.002	0.048	0.024
4	25%	0.001	0.030	0.015
5	50%	0.002	0.040	0.020
6	100%	0.002	0.050	0.025

---

Elkhart 7.24  
File: fhm\_grow

Transform: NO TRANSFORMATION

ANOVA TABLE

---

SOURCE	DF	SS	MS	F
Between	5	0.016	0.003	1.500
Within (Error)	18	0.040	0.002	
Total	23	0.056		

---

Critical F value = 2.77 (0.05,5,18)  
Since  $F < \text{Critical } F$  FAIL TO REJECT  $H_0$ :All groups equal

Elkhart 7.24  
File: fhm\_grow

Transform: NO TRANSFORMATION

DUNNETTS TEST - TABLE 1 OF 2

Ho:Control<Treatment

GROUP	IDENTIFICATION	TRANSFORMED MEAN	MEAN CALCULATED IN ORIGINAL UNITS	T STAT	SIG
1	control	0.403	0.403		
2	6.25%	0.453	0.453	-1.581	
3	12.5%	0.392	0.392	0.316	
4	25%	0.372	0.372	0.949	
5	50%	0.387	0.387	0.474	
6	100%	0.383	0.383	0.632	

Dunnett table value = 2.41 (1 Tailed Value, P=0.05, df=18,5)

Elkhart 7.24  
File: fhm\_grow

Transform: NO TRANSFORMATION

DUNNETTS TEST - TABLE 2 OF 2

Ho:Control<Treatment

GROUP	IDENTIFICATION	NUM OF REPS	Minimum Sig Diff (IN ORIG. UNITS)	% of CONTROL	DIFFERENCE FROM CONTROL
1	control	4			
2	6.25%	4	0.076	18.9	-0.050
3	12.5%	4	0.076	18.9	0.010
4	25%	4	0.076	18.9	0.030
5	50%	4	0.076	18.9	0.015
6	100%	4	0.076	18.9	0.020



Discharger: Elkhart WWTP  
 Location: Elkhart, IN

Test Dates: 7/9/24 - 7/16/24  
 Analysts: MMB, MN, AF

		Day							Remarks
		1	2	3	4	5	6	7	
Conc:	25%								
Temp.		25	25	25	25	25	25	25	
D.O.	Initial	9.6	8.0	8.3	7.9	7.8	7.6	7.9	
	Final	6.7	6.9	6.0	5.9	6.0	6.3	6.7	
pH	Initial	7.8	7.8	7.7	7.7	7.7	7.7	7.7	
	Final	7.8	7.8	7.7	7.6	7.6	7.8	7.6	
Alkalinity									
Hardness									
Conductivity		420		420		400			
Chlorine									

		Day							Remarks
		1	2	3	4	5	6	7	
Conc:	50%								
Temp.		25	25	25	25	25	25	25	
D.O.	Initial	9.8	8.1	8.4	8.1	7.7	7.6	8.0	
	Final	6.7	6.9	5.9	5.9	6.0	6.2	6.6	
pH	Initial	7.8	7.8	7.7	7.7	7.5	7.6	7.6	
	Final	7.9	7.9	7.8	7.6	7.6	7.9	7.6	
Alkalinity									
Hardness									
Conductivity		530		550		490			
Chlorine									

		Day							Remarks
		1	2	3	4	5	6	7	
Conc:	100%								
Temp.		25	25	25	25	25	25	25	
D.O.	Initial	10.1	8.7	8.9	8.1	8.2	8.1	8.2	
	Final	6.7	6.9	5.6	6.2	5.8	5.9	6.5	
pH	Initial	7.8	7.8	7.6	7.6	7.5	7.5	7.5	
	Final	8.1	8.1	7.9	8.8	7.8	7.9	7.7	
Alkalinity		100		90		90			
Hardness		225		275		275			
Conductivity		720		740		650			
Chlorine		N.A.		NO		0.2			
Ammonia		N.P.		NO		1.0			

# Biomonitor

<b>Permittee/Location</b> Elkhart WWTP Elkhart, IN			<b>Permit Number:</b> IN0025674			<b>Outfall Number:</b> 035	
<b>Laboratory Name and Contact:</b> Biomonitor Michael Britton			<b>Report Due Date:</b>			<b>Report Date:</b> July 2024	
<b>WETT Reporting Frequency or Type:</b> (mark one)	Monthly	Quarterly	Semi-annual	Annual	TRE	Post TRE	3/3 (per Reporting Frequency) Consecutive Months
					<b>X</b>		

Test Organism	Test	Endpoint [1]	Units	Result	Compliance Value in TUs	Pass/Fail	Reporting
<i>Ceriodaphnia dubia</i>	7-day Survival and Reproduction Definitive Static-Renewal	NOEC Survival	%	100			
			TU <sub>c</sub>	1			
		NOEC Reproduction	%	100			
			TU <sub>c</sub>	1			
		IC25 Reproduction	%	100			
			TU <sub>c</sub>	1			
	48 hr. LC50	%	>100				
		TU <sub>a</sub>	<1				
Toxicity (acute)	TU <sub>a</sub>	<1	1.0	<b>Pass</b>	Laboratory Report <u>and</u> NetDMR (Parameter Code 61425)		
Toxicity (chronic)	TU <sub>c</sub>	1	8.0	<b>Pass</b>	Laboratory Report <u>and</u> NetDMR (Parameter Code 61426)		

<i>Pimephales promelas</i>	7-day Larval Survival and Growth Definitive Static-Renewal	NOEC Survival	%	100			
			TU <sub>c</sub>	1			
		NOEC Growth	%	100			
			TU <sub>c</sub>	1			
		IC25 Growth	%	100			
			TU <sub>c</sub>	1			
	96 hr. LC50	1 %	>100				
		TU <sub>a</sub>	<1				
Toxicity (acute)	TU <sub>a</sub>	1	1.0	<b>Pass</b>	Laboratory Report <u>and</u> NetDMR (Parameter Code 61427)		
Toxicity (chronic)	TU <sub>c</sub>	1	8.0	<b>Pass</b>	Laboratory Report <u>and</u> NetDMR (Parameter Code 61428)		



**Biomonitor**

8802 West Washington Street  
Indianapolis, IN 46231  
(317) 297-7713

*Whole Effluent  
Toxicity Test*

ELKHART  
WASTEWATER TREATMENT PLANT

IN0025674

Elkhart, Indiana

July 2024

**GLP (Good Laboratory Practices)  
COMPLIANCE STATEMENT**

Project Name: Elkhart Wastewater Treatment Plant

Project Date: July 2024

This project has been conducted under GLP standards, as stated in 40 CFR Part 160, with the following exceptions:

*Greg R. Bright*

Quality Assurance Officer  
Date: 7/22/24

*Michael Britton*

Project Director  
Date: 7/22/24

Other Participating Personnel:

Mukang'andu Ng'andwe  
Arizona Fox  
Melody Myers-Kinzie

Copies of the raw data and final report are maintained in the archives of Biomonitor for five years from the date of completion.

Section 1  
Executive Summary

Biomonitor conducted whole effluent toxicity testing for the Elkhart, IN Wastewater Treatment Plant during July 2024. The purpose of the testing was to fulfill the biomonitoring requirement for the NPDES permit.

Three samples were collected July 7-11, 2024. The water flea, *Ceriodaphnia dubia*, and Fathead minnow, *Pimephales promelas*, were used as the test organisms.

A total of six toxicity endpoints were measured. The following results were obtained:

*Ceriodaphnia dubia* test

48-hr LC <sub>50</sub>	> 100% effluent	TU <sub>a</sub> < 1.0
NOEL for survival	= 100% effluent	TU <sub>c</sub> = 1.0
NOEL for reproduction	= 100% effluent	TU <sub>c</sub> = 1.0

*Pimephales promelas* test

48-hr LC <sub>50</sub>	> 100% effluent	TU <sub>a</sub> < 1.0
NOEL for survival	= 100% effluent	TU <sub>c</sub> = 1.0
NOEL for growth	= 100% effluent	TU <sub>c</sub> = 1.0

The acute toxicity limits in the NPDES permit require the 48 and/or 96-hr LC<sub>50</sub> to be greater than 100% effluent (a TU<sub>a</sub> not to exceed 1.0). The effluent samples passed the acute toxicity limits during this testing period for *Ceriodaphnia dubia* but not *Pimephales promelas*.

The chronic toxicity limits in the NPDES permit require a NOEL (No Observable Effect Level) of 12.5% effluent (a TU<sub>c</sub> not to exceed 8.0). According to the NPDES permit, there was not a "Demonstration of Toxicity" during this sampling period.

Section 2  
Introductory Information

**Table I**  
**General**

---

<b>Permit number:</b>	IN0025674
<b>Toxicity testing requirements:</b>	Fathead minnow larval survival and growth test  Ceriodaphnia survival and reproduction test
<b>Plant location:</b>	Elkhart Wastewater Treatment Plant 1201 Nappanee St. Elkhart, Indiana 46516
<b>Name of receiving water body:</b>	St. Joseph River
<b>Name of WET testing laboratory:</b>	Biomonitor 8802 West Washington St. Indianapolis, IN 46231 (317) 297-7713

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**Table II**  
**Plant Operations**

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<b>Type of discharger:</b>	Publicly owned treatment works Wastewater consists of treated sanitary and industrial wastes
<b>Type of waste treatment:</b>	Class IV. Activated sludge
<b>Design flow:</b>	20 – MGD
<b>Volume of wastewater flow during the sampling period:</b>	July 7, 2024    -MGD July 9, 2024    -MGD July 11, 2024   -MGD

---

**Table III**  
**Source of effluent and dilution water**

---

**I. Effluent samples**

<b>Sampling point:</b>	Outfall 035	
<b>Collection dates and times:</b>	July 7, 2024	11:00 p.m.
	July 9, 2024	11:00 p.m.
	July 11, 2024	11:00 p.m.
<b>Sample collection:</b>	24-hour composite samples	
<b>Physical and chemical data:</b>	See Tables 9 and 15	

**II. Dilution water samples**

<b>Source:</b>	Moderately Hard Synthetic Water (MHSW)	
	Collection date and time:	N/A
<b>Pretreatment:</b>	None	
<b>Physical and chemical data:</b>	See Tables 9 and 15	

---

Section 3  
Test Methods and Results

**CERIODAPHNIA SURVIVAL AND REPRODUCTION TEST**

**Table IV**  
**METHODOLOGY**  
***Ceriodaphnia* Survival and Reproduction Test**

---

<b>Toxicity test method used:</b>	<i>Ceriodaphnia</i> survival and reproduction test	
<b>Endpoints of test:</b>	Survival and reproduction (LC <sub>50</sub> , NOEL, and LOEL)	
<b>Reference method:</b>	EPA-821-R-02-013	
<b>Deviations from method:</b>	Test was completed in six days because control animals produced an average of greater than 15 young per female by day six.	
<b>Date and time test initiated:</b>	July 9, 2024	10:45 a.m.
<b>Date and time test terminated</b>	July 15, 2024	10:55 a.m.
<b>Type of test chambers:</b>	Polyethylene	30 ml
<b>Volume of solution used per chamber:</b>	15 ml	
<b>Number of organisms per chamber:</b>	1	
<b>Number of replicate chambers per treatment:</b>	10	
<b>Test temperature range:</b>	25°C (no deviations)	

---



**Table V**  
**ORGANISMS USED**  
***Ceriodaphnia* Survival and Reproduction Test**

---

<b><u>Scientific name:</u></b>	<i>Ceriodaphnia dubia</i>
<b><u>Age:</u></b>	<24 hours
<b><u>Life stage:</u></b>	neonates
<b><u>Mean length and weight:</u></b>	Not applicable
<b><u>Source</u></b>	Laboratory culture in moderately hard reconstituted water
<b><u>Diseases and treatment</u></b>	Not applicable

---

**Table VI**  
**RESULTS**  
***Ceriodaphnia* Survival and Reproduction Test**

---

**Raw Data:**

See Table 8

**LC<sub>50</sub> or NOEL obtained:**48-hr LC<sub>50</sub> = greater than 100% effluent

NOEL for survival = 100% effluent

NOEL for reproduction = 100% effluent

Control survival was 100% after six days. Control reproduction averaged greater than 15 per surviving female.

**Methods used to calculate endpoints:**

Fisher's Exact Test for the survival endpoint.

Dunnett's Test for the reproduction endpoint.

No calculations necessary for the acute endpoint.

**Table VII**  
**QUALITY ASSURANCE**  
***Ceriodaphnia* Survival and Reproduction Test**

---

<b><u>Reference Toxicant used and source:</u></b>	Copper chloride, reagent grade, from Carolina Biological
<b><u>Date and time of most recent test:</u></b>	July 16-23, 2024
<b><u>Dilution water used in test:</u></b>	Moderately hard synthetic water
<b><u>Results:</u></b>	48-hr LC <sub>50</sub> = 99 µg/L as Cu NOEL (reproduction) = 20 µg/L as Cu LOEL (reproduction) = 40 µg/L as Cu
<b><u>Comparison to recommended range:</u></b>	Within the laboratory control range for both acute and chronic endpoints (see attachment)

---

**Table VIII**  
**TEST DATA**  
*Ceriodaphnia* Survival and Reproduction Test

Effluent Concentration	Day No.	Number of Young Reproduced										Young Per Female	Total Live Breeders
		Replicate											
		A	B	C	D	E	F	G	H	I	J		
Control	1	0	0	0	0	0	0	0	0	0	0	18.3	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	4	2	2	0	4	4	2	2	3	0		10
	4	7	4	4	0	5	6	0	4	4	6		10
	5	0	0	8	8	0	0	10	0	9	6		10
	6	0	9	9	11	13	12	13	12	0	0		10
6.25%	1	0	0	0	0	0	0	0	0	0	0	19.0	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	4	2	0	0	2	4	0	4	4	0		10
	4	8	2	5	0	5	7	0	5	2	2		10
	5	0	0	9	5	0	0	7	0	7	4		10
	6	12	13	14	9	11	14	13	16	0	0		10
12.5%	1	0	0	0	0	0	0	0	0	0	0	17.6	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	2	2	0	0	0	3	3	0	3	0		10
	4	9	0	0	0	5	7	0	5	3	0		10
	5	0	0	4	8	0	10	11	0	0	8		10
	6	16	12	14	12	11	0	14	10	4	0		10

Table VIII (cont.)  
 TEST DATA  
*Ceriodaphnia* Survival and Reproduction Test

Effluent Concentration	Day No.	Number of Young Reproduced										Young Per Female	Total Live Breeders
		Replicate											
		A	B	C	D	E	F	G	H	I	J		
25%	1	0	0	0	0	0	0	0	0	0	0	17.1	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	4	0	0	0	2	2	0	0	0	0		10
	4	7	6	4	0	7	3	0	6	0	0		10
	5	0	0	9	6	0	8	10	0	0	8		10
	6	16	11	15	10	15	0	11	11	0	0		10
50%	1	0	0	0	0	0	0	0	0	0	0	16.7	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	0	0	0	0	0	4	0	4	0	1		10
	4	7	1	0	0	4	8	0	6	2	6		10
	5	0	0	7	9	0	10	9	0	5	9		10
	6	13	2	14	0	13	0	15	18	0	0		10
100%	1	0	0	0	0	0	0	0	0	0	0	14.9	10
	2	0	0	0	0	0	0	0	0	0	0		10
	3	1	2	0	0	6	3	0	0	0	0		10
	4	8	0	0	9	0	5	0	8	0	9		10
	5	0	0	8	0	0	0	0	0	0	11		10
	6	18	5	18	14	8	0	0	16	0	0		10

**Table IX**  
**WATER CHEMISTRY**  
*Ceriodaphnia* Survival and Reproduction Test

<b>Effluent Concentration</b>	<b>D.O. Range mg/L</b>	<b>Temp. Range °C</b>	<b>pH Range S.U.</b>	<b>Alk. Range CaCO<sub>3</sub></b>	<b>Hardness Range CaCO<sub>3</sub></b>	<b>Cond. Range µS</b>
CONTROL	7.3 – 9.1	25	7.8 – 8.4	40-	100-110	300-360
6.25%	7.3 – 9.1	25	7.8 – 8.3	/	/	310-360
25%	7.3 – 9.3	25	7.7 – 8.1	/	/	410-420
100%	7.4 – 9.7	25	7.5 – 8.4	90-100	225-275	660-730

## FATHEAD MINNOW LARVAL SURVIVAL AND GROWTH TEST

**Table X**  
**METHODOLOGY**  
**Fathead Minnow Larval Survival and Growth Test**

---

<b><u>Toxicity test method used:</u></b>	7-day fathead minnow larval survival and growth test	
<b><u>Endpoints of test:</u></b>	96-hr LC <sub>50</sub> and no observable effect level (NOEL) for survival and growth. TU <sub>c</sub> for survival and growth.	
<b><u>Reference method:</u></b>	EPA-821-R-02-013	
<b><u>Deviations from method:</u></b>	No Deviations	
<b><u>Date and time test initiated:</u></b>	July 9, 2024	10:30 a.m.
<b><u>Date and time test terminated</u></b>	July 16, 2024	10:30 a.m.
<b><u>Type of test chambers:</u></b>	Polyethylene	300 ml
<b><u>Volume of solution used per chamber:</u></b>	250 ml	
<b><u>Number of organisms per chamber:</u></b>	ten	
<b><u>Number of replicate chambers per treatment:</u></b>	four	
<b><u>Test temperature range:</u></b>	25°C (no deviations)	

---



**Table XI**  
**ORGANISMS USED**  
**Fathead Minnow Survival and Growth Test**

---

<b><u>Scientific name:</u></b>	<i>Pimephales promelas</i>
<b><u>Age:</u></b>	<24 hours
<b><u>Life stage:</u></b>	larvae
<b><u>Mean length and weight:</u></b>	Not applicable
<b><u>Source</u></b>	Biomonitor Lab Cultures
<b><u>Diseases and treatment</u></b>	Not applicable

---

**Table XII**  
**RESULTS**  
**Fathead Minnow Larval Survival and Growth Test**

---

<b><u>Raw Data:</u></b>	See Table 14
<b><u>LC<sub>50</sub> or NOEL obtained:</u></b>	96-hr LC <sub>50</sub> = >100% effluent  NOEL for survival = 100% effluent  NOEL for growth = 100% effluent  Control survival and growth fell within the acceptable range
<b><u>Methods used to calculate endpoints:</u></b>	Steel's Many-One Rank Test was required for the survival endpoint because the homogeneity of variance assumptions could not be met.  Dunnett's Test for the growth endpoint.  No calculations necessary for the acute endpoint.

---

**Table XIII**  
**QUALITY ASSURANCE**  
**Fathead Minnow Larval Survival and Growth Test**

---

<b><u>Reference Toxicant used and source:</u></b>	Potassium chloride, reagent grade, from Sigma-Aldrich
<b><u>Date and time of most recent test:</u></b>	July 16-23, 2024
<b><u>Dilution water used in test:</u></b>	Moderately Hard Synthetic Water
<b><u>Results:</u></b>	96-hr LC <sub>50</sub> = 1091 mg /L as KCl  NOEL (growth) = 1000 mg/L as KCl  LOEL (growth) = 2000 mg/L as KCl
<b><u>Comparison to recommended range:</u></b>	Within the laboratory control range for both acute and chronic endpoints (see attachment)

---

**Table XIV**  
**TEST DATA**  
**Fathead Minnow Larval Survival and Growth Test**

Effluent Concentration	<u>% Survival in Each Replicate</u>				<u>Average Dry Weight (<math>\mu\text{g}</math>) in Each Replicate</u>			
	A	B	C	D	A	B	C	D
Control	100	100	100	100	440	390	430	350
6.25%	100	100	100	100	400	430	550	430
12.5%	100	100	100	90	350	460	370	390
25%	90	100	100	90	380	380	400	330
50%	90	100	90	100	330	420	410	390
100%	90	90	100	90	330	380	450	370

**Table XV**  
**WATER CHEMISTRY**  
**Fathead Minnow Larval Survival and Growth Test**

<b>Effluent Concentration</b>	<b>D.O. <u>Range</u> mg/L</b>	<b>Temp. <u>Range</u> °C</b>	<b>pH <u>Range</u> S.U.</b>	<b>Alk. <u>Range</u> CaCO<sub>3</sub></b>	<b>Hardness <u>Range</u> CaCO<sub>3</sub></b>	<b>Cond. <u>Range</u> µS</b>
CONTROL	5.8 – 9.3	25	7.5 – 8.1	40-	100-110	310-320
6.25%	5.7 – 9.3	25	7.5 – 8.0	/	/	320-340
25%	5.9 – 9.6	25	7.6 – 7.8	/	/	400-420
100%	5.6 – 10.1	25	7.5 – 8.1	90-100	225-275	650-740



# Biomonitor

8802 W. Washington Street  
Indianapolis, IN 46231  
317-297-7713  
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## SAMPLE SUMMARY AND CHAIN OF CUSTODY

CLIENT NAME: Elkhart WWTP

PURPOSE OF SAMPLE: Whole Effluent Toxicity

SAMPLE IDENTIFICATION: Elkhart - 2      Wed.      July 2024

DESCRIPTION: Outfall

DATE SAMPLE COLLECTED: Start Date 7-9-24 Start Time 1am  
End Date 7-9-24 End Time 11pm

NAME OF PERSON COLLECTING SAMPLE: Sec Operations

SAMPLE VOLUME: 8 Liters

NUMBER OF CONTAINERS: Two, HDPE

SAMPLE STORAGE: Refrigerated/iced

PRESERVATIVES: none

Relinquished by: Barry Abell  
Date: 7-10-24 Time: 11:50am

Received by: [Signature]  
Date: 7/10/24 Time: 11:50am

Relinquished by: \_\_\_\_\_  
Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: \_\_\_\_\_  
Date: \_\_\_\_\_ Time: \_\_\_\_\_

TEMP 8.8 °C

COMMENTS:

# Biomonitor

8802 W. Washington Street  
Indianapolis, IN 46231  
317-297-7713  
www.biomonitor.com

## SAMPLE SUMMARY AND CHAIN OF CUSTODY

CLIENT NAME: Elkhart WWTP

PURPOSE OF SAMPLE: Whole Effluent Toxicity

SAMPLE IDENTIFICATION: Elkhart - 3 Fri. July 2024

DESCRIPTION: Outfall

DATE SAMPLE COLLECTED: Start Date 7-11-2024 Start Time 1 am  
End Date 7-11-2024 End Time 11 pm

NAME OF PERSON COLLECTING SAMPLE: Operations

SAMPLE VOLUME: 8 Liters

NUMBER OF CONTAINERS: Two, HDPE

SAMPLE STORAGE: Refrigerated/iced

PRESERVATIVES: none

Relinquished by: [Signature]  
Date: 7-12-2024 Time: 12:06pm

Received by: [Signature]  
Date: 7/12/24 Time: 12:06p-

Relinquished by: \_\_\_\_\_  
Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: \_\_\_\_\_  
Date: \_\_\_\_\_ Time: \_\_\_\_\_

TEMP: 9 °C

COMMENTS:



**Ceriodaphnia dubia**

Reference Toxicant - Copper sulfate/chloride as Cu

Dilution Water - Moderately Hard Reconstituted Water

Date mm/yy	LC <sub>50</sub> 48-hr µg/L	NOEL µg/L (repro.)	LOEL µg/L (repro.)	IC <sub>25</sub> µg/L (repro.)	
08/21	87	40	80	23	
09/21	92	40	80	49	
10/21	73	40	80	52	
11/21	113	40	160	59	
12/21	75	40	80	48	
2/22	105	40	80	54	
3/22	75	40	80	51	
4/22	113	40	80	57	
5/22	95	40	80	30	
6/22	113	40	80	41	
7/22	75	40	80	33	
8/22	86	20	40	30	
9/22	80	40	80	32	
11/22	70	40	80	40	
12/22	77	40	80	48	
1/23	75	40	80	48	
2/23	85	40	80	52	
4/23	80	40	80	37	
5/23	80	40	80	39	
06/23	113	40	160	59	
07/23	75	40	80	55	
09/23	80	40	80	15	
10/23	113	40	80	58	
11/23	86	40	80	50	
01/24	99	20	40	30	
02/24	86	40	80	48	
03/24	80	40	80	48	
04/24	80	40	80	51	
06/24	87	20	40	32	
07/24	99	20	40	20	
<u>Average</u>	88	<u>Mode</u>	40	80	43
<u>St. Dev.</u>	14				12
<u>Upper Limit</u>	116		80	160	67
<u>Lower Limit</u>	61		20	40	19

