

INSPECTION REPORT

Inspection Entry Date/Time	02/28/2023 12:45 PM (ET)	Announced: Yes	
Inspection Exit Date/Time	02/28/2023 03:45 PM (ET)	Access: Granted	
Weather			
Media	Water		
Statute(s)/Program(s)	Clean Water Act, NPDES, WWTP		
Type of Inspection	CSO - Combined Sewer Overflow Inspection, SSO - Sanitary Sewer Overflow Inspection		
Permittee Name	Elkhart Public Works and Utilities		
Facility or Site Name	Elkhart Public Works and Utilities		
Facility/Site Physical Address	1201 S Nappanee St		
City, State, Zip Code	Elkhart, IN 46516		
County/Borough/Parish			
Facility GPS Coordinates	41.676583, -86.003833		
Mailing Address (If different)			
City, State, Zip Code			
FRS ID	110000573237		
Permit Number(s) (If Applicable)	IN0025674		
SIC and/or NAICS	4952		
Regulatory Representatives Participating in Inspection:			
See Attendees list below			
Lead Inspector:			
Dean Maraldo	[Signature]	DINO MARALDO Digitally signed by DINO MARALDO Date: 2023.03.03 15:46:20 -06'00'	
	EPA Region 5	Maraldo.Dean@epa.gov	(312) 353-2098
Supervisor Review:			
Ryan Bahr	[Signature]	RYAN BAHR Digitally signed by RYAN BAHR Date: 2023.03.06 14:27:42 -06'00'	
	EPA Region 5	bahr.ryan@epa.gov	

SECTION I – INTRODUCTION**Site Entry and Inspection Objectives**

I, EPA Region 5 Lead Inspector Dean Maraldo, arrived at the Elkhart Public Works and Utilities (the “Site” or “Facility”), located at 1201 S Nappanee St, Elkhart, IN 46516, at 12:45 PM (ET) on 02/28/2023 for an announced inspection. I was joined by EPA inspector Jake Berger. We presented credentials to Bryan Cress and informed the group that this was an EPA Region 5 focused inspection to determine compliance as authorized by Clean Water Act (CWA) Section 308 and implementing regulations. This report is based on information supplied by Elkhart Public Works and Utilities (“city”) representatives, direct observations made by the EPA Region 5 inspectors, records and reports maintained by the permittee and other information including: photographs taken by EPA Region 5 inspectors, physical evidence collected by the EPA Region 5 inspectors, verbal or written statements made by information supplied by city representatives during or subsequent to the on-site inspection, and materials, processes, data, photographs, or documents shown, demonstrated, or submitted to the EPA Region 5 inspectors by city representatives during or subsequent to the on-site inspection. In addition, information gathered prior to or subsequent to the inspection from a review of EPA, State, and/or public records may be included in this report.

We began the opening conference with introductions and a review of the purpose of the inspection - to review progress of the LTCP program, review recent effluent limit exceedances, and review records of SSOs since 2018. I also mentioned that we may want to look at current construction of the Cloth Media Disc Filter (“CMDF”) treatment system at the wastewater treatment plant.

Attendees

Organization	Attendee Name	Title	Present in Opening Conf.	Present in Closing Conf.
U.S. EPA Region 5	Dean Maraldo	Lead Inspector	Yes	Yes
City of Elkhart	Tory Irwin	City Engineer	Yes	Yes
City of Elkhart	Joseph Foy	Stormwater Manager	Yes	Yes
City of Elkhart	Laura Kolo	Environmental Resources Manager	Yes	Yes
City of Elkhart	Bryan Cress	Regulatory Affairs Director	Yes	No
City of Elkhart	Paul Wunderlich	Utility Engineer	Yes	Yes
IDEM	Eddy Depositari	Inspector	Yes	Yes
U.S. EPA Region 5	Jake Berger	Inspector	Yes	Yes

Facility/Site Description

I went over the facility description provided in the permit (excerpt below) and the city representatives confirmed that information was accurate.

The permittee currently operates a Class IV, 20 MGD activated sludge treatment facility consisting of grit removal, primary clarification, secondary aeration, final clarification, ultraviolet light disinfection, and influent and effluent flow meters.

The permittee also has been issued construction Permit Approval No. L-0621 for plant improvements and the installation of Cloth Media Disc Filters (CMDF) to

increase wet weather flow to the facility.

The collection system is comprised of combined sanitary and storm sewers with twenty-nine (29) Combined Sewer Overflow (CSO) locations. The CSO locations have been identified and permitted with provisions in Attachment A of the permit.

The wastewater treatment plant discharges treated effluent to the St. Joseph River via Outfall #035.

We then began the Interview portion of the inspection.

SECTION II – OBSERVATIONS

Location: Interview/CSO/WWTP Review

Observation #: DM1-OB-001

Date: 02/28/2023

Tory Irwin provided an update on the CMDF construction progress and said although they've experienced ordering and shipping delays, they are on track for construction completion by November 15, 2024, consistent with the approved LTCP schedule. He added that they also bid out first part of Oakland Avenue Controls pursuant to the LTCP schedule.

Bryan Cress estimated the City of Elkhart sewer system served a population of just under 50,000, including 42,517 within the city, and the remainder made up of other smaller communities in St. Joseph County and Cass County in Michigan.

I asked for a breakdown of the miles of sewer, by type, in the city's sewer collection system. Bryan Cress provided the following response:

- Miles of combined sewer: 121
- Miles of separate sewer passing through combined sewers: 129
- Miles of separate sanitary sewers: 28
- Miles of separate storm sewer: 77
- Miles of sanitary force main: 18
- Miles of storm only force main: 0.9

I asked who signed DMRs. Laura Kolo confirmed that she signs all DMRs.

I asked about staffing for sewer operations. Laura Kolo said that they have 15 operators and 15 maintenance staff. She added that about 75% of the operators are certified and the rest are working towards certification. Ten additional staff work on collection system maintenance. Tory Irwin added that the plant is in operation 24/7, 365 days per year, with workdays made up of three eight-hour shifts.

Before proceeding with the inspection and reviewing records, I asked if there were any confidential business information (CBI) concerns. The city representatives said there were no CBI concerns.

Next, we reviewed the LTCP schedule and milestones. Tory Irwin provided an update on progress of current projects including the Oakland Ave. controls and St. Joseph River CSO controls - sewer separation. Other than potential cost inflation and general delays experienced in the construction industry, he said there were no other concerns regarding schedule. He also added that the city is working on a rate increase to cover work through the end of the LTCP.

I asked if there was a summary of CSO activations in 2022. Bryan Cress said he would provide a summary after the inspection.

Location: Interview/WWTP Effluent Limit Exceedances**Observation #:** DM1-OB-002**Date:** 02/28/2023

I reviewed effluent limit exceedances over the last two years. The facility reported phosphorus percent removal exceedances in March and April 2022, and an *E.coli* effluent limit exceedance in June 2022.

Laura Kolo said that the phosphorus issue was the result of a period of low influent phosphorus, which made it difficult to meet the percent reduction limit in the permit. She added that the *E.coli* effluent limit exceedance was the result of a channel maintenance and sensor issue. Both issues appear to be resolved as no *E.coli* or phosphorus effluent limit exceedances were reported by the facility since April (phosphorus) and June (*E.coli*) 2022.

I asked how the wastewater treatment plant was currently operating. Laura Kolo said that one aeration tank is out of service due to construction (upgrades to diffusers and blowers). There are five aeration tanks in total. Laura Kolo also mentioned challenges with filamentous bacteria, managed through wasting. She added that they recently failed a biomonitoring test and are retesting pursuant to permit requirements. I asked for a copy of the biomonitoring retest and Laura Kolo said she would provide a copy once received.

Before concluding the effluent limit exceedance discussion, I asked about citizen complaints. Bryan Cress said that most citizen complaints are related to odors at the plant.

Location: Interview/Sanitary Sewer Overflows**Observation #:** DM1-OB-003**Date:** 02/28/2023

I began the sanitary sewer overflow (SSO) discussion with a question about any current SSO-related projects in the city. Tory Irwin said there were no SSO-specific projects underway currently, but they do have a cleaning and backflow prevention program. The backflow prevention program is partially subsidized by the city, however, not a lot of residents are taking advantage of the program. Tory Irwin said that the goal of the sewer cleaning program was to clean all city sewers in a seven-year cycle. They also have a goal to televise all sewers within ten years and the city now owns its own televising equipment.