**Pimephales promelas**

Reference Toxicant - Potassium chloride

Dilution Water - Moderately Hard Reconstituted Water

Date mm/yy	LC <sub>50</sub> 96-hr mg/L	NOEL mg/L (grwth)	LOEL mg/L (grwth)	IC <sub>25</sub> mg/L (grwth)	
11/21	1129	1000	2000	939	
12/21	1129	500	1000	810	
02/22	812	500	1000	612	
03/22	946	500	1000	707	
04/22	917	500	1000	703	
05/22	1110	1000	2000	1223	
06/22	856	500	1000	710	
07/22	1130	500	1000	736	
08/22	1093	500	1000	925	
09/22	1278	1000	2000	950	
11/22	1035	500	1000	684	
12/22	1053	1000	2000	805	
01/23	795	500	1000	664	
02/23	1091	500	1000	741	
04/23	1231	1000	2000	1121	
05/23	1189	1000	2000	1110	
06/23	951	500	1000	669	
07/23	1091	500	1000	1091	
09/23	1000	500	1000	702	
10/23	1124	500	1000	768	
11/23	1253	500	1000	849	
01/24	1128	500	1000	699	
02/24	952	1000	2000	798	
03/24	1189	500	1000	908	
04/24	1189	1000	2000	1037	
06/24	1169	500	1000	899	
07/24	1091	1000	2000	989	
<u>Average</u>	1072	<u>Mode</u>	500	1000	846
<u>St. Dev.</u>	127				163
<u>Upper Limit</u>	1326		1000	2000	1172
<u>Lower Limit</u>	817		250	500	520

Client: Elkhart WWTP

Project # \_\_\_\_\_

Analysts: MMB, MN, AF

Start Date: 7/9/2024

Start Time: 1045

End Date: 7/15/2024

End Time: 1055

Template # B

Comments:

Test Dates

0 = Number of Live Young  
 / = Test Organism Dead  
 y = Male  
 M = Lost or Missing

Row 10	Day	1	0	0	0	0	0	
		2	0	0	0	0	0	0
		3	0	0	0	0	1	0
		4	2	6	0	9	6	0
		5	4	6	8	11	9	8
		6	0	0	0	0	0	0
		7						

Row 9	Day	1	0	0	0	0	0	
		2	0	0	0	0	0	0
		3	3	0	0	4	0	3
		4	4	0	2	2	0	3
		5	9	0	5	7	0	0
		6	0	0	0	0	0	4
		7						

Row 8	Day	1	0	0	0	0	0	
		2	0	0	0	0	0	0
		3	4	4	0	2	0	0
		4	5	6	5	4	8	6
		5	0	0	0	0	0	0
		6	16	18	10	12	16	11
		7						

Row 7	Day	1	0	0	0	0	0	
		2	0	0	0	0	0	0
		3	0	3	2	0	0	0
		4	0	0	0	0	0	0
		5	7	11	10	9	10	0
		6	13	14	13	15	11	0
		7						

Row 6	Day	1	0	0	0	0	0	
		2	0	0	0	0	0	0
		3	4	2	3	3	4	4
		4	8	3	5	7	7	6
		5	10	8	0	10	0	0
		6	0	0	0	0	14	12
		7						

Row 5	Day	1	0	0	0	0	0	
		2	0	0	0	0	0	0
		3	6	4	2	2	0	0
		4	0	5	5	7	4	5
		5	0	0	0	0	0	0
		6	8	13	11	15	13	11
		7						

Row 4	Day	1	0	0	0	0	0	0
		2	0	0	0	0	0	0
		3	0	0	0	0	0	0
		4	0	9	0	0	0	0
		5	8	0	5	6	8	8+1
		6	12	14	9	10	11	0
		7						
Row 3	Day	1	0	0	0	0	0	0
		2	0	0	0	0	0	0
		3	0	0	0	0	0	2
		4	0	5	0	0	4	4
		5	7	9	4	8	9	8
		6	14	14	14	18	15	9
		7						
Row 2	Day	1	0	0	0	0	0	0
		2	0	0	0	0	0	0
		3	0	2	0	2	2	2
		4	6	0	1	2	4	0
		5	0	0	0	0	0	0
		6	11	12	2	13	9	5
		7						
Row 1	Day	1	0	0	0	0	0	0
		2	0	0	0	0	0	0
		3	4	4	4	1	2	0
		4	7	8	7	8	9	7
		5	0	0	0	0	0	0
		6	0	12	16	18	16	13
		7						

Discharger: Elkhart WWTP Analyst: MMIB, MN, AF  
 Location: Elkhart, IN Test Start- Date/Time: 7/9/24 / 1045  
 Date Sample Collected: 7/7,9,11/24 Test Stop- Date/Time: 7/15/24 / 1055

Conc.	Day	Replicate										No. of Young	No. of Adults	Young per Adult
		1	2	3	4	5	6	7	8	9	10			
Control	1	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	2	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	3	4	2	2	0	4	2	2	3	0	23	10	2.3	
	4	7	4	4	0	5	6	4	4	6	40	10	4.0	
	5	0	0	8	8	0	0	10	0	9	41	10	4.1	
	6	0	9	9	11	13	12	13	12	0	79	10	7.9	
Total	11	15	23	19	22	22	25	18	16	183	10	18.3		

Conc.	Day	Replicate										No. of Young	No. of Adults	Young per Adult
		1	2	3	4	5	6	7	8	9	10			
6%	1	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	2	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	3	4	2	0	0	2	4	0	4	4	20	10	2.0	
	4	8	2	5	0	5	7	0	5	2	36	10	3.6	
	5	0	0	9	5	0	0	7	0	7	32	10	3.2	
	6	12	13	14	9	11	14	13	16	0	102	10	10.2	
Total	24	17	28	14	18	25	20	25	13	190	10	19.0		

Conc.	Day	Replicate										No. of Young	No. of Adults	Young per Adult
		1	2	3	4	5	6	7	8	9	10			
12%	1	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	2	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	3	2	2	0	0	0	3	3	0	3	13	10	1.3	
	4	9	0	0	0	5	7	0	5	3	29	10	2.9	
	5	0	0	4	8	0	10	11	0	0	41	10	4.1	
	6	16	12	14	12	11	0	14	10	4	93	10	9.3	
Total	27	14	18	20	16	20	28	15	10	176	10	17.6		

Conc.	Day	Replicate										No. of Young	No. of Adults	Young per Adult
		1	2	3	4	5	6	7	8	9	10			
25%	1	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	2	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	3	4	0	0	0	2	2	0	0	0	0	8	10	0.8
	4	7	6	4	0	7	3	0	6	0	0	33	10	3.3
	5	0	0	9	6	0	8	10	0	0	8	41	10	4.1
	6	16	11	15	10	15	0	11	11	0	0	89	10	8.9
	<b>Total</b>	<b>27</b>	<b>17</b>	<b>28</b>	<b>16</b>	<b>24</b>	<b>13</b>	<b>21</b>	<b>17</b>	<b>0</b>	<b>8</b>	<b>171</b>	<b>10</b>	<b>17.1</b>

Conc.	Day	Replicate										No. of Young	No. of Adults	Young per Adult
		1	2	3	4	5	6	7	8	9	10			
50%	1	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	2	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	3	0	0	0	0	0	4	0	4	0	1	9	10	0.9
	4	7	1	0	0	4	8	0	6	2	6	34	10	3.4
	5	0	0	7	9	0	10	9	0	5	9	49	10	4.9
	6	13	2	14	0	13	0	15	18	0	0	75	10	7.5
	<b>Total</b>	<b>20</b>	<b>3</b>	<b>21</b>	<b>9</b>	<b>17</b>	<b>22</b>	<b>24</b>	<b>28</b>	<b>7</b>	<b>16</b>	<b>167</b>	<b>10</b>	<b>16.7</b>

Conc.	Day	Replicate										No. of Young	No. of Adults	Young per Adult
		1	2	3	4	5	6	7	8	9	10			
100%	1	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	2	0	0	0	0	0	0	0	0	0	0	0	10	0.0
	3	1	2	0	0	6	3	0	0	0	0	12	10	1.2
	4	8	0	0	9	0	5	0	8	0	9	39	10	3.9
	5	0	0	8	0	0	0	0	0	0	11	19	10	1.9
	6	18	5	18	14	8	0	0	16	0	0	79	10	7.9
	<b>Total</b>	<b>27</b>	<b>7</b>	<b>26</b>	<b>23</b>	<b>14</b>	<b>8</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>149</b>	<b>10</b>	<b>14.9</b>

Elkhart 7.24  
File: cexiorep

Transform: NO TRANSFORMATION

Chi-square test for normality: actual and expected frequencies

---

INTERVAL	<-1.5	-1.5 to <-0.5	-0.5 to 0.5	>0.5 to 1.5	>1.5
EXPECTED	4.020	14.520	22.920	14.520	4.020
OBSERVED	4	14	21	20	1

---

Calculated Chi-Square goodness of fit test statistic = 4.5165  
Table Chi-Square value (alpha = 0.01) = 13.277

Data PASS normality test. Continue analysis.

Elkhart 7.24  
File: cexiorep

Transform: NO TRANSFORMATION

Hartley test for homogeneity of variance

---

Calculated H statistic (max Var/min Var) = 4.89  
Closest, conservative, Table H statistic = 12.1 (alpha = 0.01)

Used for Table H ==> R (# groups) = 6, df (# reps-1) = 9  
Actual values ==> R (# groups) = 6, df (# avg reps-1) = 9.00

---

Data PASS homogeneity test. Continue analysis.

NOTE: This test requires equal replicate sizes. If they are unequal but do not differ greatly, the Hartley test may still be used as an approximate test (average df are used).

SUMMARY OF FISHERS EXACT TESTS

GROUP	IDENTIFICATION	NUMBER EXPOSED	NUMBER DEAD	SIG (P=.05)
	CONTROL	10	0	
1	6%	10	0	
2	12%	10	0	
3	25%	10	0	
4	50%	10	0	
5	100%	10	0	

Elkhart 7.24  
File: ceriorep

Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 1 of 2

---

GRP	IDENTIFICATION	N	MIN	MAX	MEAN
1	control	10	11.000	25.000	18.300
2	6.25%	10	6.000	28.000	19.000
3	12.5%	10	8.000	28.000	17.600
4	25%	10	0.000	28.000	17.100
5	50%	10	3.000	28.000	16.700
6	100%	10	0.000	27.000	14.900

---

Elkhart 7.24  
File: ceriorep

Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 2 of 2

---

GRP	IDENTIFICATION	VARIANCE	SD	SEM
1	control	22.678	4.762	1.506
2	6.25%	46.000	6.782	2.145
3	12.5%	42.267	6.501	2.056
4	25%	74.767	8.647	2.734
5	50%	64.456	8.028	2.539
6	100%	110.989	10.535	3.331

---

Elkhart 7.24  
File: ceriorep

Transform: NO TRANSFORMATION

ANOVA TABLE

---

SOURCE	DF	SS	MS	F
Between	5	101.333	20.267	0.337
Within (Error)	54	3250.400	60.193	
Total	59	3351.733		

---

Critical F value = 2.45 (0.05,5,40)  
Since  $F < \text{Critical } F$  FAIL TO REJECT  $H_0$ : All groups equal



Elkhart 7.24  
 File: ceriorep

Transform: NO TRANSFORMATION

DUNNETTS TEST - TABLE 1 OF 2 Ho:Control<Treatment

GROUP	IDENTIFICATION	TRANSFORMED MEAN	MEAN CALCULATED IN ORIGINAL UNITS	T STAT	SIG
1	control	18.300	18.300		
2	6.25%	19.000	19.000	-0.202	
3	12.5%	17.600	17.600	0.202	
4	25%	17.100	17.100	0.346	
5	50%	16.700	16.700	0.461	
6	100%	14.900	14.900	0.980	

Dunnett table value = 2.31 (1 Tailed Value, P=0.05, df=40,5)

Elkhart 7.24  
 File: ceriorep

Transform: NO TRANSFORMATION

DUNNETTS TEST - TABLE 2 OF 2 Ho:Control<Treatment

GROUP	IDENTIFICATION	NUM OF REPS	Minimum Sig Diff (IN ORIG. UNITS)	% of CONTROL	DIFFERENCE FROM CONTROL
1	control	10			
2	6.25%	10	8.015	43.8	-0.700
3	12.5%	10	8.015	43.8	0.700
4	25%	10	8.015	43.8	1.200
5	50%	10	8.015	43.8	1.600
6	100%	10	8.015	43.8	3.400



Discharger: Elkhart WWTP  
 Location: Elkhart, IN

Test Dates: 7/9/24 -7/15/24  
 Analysts: MMB, MN, AF

		Day							Remarks
Conc: 25%		1	2	3	4	5	6	7	
Temp.		25	25	25	25	25	25	25	
D.O.	Initial	9.3	8.0	8.1	8.1	8.0	8.1		
	Final	7.7	7.5	7.3	7.8	8.0	8.0		
pH	Initial	8.1	7.8	7.8	8.0	7.7	7.7		
	Final	8.0	8.1	8.1	8.1	8.1	8.0		
Alkalinity									
Hardness									
Conductivity		420		420		410			
Chlorine									

		Day							Remarks
Conc: 50%		1	2	3	4	5	6	7	
Temp.		25	25	25	25	25	25	25	
D.O.	Initial	9.4	8.7	8.1	8.1	8.0	8.0		
	Final	7.7	7.5	7.3	7.9	8.0	8.0		
pH	Initial	8.0	7.8	7.8	8.0	7.6	7.6		
	Final	8.1	8.2	8.1	8.2	8.2	8.1		
Alkalinity									
Hardness									
Conductivity		490		520		490			
Chlorine									

		Day							Remarks
Conc: 100%		1	2	3	4	5	6	7	
Temp.		25	25	25	25	25	25	25	
D.O.	Initial	9.7	8.8	8.5	8.5	8.3	8.4		
	Final	7.6	7.5	7.4	8.1	8.2	8.0		
pH	Initial	7.9	7.9	7.8	8.0	7.6	7.5		
	Final	8.3	8.4	8.3	8.2	8.2	8.2		
Alkalinity		100		90		90			
Hardness		225		275		275			
Conductivity		680		730		660			
Chlorine		N.D.		ND		0.2			
Ammonia		N.D.		ND		1.0			

Discharger: Elkhart WWTP  
 Location: Elkhart, IN

Test Dates 7/9/24-7/16/24  
 Analysts: MMB, MN, AF

		No. Surviving Organisms							
		Day							
Conc:	Rep. #	1	2	3	4	5	6	7	Remarks
Control	A	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	
6.25%	A	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	10	
12.5%	A	10	10	10	10	10	10	10	
	B	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	9	
25%	A	10	10	10	10	10	9	9	
	B	10	10	10	10	10	10	10	
	C	10	10	10	10	10	10	10	
	D	10	10	10	10	10	10	9	
50%	A	10	10	10	10	10	9	9	
	B	10	10	10	10	10	10	10	
	C	10	10	10	10	9	9	9	
	D	10	10	10	10	10	10	10	
100%	A	10	10	10	10	10	9	9	
	B	10	10	10	9	9	9	9	
	C	10	10	10	10	10	10	10	
	D	10	10	10	9	9	9	9	

Comments: Start Time: 1030

FHM Source: Biomonitor Lab Cultures

Elkhart 7.24  
File: fhmsurv            Transform: ARC SINE(SQUARE ROOT(Y))

Shapiro Wilks test for normality

---

D =     0.093

W =     0.949

Critical W (P = 0.05) (n = 24) = 0.916

Critical W (P = 0.01) (n = 24) = 0.884

---

Data PASS normality test at P=0.01 level. Continue analysis.

Elkhart 7.24  
File: fhmsurv            Transform: ARC SINE(SQUARE ROOT(Y))

Hartley test for homogeneity of variance  
Bartlett's test for homogeneity of variance

---

These two tests can not be performed because at least one group has zero variance.

Data FAIL to meet homogeneity of variance assumption.  
Additional transformations are useless.

---

Elkhardt 7.24  
File: fnmsurv

Transform: ARC SINE(SQUARE ROOT(Y))

STEELS MANY-ONE RANK TEST			Ho:Control<Treatment			
GROUP	IDENTIFICATION	TRANSFORMED MEAN	RANK SUM	CRIT. VALUE	df	SIG
1	control	1.412				
2	6.25%	1.412	18.00	10.00	4.00	
3	12.5%	1.371	16.00	10.00	4.00	
4	25%	1.331	14.00	10.00	4.00	
5	50%	1.331	14.00	10.00	4.00	
6	100%	1.290	12.00	10.00	4.00	

Critical values use k = 5, are 1 tailed, and alpha = 0.05

Discharge: Elkhart WWTP      Test Date(s) : 7/9-16/24      Drying Temp (°C): 100  
 Location: Elkhart, IN      Weighing Date: 7/17/24      Drying Time (h): 6  
 Analyst: MMB, MN, AF, MMK

Conc :	Rep. No.	Wgt. of boat (g)	Dry wgt. foil and larvae (g)	Total dry wgt of larvae (mg)	No. of larvae	Mean dry wgt of larvae (g)	Remarks
<b>Control</b>	A	0.92340	0.92780	4.40	10	0.440	
	B	0.92520	0.92910	3.90	10	0.390	
	C	0.93080	0.93510	4.30	10	0.430	
	D	0.92330	0.92680	3.50	10	0.350	
<b>Conc : 6.25%</b>	A	0.92700	0.93100	4.00	10	0.400	
	B	0.93210	0.93640	4.30	10	0.430	
	C	0.92110	0.92660	5.50	10	0.550	
	D	0.91720	0.92150	4.30	10	0.430	
<b>Conc : 12.5%</b>	A	0.93070	0.93420	3.50	10	0.350	
	B	0.92740	0.93200	4.60	10	0.460	
	C	0.92210	0.92580	3.70	10	0.370	
	D	0.92380	0.92770	3.90	9	0.390	
<b>Conc : 25%</b>	A	0.92410	0.92790	3.80	9	0.380	
	B	0.92740	0.93120	3.80	10	0.380	
	C	0.93440	0.93840	4.00	10	0.400	
	D	0.92590	0.92920	3.30	9	0.330	
<b>Conc : 50%</b>	A	0.92710	0.93040	3.30	9	0.330	
	B	0.92440	0.92860	4.20	10	0.420	
	C	0.92450	0.92860	4.10	9	0.410	
	D	0.93210	0.93600	3.90	10	0.390	
<b>Conc : 100%</b>	A	0.92530	0.92860	3.30	9	0.330	
	B	0.91650	0.92030	3.80	9	0.380	
	C	0.91110	0.91560	4.50	10	0.450	
	D	0.92770	0.93140	3.70	9	0.370	

Elkhart 7.24  
File: fhm\_grow

Transform: NO TRANSFORMATION

Chi-square test for normality: actual and expected frequencies

---

INTERVAL	<-1.5	-1.5 to <-0.5	-0.5 to 0.5	>0.5 to 1.5	>1.5
EXPECTED	1.608	5.808	9.168	5.808	1.608
OBSERVED	0	6	10	8	0

---

Calculated Chi-Square goodness of fit test statistic = 4.1251  
Table Chi-Square value (alpha = 0.01) = 13.277

Data PASS normality test. Continue analysis.

Elkhart 7.24  
File: fhm\_grow

Transform: NO TRANSFORMATION

Hartley test for homogeneity of variance

---

Calculated H statistic (max Var/min Var) = 4.96  
Closest, conservative, Table H statistic = 184.0 (alpha = 0.01)

Used for Table H ==> R (# groups) = 6, df (# reps-1) = 3  
Actual values ==> R (# groups) = 6, df (# avg reps-1) = 3.00

---

Data PASS homogeneity test. Continue analysis.

NOTE: This test requires equal replicate sizes. If they are unequal but do not differ greatly, the Hartley test may still be used as an approximate test (average df are used).



Elkhart 7.24  
File: fhm\_grow

Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 1 of 2

---

GRP	IDENTIFICATION	N	MIN	MAX	MEAN
1	control	4	0.350	0.440	0.403
2	6.25%	4	0.400	0.550	0.453
3	12.5%	4	0.350	0.460	0.392
4	25%	4	0.330	0.400	0.372
5	50%	4	0.330	0.420	0.387
6	100%	4	0.330	0.450	0.383

---

Elkhart 7.24  
File: fhm\_grow

Transform: NO TRANSFORMATION

SUMMARY STATISTICS ON TRANSFORMED DATA TABLE 2 of 2

---

GRP	IDENTIFICATION	VARIANCE	SD	SEM
1	control	0.002	0.041	0.021
2	6.25%	0.004	0.067	0.033
3	12.5%	0.002	0.048	0.024
4	25%	0.001	0.030	0.015
5	50%	0.002	0.040	0.020
6	100%	0.002	0.050	0.025

---

Elkhart 7.24  
File: fhm\_grow

Transform: NO TRANSFORMATION

ANOVA TABLE

---

SOURCE	DF	SS	MS	F
Between	5	0.016	0.003	1.500
Within (Error)	18	0.040	0.002	
Total	23	0.056		

---

Critical F value = 2.77 (0.05,5,18)  
Since  $F < \text{Critical } F$  FAIL TO REJECT  $H_0$ :All groups equal

Elkhart 7.24  
 File: fhm\_grow

Transform: NO TRANSFORMATION

DUNNETTS TEST - TABLE 1 OF 2 Ho:Control<Treatment

GROUP	IDENTIFICATION	TRANSFORMED MEAN	MEAN CALCULATED IN ORIGINAL UNITS	T STAT	SIG
1	control	0.403	0.403		
2	6.25%	0.453	0.453	-1.581	
3	12.5%	0.392	0.392	0.316	
4	25%	0.372	0.372	0.949	
5	50%	0.387	0.387	0.474	
6	100%	0.383	0.383	0.632	

Dunnett table value = 2.41 (1 Tailed Value, P=0.05, df=18,5)

Elkhart 7.24  
 File: fhm\_grow

Transform: NO TRANSFORMATION

DUNNETTS TEST - TABLE 2 OF 2 Ho:Control<Treatment

GROUP	IDENTIFICATION	NUM OF REPS	Minimum Sig Diff (IN ORIG. UNITS)	% of CONTROL	DIFFERENCE FROM CONTROL
1	control	4			
2	6.25%	4	0.076	18.9	-0.050
3	12.5%	4	0.076	18.9	0.010
4	25%	4	0.076	18.9	0.030
5	50%	4	0.076	18.9	0.015
6	100%	4	0.076	18.9	0.020



Discharger: Elkhart WWTP  
 Location: Elkhart, IN

Test Dates: 7/9/24 -7/16/24  
 Analysts: MMB, MN, AF

		Day							Remarks
		1	2	3	4	5	6	7	
Conc:	25%								
Temp.		25	25	25	25	25	25	25	
D.O.	Initial	9.6	8.0	8.3	7.9	7.8	7.6	7.9	
	Final	6.7	6.9	6.0	5.9	6.0	6.3	6.7	
pH	Initial	7.8	7.8	7.7	7.7	7.7	7.7	7.7	
	Final	7.8	7.8	7.7	7.6	7.6	7.8	7.6	
Alkalinity									
Hardness									
Conductivity		420		420		400			
Chlorine									

		Day							Remarks
		1	2	3	4	5	6	7	
Conc:	50%								
Temp.		25	25	25	25	25	25	25	
D.O.	Initial	9.8	8.1	8.4	8.1	7.7	7.6	8.0	
	Final	6.7	6.9	5.9	5.9	6.0	6.2	6.6	
pH	Initial	7.8	7.8	7.7	7.7	7.5	7.6	7.6	
	Final	7.9	7.9	7.8	7.6	7.6	7.9	7.6	
Alkalinity									
Hardness									
Conductivity		530		550		490			
Chlorine									

		Day							Remarks
		1	2	3	4	5	6	7	
Conc:	100%								
Temp.		25	25	25	25	25	25	25	
D.O.	Initial	10.1	8.7	8.9	8.1	8.2	8.1	8.2	
	Final	6.7	6.9	5.6	6.2	5.8	5.9	6.5	
pH	Initial	7.8	7.8	7.6	7.6	7.5	7.5	7.5	
	Final	8.1	8.1	7.7	8.8	7.8	7.9	7.7	
Alkalinity		100		90		90			
Hardness		225		275		275			
Conductivity		720		740		650			
Chlorine		N.D.		NO		0.2			
Ammonia		N.D.		NO		1.0			

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 **Signing Process Confirmation - CDX Activity ID: \_9fe71d9c-aa87-4762-9484-6d10c2402026**