I asked about lift stations in the sewer system. Bryan Cress said there were 66 lift stations of various types (sewer, storm, etc). He said he would provide a detailed list after the inspection.

At this point in the inspection, the city representatives provided me with copies of the Bypass/Overflow Incident Reports I requested, from 2018 to present. Bryan Cress clarified that some of the Bypass/Overflow Incident Reports were mistakenly labelled as CSOs, but all the reports provided represented Bypass/Overflow incidents involving SSOs. [I did not review the Bypass/Overflow Incident Reports during the inspection].

I asked if there were any known chronic SSO areas in the city. Tory Irwin said there are some backups in a residential area near a pork processing plant. He added that the city has taken enforcement against the company.

I asked if the city maintains a log for sewer-related complaints. The city maintains a work order log that is based largely on complaints. Bryan Cress provided a copy of the work order summary. I asked if the city had a map that clearly delineates the combined and separated sewers, or perhaps a GIS layer they could share. Tory Irwin said they would have their GIS staff reach out to me after the inspection. Before concluding this portion of the inspection, Tory Irwin said he wanted to let me know that the city is behind on reissuing industrial user (IU) permits. Laura Kolo later clarified that the city is about 15 IU permits behind.

Location: Wastewater Treatment Plant Physical Inspection/CMDF Construction		
Observation #: DM1-OB-004	Date: 02/28/2023	Weather: Sunny, cool
At 2:45 PM, I, along with Inspector Berger, the IDEM inspector, and Joseph Foy, drove across the road to the wastewater plant to view the current construction related to the CMDF wet-weather treatment system. We met Joe Henderson and Jim Miller with Donohue and Associates, consultants to the city for wastewater plant construction upgrades, including the CMDF project. They described the current wastewater treatment process and provided an update on construction of the CMDF system. They provided a copy of the map they used to describe the wastewater treatment process and CMDF construction progress (see Appendix 2). Jim Miller said the CMDF diversion structure was already built and the CMDF building was currently under construction. The remaining physical inspection observations are described in the Photo Log (see Appendix 1). We concluded the physical inspection of CMDF-related construction at the wastewater treatment plant at 3:15 PM, then returned to the Public Works office to conduct the closing conference.		
Photo(s) 1. ELKH0195.JPG 2. ELKH0196.JPG 3. ELKH0197.JPG		

SECTION III – SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

No sampling was conducted.

SECTION IV - AREA OF CONCERN

Area(s) of Concern may not be in sequential order.

The presentation of Area(s) of Concern does not constitute a formal compliance determination or violation.

AOC Reference #: DM1-OB-002	Location: Interview/WWTP Effluent Limit Exceedances
Regulation and/or Permit Requirement Permit Part I.D. and Part III.B.1	
AOC: Challenges with filamentous bacteria. City recently failed a biomonitoring test and are retesting pursuant to permit requirements.	

AOC Reference #: DM1-OB-003	Location: Interview/Sanitary Sewer Overflows
Regulation and/or Permit Requirement Permit Part III.A.2	
AOC: The city is behind on reissuing approximately 15 industrial user (IU) permits.	

AOC Reference #: DM1-OB-003	Location: Interview/Sanitary Sewer Overflows
Regulation and/or Permit Requirement Permit Part II.B.6	
AOC: Chronic sewer backups in a residential area near a pork processing plant.	

SECTION V – CLOSING CONFERENCE AND FOLLOW UP**Closing Conference**

We began the closing conference at 3:30 PM. I first reviewed the follow-up items requested during the inspection, including:

- Summary of CSO activations.
- Results of biomonitoring retest.
- Detailed list of lift stations and types.
- Follow-up call from GIS staff regarding sewer maps.

The city agreed to provide all requested material by March 14, 2023.

Next, I reviewed the documents I received during the inspection, including:

- Map of wastewater treatment plant.
- Bypass/Overflow Incident Reports (2018-2023).
- Work Order Log (2018-2022).

Other than the biomonitoring test failure, overdue IU permits, and mention of chronic backups in a residential area near a pork processing plant, there were no other preliminary areas of concern. I mentioned that there may be additional follow-up areas based on review of the SSO records provided by the city. Before concluding the inspection, I asked if there were any questions. With no questions for me, I provided an estimated timeframe for completing the inspection report, and we concluded the inspection at 3:45 PM, on February 28, 2023. Note, Observations and Area(s) of Concern have not yet been evaluated for a formal compliance determination.

Follow Up

The following items were requested by the inspector at the time of the inspection. City agreed to provide items by March 14, 2023.

Location: Interview	Area: CSO/WWTP Review
DM1-OB-001	
Summary of CSO activations in 2022 after the inspection.	
Location: Interview	Area: WWTP Effluent Limit Exceedances
DM1-OB-002	
Copy of the biomonitoring retest results once received.	

Location: Interview	Area: Sanitary Sewer Overflows
DM1-OB-003	
Detailed lift station list.	
GIS staff to contact me regarding access to sewer GIS layers.	

Communication Log

No additional information received by EPA Region 5 after exiting the Facility on 02/28/2023.

SECTION VI – LIST OF APPENDICES

- 1. Photo Log
- 2. Document Log

APPENDIX 1: PHOTO LOG



CMDF Building	ELKH0195.JPG	
02/28/2023 03:04 PM	Photographer: Dean Maraldo	
Wastewater Treatment Plant Physical Inspection/Physical Inspection	No CBI	No PII
Image captures current construction of the CMDF building (#350).		



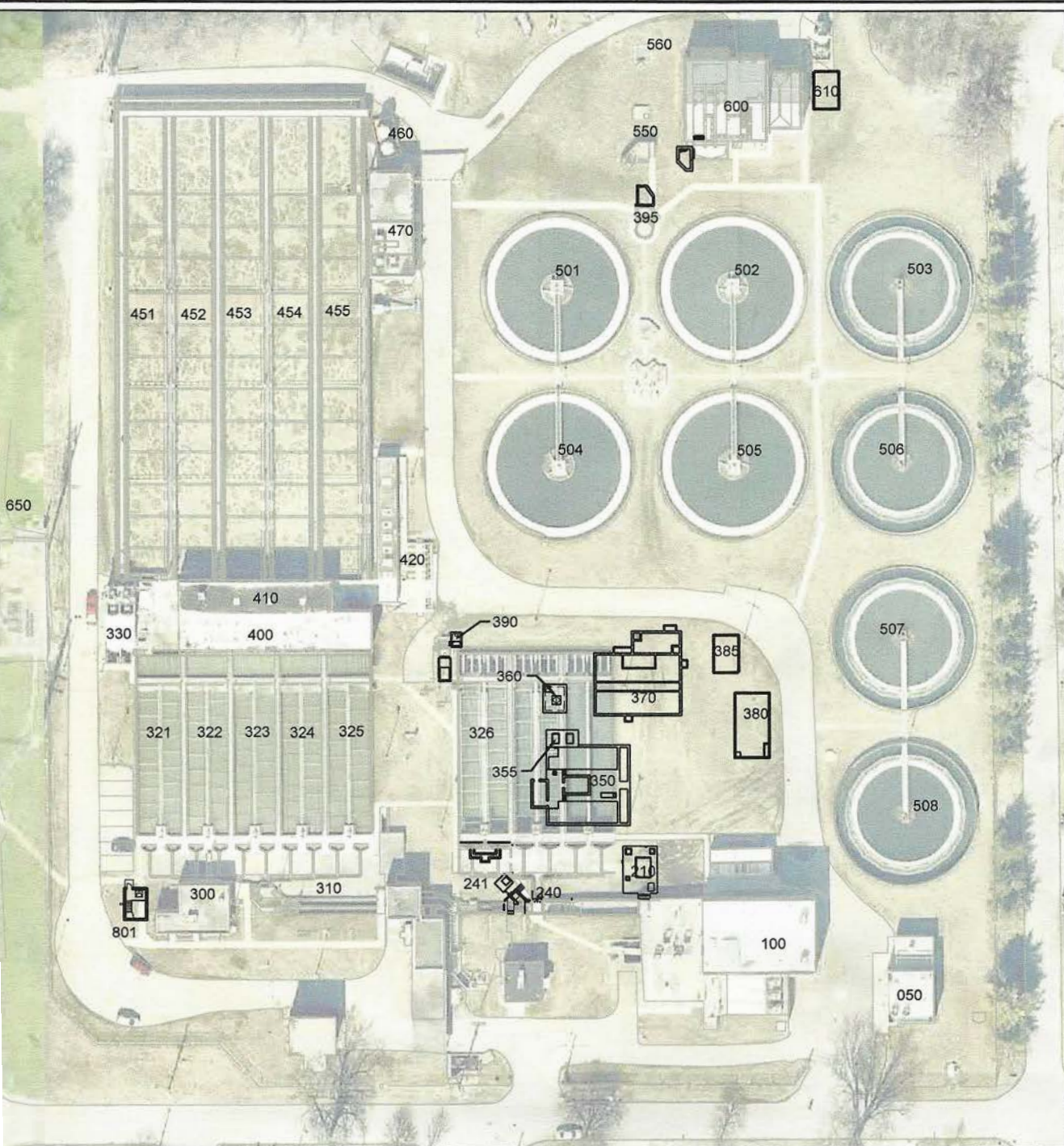
CMDf Diversion Structure Building	ELKH0196.JPG	
02/28/2023 03:04 PM	Photographer: Dean Maraldo	
Wastewater Treatment Plant Physical Inspection/Physical Inspection	No CBI	No PII
Image captures the recently completed building (#210) for the CMDf diversion system.		