Your DMRs are undergoing the Signing Process

IN0025674	ELKHART WWTP	005	005-C	CSO- ARCH/BAR, NW OF INTERSECTION	08/31/24	09/28/24
IN0025674	ELKHART WWTP	006	006-C	CSO- JACKSON, N OF BRIDGE, W OF ELKHART RIVER	08/31/24	09/28/24
IN0025674	ELKHART WWTP	007	007-C	CSO- JACKSON, N OF BRIDGE, E OF ELKHART RIVER	08/31/24	09/28/24
IN0025674	ELKHART WWTP	008	008-C	CSO- HUG/EAST BLVD	08/31/24	09/28/24
IN0025674	ELKHART WWTP	009	009-C	CSO- NIBCO PRKWY - FKA JR. ACHIEVEMENT (Y DR N)	08/31/24	09/28/24
IN0025674	ELKHART WWTP	011	011-C	CSO- ELKHART/FRANKLIN	08/31/24	09/28/24
IN0025674	ELKHART WWTP	012	012-C	CSO- CASSOPOLIS/BEARDSLEY	08/31/24	09/28/24
IN0025674	ELKHART WWTP	013	013-C	CSO- JOHNSON/BEARDSLEY	08/31/24	09/28/24
IN0025674	ELKHART WWTP	014	014-C	CSO- DAM AT CONE/ERWIN	08/31/24	09/28/24
IN0025674	ELKHART WWTP	015	015-C	CSO- MICHIGAN/FULTON	08/31/24	09/28/24
IN0025674	ELKHART WWTP	016	016-C	CSO- DAN @ GOSHEN/SUPERIOR	08/31/24	09/28/24
IN0025674	ELKHART WWTP	017	017-C	CSO- W. BOULEVARD/MCNAUGHTON	08/31/24	09/28/24
IN0025674	ELKHART WWTP	018	018-C	CSO- MCNAUGHTON PARK WEST	08/31/24	09/28/24
IN0025674	ELKHART WWTP	019	019-C	CSO-MICHIGAN @ RVR, S. OF LEX.	08/31/24	09/28/24
IN0025674	ELKHART WWTP	020	020-C	CSO- BRIDGE AND HUDSON	08/31/24	09/28/24
IN0025674	ELKHART WWTP	023	023-C	CSO- FRANKLIN/8TH	08/31/24	09/28/24
IN0025674	ELKHART WWTP	024	024-C	CSO- INDIANA/FRANKLIN	08/31/24	09/28/24
IN0025674	ELKHART WWTP	025	025-C	CSO- POTTAWATOMI/SECOND	08/31/24	09/28/24
IN0025674	ELKHART WWTP	026	026-C	CSO- MAIN/POTTAWATOMI	08/31/24	09/28/24
IN0025674	ELKHART WWTP	027	027-C	CSO- EDGEWATER/NAVAJO	08/31/24	09/28/24
IN0025674	ELKHART WWTP	028	028-C	CSO- WASHINGTON AT RIVER	08/31/24	09/28/24
IN0025674	ELKHART WWTP	029	029-C	CSO- JEFFERSON AT THE RIVER	08/31/24	09/28/24
IN0025674	ELKHART WWTP	031	031-C	CSO- ELIZABETH/LUSHER	08/31/24	09/28/24
IN0025674	ELKHART WWTP	032	032-C	CSO- EDGEWATER/OKEMA	08/31/24	09/28/24
IN0025674	ELKHART WWTP	033	033-C	CSO- EVANS/GRACE	08/31/24	09/28/24
IN0025674	ELKHART WWTP	034	034-C	CSO- LEXINGTON/6TH	08/31/24	09/28/24
IN0025674	ELKHART WWTP	035	035-A	20 MGD CLASS IV ACTIVATED SLUDGE - TO ST JOSEPH RIVER	08/31/24	09/28/24
IN0025674	ELKHART WWTP	037	037-C	CSO- FRANKLIN/KRAU	08/31/24	09/28/24
IN0025674	ELKHART WWTP	039	039-C	CSO- WEST HIGH AT RIVER	08/31/24	09/28/24
IN0025674	ELKHART WWTP	040	040-C	CSO- MCNAUGHTON PARK SOUTH	08/31/24	09/28/24

**Permit**

**Permit ID:** IN0025674      **Major:** 035 - External Outfall  
**Permittee:** ELKHART WWTP      **Permittee Address:** 229 SOUTH 2ND ST  
ELKHART , IN46516  
**Facility:** ELKHART WWTP      **Facility Location:** 1201 S NAPPANEE ST  
ELKHART , IN46516  
**Permitted Feature:** 035 - External Outfall      **Discharge:** 035-A - 20 MGD CLASS IV ACTIVATED SLUDGE - TO ST JOSEPH RIVER

**Report Dates & Status**

**Monitoring Period:** From 08/01/24 to 08/31/24

**Status:** NetDMR Validated

**DMR Due Date:** 09/28/24

**Considerations for Form Completion**

THE FLOW METER(S) SHALL BE CALIBRATED AT LEAST ONCE EVERY TWELVE MONTHS. REPORT QUARTERLY PARAMETERS ON 035-AQ NETDMR. MUNICIPAL MAJOR ELKHART COUNTY

**Principal Executive Officer**

**First Name:** Laura      **Last Name:** Kolo  
**Title:** Utility Services Manager      **Telephone:** 574-293-2572

**No Data Indicator (NODI)**

**Form NODI:** -

Code	Name	Value 1	Value 2	Units	Value 1	Value 2	Value 3	Units	of Ex.	Analysis	Type
00300	Oxygen, dissolved [DO]										
	1 - Effluent Gross										
	Season: 0										
	NODI: -										
00400	pH										
	1 - Effluent Gross										
	Season: 0										
	NODI: -										
00530	Solids, total suspended										
	1 - Effluent Gross										
	Season: 0										
	NODI: -										
00600	Nitrogen, total [as N]										
	1 - Effluent Gross										
	Season: 0										
	NODI: -										
00610	Nitrogen, ammonia total [as N]										
	1 - Effluent Gross										
	Season: 1										
	NODI: -										
00665	Phosphorus, total [as P]										
	1 - Effluent Gross										
	Season: 0										
	NODI: -										
01079	Silver total recoverable										
	1 - Effluent Gross										

=7.4  
 =>4.0 DLYAVMIN  
 =6.8  
 >=6.0 DAILY MN  
 =2562.0  
 <=11266.0 MX WK AV  
 =1174.0  
 <=7511.0 MO AVG  
 =2299.0  
 Req Mon MO AVG  
 =8.4  
 <=1051.0 MO AVG  
 =106.0  
 Req Mon MO AVG  
 <0.027  
 <0.03

=8.0  
 <=9.0 DAILY MX  
 =9.0  
 <=30.0 MO AVG  
 =16.4  
 Req Mon MO AVG  
 =0.76  
 <=9.9 DAILY MX  
 =0.84  
 <=1.0 MO AVG  
 <0.0002  
 <0.0002

19 - mg/L  
 19 - mg/L  
 12 - SU  
 12 - SU  
 26 - lb/d  
 26 - lb/d  
 26 - lb/d  
 26 - lb/d  
 26 - lb/d  
 26 - lb/d  
 26 - lb/d

01/01 - Daily  
 01/01 - Daily  
 01/01 - Daily  
 01/01 - Daily  
 01/30 - Monthly  
 01/30 - Monthly  
 01/01 - Daily  
 01/01 - Daily  
 01/01 - Daily  
 01/01 - Daily

3R - 3GR24H  
 3R - 3GR24H  
 GR - GRAB  
 GR - GRAB  
 24 - COMP24  
 24 - COMP24  
 24 - COMP24  
 24 - COMP24  
 24 - COMP24  
 24 - COMP24





Code	Name	Value 1	Value 2	Units	Value 1	Value 2	Value 3	Units	of Ex.	Analysis	Type
80082	BOD, carbonaceous [5 day, 20 C]	Smpl. =341.0	=432.0	26 - lb/d		=3.0	=4.0	19 - mg/L	0	01/01 - Daily	24 - COMP24
	1 - Effluent Gross										
Season: 0		Req. <=6259.0 MO AVG	<=10014.0 MX WK AV	26 - lb/d		<=25.0 MO AVG	<=40.0 MX WK AV	19 - mg/L		01/01 - Daily	24 - COMP24
NODI: -		<b>NODI</b>									
<b>X</b> 81012	Phosphorus, total percent removal				=73.2			23 - %	1	01/30 - Monthly	CA - CALCTD
	K - Percent Removal										
Season: 0		Req.	>=75.0 MO AV MN					23 - %		01/30 - Monthly	CA - CALCTD
NODI: -		<b>NODI</b>									
82220	Flow, total								0	01/30 - Monthly	RT - RCOTOT
	1 - Effluent Gross										
Season: 0		Smpl. =479.0	Req Mon MO TOTAL	80 - Mgal/mo						01/30 - Monthly	RT - RCOTOT
NODI: -		<b>NODI</b>									

**Submission Note**

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

**Edit Check Errors**

Code	Parameter Name	Monitoring Location	Field	Type	Description	Acknowledge
81012	Phosphorus, total percent removal	K - Percent Removal	Quality or Concentration Sample Value 1	Soft	The provided sample value is outside the permit limit. Please verify that the value you have provided is correct.	

**Comments**

Mercury results are from July - sampled in accordance with NPDES Permit requirements

**Attachments**

Name	Type	Size
IN0025674_INC_RPT_2024_08.pdf	pdf	116188.0
IN0025674_CSO_MRO_2024_08.pdf	pdf	955495.0
IN0025674_035a_2024_08.pdf	pdf	1022246.0

**Report Last Saved By**

**ELKHART WWTP**

User: Payton88  
Name: Laura Kolo  
E-Mail: laura.kolo@coei.org  
Date/Time: 2024-09-26 13:11 (Time Zone: -04:00)

**Report Last Signed By**

User: Payton88  
Name: Laura Kolo  
E-Mail: laura.kolo@coei.org  
Date/Time: 2024-09-26 13:12 (Time Zone: -04:00)



**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility Elkhart			Permit Number IN0025674		
Month August	Year 2024	Plant Design Flow 20.00 mgd	Telephone Number 574/293-2572		
E-mail address: laura.kolo@coei.org				035	A
Certified Operator: Name Laura E. Kolo		Class IV	Certificate Number 15094	Expiration Date 06/30/2027	

Day Of Month	Day of Week	Man-Hours at Plant (Plants less than 1 MGD only)	Air Temperature (optional)	Total= 2.45 Precipitation - Inches	Bypass At Plant Site ("X" if Occurred)	Sanitary Sewer Overflow("X" if Occurred)	CHEMICALS USED			RAW SEWAGE							
							Chlorine - Lbs/day	Ferric Chloride Lbs/Day or Gal./Day	Lbs/Day or Gal./Day	Influent Flow Rate (if metered) MGD	pH	CBOD5 - mg/l	CBOD5 - lbs/day	Susp. Solids - mg/l	Susp. Solids - lbs/day	Phosphorus - mg/l	Ammonia - mg/l
1	Thu								250	14.200	7.0	99	11,724	132	15,632	3.20	15.70
2	Fri			0.69					249	14.550	7.0	113	13,712	132	16,018	2.81	15.50
3	Sat			0.01					225	11.533	7.0	68	6,541	110	10,580	2.67	16.50
4	Sun								243	15.166	7.3	67	8,474	82	10,372	1.84	11.80
5	Mon			0.09					246	13.500	7.1	95	10,696	144	16,213	2.58	15.30
6	Tue			0.02					243	13.125	6.9	102	11,165	132	14,449	3.16	17.30
7	Wed								250	13.258	7.0	86	9,509	92	10,173	2.85	16.60
8	Thu								250	11.833	7.0	102	10,066	94	9,277	3.22	17.00
9	Fri								225	13.066	7.0	102	11,115	160	17,435	3.45	15.50
10	Sat								290	12.642	7.0	86	9,067	98	10,333	2.85	14.50
11	Sun								237	12.300	7.0	76	7,796	80	8,207	2.24	14.00
12	Mon								225	12.958	7.0	87	9,402	132	14,265	2.73	16.50
13	Tue								228	12.308	6.9	90	9,238	148	15,192	3.42	17.60
14	Wed								200	12.533	6.9	104	10,871	138	14,424	3.48	18.90
15	Thu			0.05					228	12.650	6.9	122	12,871	152	16,036	3.66	17.80
16	Fri			0.19					197	12.950	7.0	115	12,420	158	17,064	3.56	17.60
17	Sat			0.12					243	12.533	7.1	96	10,034	68	7,108	2.83	16.60
18	Sun			0.07					502	12.125	7.1	89	9,000	144	14,562	2.30	14.20
19	Mon					X			119	13.366	6.8	118	13,154	184	20,511	3.25	15.50
20	Tue								365	12.020	7.1	119	11,929	142	14,235	3.51	20.90
21	Wed								275	11.775	7.0	135	13,257	294	28,872	4.48	20.60
22	Thu								275	11.900	7.7	92	9,131	136	13,497	3.60	21.70
23	Fri								319	10.742	7.2	93	8,332	144	12,901	3.63	24.50
24	Sat								319	11.200	7.0	117	10,929	108	10,088	3.29	22.80
25	Sun								334	10.575	7.0	122	10,760	110	9,702	2.93	18.80
26	Mon								319	12.116	7.1	120	12,126	200	20,209	2.98	19.00
27	Tue			0.99					471	13.083	6.7	122	13,312	156	17,022	3.24	20.60
28	Wed			0.21					326	14.675	6.9	96	11,749	138	16,890	3.08	18.00
29	Thu								323	11.467	7.0	86	8,225	94	8,990	3.26	21.30
30	Fri			0.01					300	11.716	7.0	117	11,432	150	14,657	3.50	17.60
31	Sat								300	10.150	7.0	82	6,941	78	6,603	3.19	15.90
Average				0.22					277	12.517		101	10,483	133	13,920	3.12	17.62
Maximum				0.99					502	15.166	7.7	135	13,712	294	28,872	4.48	24.50
Minimum				0.01					119	10.150	6.7	67	6541	68	6603	1.84	11.80

# of Data	0	11	0	1	0	31	0	31	31	31	31	31	31	31	31	31	0
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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 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.

Prepared by or under the direction of (Certified Operatc <i>Laura Kolo</i>	Date (month, day, year) 9/26/24
Signature of principal executive officer or authorized agent (or attested by NetDMR subscriber agreement) <i>Laura Kolo</i>	Date (month, day, year) 9/26/24

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	August	2024

Day Of Month	PRIMARY EFFLUENT		AERATION							SECONDARY EFFLUENT		FINAL EFFLUENT						
	CBOD5 - mg/l	Susp. Solids - mg/l	MIXED LIQUOR				RETURN SLUDGE			CBOD5 - mg/l	Susp. Solids - mg/l	Residual Chlorine - Final	Residual Chlorine - Contact Tank	E. Coli - colony/100 ml	pH - daily low (or single sample)	pH - daily high (if multiple samples)	Dissolved Oxygen - mg/l	Oil & Grease (mg/l)
			Settleable Solids % in 30 minutes	Susp. Solids - mg/l	Sludge Vol. Index - ml/gm	Dissolved Oxygen - mg/l	Temperature - F	Volume - MG	Susp. Solids - mg/l									
1	63	52	170	2,808	61	4.5	20	6.487	6,320					20	7.0		8.2	
2	70	76	170	2,600	65	4.0	20	6.487	6,080					22	7.0		8.1	
3	55	51	180	2,852	63	3.8	21	6.487	6,300					14	7.0		7.9	
4	54	39	170	3,220	53	4.2	20	6.487	6,900					11	7.1		8.3	
5	59	55	174	2,888	60	4.2	20	6.487	5,560					16	7.2		8.0	
6	72	51	169	2,700	63	3.9	20	6.487	5,940					18	7.1		8.1	
7	62	45	163	2,416	68	4.7	20	6.487	7,360					13	6.8		8.2	
8	73	43	160	2,312	69	4.0	20	6.487	5,140					19	6.8		8.0	
9	65	56	207	3,104	67	4.0	20	6.487	7,160					17	7.0		8.0	
10	50	45	207	3,228	64	4.2	20	6.487	6,700					17	6.9		9.0	
11	60	47	210	3,156	67	4.2	20	6.487	7,000					28	7.7		8.3	
12	62	53	194	3,268	59	4.4	20	6.487	6,960					13	7.0		8.4	
13	60	49	198	2,800	71	3.7	20	6.487	6,980					30	8.0		8.0	
14	75	52	192	3,008	64	3.4	20	6.487	6,220					30	7.0		7.9	
15	82	68	193	3,028	64	4.5	20	6.487	6,600					37	7.0		8.0	
16	83	90	198	3,008	66	4.1	20	6.478	6,760					47	7.7		7.8	
17	71	54	203	2,880	70	4.0	20	6.487	6,400					88	7.0		8.0	
18	68	50	207	3,064	68	4.3	20	6.487	7,020					91	7.4		8.0	
19	86	54	182	3,160	58	3.1	20	6.487	6,360					63	7.6		7.7	
20	78	57	193	3,020	64	2.7	20	6.487	5,020					99	7.6		7.9	
21	86	86	188	2,720	69	4.0	20	6.487	6,300					185	7.5		8.1	
22	70	53	182	2,768	66	4.1	20	6.487	6,220					101	7.5		8.1	
23	66	54	179	2,948	61	4.2	20	6.487	6,460					36	7.6		8.0	
24	76	50	175	2,628	67	4.4	20	6.487	5,700					58	7.5		7.7	
25	88	62	179	2,768	65	4.0	21	6.487	5,980					115	7.6		7.6	
26	62	63	180	2,688	67	4.3	21	6.487	6,080					33	7.6		8.1	
27	73	64	171	2,484	69	3.7	21	6.487	5,600					15	7.9		7.9	
28	74	60	150	2,604	58	3.6	22	6.487	6,420					14	7.0		7.4	
29	69	72	178	2,736	65	3.4	21	6.487	5,700					14	7.0		7.8	
30	82	66	182	2,852	64	4.0	21	6.487	6,080					23	7.0		7.9	
31	64	63	187	2,836	66	4.40	21	6.487	6,280					8	7.0		7.9	
Avg.	70	57	184	2,857	64	4.0	20	6.487	6,310					42			8.0	
Max	88	90	210	3,268	71	4.7	22	6.487	7,360					185		8.0	9.0	
Min.	50	39	150	2312	53	2.7	20	6.478	5020					8	6.80		7.4	
Daily Max														185				
# of Days above 235														0				
Data	31	31	31	31	31	31	31	31	31	0	0	1	0	31	31	0	31	0

Comments for the Month (major repairs, breakdowns, process upsets and their causes, inplant treatment process bypass, etc.):

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	August	2024

		FINAL EFFLUENT															
Day Of Month	Day of Week	Flow		BOD				Total Suspended Solids				Ammonia				Phosphorus	
		Effluent Flow Rate (MGD)	Effluent Flow Weekly Average	CBOD5 - mg/l	CBOD5 - mg/l Weekly Average	CBOD5 - lbs/day	CBOD5 - lbs/day Weekly Average	Susp. Solids - mg/l	Susp. Solids - mg/l Weekly Average	Susp. Solids - lbs/day	Susp. Solids - lbs/day Weekly Average	Ammonia - mg/l	Ammonia - mg/l Weekly Average	Ammonia - lbs/day	Ammonia - lbs/day Weekly Average	Phosphorus - mg/l	Phosphorus - lbs/day
1	Thu	17.311		2		289		3		448		0.04		5.8		0.59	85
2	Fri	19.810		2		330		4		694		0.10		16.5		0.65	107
3	Sat	14.742		2		246		3		332		0.03		3.7		0.71	87
4	Sun	17.347		2		289		2		318		0.05		7.2		0.68	98
5	Mon	16.809		2		280		3		407		0.06		8.4		0.56	79
6	Tue	16.530		2		276		3		469		0.05		6.9		0.74	102
7	Wed	16.439		2		274		3		452		0.04		5.5		0.70	96
8	Thu	15.885		2		265		5		623		0.17		22.5		0.73	97
9	Fri	16.280		2		272		4		557		0.04		5.4		0.70	95
10	Sat	15.203	16.356	2	2.00	254	273	4	3.46	456	469	0.04	0.06	5.1	9	0.83	105
11	Sun	15.155		2		253		4		468		0.04		5.1		0.85	107
12	Mon	16.108		2		269		5		685		0.03		4.0		0.80	107
13	Tue	15.779		2		263		7		947		0.05		6.6		0.78	103
14	Wed	15.688		3		393		8		994		0.03		3.9		0.75	98
15	Thu	15.212		2		254		10		1,319		0.05		6.3		0.72	91
16	Fri	15.977		3		400		11		1,439		0.04		5.3		0.82	109
17	Sat	14.598	15.502	3	2.43	365	314	12	8.11	1,461	1,045	0.03	0.04	3.7	5	0.76	93
18	Sun	14.377		2		240		13		1,535		0.06		7.2		0.87	104
19	Mon	15.189		3		380		19		2,432		0.08		10.1		1.00	127
20	Tue	14.968		5		624		25		3,096		0.08		10.0		1.12	140
21	Wed	15.021		3		376		18		2,255		0.07		8.8		1.20	150
22	Thu	14.539		4		485		22		2,619		0.10		12.1		1.32	160
23	Fri	14.200		4		474		28		3,316		0.05		5.9		1.33	158
24	Sat	13.405	14.528	4	3.57	447	432	24	21.20	2,683	2,562	0.03	0.07	3.4	8	1.35	151
25	Sun	13.349		4		445		18		2,004		0.06		6.7		1.32	147
26	Mon	14.611		3		366		11		1,389		0.08		9.7		0.94	115
27	Tue	18.110		3		453		7		1,118		0.12		18.1		0.74	112
28	Wed	16.288		3		408		5		734		0.21		28.5		0.53	72
29	Thu	13.793		3		345		4		426		0.05		5.8		0.49	56
30	Fri	13.549		3		339		3		373		0.03		3.4		0.57	64
31	Sat	12.469	14.596	2	3.00	208	366	3	7.49	333	911	0.76	0.09	7.3	11	0.76	79
Avg		15.443		3		341		9		1,174		0.09		8.4		0.84	106
Max		19.810	16.356	5	3.57	624	432	28	21.20	3,316	2,562	0.76	0.09	28.5	11	1.4	160
Min		12.469	14.528	2	2.00	208	273	2	3.46	318	469	0.03	0.04	3.4	5	0.5	56
Data		31	4	31	4	31	4	31	4	31	4	31	4	31	4	31	31

MONTHLY REMOVAL SUMMARY					Total Monthly Flow: (million gallons)
Percent Removal	BOD5	S.S.	Ammonia	Phosphorus	479
Primary Treatment	30.79	56.9			Percent Capacity (actual flow/design) 77%
Secondary Treatment	96.2	83.7			
Overall Treatment	97.34	93.0	99.5	73.2	
Phosphorus limit would be 75 % removal. (compliance not achieved)					

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	August	2024

Day Of Month	SLUDGE TO DIGESTER		DIGESTER OPERATION											
	Primary Sludge Gal. x 100	Waste Act. Sludge Gal. x 1000	Anaerobic Only			Supernatant Withdrawn hrs. or Gal. x 1000	Supernatant BOD5 mg/l or NH3-N mg/l	Total Solids in Incoming Sludge - %	Total Solids in Digested Sludge - %	Volatile Solids in Incoming Sludge - %	Volatile Solids in Digested Sludge - %	Digested Sludge Withdrawn hrs. or Gal. x 1000		
			pH	Gas Production Cubic Ft. x 1000	Temperature - F									
1	36.38	168.48	7.3		100			4.76	2.23	69.00	57.72	92.99		
2	39.20	168.48	7.4		101			3.30	2.28	72.65	57.72			
3	31.89	168.48	7.3		100			4.61	2.33	72.13	56.46			
4	29.38	168.48	7.2		101			4.39	2.30	76.87	57.86			
5	23.75	168.48	7.2		100	28.296		3.95	2.24	79.05	57.33	82.64		
6	15.98	168.48	7.2		102	14.148		5.29	2.17	71.90	56.76	83.41		
7	25.58	168.48	7.3		102	3.537		4.02	2.19	79.10	56.62	52.41		
8	33.34	168.48	7.3		101	7.074		3.38	2.06	76.50	55.97	83.10		
9	30.84	168.48	7.2		101			5.33	2.17	71.27	55.56			
10	26.78	168.48	7.2		99			6.36	2.11	69.58	56.16			
11	17.92	168.48	7.2		101	21.000		5.03	2.08	78.72	58.33			
12	31.32	167.04	7.2		101	10.611		3.94	2.11	79.86	57.04	82.02		
13	38.74	168.48	7.2		101	7.074		2.97	2.07	77.67	56.86	123.80		
14	33.88	168.48	7.3		101			4.80	2.06	67.14	57.23	123.39		
15	38.00	167.04	7.3		101			3.65	2.07	70.59	57.38	17.66		
16	39.43	168.48	7.2		101	3.537		4.03	2.07	74.35	56.56			
17	32.47	168.48	7.2		101	7.074		3.88	2.07	74.80	56.93			
18	21.85	168.48	7.3		100			3.66	2.10	77.73	53.73			
19	29.55	168.48	7.3		101			3.86	2.08	81.01	56.74	123.94		
20	28.04	168.48	7.3		99	7.074		4.18	2.08	77.95	57.14	124.08		
21	36.38	168.48	7.2		100			3.84	2.03	76.68	57.81	82.27		
22	38.94	162.72	7.3		101	7.074		4.03	2.04	69.12	57.33	122.99		
23	42.44	168.48	7.3		100			3.70	2.05	74.59	58.02			
24	39.47	168.48	7.3		100			3.22	2.07	71.65	56.20			
25	39.44	168.48	7.2		101	17.685		3.38	2.07	77.74	57.60			
26	20.72	168.48	7.2		101			4.32	2.14	79.06	59.18	115.69		
27	19.69	136.80	7.2		101	3.537		4.30	2.17	74.38	56.15	82.13		
28	38.90	129.60	7.1		101	3.537		4.44	2.24	71.27	56.05	81.43		
29	40.98	129.60	7.1		101			4.48	2.23	68.81	56.29	104.91		
30	38.96	129.60	7.2		101			3.91	2.29	70.48	58.39			
31	48.12	129.60	7.2		101			3.70	2.06	67.21	55.66			
Avg.	32.53	162.16			101	10.090		4.15	2.14	74.16	56.93	92.88		
Max.	48.12	168.48	7.4		102	28.296		6.36	2.33	81.01	59.18	124.08		
Min.	15.98	129.60	7.1		99	3.537		2.97	2.03	67.14	53.73	17.66		
Data	31	31	31	0	31	14	0	31	31	31	31	17	0	0

Once completed, this form should be converted to a pdf document, named appropriately & attached to the corresponding netDMR for submittal

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility Elkhart	Permit Number IN0025674	Month August	Year 2024
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Substitute for State Form 30530

Day Of Month	Final Effluent				Ag - Influent mg/l	Ag - Effluent mg/L	Cd - Influent mg/L	Cd - Effluent mg/L	CN - Influent mg/L	CN - Effluent mg/L	Cr - Influent mg/L	Cr - Effluent mg/L	Cu - Influent mg/L	Cu - Effluent mg/L	Hg - Influent ng/L	Hg - Effluent ng/L
	Chloride		Total Nitrogen													
	Chloride - mg/l	Chloride - lbs/day	Total Nitrogen- mg/l	Total Nitrogen- lbs/day												
1																
2																
3																
4																
5			16.40	2,299												
6					0.0006	0.0002										
7																
8																
9																
10	172	21,808														
11																
12																
13					0.0006	0.0002										
14																
15																
16																
17																
18																
19																
20					0.0007	0.0002										
21																
22																
23																
24																
25																
26																
27					0.0003	0.0002										
28																
29																
30																
31																
Avg.	172	21,808	16.40	2,299	0.0006	0.0002										
Max.	172	21,808			0.0007	0.0002										
Min.	172	21,808	16.40	2299	0.0003	0.0002										
Data	1	1	1	1	4	4	0	0	0	0	0	0	0	0	0	0



# WASTEWATER TREATMENT PLANT

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	August	2024

Substitute for State Form 30530

Day Of Month	Ni - Influent mg/L	Ni - Effluent mg/L	Pb - Influent mg/L	Pb - Effluent mg/L	Zn - Influent mg/L	Zn - Effluent mg/L												
1																		
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Avg.																		
Max																		
Min.																		
Data	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart		Page 1 of 9		Permit Number: IN0025574																
Facility: Elkhart Public Works & Utilities				Public Notification Requirements Met? Y																
Monitoring Period: August 2024				Enter "x" if no CSO discharge occurred for the month:																
Design Peak Hourly Flow (MGD): 44		Design Average Flow (MGD): 20		Measured/Metered (M) or Estimated (E) must be specified																
WWTP Influent Data			Precipitation Data				CSO Outfall No. 005				CSO Outfall No. 006									
Day of Month	Average Daily Flow (MGD)	Peak Hourly Flow (MGD)	Time Precip. Began (am/pm)	Precip. Duration (Hours)	Total Daily Precip. (Inches)	Peak Intensity (Inch/hr)	Measurement Interval (hr, 30 m, 15 m)	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
1	14.20	15.20					15 min													
2	14.55	31.20	2:41 AM	17.25	0.69	2.08	15 min							4:18 PM	M	0.33	M	0.0303	M	
3	11.53	13.90	1:04 AM	6.95	0.01	0.04	15 min							NO DATA - OFFLINE						
4	15.17	15.50					15 min													
5	13.50	15.10	9:56 AM	1.05	0.09	0.16	15 min													
6	13.13	14.90	4:26 AM	10.80	0.02	0.04	15 min													
7	13.26	15.30					15 min													
8	11.83	14.20					15 min													
9	13.07	14.10					15 min													
10	12.64	13.60					15 min													
11	12.30	13.80					15 min													
12	12.96	14.20					15 min													
13	12.31	14.20					15 min													
14	12.53	13.60					15 min													
15	12.65	13.80	10:46 AM	9.33	0.05	0.04	15 min													
16	12.95	15.10	5:51 AM	18.22	0.19	0.24	15 min													
17	12.53	14.40	3:31 AM	12.75	0.12	0.44	15 min													
18	12.13	13.60	10:51 AM	4.80	0.07	0.12	15 min													
19	13.37	13.20					15 min													
20	12.02	13.40					15 min													
21	11.78	15.00					15 min													
22	11.90	14.50					15 min													
23	10.74	12.90					15 min													
24	11.20	12.40					15 min													
25	10.58	12.60					15 min													
26	12.12	13.30					15 min													
27	13.08	23.20	5:01 PM	7.05	0.99	1.44	15 min													
28	14.68	33.10	12:01 AM	7.38	0.21	0.16	15 min													
29	11.47	12.40					15 min													
30	11.72	13.70	6:34 PM	0.08	0.01	0.04	15 min													
31	10.15	11.60					15 min													
<b>Totals:</b>	<b>388.02</b>			<b>95.66</b>	<b>2.45</b>			<b>0</b>	Days	<b>0.00</b>		<b>0</b>		<b>1</b>	Days	<b>0.33</b>		<b>0.0303</b>		



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 2 of 9					Permit Number: IN0025574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y															
Monitoring Period: August 2024										Enter "x" if no CSO discharge occurred for the month:															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 007						CSO Outfall No. 008						CSO Outfall No. 009						CSO Outfall No. 011							
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
1																									
2	4:22 PM	M	4.83	M	0.8314	M	4:15 PM	M	0.17	M	0.0033	M	4:25 PM	M	4.50	M	0.1907	M	4:15 PM	M	0.25	M	0.0224	M	
3	12:00 AM	M	11.50	M	1.9933	M							12:00 AM	M	11.58	M	0.4991	M							
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Totals:	2	Da ys	16.33		2.8247		1	Da ys	0.17		0.0033		2	Da ys	16.08		0.6898		1	Da ys	0.25		0.0224		



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 3 of 9					Permit Number: IN0025574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y															
Monitoring Period: August 2024										Enter "x" if no CSO discharge occurred for the month:															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 012						CSO Outfall No. 013						CSO Outfall No. 14B						CSO Outfall No. 015							
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
1																									
2	4:22 PM	M	0.42	M	0.0112	M	4:17 PM	M	0.42	M	0.0603	M													
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28																				11:11 PM	M	0.08	M	0.0005	M
29																									
30																									
31																									
Totals:	1	Da ys	0.42		0.0112		1	Da ys	0.42		0.0603		0	Da ys	0.00		0.0000		1	Da ys	0.08		0.0005		



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 4 of 9					Permit Number: IN0025574									
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y														
Monitoring Period: August 2024										Enter "x" if no CSO discharge occurred for the month:														
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified														
CSO Outfall No. 016							CSO Outfall No. 017							CSO Outfall No. 018					CSO Outfall No. 019					
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E
1																								
2	4:15 PM	M	1.67	M	0.2674	M																		
3																								
4																								
5																								
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27													10:44 PM	M	1.25	M	0.1105	M						
28													12:04 AM	M	0.25	M	0.0029	M						
29																								
30																								
31																								
<b>Totals:</b>	1	Days	1.67		0.2674		0	Days	0.00		0.0000		2	Days	1.50		0.1134		0	Days	0.00		0.0000	



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

Slate Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 5 of 9					Permit Number: IN0025574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y															
Monitoring Period: August 2024										Enter "x" if no CSO discharge occurred for the month:															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 020						CSO Outfall No. 023						CSO Outfall No. 024					CSO Outfall No. 025								
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
1																									
2							4:17 PM	M	0.33	M	0.0126	M	4:50 PM	M	0.25	M	0.0007	M	4:16 PM	M	0.25	M	0.0438	M	
3																									
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25																									
26																									
27	10:45 PM	M	0.75	M	0.0498	M	5:27 PM	M	0.50	M	0.0280	M	10:45 PM	M	1.17	M	0.1244	M	5:26 PM	M	0.33	M	0.0236	M	
28																									
29																									
30																									
31																									
Totals:	1	Days	0.75		0.0498		2	Days	0.83		0.0406		2	Days	1.42		0.1251		2	Days	0.58		0.0674		



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 6 of 9					Permit Number: IN0025574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y															
Monitoring Period: August 2024										Enter "x" if no CSO discharge occurred for the month:															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 026						CSO Outfall No. 027						CSO Outfall No. 028					CSO Outfall No. 029								
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
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27							10:35 PM	M	0.33	M	0.0184	M													
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29																									
30																									
31																									
<b>Totals:</b>	0	Days	0.00		0.0000		1	Days	0.33		0.0184		0	Days	0.00		0.0000		0	Days	0.00		0.0000		



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)  
 State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 7 of 9					Permit Number: IN0025574									
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y														
Monitoring Period: August 2024										Enter "x" if no CSO discharge occurred for the month:														
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified														
CSO Outfall No. 031						CSO Outfall No. 032						CSO Outfall No. 033						CSO Outfall No. 034						
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E
1																								
2	4:26 PM	M	0.42	M	0.0394	M							4:20 PM	M	1.42	M	0.9216	M						
3																								
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27	10:49 PM	M	0.33	M	0.0256	M	10:34 PM	M	0.33	M	0.0094	M												
28																								
29																								
30																								
31																								
<b>Totals:</b>	2	Days	0.75		0.0650		1	Days	0.33		0.0094		1	Days	1.42		0.9216		0	Days	0.00		0.0000	





National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 8 of 9					Permit Number: IN0025574									
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y														
Monitoring Period: August 2024										Enter "x" if no CSO discharge occurred for the month:														
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified														
CSO Outfall No. 037						CSO Outfall No. 039						CSO Outfall No. 040					CSO Outfall No.							
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E
1																								
2	4:32 PM	M	0.92	M	0.4070	M																		
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
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22																								
23																								
24																								
25																								
26																								
27	10:47 PM	M	1.25	M	0.8252	M							10:42 PM	M	1.00	M	0.0109	M						
28	12:02 AM	M	0.17	M	0.0105	M																		
29																								
30																								
31																								
<b>Totals:</b>	3	Da ys	2.34		1.2427		0	Da ys	0.00		0.0000		1	Da ys	1.00		0.0109		0	Da ys	0.00		0.0000	



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart	Page: 9 of 9	Permit Number: IN0025574
Facility: Elkhart Public Works & Utilities	Public Notification Requirements Met? Y	
Monitoring Period: August 2024	Enter "x" if no CSO discharge occurred for the month:	
Design Peak Hourly Flow (MGD): 44	Design Average Flow (MGD): 20	

Day of Month	Comments (further explanation as to why each CSO event occurred)
1	
2	precipitation
3	precipitation
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	precipitation
28	precipitation
29	
30	
31	

Typed or Printed Name and Title of Principal Executive Officer or Authorized Agent	Telephone
Laura E. Kolo, Utilities Services Manager	574-293-2572
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 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.	
Signature of Principal Executive Officer or Authorized Agent	Date (mm/dd/yy)
<i>Laura Kolo</i>	09/23/24



# BYPASS / OVERFLOW INCIDENT REPORT

State Form 48373 (R7 / 4-16)  
Indiana Department of Environmental Management  
Office of Water Quality

Follow-up to Bypass report  
previously sent on: \_\_\_\_\_

**INSTRUCTIONS:** Complete all parts of this form and email signed copies to [wwreports@idem.IN.gov](mailto:wwreports@idem.IN.gov). Submittal of this report will satisfy the Office of Water Quality (OWQ) telephone and written bypass/overflow reporting requirements of your NPDES permit. Please use and the second page of this form as necessary to identify separate locations caused by the same event. If you have any questions while filling out the report form, please contact Renee Repar at (317) 232-6770 or [rrepar@idem.in.gov](mailto:rrepar@idem.in.gov).

To report a spill or if the release is resulting in a fish kill or other severe environmental damage, immediately report the release to the Emergency Response Section spill response line at: (317) 233-7745 or toll free within Indiana at (888) 233-7745.

GENERAL INFORMATION					
(1) Facility Name ( <i>Organization</i> ) Elkhart Public Works		(2) Mailing Address ( <i>reporting organization</i> ) 1201 S. Nappanee Street		(3) County Elkhart	(4) NPDES Permit IN00025674
RELEASE INFORMATION (Location 1)					
(5) Outfall Number	(6) Date ( <i>mm/dd/yy</i> ) and Time Release Began 08/19/24 8:58 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	(7) Date ( <i>mm/dd/yy</i> ) and Time Release Stopped 08/19/24 10:45 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	(8) Location of Release ( <i>streets address or Manhole, Lift Station, Force Main etc.</i> ) 933 Fieldhouse	(9) Latitude ( <i>Deg Min Sec</i> ) 41 39 57 N	(9) Longitude ( <i>Deg Min Sec</i> ) 85 58 54 W
(10) Amount of Flow Released ( <i>Always provide a volume.</i> ) <i>Check one:</i> <input type="checkbox"/> Estimated <input type="checkbox"/> Actual unknown Gallons			(11) WWTP Flow During Release 12.1 MGD	(12) WWTP Peak Design Flow Rate 44.0 MGD	
(13) Overflow Type ( <i>Select one.</i> ) <input type="checkbox"/> Sanitary Sewer Overflow <input type="checkbox"/> Treatment Bypass ( <i>at wastewater plant</i> ) <input type="checkbox"/> Prohibited Combined Sewer Overflow <input type="checkbox"/> Dry Weather Combined Sewer Overflow <input checked="" type="checkbox"/> Combined Sewer System Release			(14) Describe any damage to aquatic life or receiving stream: none		
(15) Reason for Bypass / Overflow ( <i>Select one or more.</i> ) <input type="checkbox"/> Construction Related <input type="checkbox"/> Power Failure <input type="checkbox"/> Equipment Failure <input type="checkbox"/> Unknown <input type="checkbox"/> Exceeded Max Capacity <input type="checkbox"/> Precipitation Inches					
(16) System Component(s) ( <i>Select one or more.</i> ) <input type="checkbox"/> Manhole <input type="checkbox"/> House Lateral <input type="checkbox"/> Pipe Failure <input type="checkbox"/> Pump Station Failure <input type="checkbox"/> Treatment Bypassed <input checked="" type="checkbox"/> Other <input type="checkbox"/> Influent Structure <input type="checkbox"/> Air Relief Valve <input type="checkbox"/> Sewer Clean Out  Describe Other: ( <i>in the box below</i> ) grease and rags		(17) Additional Description of the Bypass / Overflow Event: crews called out at 9:00 am. Found sewer main partially plugged with grease and rags		(18) Description of the Area Impacted ( <i>Check all that apply.</i> ) <input type="checkbox"/> Affected Private Property <input checked="" type="checkbox"/> Basement Backup <input type="checkbox"/> Occurred at Treatment Plant <input type="checkbox"/> Reached Public Land <input type="checkbox"/> Reached Receiving Water  Name of Receiving Water Impacted: none	
(19) Additional organizations notified by facility, if necessary ( <i>Select one or more.</i> ) <input type="checkbox"/> IDEM Emergency Response <input type="checkbox"/> Health Dept. <input type="checkbox"/> DNR Fish and Wildlife <input type="checkbox"/> Local Emergency Management <input checked="" type="checkbox"/> Other:  n/a					
(20) Actions Taken to Prevent, Minimize, or Mitigate Damage including Clean-up and Treatment of Affected Area ( <i>Select one or more of the following, then add a written description.</i> ) <input type="checkbox"/> Removed Blockage <input type="checkbox"/> Repaired Pipe <input type="checkbox"/> Repaired Pump Station <input checked="" type="checkbox"/> Other <input type="checkbox"/> Lime <input type="checkbox"/> Clean-Up Debris crews sent to clear obstruction of grease and rags					
(21) Resolution: Actions Taken or Planned to Prevent Recurrence Will send information to neighborhood on proper grease disposal					
(22)					

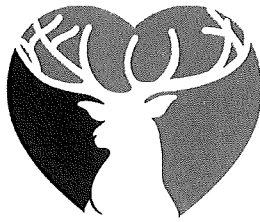
CERTIFICATION AND SIGNATURE				
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of 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. ( <i>The area below is for a handwritten signature or an electronic substitute then fax or scan to PDF for emailing.</i> )				
SIGNATURE: <u>Laura Kolo</u>			DATE ( <i>month, day, year</i> ): 08/20/24	
Individual Making Report ( <i>printed</i> ) Laura Kolo	Telephone Number (574) 293-2572	Contact Email <a href="mailto:laura.kolo@coei.org">laura.kolo@coei.org</a>	Date ( <i>month, day, year</i> ) / Time IDEM Notified 08/20/24 appx 6:45	<input checked="" type="checkbox"/> AM <input type="checkbox"/> PM

## Kolo, Laura


---

**From:** postmaster@state.in.us  
**Sent:** Tuesday, August 20, 2024 6:37 AM  
**To:** Kolo, Laura  
**Subject:** EXTERNAL: Relayed: IN0025674\_INC\_RPT\_08\_1  
**Attachments:** EXTERNAL: Relayed: IN0025674\_INC\_RPT\_08\_1

Caution: This email originated from outside of the organization. Please take care when clicking links or opening attachments. When in doubt, contact your IT Department



**City of Elkhart**  
*Public Works and Utilities*

Date Oct 24, 2024  
Memo To Board of Public Works  
Memo From Laura Kolo, Utility Services Manager   
Subject Wastewater Utility Monthly Report of Operations  
for the month of September, 2024

***Wastewater MRO Highlights***

Parameter	Monthly Avg	Permit Limit
Suspended Solids mg/L	11	30
cBOD5 mg/L	3	25
Phosphorus mg/L	0.92	1.0
Ammonia mg/L	0.13	4.4 (Dec-Apr) 4.2 (May-Nov)
Avg Daily Flow MGD	13.45	Design - 20
Total Monthly Flow MGD	403	Report

***Incident Reports Filed***

Date	Location	Volume (gal)	Cause
9-8-24	1518 Johnson	240	grease/rags

***Wet Weather Overflows***

Number of Events	Total Overflow Volume (MG)
2	1.2051



Code	Name	Value 1	Units	Value 1	Value 2	Value 3	Units	Value 2	Value 3	Ex.	Analysis	Type
Season: 0	Req.	<=0.063 MO AVG	<=0.13 DAILY MX	26 - lb/d	<=0.00038 MO AVG	<=0.00077 DAILY MX	19 - mg/L	<=0.00038 MO AVG	<=0.00077 DAILY MX	0	01/07 - Weekly	24 - COMP24
NODI: -	NODI											
01079	Silver total recoverable											
G - Raw Sewage Influent	Smpl.									0	02/30 - Twice Per Month	24 - COMP24
Season: 0	Req.				Req Mon MO AVG	Req Mon DAILY MX	19 - mg/L	Req Mon MO AVG	Req Mon DAILY MX		02/30 - Twice Per Month	24 - COMP24
NODI: -	NODI											
50050	Flow, in conduit or thru treatment plant											
1 - Effluent Gross	Smpl.	=13.448	03 - MGD							0	01/01 - Daily	TM - TOTALZ
Season: 0	Req.	Req Mon MO AVG	03 - MGD								01/01 - Daily	TM - TOTALZ
NODI: -	NODI											
51041	E. coli, colony forming units [CFU]											
1 - Effluent Gross	Smpl.				=12.0	=150.0	3Z - CFU/100mL			0	01/01 - Daily	GR - GRAB
Season: 1	Req.				<=125.0 MO GEO	<=235.0 DAILY MX	3Z - CFU/100mL				01/01 - Daily	GR - GRAB
NODI: -	NODI											
80082	BOD, carbonaceous [5 day, 20 C]											
1 - Effluent Gross	Smpl.	=376.0	26 - lb/d		=472.0	=4.0	19 - mg/L			0	01/01 - Daily	24 - COMP24
Season: 0	Req.	<=6259.0 MO AVG	<=10014.0 MX WK AV	26 - lb/d	<=25.0 MO AVG	<=40.0 MX WK AV	19 - mg/L				01/01 - Daily	24 - COMP24
NODI: -	NODI											
81012	Phosphorus, total percent removal											
K - Percent Removal	Smpl.				=75.2		23 - %			0	01/30 - Monthly	CA - CALCTD
Season: 0	Req.				>=75.0 MO AV MN		23 - %				01/30 - Monthly	CA - CALCTD
NODI: -	NODI											
82220	Flow, total											
1 - Effluent Gross	Smpl.	=403.0	80 - Mgal/mo							0	01/30 - Monthly	RT - RCOTOT

Code	Name	Value 1	Value 2	Units	Value 1	Value 2	Value 3	Units	Value 1	Value 2	Value 3	Units	Ex.	Analysis	Type
Season: 0	Req.		Req Mon MO TOTAL	80 - Mgal/mo										01/30 - Monthly	RT - RCOTOT
NODI: -	NODI														

**Submission Note**

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

**Edit Check Errors**

No errors.

**Comments**

**Attachments**

Name	Type	Size
IN0025674_CS0_MRO_2024_09.pdf	pdf	1219640.0
IN0025674_035a_2024_09.pdf	pdf	1010450.0
IN0025674_INC_RPT_2024_09.pdf	pdf	108945.0

**Report Last Saved By**

**ELKHART WWTP**

User: Payton88  
 Name: Laura Kolo  
 E-Mail: laura.kolo@coei.org  
 Date/Time: 2024-10-24 15:38 (Time Zone: -04:00)

**Report Last Signed By**

User: Payton88  
 Name: Laura Kolo  
 E-Mail: laura.kolo@coei.org  
 Date/Time: 2024-10-24 15:43 (Time Zone: -04:00)



 [View Certification](#) |  [Download COR](#)

**DMR Copy of Submission**

[Expand Notices](#)

**Permit**

**Permit ID:** IN0025674      **Major:** 229 SOUTH 2ND ST  
ELKHART, IN46516  
**Permittee:** ELKHART WWTP      **Permittee Address:** ELKHART, IN46516  
**Facility:** ELKHART WWTP      **Facility Location:** 1201 S NAPPANEE ST  
ELKHART, IN46516  
**Permitted Feature:** 035 - External Outfall      **Discharge:** 035-AQ - QUARTERLY REPORTING  
**Report Dates & Status**      **DMR Due Date:** 10/28/24  
**Monitoring Period:** From 07/01/24 to 09/30/24

**Status:** **NetDMR Validated**

**Considerations for Form Completion**

REPORT MONTHLY SAMPLING ON THE 001-A NETDMR. MUNICIPAL MAJOR ELKHART COUNTY

**Principal Executive Officer**

**First Name:** Laura      **Last Name:** Kolo  
**Title:** Utility Services Manager      **Telephone:** 574-293-2572

**No Data Indicator (NODI)**

**Form NODI:**





Code	Name	Value 1	Value 2	Units	Value 1	Value 2	Value 3	Units	Ex.	Analysis	Type
01119	Copper, total recoverable						=0.102	19 - mg/L	0	01/90 - Quarterly	24 - COMP24
	G - Raw Sewage Influent										
	Season: 0						Req Mon DAILY MX	19 - mg/L		01/90 - Quarterly	24 - COMP24
	NODI: -										

**Submission Note**

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

**Edit Check Errors**

No errors.

**Comments**

**Attachments**

No attachments.

**Report Last Saved By**

**ELKHART WWTP**

User: Payton88  
 Name: Laura Kolo  
 E-Mail: laura.kolo@coei.org  
 Date/Time: 2024-10-24 15:20 (Time Zone:-04:00)

**Report Last Signed By**

User: Payton88  
 Name: Laura Kolo  
 E-Mail: laura.kolo@coei.org  
 Date/Time: 2024-10-24 15:43 (Time Zone:-04:00)

Feature	#	End Date	Unscheduled	Date	Received Date
IN0025674 ELKHART WWTP	005-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- ARCH/BAR, NW OF INTERSECTION					Signed & Submitted
IN0025674 ELKHART WWTP	008-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- HUG/EAST BLVD					Signed & Submitted
IN0025674 ELKHART WWTP	007-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- JACKSON, N OF BRIDGE, E OF ELKHART RIVER					Signed & Submitted
IN0025674 ELKHART WWTP	006-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- JACKSON, N OF BRIDGE, W OF ELKHART RIVER					Signed & Submitted
IN0025674 ELKHART WWTP	015-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- MICHIGAN/FULTON					Signed & Submitted
IN0025674 ELKHART WWTP	014-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- DAM AT CONE/ERWIN					Signed & Submitted
IN0025674 ELKHART WWTP	011-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- ELKHART/FRANKLIN					Signed & Submitted
IN0025674 ELKHART WWTP	017-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- W. BOULEVARD/MCNAUGHTON					Signed & Submitted
IN0025674 ELKHART WWTP	009-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- NIBCO PRKWY - FKA JR. ACHIEVEMENT (Y DR N)					Signed & Submitted
IN0025674 ELKHART WWTP	016-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- DAN @ GOSHEN/SUPERIOR					Signed & Submitted
IN0025674 ELKHART WWTP	013-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- JOHNSON/BEARDSLEY					Signed & Submitted
IN0025674 ELKHART WWTP	027-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- EDGEWATER/NAVAJO					Signed & Submitted
IN0025674 ELKHART WWTP	025-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- POTTAWATOMI/SECOND					Signed & Submitted
IN0025674 ELKHART WWTP	024-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- INDIANA/FRANKLIN					Signed & Submitted
IN0025674 ELKHART WWTP	035-AQ	09/30/24	Scheduled	10/28/24	10/24/24
QUARTERLY REPORTING					Signed & Submitted
IN0025674 ELKHART WWTP	026-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- MAIN/POTTAWATOMI					Signed & Submitted
IN0025674 ELKHART WWTP	019-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO-MICHIGAN @ RVR, S. OF LEX.					Signed & Submitted
IN0025674 ELKHART WWTP	033-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- EVANS/GRACE					Signed & Submitted
IN0025674 ELKHART WWTP	023-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- FRANKLIN/8TH					Signed & Submitted
IN0025674 ELKHART WWTP	029-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- JEFFERSON AT THE RIVER					Signed & Submitted
IN0025674 ELKHART WWTP	012-C	09/30/24	Scheduled	10/28/24	10/24/24
CSO- CASSOPOLIS/BEARDSLEY					Signed & Submitted

	Feature	#	End Date	Unscheduled Date	Received Date
IN0025674	ELKHART WWTP	032-C	09/30/24	Scheduled	10/24/24
IN0025674	ELKHART WWTP	028-C	09/30/24	Scheduled	10/24/24
IN0025674	ELKHART WWTP	034-C	09/30/24	Scheduled	10/24/24
IN0025674	ELKHART WWTP	040-C	09/30/24	Scheduled	10/24/24
IN0025674	ELKHART WWTP	039-C	09/30/24	Scheduled	10/24/24
IN0025674	ELKHART WWTP	037-C	09/30/24	Scheduled	10/24/24
IN0025674	ELKHART WWTP	035-A	09/30/24	Scheduled	10/24/24
IN0025674	ELKHART WWTP	018-C	09/30/24	Scheduled	10/24/24
IN0025674	ELKHART WWTP	031-C	09/30/24	Scheduled	10/24/24
IN0025674	ELKHART WWTP	020-C	09/30/24	Scheduled	10/24/24

NPDES eReporting Help Desk: [NPDESReporting@epa.gov](mailto:NPDESReporting@epa.gov) | 877-227-8965 (9:00am - 8:00pm EST)  
 Contact Us to ask a question, provide feedback, or report a problem.

**Permit**

**Permit ID:** IN0025674      **Major:** 229 SOUTH 2ND ST  
ELKHART, IN46516  
**Permittee:** ELKHART WWTP      **Permittee Address:**  
**Facility:** ELKHART WWTP      **Facility Location:** 1201 S NAPPANEE ST  
ELKHART, IN46516  
**Permitted Feature:** 035 - External Outfall      **Discharge:** 035-A - 20 MGD CLASS IV ACTIVATED SLUDGE - TO ST JOSEPH RIVER

**Report Dates & Status**

**Monitoring Period:** From 09/01/24 to 09/30/24      **DMR Due Date:** 10/28/24

**Status:** NetDMR Validated

**Considerations for Form Completion**

THE FLOW METER(S) SHALL BE CALIBRATED AT LEAST ONCE EVERY TWELVE MONTHS. REPORT QUARTERLY PARAMETERS ON 035-AQ NETDMR. MUNICIPAL MAJOR ELKHART COUNTY

**Principal Executive Officer**

**First Name:** Laura      **Last Name:** Kolo  
**Title:** Utility Services Manager      **Telephone:** 574-293-2572

**No Data Indicator (NODI)**

**Form NODI:** -





**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility Elkhart		Permit Number IN0025674	
Month September	Year 2024	Plant Design Flow 20.00 mgd	Telephone Number 574/293-2572
E-mail address: laura.kolo@coei.org		035	A
Certified Operator: Name Laura E. Kolo		Class IV	Certificate Number 15094
		Expiration Date 06/30/2027	

Day Of Month	Day of Week	Man-Hours at Plant (Plants less than 1 MGD only)	Air Temperature (optional)	Total= 2.59 Precipitation - Inches	Bypass At Plant Site("x" If Occurred)	Sanitary Sewer Overflow("x" If Occurred)	CHEMICALS USED			RAW SEWAGE								
							Chlorine - Lbs/day	Ferric Chloride Lbs/Day or Gal./Day	Lbs/Day or Gal./Day	Influent Flow Rate (if metered) MGD	pH	CBOD5 - mg/l	CBOD5 - lbs/day	Susp. Solids - mg/l	Susp. Solids - lbs/day	Phosphorus - mg/l	Ammonia - mg/l	
1	Sun								372		10.158	7.4	112	9,488	96	8,133	3.28	18.60
2	Mon								354		9.941	6.8	88	7,296	74	6,135	2.88	17.10
3	Tue								346		10.517	7.4	102	8,947	168	14,736	3.40	18.10
4	Wed								334		10.766	7.0	123	11,044	226	20,292	3.82	22.50
5	Thu								342		11.233	7.0	108	10,118	126	11,804	3.30	20.30
6	Fri								243		11.708	6.7	120	11,717	116	11,327	3.86	21.80
7	Sat								204		11.175		97	9,040	132	12,302	3.50	20.30
8	Sun					X			289		10.575	7.1	115	10,142	106	9,349	3.85	17.10
9	Mon								250		11.208	7.4	119	11,123	166	15,517	3.97	20.00
10	Tue								276		10.641	7.0	114	10,117	174	15,442	3.91	24.60
11	Wed								250		10.733	7.0	84	7,519	112	10,025	3.50	21.20
12	Thu								289		10.792	7.0	192	17,281	184	16,561	4.72	21.30
13	Fri								258		11.358	7.7	129	12,220	152	14,398	3.88	24.50
14	Sat								277		10.633	7.0	105	9,311	106	9,400	3.49	23.40
15	Sun										10.608	7.2	107	9,466	106	9,378	3.35	18.10
16	Mon								261		10.841	6.9	133	12,025	212	19,168	3.64	20.10
17	Tue								137		10.908	7.3	82	7,460	158	14,374	4.32	24.80
18	Wed								210		10.600	7.0	141	12,465	152	13,437	4.16	23.70
19	Thu								182		10.750	7.0	131	11,745	150	13,448	4.00	15.10
20	Fri			0.38					337		12.325	7.0	153	15,727	252	25,903	4.04	22.00
21	Sat			0.02					231		9.350	7.3	95	7,408	112	8,734	3.24	21.50
22	Sun			1.18					231		16.550	7.2	89	12,284	136	18,772	2.82	11.10
23	Mon			0.03					219		10.908	7.1	86	7,824	132	12,008	3.23	17.20
24	Tue			0.65					243		13.433	7.0	103	11,539	172	19,269	3.14	20.20
25	Wed			0.02					267		11.567	7.0	125	12,059	172	16,593	3.80	22.90
26	Thu			0.01					243		11.025	6.9	106	9,747	136	12,505	3.74	23.70
27	Fri								356		11.233	7.3	142	13,303	164	15,364	4.24	32.20
28	Sat			0.29					364		12.008	7.1	97	9,714	130	13,019	4.12	22.80
29	Sun			0.01					364		10.908	7.1	89	8,097	112	10,189	3.47	18.50
30	Mon								350		11.691	7.1	91	8,873	148	14,430	4.32	20.10
31																		
Average				0.29					279		11.205		113	10,503	146	13,734	3.70	20.83
Maximum				1.18					372		16.550	7.7	192	17,281	252	25,903	4.72	32.20
Minimum				0.01					137		9.350	6.7	82	7,296	74	6,135	2.82	11.10

# of Data	0	9	0	1	0	29	0	30	29	30	30	30	30	30	30	30	0
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<p>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 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.</p>	<p>Prepared by or under the direction of (Certified Operatc</p> <p><i>Laura Kolo</i></p>	<p>Date (month, day, year)</p> <p>10/24/24</p>
	<p>Signature of principal executive officer or authorized agent (or attested by NetDMR subscriber agreement)</p> <p><i>Laura Kolo</i></p>	<p>Date (month, day, year)</p> <p>10/24/24</p>

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility Elkhart	Permit Number IN0025674	Month September	Year 2024
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Day Of Month	PRIMARY EFFLUENT		AERATION							SECONDARY EFFLUENT		FINAL EFFLUENT						
	CBOD5 - mg/l	Susp. Solids - mg/l	MIXED LIQUOR				RETURN SLUDGE			CBOD5 - mg/l	Susp. Solids - mg/l	Residual Chlorine - Final	Residual Chlorine - Contact Tank	E. Coli - colony/100 ml	pH - daily low (or single sample)	pH - daily high (if multiple samples)	Dissolved Oxygen - mg/l	Oil & Grease (mg/l)
			Settleable Solids % in 30 minutes	Susp. Solids - mg/l	Sludge Vol. Index - ml/gm	Dissolved Oxygen - mg/l	Temperature - F	Volume - MG	Susp. Solids - mg/l									
1	68	62	186	2,932	63	4.3	21	6.487	6,260					8	7.6		8.2	
2	63	61	184	3,288	56	4.7	20	6.487	6,120					5	7.6		8.6	
3	85	67	183	2,876	64	4.2	20	6.487	6,220					11	7.7		8.5	
4	78	67	194	2,896	67	3.6	21	6.487	5,740					7	7.6		8.2	
5	81	83	199	2,952	67	4.2	20	6.487	6,120					21	7.6		8.0	
6	84	60	202	2,740	74	4.3	20	6.487	6,140					18	7.0		8.0	
7	76	60	203	2,884	71	4.6	20	6.487	5,900					25	7.0		8.3	
8	79	56	204	2,860	71	4.8	20	6.487	5,980					13	7.0		7.9	
9	92	64	188	2,812	67	4.8	20	6.487	5,960					23	7.7		7.9	
10	90	68	198	2,684	74	4.1	20	6.487	5,680					29	7.7		7.7	
11	83	56	202	2,828	71	4.4	20	6.478	5,780					18	7.7		7.8	
12	99	83	201	2,820	71	3.6	21	6.487	4,880					19	7.0		7.9	
13	95	74	197	2,788	71	4.2	21	6.487	4,600					46	7.7		8.0	
14	77	74	198	2,720	73	4.9	21	6.487	4,640					150	7.7		7.7	
15	70	58	198	2,780	71	4.6	21	6.487	4,520					26	7.8		7.9	
16	81	63	194	2,756	70	4.3	21	6.487	4,620					8	7.8		7.9	
17	90	64	189	2,756	69	3.5	21	6.487	4,480					18	7.8		7.9	
18	89	52	192	2,696	71	3.7	21	6.487	4,280					13	7.8		7.7	
19	86	61	192	2,720	70	3.9		6.487	4,460					10	7.7		8.1	
20	76	94	194	2,692	72	4.5	21	6.487	5,140					5	7.6		8.1	
21	58	76	197	2,876	68	4.4	20	6.487	4,000					4	7.0		8.1	
22	60	84	197	2,716	73	3.0	20	6.487	4,560					5	7.0		7.7	
23	54	65	186	2,888	64	4.2	21	6.487	4,740					8	7.7		7.8	
24	76	80	198	2,772	71	3.9	20	6.487	5,220					10	7.5		7.8	
25	76	45	192	2,672	72	3.8	21	5.222	4,580					3	7.7		8.6	
26	69	59	190	2,596	73	3.8	21	6.492	4,320					10	7.0		8.0	
27	80	60	170	2,352	72	3.9	20	7.785	4,660					11	7.7		7.9	
28	78	54	162	2,444	66	4.3	20	7.785	4,620					6	7.0		8.1	
29	64	56	172	2,816	61	4.1	20	7.785	4,860					7	7.7		8.2	
30	89	59	186	2,632	71	3.8	20	7.785	4,740					24	7.5		8.1	
31																		
Avg.	78	66	192	2,775	69	4.1	20	6.618	5,127					19			8.0	
Max	99	94	204	3,288	74	4.9	21	7.785	6,260					150		7.8	8.6	
Min.	54	45	162	2352	56	3.0	20	5.222	4000					3	7.00	7.7		
Daily Max														150				
# of Days above 235														0				
Date	30	30	30	30	30	30	29	30	30	0	0	1	0	30	30	0	30	0

Comments for the Month (major repairs, breakdowns, process upsets and their causes, inplant treatment process bypass, etc.):

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility Elkhart	Permit Number IN0025674	Month September	Year 2024
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		FINAL EFFLUENT															
Day Of Month	Day of Week	Flow		BOD				Total Suspended Solids				Ammonia				Phosphorus	
		Effluent Flow Rate (MGD)	Effluent Flow Weekly Average	CBOD5 - mg/l	CBOD5 - mg/l Weekly Average	CBOD5 - lbs/day	CBOD5 - lbs/day Weekly Average	Susp. Solids - mg/l	Susp. Solids - mg/l Weekly Average	Susp. Solids - lbs/day	Susp. Solids - lbs/day Weekly Average	Ammonia - mg/l	Ammonia - mg/l Weekly Average	Ammonia - lbs/day	Ammonia - lbs/day Weekly Average	Phosphorus - mg/l	Phosphorus - lbs/day
1	Sun	12.166		2		203		4		355		0.04		4.1		0.79	80
2	Mon	12.380		3		310		4		423		0.07		7.2		0.68	70
3	Tue	13.536		3		339		6		689		0.05		5.6		0.63	71
4	Wed	13.663		3		342		8		912		0.06		6.8		0.66	75
5	Thu	13.187		3		330		10		1,144		0.04		4.4		0.68	75
6	Fri	12.862		3		322		12		1,309		0.09		9.7		0.84	90
7	Sat	12.286	12.869	4	3.00	410	322	15	8.53	1,578	916	0.09	0.06	9.2	7	1.02	105
8	Sun	12.354		4		412		17		1,772		0.09		9.3		1.05	108
9	Mon	13.205		3		330		18		2,026		0.10		11.0		1.09	120
10	Tue	12.811		4		427		22		2,393		0.12		12.8		1.15	123
11	Wed	12.870		4		429		27		2,877		0.12		12.9		1.18	127
12	Thu	12.904		4		430		28		3,013		0.07		7.5		1.25	135
13	Fri	12.243		5		511		27		2,757		0.13		13.3		1.31	134
14	Sat	11.758	12.592	4	4.00	392	419	20	22.80	1,942	2,397	0.13	0.11	12.7	11	1.08	106
15	Sun	11.729		3		293		17		1,634		0.12		11.7		1.09	107
16	Mon	12.622		3		316		8		800		0.09		9.5		0.89	94
17	Tue	12.607		3		315		5		505		0.09		9.5		0.74	78
18	Wed	12.910		3		323		4		398		0.08		8.6		0.90	97
19	Thu	12.660		3		317		4		370		0.09		9.5		1.04	110
20	Fri	15.438		3		386		5		592		0.16		20.6		0.89	115
21	Sat	11.551	12.788	3	3.00	289	320	4	6.34	337	662	0.07	0.10	6.7	11	0.79	76
22	Sun	22.318		2		372		4		819		0.24		44.7		0.79	147
23	Mon	13.445		3		336		4		415		0.07		7.8		0.60	67
24	Tue	18.277		5		762		8		1,250		0.42		64.0		0.78	119
25	Wed	13.834		6		692		9		1,085		0.82		94.6		0.84	97
26	Thu	13.593		3		340		7		816		0.10		11.3		0.75	85
27	Fri	13.538		4		452		10		1,129		0.10		11.3		0.76	86
28	Sat	13.899	15.558	3	3.71	348	472	11	7.76	1,321	976	0.09	0.26	10.4	35	0.90	104
29	Sun	12.996		2		217		10		1,041		0.09		9.8		1.17	127
30	Mon	13.785		3		345		11		1,265		0.11		12.6		1.18	136
31																	
Avg		13.448		3		376		11		1,232		0.13		15.6		0.92	102
Max		22.318	15.558	6	4.00	762	472	28	22.80	3,013	2,397	0.82	0.26	94.6	35	1.3	147
Min		11.551	12.592	2	3.00	203	320	4	6.34	337	662	0.04	0.06	4.1	7	0.6	67
Data		30	4	30	4	30	4	30	4	30	4	30	4	30	4	30	30

MONTHLY REMOVAL SUMMARY					Total Monthly Flow: (million gallons) 403
Percent Removal	BOD5	S.S.	Ammonia	Phosphorus	
Primary Treatment	30.55	55.2			
	NA	NA			Percent Capacity (actual flow/design) 67%
Secondary Treatment	95.7	82.7			
Overall Treatment	97.01	92.3	99.4	75.2	
Phosphorus limit would be	75 % removal. (compliance achieved)				

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	September	2024

Day of Month	SLUDGE TO DIGESTER		DIGESTER OPERATION											
	Primary Sludge Gal. x 100	Waste Act. Sludge Gal. x 1000	Anaerobic Only			Supernatant Withdrawn hrs. or Gal. x 1000	Supernatant BOD5 mg/l or NH3-N mg/l	Total Solids in Incoming Sludge - %	Total Solids in Digested Sludge - %	Volatile Solids in Incoming Sludge - %	Volatile Solids in Digested Sludge - %	Digested Sludge Withdrawn hrs. or Gal. x 1000		
			pH	Gas Production Cubic Ft. x 1000	Temperature - F									
1	35.53	129.60	7.4		103	7.074		3.48	2.15	69.41	55.56			
2	36.01	129.60	7.4		100			3.57	2.20	71.49	55.56			
3	41.26	129.60	7.3		101			3.42	2.11	68.56	57.58	82.05		
4	47.57	129.60	7.4		102	17.685		3.36	2.13	72.17	56.35	82.45		
5	42.60	149.76	7.4		102			3.34	2.15	70.53	54.62	87.10		
6	40.91	168.48	7.4		102			2.85	2.04	69.39	56.25			
7	43.02	168.48	7.3		100			2.75	2.31	66.47	58.94			
8	37.74	168.48	7.3		100			2.89	2.14	69.12	56.74			
9	34.80	168.48	7.4		100	7.074		3.08	2.17	72.57	57.24			
10	43.45	168.48	7.4		101	10.611		3.40	1.92	68.02	56.10	80.96		
11	49.28	168.48	7.4		101	7.074		3.21	1.99	68.88	55.88	83.67		
12	45.66	188.64	7.3		99			2.60	2.00	69.01	58.11	122.74		
13	49.81	194.40	7.2		99			3.49	2.04	71.07	57.72			
14	48.21	194.40	7.3		95			3.43	2.09	73.28	57.96			
15	39.96	194.40	7.3		96	10.611		3.24	2.18	73.94	57.66			
16	41.85	194.40	7.2		96	10.611		2.97	2.24	72.38	57.89	81.18		
17	42.35	194.40	7.2		95	10.611		2.97	2.28	71.29	57.62	122.88		
18	41.82	194.40	7.2		95	17.685		1.99	2.26	69.37	56.29	122.25		
19	40.33	194.40	7.2		95	10.611		1.93	2.33	72.48	56.65	113.40		
20	35.24	194.40	7.2		95	7.074		2.68	2.24	70.86	56.82	61.00		
21	42.37	194.40	7.2		95	0.000		3.93	2.29	70.70	56.08			
22	34.76	194.40	7.2		93	84.888		3.66	2.30	72.92	58.90			
23	35.93	194.40	7.2		94	21.222		4.11	2.23	70.81	58.28			
24	43.18	217.44	7.2		94	10.611		4.78	2.22	73.70	57.93	96.65		
25	33.87	223.20	7.2		93	10.611		3.48	2.16	74.32	58.78	103.27		
26	33.68	210.24	7.2		94			2.75	2.23	72.94	58.68	121.58		
27	37.80	223.20	7.2		95	7.074		3.07	2.26	72.11	56.73	69.28		
28	25.35	223.20	7.2		95	7.074		2.31	2.24	71.62	56.96			
29	36.24	227.52	7.2		96			2.90	2.21	77.53	57.25			
30	17.14	226.08	7.2		94	10.611		3.09	2.14	76.61	56.03	118.32		
31														
Avg.	39.26	185.23			97	14.148		3.16	2.18	71.45	57.11	96.80		
Max.	49.81	227.52	7.4		103	84.888		4.78	2.33	77.53	58.94	122.88		
Min.	17.14	129.60	7.2		93	0.000		1.93	1.92	66.47	54.62	61.00		
Data	30	30	30	0	30	19	0	30	30	30	30	16	0	0

Once completed, this form should be converted to a pdf document, named appropriately & attached to the corresponding netDMR for submittal

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	September	2024

Substitute for State Form 30530

Day Of Month	Final Effluent				Ag - Influent mg/l	Ag - Effluent mg/L	Cd - Influent mg/L	Cd - Effluent mg/L	CN - Influent mg/L	CN - Effluent mg/L	Cr - Influent mg/L	Cr - Effluent mg/L	Cu - Influent mg/L	Cu - Effluent mg/L	Hg - Influent ng/L	Hg - Effluent ng/L
	Chloride		Total Nitrogen													
	Chloride - mg/l	Chloride - lbs/day	Total Nitrogen- mg/l	Total Nitrogen- lbs/day												
1																
2																
3	182	20,546	19.50	2,201	0.0002	0.0002									19.7000	0.8100
4																
5																
6																
7																
8																
9						0.0002										
10					0.0003											
11																
12																
13																
14																
15																
16																
17					0.0002	0.0002										
18																
19																
20																
21																
22																
23																
24					0.0004	0.0002										
25																
26																
27																
28																
29																
30					0.0002	0.0002										
31																
Avg.	182	20,546	19.50	2,201	0.0003	0.0002									19.7000	0.8100
Max.	182	20,546			0.0004	0.0002									19.7000	0.8100
Min.	182	20,546	19.50	2201	0.0002	0.0002									19.7000	0.8100
Data	1	1	1	1	5	5	0	0	0	0	0	0	0	0	1	1

# WASTEWATER TREATMENT PLANT

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	September	2024

Substitute for State Form 30530

Day Of Month	Ni - Influent mg/L	Ni - Effluent mg/L	Pb - Influent mg/L	Pb - Effluent mg/L	Zn - Influent mg/L	Zn - Effluent mg/L												
1																		
2																		
3																		
4																		
5																		
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29																		
30																		
31																		
Avg.																		
Max.																		
Min.																		
Data	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



National Pollutant Discharge Elimination System (NPDES)  
CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart				Page 1 of 9				Permit Number: IN0025574												
Facility: Elkhart Public Works & Utilities				Public Notification Requirements Met? Y																
Monitoring Period: September 2024				Enter "x" if no CSO discharge occurred for the month: X																
Design Peak Hourly Flow (MGD): 44				Design Average Flow (MGD): 20				Measured/Metered (M) or Estimated (E) must be specified												
WWTP Influent Data			Precipitation Data					CSO Outfall No. 005			CSO Outfall No. 006									
Day of Month	Average Daily Flow (MGD)	Peak Hourly Flow (MGD)	Time Precip. Began (am/pm)	Precip. Duration (Hours)	Total Daily Precip. (Inches)	Peak Intensity (Inch/hr)	Measurement Interval (hr, 30 m, 15 m)	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
1	10.16	11.60					15 min													
2	9.94	12.10					15 min													
3	10.52	12.60					15 min													
4	10.77	13.00					15 min													
5	11.23	12.70					15 min													
6	11.71	12.80					15 min													
7	11.18	12.80					15 min													
8	10.58	12.70					15 min													
9	11.21	13.80					15 min													
10	10.64	11.90					15 min													
11	10.73	12.40					15 min													
12	10.79	12.00					15 min													
13	11.36	9.40					15 min													
14	10.63	12.70					15 min													
15	10.61	11.90					15 min													
16	10.84	12.50					15 min													
17	10.91	12.20					15 min													
18	10.60	13.90					15 min													
19	10.75	12.70					15 min													
20	12.33	32.40	2:31 PM	0.58	0.38	0.80	15 min													
21	9.35	10.70	12:56 AM	7.25	0.02	0.04	15 min													
22	16.55	34.50	12:16 PM	8.25	1.18	1.00	15 min													
23	10.91	12.80	2:39 AM	21.42	0.03	0.08	15 min													
24	13.43	19.60	12:01 AM	23.80	0.65	0.40	15 min													
25	11.57	16.90	12:49 AM	8.78	0.02	0.04	15 min													
26	11.03	12.80	4:31 AM	0.08	0.01	0.04	15 min													
27	11.23	12.50					15 min													
28	12.01	16.10	2:31 AM	20.72	0.29	0.24	15 min													
29	10.91	12.50	9:16 AM	0.08	0.01	0.04	15 min													
30	11.69	13.30					15 min													
<b>Totals:</b>	<b>336.14</b>			<b>90.96</b>	<b>2.59</b>			<b>0</b>	Days	<b>0.00</b>		<b>0</b>		<b>0</b>	Days	<b>0.00</b>		<b>0</b>		



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

Slate Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 2 of 9					Permit Number: IN0025574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y															
Monitoring Period: September 2024										Enter "x" if no CSO discharge occurred for the month:															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 007						CSO Outfall No. 008						CSO Outfall No. 009						CSO Outfall No. 011							
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
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22	12:55 PM	M	2.15	M	0.3449	M							1:10 PM	M	1.58	M	0.0565	M							
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<b>Totals:</b>	1	Da	2.15		0.3449		0	Da	0.00		0.0000		1	Da	1.58		0.0565		0	Da	0.00		0.0000		





National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

Slate Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 3 of 9					Permit Number: IN0025574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? : Y															
Monitoring Period: September 2024										Enter "x" if no CSO discharge occurred for the month:															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 012					CSO Outfall No. 013					CSO Outfall No. 14B					CSO Outfall No. 015										
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
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OFF LINE



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

Slate Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 4 of 9					Permit Number: IN0025574								
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y													
Monitoring Period: September 2024										Enter "x" if no CSO discharge occurred for the month:													
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified													
CSO Outfall No. 016					CSO Outfall No. 017					CSO Outfall No. 018					CSO Outfall No. 019								
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E					
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Totals:	1	Days	0.67		0.0086		0	Days	0.00		0.0000		1	Days	2.67		0.1252		0	Days	0.00		0.0000



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

Slate Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 6 of 9			Permit Number: IN0025674											
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y														
Monitoring Period: September 2024										Enter "x" if no CSO discharge occurred for the month:														
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified														
CSO Outfall No. 020					CSO Outfall No. 023					CSO Outfall No. 024				CSO Outfall No. 025										
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E						
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<b>Totals:</b>	1	Da ys	0.17		0.0069		1	Da ys	0.25		0.0065		1	Da ys	0.92		0.0196		2	Da ys	0.91		0.0485	



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

Slate Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 6 of 9					Permit Number: IN0025574									
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y														
Monitoring Period: September 2024										Enter "x" if no CSO discharge occurred for the month: X														
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified														
CSO Outfall No. 026					CSO Outfall No. 027					CSO Outfall No. 028					CSO Outfall No. 029									
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E
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National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 7 of 9					Permit Number: IN0025574								
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y													
Monitoring Period: September 2024										Enter "x" if no CSO discharge occurred for the month:													
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified													
CSO Outfall No. 031					CSO Outfall No. 032					CSO Outfall No. 033					CSO Outfall No. 034								
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E					
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National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 8 of 9					Permit Number: IN0025574									
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y														
Monitoring Period: September 2024										Enter "x" if no CSO discharge occurred for the month:														
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified														
CSO Outfall No. 037					CSO Outfall No. 039					CSO Outfall No. 040					CSO Outfall No.									
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E
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22	12:57 PM	M	1.75	M	0.5122	M							1:37 PM	M	1.50	M	0.0188	M						
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<b>Totals:</b>	2	Da ys	2.25		0.5452		0	Da ys	0.00		0.0000		1	Da ys	1.50		0.0188		0	Da ys	0.00		0.0000	

SENSORS  
REMOVED



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)  
 State Form 50546 (R4 / 9-15)  
 INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart	Page: 9 of 9	Permit Number: IN0025574
Facility: Elkhart Public Works & Utilities	Public Notification Requirements Met? Y	
Monitoring Period: September 2024	Enter "x" if no CSO discharge occurred for the month:	
Design Peak Hourly Flow (MGD): 44	Design Average Flow (MGD): 20	

Day of Month	Comments (further explanation as to why each CSO event occurred)
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Typed or Printed Name and Title of Principal Executive Officer or Authorized Agent <b>Laura E. Kolo, Utilities Services Manager</b>	Telephone <b>574-293-2572</b>
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 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.	
Signature of Principal Executive Officer or Authorized Agent <i>Laura Kolo</i>	Date (mm/dd/yy) 10/24/24



# BYPASS / OVERFLOW INCIDENT REPORT

State Form 48373 (R7 / 4-16)  
Indiana Department of Environmental Management  
Office of Water Quality

Follow-up to Bypass report  
previously sent on: \_\_\_\_\_

**INSTRUCTIONS:** Complete all parts of this form and email signed copies to [wwreports@idem.in.gov](mailto:wwreports@idem.in.gov). Submittal of this report will satisfy the Office of Water Quality (OWQ) telephone and written bypass/overflow reporting requirements of your NPDES permit. Please use and the second page of this form as necessary to identify separate locations caused by the same event. If you have any questions while filling out the report form, please contact Renee Repar at (317) 232-6770 or [rrepar@idem.in.gov](mailto:rrepar@idem.in.gov).

To report a spill or if the release is resulting in a fish kill or other severe environmental damage, immediately report the release to the Emergency Response Section spill response line at: (317) 233-7745 or toll free within Indiana at (888) 233-7745.

GENERAL INFORMATION					
(1) Facility Name (Organization) Elkhart Public Works		(2) Mailing Address (reporting organization) 1201 S. Nappanee Street		(3) County Elkhart	(4) NPDES Permit IN00025674
RELEASE INFORMATION (Location 1)					
(5) Outfall Number	(6) Date (mm/dd/yy) and Time Release Began 09/08/24 8:33 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM	(7) Date (mm/dd/yy) and Time Release Stopped 09/08/24 10:19 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM	(8) Location of Release (streets address or Manhole, Lift Station, Force Main etc.) 1518 Johnson	(9) Latitude (Deg Min Sec) 41 42 13 N	(9) Longitude (Deg Min Sec) 85 57 56 W
(10) Amount of Flow Released (Always provide a volume.) Check one: <input checked="" type="checkbox"/> Estimated <input type="checkbox"/> Actual 240 Gallons			(11) WWTP Flow During Release 12.0 MGD	(12) WWTP Peak Design Flow Rate 44.0 MGD	
(13) Overflow Type (Select one.) <input type="checkbox"/> Sanitary Sewer Overflow <input type="checkbox"/> Treatment Bypass (at wastewater plant) <input checked="" type="checkbox"/> Prohibited Combined Sewer Overflow <input type="checkbox"/> Dry Weather Combined Sewer Overflow <input type="checkbox"/> Combined Sewer System Release			(14) Describe any damage to aquatic life or receiving stream: none		
(15) Reason for Bypass / Overflow (Select one or more.) <input type="checkbox"/> Construction Related <input type="checkbox"/> Power Failure <input type="checkbox"/> Equipment Failure <input type="checkbox"/> Unknown <input type="checkbox"/> Exceeded Max Capacity <input type="checkbox"/> Precipitation Inches					
(16) System Component(s) (Select one or more.) <input type="checkbox"/> Manhole <input type="checkbox"/> House Lateral <input type="checkbox"/> Pipe Failure <input type="checkbox"/> Pump Station Failure <input type="checkbox"/> Treatment Bypassed <input checked="" type="checkbox"/> Other <input type="checkbox"/> Influent Structure <input type="checkbox"/> Air Relief Valve <input type="checkbox"/> Sewer Clean Out  Describe Other: (in the box below) grease and rags		(17) Additional Description of the Bypass / Overflow Event: crews called out at 8:33 am. Found sewer main partially plugged with grease and rags. Obstruction removed and flow returned to normal at 10:33 pm.		(18) Description of the Area Impacted (Check all that apply.) <input type="checkbox"/> Affected Private Property <input checked="" type="checkbox"/> Basement Backup <input type="checkbox"/> Occurred at Treatment Plant <input type="checkbox"/> Reached Public Land <input type="checkbox"/> Reached Receiving Water  Name of Receiving Water Impacted: none	
(19) Additional organizations notified by facility, if necessary (Select one or more.) <input type="checkbox"/> IDEM Emergency Response <input type="checkbox"/> Health Dept. <input type="checkbox"/> DNR Fish and Wildlife <input type="checkbox"/> Local Emergency Management <input checked="" type="checkbox"/> Other: n/a					
(20) Actions Taken to Prevent, Minimize, or Mitigate Damage including Clean-up and Treatment of Affected Area (Select one or more of the following, then add a written description.) <input checked="" type="checkbox"/> Removed Blockage <input type="checkbox"/> Repaired Pipe <input type="checkbox"/> Repaired Pump Station <input type="checkbox"/> Other <input type="checkbox"/> Lime <input type="checkbox"/> Clean-Up Debris crews sent to clear obstruction of grease and rags					
(21) Resolution: Actions Taken or Planned to Prevent Recurrence Send information to neighborhood on proper grease disposal					

(22)

## CERTIFICATION AND SIGNATURE

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. (The area below is for a handwritten signature or an electronic substitute then fax or scan to PDF for emailing.)

SIGNATURE:

*Laura Kolo*

DATE (month, day, year): 09/09/24

Individual Making Report (printed)

Laura Kolo

Telephone Number

(574) 293-2572

Contact Email

[laura.kolo@coei.org](mailto:laura.kolo@coei.org)

Date (month, day, year) / Time IDEM Notified

09/09/24 appx 8:25

AM

PM



## Kolo, Laura

---

**From:** postmaster@state.in.us  
**Sent:** Monday, September 9, 2024 8:24 AM  
**To:** Kolo, Laura  
**Subject:** EXTERNAL: Relayed: IN0025674\_INC\_RPT\_2024\_09\_1  
**Attachments:** EXTERNAL: Relayed: IN0025674\_INC\_RPT\_2024\_09\_1

Caution: This email originated from outside of the organization. Please take care when clicking links or opening attachments. When in doubt, contact your IT Department

[View Certification](#) | [Download COR](#)

**DMR Copy of Submission**

Expand Notices

**Permit**

**Permit ID:** IN0025674  
**Permittee:** ELKHART WWTP  
**Facility:** ELKHART WWTP  
**Permitted Feature:** 035 - External Outfall  
**Major:** 229 SOUTH 2ND ST  
ELKHART , IN46516  
**Permittee Address:** 1201 S NAPPANEE ST  
ELKHART , IN46516  
**Facility Location:** 035-A - 20 MGD CLASS IV ACTIVATED SLUDGE - TO ST JOSEPH RIVER  
**Discharge:**

**Report Dates & Status**

**Monitoring Period:** From 10/01/24 to 10/31/24  
**DMR Due Date:** 11/28/24

**Status:** NetDMR Validated

**Considerations for Form Completion**

THE FLOW METER(S) SHALL BE CALIBRATED AT LEAST ONCE EVERY TWELVE MONTHS. REPORT QUARTERLY PARAMETERS ON 035-AQ NETDMR. MUNICIPAL MAJOR ELKHART COUNTY

**Principal Executive Officer**

**First Name:** Laura  
**Title:** Utility Services Manager  
**Last Name:** Kolo  
**Telephone:** 574-293-2572

**No Data Indicator (NODI)**

**Form NODI:** -



Code	Name	Value 1	Units	Value 1	Value 2	Value 3	Units	Ex.	Analysis	Type
Season: 0	Req.	<=0.063 MO AVG	<=0.13 DAILY MX	26 - lb/d	<=0.00038 MO AVG	<=0.00077 DAILY MX	19 - mg/L	0	01/07 - Weekly	24 - COMP24
NODI: -										
01079	Silver total recoverable							0	02/30 - Twice Per Month	24 - COMP24
G - Raw Sewage Influent										
Season: 0	Req.				Req Mon MO AVG	Req Mon DAILY MX	19 - mg/L		02/30 - Twice Per Month	24 - COMP24
NODI: -										
50050	Flow, in conduit or thru treatment plant			03 - MGD				0	01/01 - Daily	TM - TOTALZ
1 - Effluent Gross										
Season: 0	Req.	Req Mon MO AVG		03 - MGD					01/01 - Daily	TM - TOTALZ
NODI: -										
51041	E. coli, colony forming units [CFU]							0	01/01 - Daily	GR - GRAB
1 - Effluent Gross										
Season: 1	Req.				=18.0	=46.0	3Z - CFU/100mL		01/01 - Daily	GR - GRAB
NODI: -										
71901	Mercury, total recoverable								01/01 - Daily	GR - GRAB
1 - Effluent Gross										
Season: 0	Req.				=1.26	=0.081	3M - ng/L	0	01/60 - Once Every 2 Months	GR - GRAB
NODI: -										
71901	Mercury, total recoverable								01/60 - Once Every 2 Months	GR - GRAB
G - Raw Sewage Influent										
Season: 0	Req.				Req Mon DAILY MX	Req Mon DAILY MX	3M - ng/L	0	01/60 - Once Every 2 Months	GR - GRAB
NODI: -										
71901	Mercury, total recoverable								01/60 - Once Every 2 Months	GR - GRAB
G - Raw Sewage Influent										
Season: 0	Req.				Req Mon DAILY MX	Req Mon DAILY MX	3M - ng/L		01/60 - Once Every 2 Months	GR - GRAB
NODI: -										

Code	Name	Value 1	Value 2	Units	Value 1	Value 2	Value 3	Units	Ex.	Analysis	Type
80082	BOD, carbonaceous [5 day, 20 C]	Smpl. =248.0	=347.0	26 - lb/d	=3.0	=3.4		19 - mg/L	0	01/01 - Daily	24 - COMP24
1 - Effluent Gross											
Season: 0	Req.	<=6259.0 MO AVG	<=10014.0 MX WK AV	26 - lb/d	<=25.0 MO AVG	<=40.0 MX WK AV		19 - mg/L		01/01 - Daily	24 - COMP24
NODI: -	NODI										
81012	Phosphorus, total percent removal	Smpl. =78.5						23 - %	0	01/30 - Monthly	CA - CALCTD
K - Percent Removal											
Season: 0	Req.	>=75.0 MO AV MN						23 - %		01/30 - Monthly	CA - CALCTD
NODI: -	NODI										
82220	Flow, total	Smpl. =330.0		80 - Mgal/mo					0	01/30 - Monthly	RT - RCOTOT
1 - Effluent Gross											
Season: 0	Req.	Req Mon MO TOTAL		80 - Mgal/mo						01/30 - Monthly	RT - RCOTOT
NODI: -	NODI										

**Submission Note**

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

**Edit Check Errors**

No errors.

**Comments**

10/14/24 E Coil was 548 MPN. Excluding up to 10% above 235, the next highest value, which is also the second highest value for the month, is 46 MPN. All values minus the 10/14/24 result of 548 MPN was less than 235 MPN. Mercury sampled 9/3/24 as required by NDPES Permit.

**Attachments**

Name	Type	Size
IN0025674_CSO_MRO_2024_10.pdf	pdf	1587796.0
IN0025674_035a_2024_10.pdf	pdf	1032068.0

**Report Last Saved By**

**ELKHART WWTP**

User: Payton88  
 Name: Laura Kolo  
 E-Mail: laura.kolo@coei.org  
 Date/Time: 2024-11-18 09:18 (Time Zone: -05:00)

**Report Last Signed By**

User: Payton88  
 Name: Laura Kolo  
 E-Mail: laura.kolo@coei.org  
 Date/Time: 2024-11-18 09:19 (Time Zone: -05:00)

 [View All Copies of Submissions](#) |  [DMR/COR Search Results](#) |  [View DMR Signing Status](#)

 **Signing Process Confirmation - CDX Activity ID: \_88693417-cbf2-481d-9047-59fe40e8c34a**

Your DMRs are undergoing the Signing Process



IN0025674	ELKHART WWTP	005	005-C	CSO- ARCH/BAR, NW OF INTERSECTION	10/31/24	11/28/24
IN0025674	ELKHART WWTP	006	006-C	CSO- JACKSON, N OF BRIDGE, W OF ELKHART RIVER	10/31/24	11/28/24
IN0025674	ELKHART WWTP	007	007-C	CSO- JACKSON, N OF BRIDGE, E OF ELKHART RIVER	10/31/24	11/28/24
IN0025674	ELKHART WWTP	008	008-C	CSO- HUG/EAST BLVD	10/31/24	11/28/24
IN0025674	ELKHART WWTP	009	009-C	CSO- NIBCO PRKWY - FKA JR. ACHIEVEMENT (Y DR N)	10/31/24	11/28/24
IN0025674	ELKHART WWTP	011	011-C	CSO- ELKHART/FRANKLIN	10/31/24	11/28/24
IN0025674	ELKHART WWTP	012	012-C	CSO- CASSOPOLIS/BEARDSLEY	10/31/24	11/28/24
IN0025674	ELKHART WWTP	013	013-C	CSO- JOHNSON/BEARDSLEY	10/31/24	11/28/24
IN0025674	ELKHART WWTP	014	014-C	CSO- DAM AT CONE/ERWIN	10/31/24	11/28/24
IN0025674	ELKHART WWTP	015	015-C	CSO- MICHIGAN/FULTON	10/31/24	11/28/24
IN0025674	ELKHART WWTP	016	016-C	CSO- DAN @ GOSHEN/SUPERIOR	10/31/24	11/28/24
IN0025674	ELKHART WWTP	017	017-C	CSO- W. BOULEVARD/MCNAUGHTON	10/31/24	11/28/24
IN0025674	ELKHART WWTP	018	018-C	CSO- MCNAUGHTON PARK WEST	10/31/24	11/28/24
IN0025674	ELKHART WWTP	019	019-C	CSO-MICHIGAN @ RVR, S. OF LEX.	10/31/24	11/28/24
IN0025674	ELKHART WWTP	020	020-C	CSO- BRIDGE AND HUDSON	10/31/24	11/28/24
IN0025674	ELKHART WWTP	023	023-C	CSO- FRANKLIN/8TH	10/31/24	11/28/24
IN0025674	ELKHART WWTP	024	024-C	CSO- INDIANA/FRANKLIN	10/31/24	11/28/24
IN0025674	ELKHART WWTP	025	025-C	CSO- POTTAWATOMI/SECOND	10/31/24	11/28/24
IN0025674	ELKHART WWTP	026	026-C	CSO- MAIN/POTTAWATOMI	10/31/24	11/28/24
IN0025674	ELKHART WWTP	027	027-C	CSO- EDGEWATER/NAVAJO	10/31/24	11/28/24
IN0025674	ELKHART WWTP	028	028-C	CSO- WASHINGTON AT RIVER	10/31/24	11/28/24
IN0025674	ELKHART WWTP	029	029-C	CSO- JEFFERSON AT THE RIVER	10/31/24	11/28/24
IN0025674	ELKHART WWTP	031	031-C	CSO- ELIZABETH/LUSHER	10/31/24	11/28/24
IN0025674	ELKHART WWTP	032	032-C	CSO- EDGEWATER/OKEMA	10/31/24	11/28/24
IN0025674	ELKHART WWTP	033	033-C	CSO- EVANS/GRACE	10/31/24	11/28/24
IN0025674	ELKHART WWTP	034	034-C	CSO- LEXINGTON/6TH	10/31/24	11/28/24
IN0025674	ELKHART WWTP	035	035-A	20 MGD CLASS IV ACTIVATED SLUDGE - TO ST JOSEPH RIVER	10/31/24	11/28/24
IN0025674	ELKHART WWTP	037	037-C	CSO- FRANKLIN/KRAU	10/31/24	11/28/24
IN0025674	ELKHART WWTP	039	039-C	CSO- WEST HIGH AT RIVER	10/31/24	11/28/24
IN0025674	ELKHART WWTP	040	040-C	CSO- MCNAUGHTON PARK SOUTH	10/31/24	11/28/24



**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

Slate Form 10829 (R4 / 01-20)

Name of Facility Elkhart			Permit Number IN0025674		
Month October	Year 2024	Plant Design Flow 20.00 mgd	Telephone Number 574/293-2572		
E-mail address: <u>laura.kolo@coei.org</u>				035	A
Certified Operator: Name Laura E. Kolo		Class IV	Certificate Number 15094	Expiration Date 06/30/2027	

Day of Month	Day of Week	Man-Hours at Plant (Plants less than 1 MGD only)	Air Temperature (optional)	Total= 1.01 Precipitation - Inches	Bypass At Plant Site("X" If Occurred)	Sanitary Sewer Overflow("x" If Occurred)	CHEMICALS USED			RAW SEWAGE						
							Chlorine - Lbs/day	Ferric Chloride Lbs/Day or Gal./Day	Lbs/Day or Gal./Day	Influent Flow Rate (if metered) MGD	pH	CBOD5 - mg/l	CBOD5 - lbs/day	Susp. Solids - mg/l	Susp. Solids - lbs/day	Phosphorus - mg/l
1	Tue							268	10.800	7.4	111	9,998	140	12,610	4.40	23.10
2	Wed							410	10.192	7.3	87	7,395	200	17,000	3.91	33.10
3	Thu							328	10.775	7.0	94	8,447	102	9,166	4.36	31.10
4	Fri							410	11.008	7.0	152	13,955	158	14,505	4.44	24.10
5	Sat							137	10.033	7.0	116	9,706	192	16,066	4.24	22.50
6	Sun							258	10.150	7.0	116	9,820	102	8,634	3.23	17.90
7	Mon							274	11.227	7.2	111	10,393	138	12,921	3.48	18.00
8	Tue							319	10.725	7.9	145	12,970	186	16,637	3.87	20.10
9	Wed							288	10.200	7.2	118	10,038	162	13,781	3.97	20.20
10	Thu							288	10.025	7.3	158	13,210	184	15,384	4.40	21.70
11	Fri							275	9.800	7.6	132	10,789	144	11,769	4.20	21.70
12	Sat			0.14				268	9.000	7.5	108	8,106	80	6,005	3.56	20.10
13	Sun			0.26				237	10.508	6.9	160	14,022	186	16,300	4.04	20.40
14	Mon			0.19				219	11.408	7.2	83	7,897	132	12,559	3.43	18.70
15	Tue							216	11.120	7.3	88	8,161	128	11,871	3.65	21.10
16	Wed							288	11.725	7.1	94	9,192	100	9,779	3.52	19.90
17	Thu							137	11.742	6.7	124	12,143	102	9,989	3.24	18.00
18	Fri							228	11.425	7.1	119	11,339	140	13,340	4.92	20.40
19	Sat							231	11.000	6.5	98	8,991	130	11,926	3.27	18.20
20	Sun							258	11.158	7.3	85	7,910	94	8,747	3.40	16.10
21	Mon							313	11.108		107	9,913	140	12,970	3.27	17.70
22	Tue							318	11.191	7.3	119	11,107	150	14,000	4.08	18.90
23	Wed							233	11.216	7.4	91	8,512	114	10,664	4.12	19.20
24	Thu							303	11.275		126	11,848	150	14,105	4.16	29.00
25	Fri			0.26				317	11.633	7.1	128	12,418	182	17,657	3.90	21.40
26	Sat			0.01				275	10.508	7.4	93	8,150	120	10,516	3.36	18.00
27	Sun							274	10.325	7.3	108	9,300	70	6,028	3.50	18.30
28	Mon							245	11.342	7.5	94	8,892	148	14,000	3.65	18.10
29	Tue							276	11.667	7.1	123	11,968	176	17,125	4.24	20.70
30	Wed							185	11.591	7.0	103	9,957	128	12,374	3.77	21.60
31	Thu			0.15				277	11.866	7.0	133	13,162	170	16,824	4.04	21.30
Average				0.17				269	10.895		114	10,313	140	12,750	3.86	20.99
Maximum				0.26				410	11.866	7.9	160	14,022	200	17,657	4.92	33.10
Minimum				0.01				137	9.000	6.5	83	7395	70	6005	3.23	16.10

# of Data	0	6	0	0	0	31	0	31	29	31	31	31	31	31	31	0
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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 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.

Prepared by or under the direction of (Certified Operatc <i>Laura Kolo</i>	Date (month, day, year) 11/18/24
Signature of principal executive officer or authorized agent (or attested by NetDMR subscriber agreement) <i>Laura Kolo</i>	Date (month, day, year) 11/18/24

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	October	2024

Day Of Month	PRIMARY EFFLUENT		AERATION							SECONDARY EFFLUENT		FINAL EFFLUENT							
	CBOD5 - mg/l	Susp. Solids - mg/l	MIXED LIQUOR				RETURN SLUDGE			CBOD5 - mg/l	Susp. Solids - mg/l	Residual Chlorine - Final	Residual Chlorine - Contact Tank	E. Coli - colony/100 ml	pH - daily low (or single sample)	pH - daily high (if multiple samples)	Dissolved Oxygen - mg/l	Oil & Grease (mg/l)	
			Settleable Solids % in 30 minutes	Susp. Solids - mg/l	Sludge Vol. Index - ml/gm	Dissolved Oxygen - mg/l	Temperature - F	Volume - MG	Susp. Solids - mg/l										
1	83	48	168	2,340	72	4.0	20	7.785	4,260					7	7.7		8.1		
2	67	45	156	2,332	67	3.5	20	7.758	3,980					31	7.0		7.7		
3	75	52	153	2,424	63	1.7	20	7.785	2,640					34	7.6		8.5		
4	108	51	173	2,688	64	4.6		7.785	2,940					16	7.7		8.2		
5	63	49	178	2,532	70	4.9	20	7.785	2,760					17	7.0		8.3		
6	73	53	180	2,676	67	4.6	20	7.785	2,600					19	7.0		8.0		
7	77	52	184	2,496	74	5.0	20	7.785	2,680					46	7.9		7.9		
8	90	60	180	2,504	72	4.3	19	7.785	2,820					12	7.8		8.0		
9	90	68	158	2,468	64	3.9	19	7.785	2,980					29	7.0		8.0		
10	93	56	162	2,348	69	4.3	20	7.484	3,260					12	7.0		8.1		
11	98	58	156	2,672	58	4.8	20	7.785	3,660					11	7.8		8.8		
12	90	60	159	2,292	70	4.6	19	7.785	3,060					12	7.8		8.3		
13	105	72	166	2,380	70	4.7	19	7.779	3,100					24	7.8		8.3		
14	71	58	167	2,400	70	4.3	19	7.785	3,580					548	7.7		8.4		
15	70	92	163	2,368	69	3.4	19	7.785	3,280					13	7.8		8.3		
16	73	53	151	2,284	66	4.0	18	7.785	2,920					17	7.8		8.3		
17	92	60	154	2,196	70	4.1	18	10.961	3,100					11	7.0		8.4		
18	66	54	150	2,092	72	5.1	18	14.272	2,820					13	7.8		8.7		
19	73	75	155	2,212	70	5.1	18	14.272	2,860					16	7.8		8.6		
20	64	47	160	2,336	68	5.3	18	14.272	3,200					21	7.8		8.8		
21	66	59	154	2,152	72	4.6	18	14.186	3,660					16	7.8		8.2		
22	79	57	160	2,236	72	4.8	18	14.186	4,300					21	7.7		8.5		
23	73	65	140	2,360	59	4.4	18	14.272	4,200					10	7.7		9.0		
24	82	61	140	2,196	64	2.8	18	14.272	4,180					6	7.8		8.4		
25	83	60	143	2,108	68	4.5	18	14.272	4,580					23	7.7		8.4		
26	78	62	142	2,132	67	5.0	18	14.272	4,020					11	7.8		8.7		
27	76	50	138	2,180	63	5.2	18	14.272	4,260					17	7.0		8.9		
28	68	71	144	2,028	71	4.6	18	14.272	4,040					12	7.9		8.7		
29	85	55	128	2,180	59	3.3	19	14.272	4,020					23	7.8		8.4		
30	87	60	132	2,172	61	3.5	18	14.272	4,100					13	7.7		8.4		
31	78	61	124	2,004	62	3.20	19	14.272	4,020					14	7.7		8.3		
Avg.	80	59	155	2,316	67	4.3	19	10.801	3,480					35			8.4		
Max	108	92	184	2,688	74	5.3	20	14.272	4,580					548		7.9	9.0		
Min.	63	45	124	2,004	58	1.7	18	7.484	2600					6		7.00	7.7		
Daily Max																			
# of Days above 235															1				
Data	31	31	31	31	31	31	30	31	31	0	0	1	0	31	31	0	31	0	

Comments for the Month (major repairs, breakdowns, process upsets and their causes, inplant treatment process bypass, etc.):  
Raw pH not recorded on October 21 or October 24.

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	October	2024

Day Of Month	Day of Week	FINAL EFFLUENT															
		Flow		BOD				Total Suspended Solids				Ammonia				Phosphorus	
		Effluent Flow Rate (MGD)	Effluent Flow Weekly Average	CBOD5 - mg/l	CBOD5 - mg/l Weekly Average	CBOD5 - lbs/day	CBOD5 - lbs/day Weekly Average	Susp. Solids - mg/l	Susp. Solids - mg/l Weekly Average	Susp. Solids - lbs/day	Susp. Solids - lbs/day Weekly Average	Ammonia - mg/l	Ammonia - mg/l Weekly Average	Ammonia - lbs/day	Ammonia - lbs/day Weekly Average	Phosphorus - mg/l	Phosphorus - lbs/day
1	Tue	13.921		3		348		13		1,486		0.11		12.8		1.45	168
2	Wed	14.171		4		473		27		3,215		0.12		14.2		1.40	165
3	Thu	13.162		4		439		24		2,678		0.37		40.6		1.24	136
4	Fri	11.100		4		370		17		1,555		0.14		13.0		0.82	76
5	Sat	9.423	12.651	3	3.29	236	347	11	16.14	880	1,731	0.12	0.15	9.4	16	0.93	73
6	Sun	9.268		4		309		10		804		0.10		7.7		0.94	73
7	Mon	11.015		5		459		13		1,213		0.12		11.0		1.06	97
8	Tue	9.988		4		333		18		1,499		0.12		10.0		0.96	80
9	Wed	9.997		3		250		14		1,167		0.12		10.0		0.85	71
10	Thu	9.356		3		234		9		687		0.12		9.4		0.76	59
11	Fri	8.818		3		221		5		397		0.11		8.1		0.65	48
12	Sat	8.365	9.544	2	3.43	140	278	5	10.71	363	876	0.10	0.11	7.0	9	0.70	49
13	Sun	9.292		2		155		4		325		0.09		7.0		0.92	71
14	Mon	10.361		2		173		4		380		0.08		6.9		0.81	70
15	Tue	11.535		2		192		6		558		0.11		10.6		0.76	73
16	Wed	12.146		2		203		7		709		0.12		12.2		0.73	74
17	Thu	11.846		2		198		6		613		0.06		5.9		0.73	72
18	Fri	11.502		2		192		7		633		0.10		9.6		0.87	83
19	Sat	10.605	11.041	2	2.00	177	184	7	5.83	584	543	0.08	0.09	7.1	8	0.70	62
20	Sun	10.301		2		172		5		447		0.10		8.6		0.62	53
21	Mon	10.602		2		177		6		566		0.07		6.2		0.63	56
22	Tue	10.588		2		177		6		547		0.08		7.1		0.67	59
23	Wed	10.356		2		173		7		570		0.09		7.8		0.85	73
24	Thu	10.691		3		267		8		713		0.22		19.6		0.77	69
25	Fri	11.146		2		186		6		548		0.09		8.4		0.62	58
26	Sat	9.804	10.498	3	2.29	245	200	6	6.27	458	550	0.09	0.11	7.4	9	0.58	47
27	Sun	9.445		3		236		6		488		0.09		7.1		0.76	60
28	Mon	10.232		2		171		6		546		0.09		7.7		0.73	62
29	Tue	10.325		2		172		6		517		0.12		10.3		0.71	61
30	Wed	10.052		3		252		6		537		0.12		10.1		0.71	60
31	Thu	10.611	9.975	4	2.71	354	249	9	6.61	832	553	0.75	0.14	31.9	12	0.75	66
Avg		10.646		3		248		9		855		0.14		11.1		0.83	75
Max		14.171	12.651	5	3.43	473	347	27	16.14	3,215	1,731	0.75	0.15	40.6	16	1.5	168
Min		8.365	9.544	2	2.00	140	184	4	5.83	325	543	0.06	0.09	5.9	8	0.6	47
Data		31	5	31	5	31	5	31	5	31	5	31	5	31	5	31	31

MONTHLY REMOVAL SUMMARY					Total Monthly Flow: (million gallons) 330
Percent Removal	BOD5	S.S.	Ammonia	Phosphorus	
Primary Treatment	29.74	58.0			Percent Capacity (actual flow/design) 53%
Secondary Treatment	96.5	84.4			
Overall Treatment	97.56	93.5	99.4	78.5	
Phosphorus limit would be 75 % removal. (compliance achieved)					

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	October	2024

Day Of Month	SLUDGE TO DIGESTER		DIGESTER OPERATION											
	Primary Sludge Gal. x 100	Waste Act. Sludge Gal. x 1000	Anaerobic Only				Supernatant Withdrawn hrs. or Gal. x 1000	Supernatant BOD5 mg/l or NH3-N mg/l	Total Solids in Incoming Sludge - %	Total Solids in Digested Sludge - %	Volatile Solids in Incoming Sludge - %	Volatile Solids in Digested Sludge - %	Digested Sludge Withdrawn hrs. or Gal. x 1000	
			pH	Gas Production Cubic Ft. x 1000	Temperature - F									
1	36.25	224.64	7.2		94	7.074		4.16	2.22	78.49	57.14	121.62		
2	35.22	223.20	7.2		96	10.611		3.41	2.06	75.70	56.62	108.20		
3	24.94	220.32	7.2		97			0.80	1.96	70.97	56.67	122.73		
4	37.04	231.84	7.3		98	7.074		3.42	1.95	65.97	58.33	69.98		
5	37.45	249.12	7.3		98			3.44	1.98	70.27	57.52			
6	44.12	250.56	7.4		99			3.60	1.90	73.31	56.10			
7	28.66	239.04	7.3		102			3.57	1.91	78.34	56.91			
8	33.11	254.88	7.3		102			3.62	1.89	76.75	57.36	138.34		
9	29.62	250.56	7.3		101	17.685		4.17	1.92	76.01	56.74	122.39		
10	34.15	259.20	7.2		101	14.148		3.51	1.90	74.47	55.86	122.56		
11	39.73	252.00	7.2		100			3.69	1.91	74.10	58.47	69.99		
12	38.90	253.44	7.3		102			3.24	1.78	73.14	57.52			
13	38.65	252.00	7.3		103			3.38	1.97	73.66	56.85			
14	25.93	254.88	7.2		101			3.81	1.96	79.48	55.40	121.18		
15	29.24	252.00	7.2		99	21.222		4.61	1.92	73.75	56.35	121.77		
16	26.47	280.80	7.2		102	14.148		4.08	1.91	76.60	57.03	122.98		
17	34.42	288.00	7.2		102			3.86	1.90	74.30	56.25	123.38		
18	34.49	288.00	7.3		103	7.074		3.67	2.03	73.90	56.93	70.25		
19	32.72	288.00	7.2		103	14.148		3.59	1.88	73.65	56.52			
20	30.80	288.00	7.2		101			3.43	1.87	75.00	56.74			
21	21.34	288.00	7.2		104	28.296		5.17	1.88	70.81	57.14			
22	27.00	292.32	7.2		104	3.537		3.91	1.85	77.19	57.04	122.95		
23	28.54	289.44	7.3		104	21.222		5.26	1.88	71.05	58.33	122.47		
24	29.01	286.56	7.3		104	21.222		5.15	1.80	75.34	58.16	122.48		
25	28.43	285.12	7.3		104	21.222		3.66	1.86	75.28	57.14	70.14		
26	36.28	283.68	7.2		103			4.00	1.83	75.69	56.78			
27	29.26	280.80	7.3		103			5.40	1.89	76.51	59.32			
28	27.42	282.24	7.4		100			4.30	1.89	79.42	56.83			
29	28.34	285.12	7.3		104	28.296		3.73	1.84	77.51	59.62	123.43		
30	27.15	285.12	7.3		105			4.90	1.87	77.55	54.95	122.84		
31	26.43	283.68	7.3		104	14.148		4.38	1.90	77.02	57.76	122.96		
Avg.	31.65	265.89			101	15.695		3.90	1.91	74.88	57.11	112.13		
Max.	44.12	292.32	7.4		105	28.296		5.40	2.22	79.48	59.62	138.34		
Min.	21.34	220.32	7.2		94	3.537		0.80	1.78	65.97	54.95	69.98		
Data	31	31	31	0	31	16	0	31	31	31	31	20	0	0

Once completed, this form should be converted to a pdf document, named appropriately & attached to the corresponding netDMR for submittal

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	October	2024

Substitute for State Form 30530																		
Day Of Month	Final Effluent				Ag - Influent mg/l	Ag - Effluent mg/L	Cd - Influent mg/L	Cd - Effluent mg/L	CN - Influent mg/L	CN - Effluent mg/L	Cr - Influent mg/L	Cr - Effluent mg/L	Cu - Influent mg/L	Cu - Effluent mg/L	Hg - Influent ng/L	Hg - Effluent ng/L		
	Chloride		Total Nitrogen															
	Chloride - mg/l	Chloride - lbs/day	Total Nitrogen- mg/l	Total Nitrogen- lbs/day														
1			19.30	2,241														
2								0.0020	0.0020									
3																		
4																		
5																		
6																		
7					0.0002		0.0007				0.0051		0.0700					
8						0.0002		0.0002				0.0020		0.0150				
9																		
10																		
11																		
12																		
13																		
14																		
15					0.0002	0.0002												
16																		
17																		
18																		
19																		
20																		
21																		
22					0.0002	0.0002												
23																		
24																		
25																		
26																		
27																		
28	189	16,128																
29					0.0002	0.0002												
30																		
31																		
Avg.	189	16,128	19.30	2,241	0.0002	0.0002	0.0007	0.0002	0.0020	0.0020	0.0051	0.0020	0.0700	0.0150				
Max.	189	16,128			0.0002	0.0002	0.0007	0.0002	0.0020	0.0020	0.0051	0.0020	0.0700	0.0150				
Min.	189	16,128	19.30	2241	0.0002	0.0002	0.0007	0.0002	0.0020	0.0020	0.0051	0.0020	0.0700	0.0150				
Data	1	1	1	1	4	4	1	1	1	1	1	1	1	1	0	0		

# WASTEWATER TREATMENT PLANT

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	October	2024

Substitute for State Form 30530

Day Of Month	Ni - Influent mg/L	Ni - Effluent mg/L	Pb - Influent mg/L	Pb - Effluent mg/L	Zn - Influent mg/L	Zn - Effluent mg/L												
1																		
2																		
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7	0.0245		0.0015		0.0802													
8		0.0079		0.0010		0.0151												
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30																		
31																		
Avg.	0.0245	0.0079	0.0015	0.0010	0.0802	0.0151												
Max	0.0245	0.0079	0.0015	0.0010	0.0802	0.0151												
Min.	0.0245	0.0079	0.0015	0.0010	0.0802	0.0151												
Data	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

Slate Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart		Page 1 of 9		Permit Number: IN0025574																
Facility: Elkhart Public Works & Utilities				Public Notification Requirements Met? Y																
Monitoring Period: October 2024		Enter "X" if no CSO discharge occurred for the month: X																		
Design Peak Hourly Flow (MGD): 44		Design Average Flow (MGD): 20		Measured/Metered (M) or Estimated (E) must be specified																
WWTP Influent Data			Precipitation Data				CSO Outfall No. 006				CSO Outfall No. 006									
Day of Month	Average Daily Flow (MGD)	Peak Hourly Flow (MGD)	Time Precip. Began (am/pm)	Precip. Duration (Hours)	Total Daily Precip. (Inches)	Peak Intensity (Inch/hr)	Measurement Interval (hr, 30 m, 15 m)	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
1	10.800	12.600					15 min													
2	10.192	12.300					15 min													
3	10.775	12.200					15 min													
4	11.008	12.100					15 min													
5	10.033	12.100					15 min													
6	10.150	11.900					15 min													
7	11.227	13.800					15 min													
8	10.725	12.100					15 min													
9	10.200	11.700					15 min													
10	10.025	11.200					15 min													
11	9.800	11.400					15 min													
12	9.000	11.000	6:51 PM	5.00	0.14	0.20	15 min													
13	10.508	13.000	3:16 PM	6.88	0.26	0.68	15 min													
14	11.408	13.200	12:11 AM	19.97	0.19	0.16	15 min													
15	11.120	13.700					15 min													
16	11.725	13.000					15 min													
17	11.742	13.300					15 min													
18	11.425	12.900					15 min													
19	11.000	12.300					15 min													
20	11.158	12.800					15 min													
21	11.108	12.800					15 min													
22	11.191	12.500					15 min													
23	11.216	12.600					15 min													
24	11.275	12.200					15 min													
25	11.633	16.400	3:39 AM	5.62	0.26	0.24	15 min													
26	10.508	12.500	6:26 AM	0.30	0.01	0.04	15 min													
27	10.325	12.000					15 min													
28	11.342	12.700					15 min													
29	11.667	12.600					15 min													
30	11.591	13.500					15 min													
31	11.866	14.500	8:11 AM	4.17	0.15	0.24	15 min													
Totals:	337.74			41.94	1.01			0	Days	0.00		0		0	Days	0.00		0		





National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

Slate Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 2 of 9					Permit Number: IN0025574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y															
Monitoring Period: October 2024					Enter "x" if no CSO discharge occurred for the month: X																				
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 007					CSO Outfall No. 008					CSO Outfall No. 009					CSO Outfall No. 011										
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
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Totals:	0	Da ys	0.00		0.0000		0	Da ys	0.00		0.0000		0	Da ys	0.00		0.0000		0	Da ys	0.00		0.0000		



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 3 of 9					Permit Number: IN0026574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y															
Monitoring Period: October 2024										Enter "x" if no CSO discharge occurred for the month: X															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 012					CSO Outfall No. 013					CSO Outfall No. 14B					CSO Outfall No. 015										
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
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Totals:	0	Da	0.00		0.0000		0	Da	0.00		0.0000		0	Da	0.00		0.0000		0	Da	0.00		0.0000		



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 4 of 9			Permit Number: IN0025574											
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y														
Monitoring Period: October 2024										Enter "x" if no CSO discharge occurred for the month: X														
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified														
CSO Outfall No. 016					CSO Outfall No. 017					CSO Outfall No. 018			CSO Outfall No. 019											
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E
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National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 6 of 9					Permit Number: IN0025574									
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y														
Monitoring Period: October 2024										Enter "x" if no CSO discharge occurred for the month: X														
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified														
CSO Outfall No. 020					CSO Outfall No. 023					CSO Outfall No. 024					CSO Outfall No. 025									
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E
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Totals:	0	Da	0.00		0.0000		0	Da	0.00		0.0000		0	Da	0.00		0.0000		0	Da	0.00		0.0000	



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 6 of 9					Permit Number: IN0025574				
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y									
Monitoring Period: October 2024										Enter "x" if no CSO discharge occurred for the month: X									
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified									
CSO Outfall No. 026					CSO Outfall No. 027					CSO Outfall No. 028					CSO Outfall No. 029				
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
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Totals:	0	Days	0.00		0.0000		0	Days	0.00		0.0000		0	Days	0.00		0.0000		



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 7 of 9					Permit Number: IN0025574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y															
Monitoring Period: October 2024										Enter "x" if no CSO discharge occurred for the month: X															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 031						CSO Outfall No. 032						CSO Outfall No. 033						CSO Outfall No. 034							
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
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Totals:	0	Da ys	0.00		0.0000		0	Da ys	0.00		0.0000		0	Da ys	0.00		0.0000		0	Da ys	0.00		0.0000		



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

Slate Form 50646 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 8 of 9					Permit Number: IN0025574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y															
Monitoring Period: October 2024										Enter "x" if no CSO discharge occurred for the month: X															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 037					CSO Outfall No. 039					CSO Outfall No. 040					CSO Outfall No.										
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
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Totals:	0	Da ys	0.00		0.0000		0	Da ys	0.00		0.0000		0	Da ys	0.00		0.0000		0	Da ys	0.00		0.0000		



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

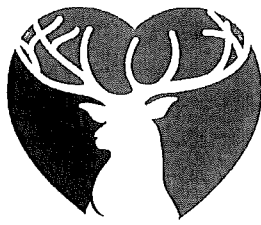
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart	Page: 9 of 9	Permit Number: IN0025574
Facility: Elkhart Public Works & Utilities	Public Notification Requirements Met? Y	
Monitoring Period: October 2024	Enter "x" if no CSO discharge occurred for the month: X	
Design Peak Hourly Flow (MGD): 44	Design Average Flow (MGD): 20	

Day of Month	Comments (further explanation as to why each CSO event occurred)
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31	

Typed or Printed Name and Title of Principal Executive Officer or Authorized Agent <b>Laura E. Kolo, Utilities Services Manager</b>	Telephone <b>574-293-2572</b>
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 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.	
Signature of Principal Executive Officer or Authorized Agent <i>Laura E. Kolo</i>	Date (mm/dd/yy) 11/18/24





**City of Elkhart**  
*Public Works and Utilities*

Date Dec 23, 2024  
Memo To Board of Public Works  
Memo From Laura Kolo, Utility Services Manager *LK*  
Subject Wastewater Utility Monthly Report of Operations  
for the month of November, 2024

***Wastewater MRO Highlights***

Parameter	Monthly Avg	Permit Limit
Suspended Solids mg/L	7	30
cBOD5 mg/L	3	25
Phosphorus mg/L	0.62	1.0
Ammonia mg/L	0.10	4.4 (Dec-Apr) 4.2 (May-Nov)
Avg Daily Flow MGD	10.33	Design - 20
Total Monthly Flow MGD	310	Report

***Incident Reports Filed***

Date	Location	Volume (gal)	Cause
None			

***Wet Weather Overflows***

Number of Events	Total Overflow Volume (MG)
5	0.3453



**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility Elkhart		Permit Number IN0025674	
Month November	Year 2024	Plant Design Flow 20.00 mgd	Telephone Number 574/293-2572
E-mail address: laura.kolo@coei.org		035	A
Certified Operator: Name Laura E. Kolo		Class IV	Expiration Date 06/30/2027

Day Of Month	Day of Week	Man-Hours at Plant (Plants less than 1 MGD only)	Air Temperature (optional)	Total= 2.37 Precipitation - Inches	Bypass At Plant Site("x" if Occurred)	Sanitary Sewer Overflow("x" if Occurred)	CHEMICALS USED			RAW SEWAGE								
							Chlorine - Lbs/day	Ferric Chloride Lbs/Day or Gal./Day	Lbs/Day or Gal./Day	Influent Flow Rate (if metered) MGD	pH	CBOD5 - mg/l	CBOD5 - lbs/day	Susp. Solids - mg/l	Susp. Solids - lbs/day	Phosphorus - mg/l	Ammonia - mg/l	
1	Fri								275		10.742	7.2	112	10,034	138	12,363	4.52	20.70
2	Sat								243		10.425	7.0	95	8,260	146	12,694	3.70	17.30
3	Sun			0.03					240		10.191	7.0	270	22,948	92	7,819	3.19	17.90
4	Mon			0.61					243		14.116	7.1	78	9,183	196	23,075	4.80	14.50
5	Tue			0.22					240		12.183	6.7	104	10,567	168	17,070	4.48	19.20
6	Wed								243		10.866	7.0	119	10,784	118	10,693	5.56	23.40
7	Thu								246		10.400	7.0	126	10,929	132	11,449	5.80	22.40
8	Fri			0.01					202		10.633	7.0	140	12,415	110	9,755	4.40	21.20
9	Sat								243		10.567	7.4	126	11,104	110	9,694	3.83	20.00
10	Sun			0.36					195		12.766	6.9	138	14,693	142	15,119	3.45	15.00
11	Mon								160		10.550	6.9	91	8,007	118	10,382	3.50	20.10
12	Tue								246		10.858	7.1	137	12,406	154	13,946	4.96	21.80
13	Wed			0.19					243		11.083	7.0	138	12,756	142	13,125	4.24	22.50
14	Thu			0.12					243		11.758	7.1	117	11,473	146	14,317	3.98	20.80
15	Fri			0.02					240		10.867	7.6	110	9,969	198	17,945	3.80	20.60
16	Sat								274		10.366	7.4	114	9,856	116	10,028	3.05	20.50
17	Sun								198		10.375	7.4	114	9,864	98	8,480	3.25	19.20
18	Mon			0.26					234		11.775	7.1	112	10,999	126	12,374	3.89	19.00
19	Tue			0.24					212		12.167	7.5	92	9,335	168	17,047	3.54	19.80
20	Wed			0.13					319		11.241	7.0	124	11,625	186	17,437	3.90	22.40
21	Thu			0.03					303		10.550	6.9	122	10,734	146	12,846	4.00	25.30
22	Fri			0.09					273		10.641	7.1	130	11,537	154	13,667	3.88	23.40
23	Sat			0.04					258		10.833	7.3	115	10,390	94	8,493	3.92	20.40
24	Sun								250		10.142	7.5	125	10,573	122	10,319	3.74	18.50
25	Mon			0.02					249		11.108	7.1	158	14,637	120	11,117	3.54	21.40
26	Tue								237		11.025	7.7	131	12,045	160	14,712	5.28	24.20
27	Wed								304		10.725	7.0	114	10,197	138	12,344	4.48	22.30
28	Thu								230		10.583	7.6	116	10,238	90	7,944	3.82	16.50
29	Fri								189		9.867	7.5	70	5,760	62	5,102	3.03	20.30
30	Sat								235		9.742	7.6	99	8,044	86	6,987	2.77	19.70
31																		
Average				0.16					242		10.972		121	11,045	133	12,278	4.01	20.34
Maximum				0.61					319		14.116	7.7	270	22,948	198	23,075	5.80	25.30
Minimum				0.01					160		9.742	6.7	70	5760	62	5102	2.77	14.50

# of Data	0	15	0	0	0	30	0	30	30	30	30	30	30	30	0
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<p>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 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.</p>	Prepared by or under the direction of (Certified Operatc <i>Laura Kolo</i>	Date (month, day, year) 12/23/24
	Signature of principal executive officer or authorized agent (or attested by NetDMR subscriber agreement) <i>Laura Kolo</i>	Date (month, day, year) 12/23/24

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility Elkhart	Permit Number IN0025674	Month November	Year 2024
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Day Of Month	PRIMARY EFFLUENT		AERATION							SECONDARY EFFLUENT		FINAL EFFLUENT						
	CBOD5 - mg/l	Susp. Solids - mg/l	MIXED LIQUOR			RETURN SLUDGE				CBOD5 - mg/l	Susp. Solids - mg/l	Residual Chlorine - Final	Residual Chlorine - Contact Tank	E. Coli - colony/100 ml	pH - daily low (or single sample)	pH - daily high (if multiple samples)	Dissolved Oxygen - mg/l	Oil & Grease (mg/l)
			Settleable Solids % in 30 minutes	Susp. Solids - mg/l	Sludge Vol. Index - ml/gm	Dissolved Oxygen - mg/l	Temperature - F	Volume - MG	Susp. Solids - mg/l									
1	84	82	124	1,924	64	4.9	18	14.272	3,740						7.7		8.5	
2	62	58	133	2,080	64	5.3	18	14.272	3,240						7.0		8.7	
3	177	56	116	2,224	52	3.7	17	14.272	3,960						7.7		8.8	
4	69	70	127	2,084	61	4.6	17	14.272	4,000						7.0		8.3	
5	74	78	123	2,400	51	4.1	18	14.272	4,460						7.7		8.3	
6	72	48	132	1,948	68	3.3	18	14.272	3,980					17	7.7		8.3	
7	84	58	136	2,004	68	3.3	18	14.272	3,880					26	7.7		8.3	
8	89	63	139	2,064	67	4.4	18	14.272	3,920					21	7.7		8.4	
9	90	67	124	2,088	59	4.7	17	14.272	3,620						7.0		8.9	
10	88	85	103	4,292	24	4.4	17	14.272	3,820						7.7		8.7	
11	75	57	128	1,848	69	4.6	17	14.254	3,340						7.6		8.4	
12	90	60	112	1,792	63	3.3	17	14.272	3,700						7.7		8.7	
13	78	60	128	1,772	72	3.1	17	10.803	2,020						7.0		8.7	
14	103	61	120	1,940	62	3.4	17	7.785	3,820						7.0		8.6	
15	78	94	125	1,908	65	4.6	17	7.785	3,900						7.8		8.7	
16	81	70	117	2,176	54	5.0	17	7.785	3,780						7.8		8.7	
17	82	76	122	2,036	60	5.2	17	7.785	4,160						7.7		8.8	
18	73	66	120	1,920	63	4.1	17	7.785	3,720					50	7.5		8.5	
19	73	80	118	1,940	61	3.7	17	7.785	3,820					10	7.4		8.3	
20	81	66	118	1,888	63	3.1	17	7.785	4,260					15	7.5		8.3	
21	84	87	118	1,904	62	3.8	16	7.785	3,760						7.7		8.5	
22	115	82	120	1,936	62	4.4	16	7.785	3,860						7.0		8.7	
23	106	65	115	1,836	63	4.6	16	7.785	3,780						7.6		8.6	
24	88	57	108	2,092	52	5.6	16	7.785	4,540						7.6		8.2	
25	106	73	110	1,884	58	3.3	17	7.785	3,940						7.6		8.3	
26	93	52	113	1,856	61	3.6	16	7.785	3,840						7.6		8.8	
27	67	65	115	1,828	63	3.8	16	7.785	3,840						7.6		8.7	
28	91	56	116	1,880	62	4.8	16	7.785	3,660						7.6		8.6	
29	77	45	119	1,876	64	6.0	15	7.785	3,540						7.5		9.1	
30	74	52	113	1,872	60	6.4	15	7.785	3,180						7.0		9.3	
31																		
Avg.	87	66	120	2,043	61	4.3	17	10.480	3,769					19			8.6	
Max	177	94	139	4,292	72	6.4	18	14.272	4,540					50		7.8	9.3	
Min.	62	45	103	1772	24	3.1	15	7.785	2020					5		7.00	8.2	
Daily Max														50				
# of Days above 235														0				
Data	30	30	30	30	30	30	30	30	30	0	0	1	0	12	30	0	30	0

Comments for the Month (major repairs, breakdowns, process upsets and their causes, inplant treatment process bypass, etc.):  
Raw pH not recorded on October 21 or October 24.

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility Elkhart	Permit Number IN0025674	Month November	Year 2024
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		FINAL EFFLUENT															
Day Of Month	Day of Week	Flow		BOD				Total Suspended Solids				Ammonia				Phosphorus	
		Effluent Flow Rate (MGD)	Effluent Flow Weekly Average	CBOD5 - mg/l	CBOD5 - mg/l Weekly Average	CBOD5 - lbs/day	CBOD5 - lbs/day Weekly Average	Susp. Solids - mg/l	Susp. Solids - mg/l Weekly Average	Susp. Solids - lbs/day	Susp. Solids - lbs/day Weekly Average	Ammonia - mg/l	Ammonia - mg/l Weekly Average	Ammonia - lbs/day	Ammonia - lbs/day Weekly Average	Phosphorus - mg/l	Phosphorus - lbs/day
1	Fri	9.791		2		163		5		416		0.11		9.0		0.60	49
2	Sat	9.372		3		234		7		532		0.08		6.3		0.63	49
3	Sun	9.177		4		306		6		459		0.09		6.9		0.58	44
4	Mon	14.366		3		359		9		1,054		0.19		22.8		0.50	60
5	Tue	11.477		2		191		6		536		0.09		8.6		0.50	48
6	Wed	10.023		2		167		5		435		0.12		10.0		0.55	46
7	Thu	9.943		2		166		7		547		0.12		10.0		0.72	60
8	Fri	9.775		2		163		6		489		0.08		6.5		0.75	61
9	Sat	9.487	10.607	3	2.57	237	227	6	6.37	506	575	0.08	0.11	6.3	10	0.74	59
10	Sun	12.338		3		309		6		659		0.08		8.2		0.79	81
11	Mon	9.962		4		332		6		457		0.11		9.1		0.64	53
12	Tue	10.332		3		259		6		551		0.12		10.3		0.57	49
13	Wed	10.487		3		262		6		525		0.10		8.7		0.64	56
14	Thu	10.684		2		178		8		748		0.09		8.0		0.70	62
15	Fri	9.860		2		164		7		551		0.09		7.4		0.59	49
16	Sat	9.586	10.464	3	2.86	240	249	6	6.53	504	571	0.09	0.10	7.2	8	0.44	35
17	Sun	9.550		2		159		5		430		0.08		6.4		0.48	38
18	Mon	11.452		2		191		7		649		0.09		8.6		0.60	57
19	Tue	12.673		3		317		9		930		0.10		10.6		0.57	60
20	Wed	10.743		3		269		7		618		0.13		11.6		0.59	53
21	Thu	10.176		4		339		10		849		0.12		10.2		0.49	42
22	Fri	10.313		4		344		9		774		0.10		8.6		0.47	40
23	Sat	9.591	10.643	4	3.14	320	277	9	8.01	736	712	0.11	0.10	8.8	9	0.53	42
24	Sun	9.384		3		235		8		610		0.10		7.8		0.66	52
25	Mon	10.125		3		253		9		726		0.12		10.1		0.64	54
26	Tue	10.205		3		255		8		698		0.11		9.4		0.57	49
27	Wed	10.441		2		174		6		557		0.11		9.6		0.66	57
28	Thu	9.723		2		162		7		600		0.09		7.3		0.77	62
29	Fri	9.255		3		232		7		571		0.09		6.9		0.73	56
30	Sat	9.596	9.818	4	2.86	320	233	7	7.54	560	618	0.08	0.10	6.4	8	0.79	63
31																	
Avg		10.330		3		243		7		609		0.10		8.9		0.62	53
Max		14.366	10.643	4	3.14	359	277	10	8.01	1,054	712	0.19	0.11	22.8	10	0.8	81
Min		9.177	9.818	2	2.57	159	227	5	6.37	416	571	0.08	0.10	6.3	8	0.4	35
Data		30	4	30	4	30	4	30	4	30	4	30	4	30	4	30	30

MONTHLY REMOVAL SUMMARY					Total Monthly Flow: (million gallons) 310
Percent Removal	BOD5	S.S.	Ammonia	Phosphorus	
Primary Treatment	28.40	50.0			
Secondary Treatment	96.7	89.4			Percent Capacity (actual flow/design) 52%
Overall Treatment	97.66	94.7	99.5	84.6	
Phosphorus limit would be	80 % removal. (compliance achieved)				

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	November	2024

Day Of Month	SLUDGE TO DIGESTER		DIGESTER OPERATION											
	Primary Sludge Gal. x 100	Waste Act. Sludge Gal. x 1000	Anaerobic Only			Supernatant Withdrawn hrs. or Gal. x 1000	Supernatant BOD5 mg/l or NH3-N mg/l	Total Solids in Incoming Sludge - %	Total Solids in Digested Sludge - %	Volatile Solids in Incoming Sludge - %	Volatile Solids in Digested Sludge - %	Digested Sludge Withdrawn hrs. or Gal. x 1000		
			pH	Gas Production Cubic Ft. x 1000	Temperature - F									
1	30.55	282.24	7.3		104	35.370		4.81	1.96	77.54	55.17	70.37		
2	38.92	282.24	7.3		99			3.82	1.96	74.79	56.93			
3	21.66	283.68	7.2		103	66.500		4.09	2.01	76.54	56.20			
4	26.67	283.68	7.2		101	0.000		4.40	2.03	77.50	57.69			
5	34.19	282.24	7.3		103			4.13	1.92	77.90	57.14			
6	27.53	275.04	7.2		103	0.000		6.60	2.07	77.50	57.97	122.93		
7	40.29	280.80	7.3		102	0.000		3.54	1.97	74.22	58.27	123.27		
8	30.57	288.00	7.4		103			4.38	1.91	75.09	56.64	69.47		
9	33.12	288.00	7.3		102			3.70	1.99	74.92	57.43			
10	26.07	288.00	7.2		103	35.000		5.45	2.04	78.42	56.41			
11	31.42	288.00	7.1		100	28.296		4.63	1.98	79.23	58.42			
12	25.90	288.00	7.2		102	7.074		3.12	1.88	79.14	59.13	122.45		
13	26.90	288.00	7.1		100			1.89	1.80	74.85	57.85	122.06		
14	27.92	288.00	7.2		101	10.611		2.49	1.86	76.28	57.14	123.91		
15	32.80	288.00	7.1		103	0.000		3.92	1.82	74.09	56.45	70.17		
16	41.16	266.40	7.2		102	31.500		2.33	1.79	71.84	56.90			
17	37.90	259.20	7.2		99	14.148		3.26	1.74	73.87	55.14			
18	32.32	259.20	7.3		99			3.42	1.76	79.46	56.90	122.49		
19	32.70	259.20	7.3		101	10.611		3.97	1.73	74.91	58.16	121.08		
20	29.55	259.20	7.3		102			4.12	1.72	73.48	57.69	105.26		
21	36.94	259.20	7.2		101			4.06	1.73	74.42	56.67	122.87		
22	40.08	259.20	7.2		101	3.537		3.84	1.78	72.73	57.14	69.80		
23	34.51	259.20	7.3		101			3.86	1.82	72.77	57.04			
24	34.82	259.20	7.2		99	0.000		3.81	1.75	73.13	56.04			
25	35.00	259.20	7.2		98			4.20	1.81	81.38	57.28	121.92		
26	34.23	259.20	7.2		101			3.22	1.79	75.70	58.76	122.47		
27	28.06	259.20	7.3		99	17.685		2.21	1.83	74.36	58.21	122.87		
28	35.16	259.20	7.2		100			3.74	1.53	76.68	61.54			
29	34.36	259.20	7.2		100	7.074		4.25	1.76	78.93	60.23			
30	18.02	259.20	7.2		99	7.074		4.91	1.82	81.50	57.26			
31														
Avg.	31.98	272.30			101	15.249		3.87	1.85	76.11	57.46	108.34		
Max.	41.16	288.00	7.4		104	66.500		6.60	2.07	81.50	61.54	123.91		
Min.	18.02	259.20	7.1		98	0.000		1.89	1.53	71.84	55.14	69.47		
Data	30	30	30	0	30	18	0	30	30	30	30	16	0	0

Once completed, this form should be converted to a pdf document, named appropriately & attached to the corresponding netDMR for submittal

**MONTHLY REPORT OF OPERATION  
ACTIVATED SLUDGE TYPE  
WASTEWATER TREATMENT PLANT**

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	November	2024

Substitute for State Form 30530

Day Of Month	Final Effluent				Ag - Influent mg/l	Ag - Effluent mg/L	Cd - Influent mg/L	Cd - Effluent mg/L	CN - Influent mg/L	CN - Effluent mg/L	Cr - Influent mg/L	Cr - Effluent mg/L	Cu - Influent mg/L	Cu - Effluent mg/L	Hg - Influent ng/L	Hg - Effluent ng/L
	Chloride		Total Nitrogen													
	Chloride - mg/l	Chloride - lbs/day	Total Nitrogen- mg/l	Total Nitrogen- lbs/day												
1																
2																
3																
4					0.0003										32.6000	1.0700
5			17.90	1,713		0.0002										
6																
7																
8																
9																
10																
11																
12																
13					0.0003	0.0002										
14																
15																
16																
17																
18					0.0004											
19						0.0002										
20																
21																
22																
23																
24																
25																
26					0.0002	0.0002										
27																
28																
29																
30	166	13,285														
31																
Avg.	166	13,285	17.90	1,713	0.0003	0.0002									32.6000	1.0700
Max.	166	13,285			0.0004	0.0002									32.6000	1.0700
Min.	166	13,285	17.90	1713	0.0002	0.0002									32.6000	1.0700
Data	1	1	1	1	4	4	0	0	0	0	0	0	0	0	1	1

# WASTEWATER TREATMENT PLANT

State Form 10829 (R4 / 01-20)

Name of Facility	Permit Number	Month	Year
Elkhart	IN0025674	November	2024

Substitute for State Form 30530

Day Of Month	Ni - Influent mg/L	Ni - Effluent mg/L	Pb - Influent mg/L	Pb - Effluent mg/L	Zn - Influent mg/L	Zn - Effluent mg/L														
1																				
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Max.																				
Min.																				
Date	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

[View Certification](#) | [Download COR](#)

**DMR Copy of Submission**

Expand Notices

Showing COR 13 of 30 ◀ 9 10 11 12 **13** 14 15 16 ▶▶









Code	Name	Value 1	Units	Value 2	Value 1	Value 2	Value 3	Units	Ex.	Analysis	Type
81012	Phosphorus, total percent removal									01/30 - Monthly	CA - Calculated
	K - Percent Removal				=84.6		23 - %	0			
	Season: 0				>=75.0 MO AV MN		23 - %			01/30 - Monthly	CA - Calculated
	NODI: -										
82220	Flow, total									01/30 - Monthly	RT - Recorder Total
	1 - Effluent Gross			=310.0	80 - Mgal/mo			0			
	Season: 0				Req Mon MO TOTAL	80 - Mgal/mo				01/30 - Monthly	RT - Recorder Total
	NODI: -										

**Submission Note**

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

**Edit Check Errors**

No errors.

**Comments**

**Attachments**

Name	Type	Size
IN0025674_035a_MRO_2024_11.pdf	pdf	1006560.0
IN0025674_CS0_MRO_2024_11.pdf	pdf	1510327.0

**Report Last Saved By**

**ELKHART WWTP**

User: Payton88  
 Name: Laura Kolo  
 E-Mail: laura.kolo@coei.org  
 Date/Time: 2024-12-23 08:26 (Time Zone:-05:00)

**Report Last Signed By**

User: Payton88  
 Name: Laura Kolo  
 E-Mail: laura.kolo@coei.org  
 Date/Time: 2024-12-23 08:26 (Time Zone:-05:00)



National Pollutant Discharge Elimination System (NPDES)  
CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart				Page 1 of 9				Permit Number: IN0025574												
Facility: Elkhart Public Works & Utilities				Public Notification Requirements Met? Y																
Monitoring Period: November 2024				Enter "x" if no CSO discharge occurred for the month: X																
Design Peak Hourly Flow (MGD): 44				Design Average Flow (MGD): 20				Measured/Metered (M) or Estimated (E) must be specified												
WWTP Influent Data			Precipitation Data					CSO Outfall No. 005					CSO Outfall No. 006							
Day of Month	Average Daily Flow (MGD)	Peak Hourly Flow (MGD)	Time Precip. Began (am/pm)	Precip. Duration (Hours)	Total Daily Precip. (Inches)	Peak Intensity (Inch/hr)	Measurement Interval (hr, 30 m, 15 m)	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
1	10.74	12.30					15 min													
2	10.43	12.60					15 min													
3	10.19	12.40	4:56 PM	0.42	0.03	0.08	15 min													
4	14.12	24.00	2:01 AM	21.58	0.61	0.24	15 min													
5	12.18	16.00	12:19 AM	21.95	0.22	0.24	15 min													
6	10.87	12.10					15 min													
7	10.40	12.10					15 min													
8	10.63	11.90	5:06 AM	0.08	0.01	0.04	15 min													
9	10.57	12.70					15 min													
10	12.77	26.30	1:46 AM	5.17	0.36	0.48	15 min													
11	10.55	12.90					15 min													
12	10.86	12.60					15 min													
13	11.08	14.20	7:51 PM	3.67	0.19	0.12	15 min													
14	11.76	14.50	12:16 AM	20.83	0.12	0.12	15 min													
15	10.87	12.10	3:21 AM	9.88	0.02	0.04	15 min													
16	10.37	11.70					15 min													
17	10.38	12.10					15 min													
18	11.78	15.10	1:01 PM	6.08	0.26	0.16	15 min													
19	12.17	18.20	1:46 AM	9.55	0.24	0.24	15 min													
20	11.24	14.80	9:36 AM	9.58	0.13	0.12	15 min													
21	10.55	11.90	2:26 PM	9.63	0.03	0.04	15 min													
22	10.64	11.90	8:26 AM	15.50	0.09	0.04	15 min													
23	10.83	12.80	1:16 AM	5.08	0.04	0.04	15 min													
24	10.14	11.60					15 min													
25	11.11	12.50	5:29 PM	4.20	0.02	0.04	15 min													
26	11.03	11.90					15 min													
27	10.73	12.40					15 min													
28	10.58	12.90					15 min													
29	9.87	11.20					15 min													
30	9.74	11.10					15 min													
Totals:		329.15			143.20	2.37		0	Days	0.00		0		0	Days	0.00		0		
Typed or Printed Name and Title of Principal Executive Officer or Authorized Agent												Telephone								
Laura E. Kolo, Utilities Services Manager												574-293-2572								
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 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.																				
Signature of Principal Executive Officer or Authorized Agent												Date (mm/dd/yy)								
Laura Kolo												12/23/24								



National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 2 of 9					Permit Number: IN0025574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y															
Monitoring Period: November 2024										Enter "x" if no CSO discharge occurred for the month: X															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 007					CSO Outfall No. 008					CSO Outfall No. 009					CSO Outfall No. 011										
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
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National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

Slate Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 3 of 9					Permit Number: IN0025574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? : Y															
Monitoring Period: November 2024										Enter "x" if no CSO discharge occurred for the month: X															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 012						CSO Outfall No. 013						CSO Outfall No. 14B						CSO Outfall No. 015							
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
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National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 4 of 9					Permit Number: IN0025574								
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y													
Monitoring Period: November 2024										Enter "X" if no CSO discharge occurred for the month:													
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified													
CSO Outfall No. 016					CSO Outfall No. 017					CSO Outfall No. 018					CSO Outfall No. 019								
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E					
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National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 5 of 9					Permit Number: IN0025574											
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y																
Monitoring Period: November 2024										Enter "x" if no CSO discharge occurred for the month:																
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified																
CSO Outfall No. 020						CSO Outfall No. 023						CSO Outfall No. 024						CSO Outfall No. 025								
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E		
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National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

Slate Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 6 of 9					Permit Number: IN0025574									
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? Y														
Monitoring Period: November 2024										Enter "x" if no CSO discharge occurred for the month: X														
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified														
CSO Outfall No. 026					CSO Outfall No. 027					CSO Outfall No. 028					CSO Outfall No. 029									
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E
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National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

Slate Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 7 of 9					Permit Number: IN0025674										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? <input checked="" type="checkbox"/> Y															
Monitoring Period: November 2024										Enter "x" if no CSO discharge occurred for the month: X															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 031					CSO Outfall No. 032					CSO Outfall No. 033					CSO Outfall No. 034										
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
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National Pollutant Discharge Elimination System (NPDES)  
 CSO Monthly Report of Operation (CSO MRO)

State Form 60546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart										Page 8 of 9					Permit Number: IN0025574										
Facility: Elkhart Public Works & Utilities										Public Notification Requirements Met? <input checked="" type="checkbox"/> Y															
Monitoring Period: November 2024										Enter "x" if no CSO discharge occurred for the month:															
Design Peak Flow (Hourly) (MGD): 44					Design Flow (MGD): 20					Measured/Metered (M) or Estimated (E) must be specified															
CSO Outfall No. 037						CSO Outfall No. 039						CSO Outfall No. 040						CSO Outfall No.							
Day of Month	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	Time Discharge Began	M or E	Event Duration (Hours)	M or E	Event Discharge (MG)	M or E	
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10	4:32 AM	M	0.92	M	0.0807	M							4:57 AM	M	0.62	M	0.0085	M							
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National Pollutant Discharge Elimination System (NPDES)  
CSO Monthly Report of Operation (CSO MRO)

State Form 50546 (R4 / 9-15)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

City: Elkhart	Page: 9 of 9	Permit Number: IN0025574
Facility: Elkhart Public Works & Utilities	Public Notification Requirements Met? Y	
Monitoring Period: November 2024	Enter "x" if no CSO discharge occurred for the month:	
Design Peak Hourly Flow (MGD): 44	Design Average Flow (MGD): 20	

Day of Month	Comments (further explanation as to why each CSO event occurred)
1	
2	
3	
4	precipitation
5	
6	
7	
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9	
10	precipitation
11	
12	
13	
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16	
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18	
19	precipitation
20	
21	
22	
23	
24	
25	
26	
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31	

Typed or Printed Name and Title of Principal Executive Officer or Authorized Agent Laura E. Kolo, Utilities Services Manager	Telephone 574-293-2572
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 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.	
Signature of Principal Executive Officer or Authorized Agent <i>Laura Kolo</i>	Date (mm/dd/yy) 12/23/24

[View All Copies of Submissions](#) | [DMR/COR Search Results](#) | [View DMR Signing Status](#)

**Signing Process Confirmation - CDX Activity ID: \_306fd73a-0262-4903-9760-e6d819b6a776**

Your DMRs are undergoing the Signing Process

IN0025674	ELKHART WWTP	005	005-C	CSO- ARCH/BAR, NW OF INTERSECTION	11/30/24	12/28/24
IN0025674	ELKHART WWTP	006	006-C	CSO- JACKSON, N OF BRIDGE, W OF ELKHART RIVER	11/30/24	12/28/24
IN0025674	ELKHART WWTP	007	007-C	CSO- JACKSON, N OF BRIDGE, E OF ELKHART RIVER	11/30/24	12/28/24
IN0025674	ELKHART WWTP	008	008-C	CSO- HUG/EAST BLVD	11/30/24	12/28/24
IN0025674	ELKHART WWTP	009	009-C	CSO- NIBCO PRKWY - FKA JR. ACHIEVEMENT (Y DR N)	11/30/24	12/28/24
IN0025674	ELKHART WWTP	011	011-C	CSO- ELKHART/FRANKLIN	11/30/24	12/28/24
IN0025674	ELKHART WWTP	012	012-C	CSO- CASSOPOLIS/BEARDSLEY	11/30/24	12/28/24
IN0025674	ELKHART WWTP	013	013-C	CSO- JOHNSON/BEARDSLEY	11/30/24	12/28/24
IN0025674	ELKHART WWTP	014	014-C	CSO- DAM AT CONE/ERWIN	11/30/24	12/28/24
IN0025674	ELKHART WWTP	015	015-C	CSO- MICHIGAN/FULTON	11/30/24	12/28/24
IN0025674	ELKHART WWTP	016	016-C	CSO- DAN @ GOSHEN/SUPERIOR	11/30/24	12/28/24
IN0025674	ELKHART WWTP	017	017-C	CSO- W. BOULEVARD/MCNAUGHTON	11/30/24	12/28/24
IN0025674	ELKHART WWTP	018	018-C	CSO- MCNAUGHTON PARK WEST	11/30/24	12/28/24
IN0025674	ELKHART WWTP	019	019-C	CSO-MICHIGAN @ RVR, S. OF LEX.	11/30/24	12/28/24
IN0025674	ELKHART WWTP	020	020-C	CSO- BRIDGE AND HUDSON	11/30/24	12/28/24
IN0025674	ELKHART WWTP	023	023-C	CSO- FRANKLIN/8TH	11/30/24	12/28/24
IN0025674	ELKHART WWTP	024	024-C	CSO- INDIANA/FRANKLIN	11/30/24	12/28/24
IN0025674	ELKHART WWTP	025	025-C	CSO- POTTAWATOMI/SECOND	11/30/24	12/28/24
IN0025674	ELKHART WWTP	026	026-C	CSO- MAIN/POTTAWATOMI	11/30/24	12/28/24
IN0025674	ELKHART WWTP	027	027-C	CSO- EDGEWATER/NAVAJO	11/30/24	12/28/24
IN0025674	ELKHART WWTP	028	028-C	CSO- WASHINGTON AT RIVER	11/30/24	12/28/24
IN0025674	ELKHART WWTP	029	029-C	CSO- JEFFERSON AT THE RIVER	11/30/24	12/28/24
IN0025674	ELKHART WWTP	031	031-C	CSO- ELIZABETH/LUSHER	11/30/24	12/28/24
IN0025674	ELKHART WWTP	032	032-C	CSO- EDGEWATER/OKEMA	11/30/24	12/28/24
IN0025674	ELKHART WWTP	033	033-C	CSO- EVANS/GRACE	11/30/24	12/28/24
IN0025674	ELKHART WWTP	034	034-C	CSO- LEXINGTON/6TH	11/30/24	12/28/24
IN0025674	ELKHART WWTP	035	035-A	20 MGD CLASS IV ACTIVATED SLUDGE - TO ST JOSEPH RIVER	11/30/24	12/28/24
IN0025674	ELKHART WWTP	037	037-C	CSO- FRANKLIN/KRAU	11/30/24	12/28/24
IN0025674	ELKHART WWTP	039	039-C	CSO- WEST HIGH AT RIVER	11/30/24	12/28/24
IN0025674	ELKHART WWTP	040	040-C	CSO- MCNAUGHTON PARK SOUTH	11/30/24	12/28/24