CMDf Shaft	ELKH0197.JPG	
02/28/2023 03:10 PM	Photographer: Dean Maraldo	
Wastewater Treatment Plant Physical Inspection/Physical Inspection	No CBI	No PII
Image of a staged CMDf shaft. At this location we were joined by Matt Ripey, Operations Supervisor, who provided an update on the aeration tank upgrade project.		

APPENDIX 2: DOCUMENT LOG

Document Received Name	Date Received	Pages	Attached to report below?
Map of wastewater treatment plant	02/28/2023	2	Yes
Bypass/Overflow Incident Reports (2018-2023)	02/28/2023	127	No
Work Order Log (2018-2022)	02/28/2023	14	No



STRUCTURES LIST:

050 -- NORTH PUMP STATION	390 -- PRIMARY EFFLUENT DIVERSION STRUCTURE	550 -- NORTH GATE STRUCTURE
100 -- HEADWORKS BUILDING	395 -- CMDF EFFLUENT STRUCTURE	560 -- FINAL BYPASS GATE STRUCTURE
210 -- CMDF DIVERSION STRUCTURE	400 -- BLOWER BUILDING	600 -- UV DISINFECTION BUILDING
240 -- PRIMARY CLARIFIER NO. 6 DIVERSION STRUCTURE	410 -- AERATION TUNNEL	610 -- UV GENERATOR
241 -- PRIMARY CLARIFIER NO. 6 METER VAULT	420 -- RAS PUMP STATION	650 -- TRANSFORMER FACILITY
300 -- PRIMARY CONTROL BUILDING	451 - 455 - AERATION TANKS NO. 1 - 5	800 -- DIGESTER TUNNEL
310 -- PRIMARY TUNNEL	460 -- FERROUS CHLORIDE STORAGE	801 -- TUNNEL STAIRS
321 - 328 - PRIMARY CLARIFIERS NO. 1 - 8	470 -- DECHLORINATION BUILDING	810 -- DIGESTER BUILDING
330 -- PRIMARY EFFLUENT PUMP STATION	501 - 508 - FINAL CLARIFIERS NO. 1 - 8	890 -- MAINTENANCE BUILDING
350 -- CLOTH MEDIA DISK FILTER FACILITY		895 -- COLLECTIONS AND DISTRIBUTION GARAGE
355 -- DRAIN PUMP STATION		
360 -- CMDF METER VAULT		
370 -- CENTRAL OPERATIONS BUILDING		
380 -- FERRIC CHLORIDE STORAGE		
385 -- CMDF GENERATOR		



Date	
Checked By	
Drawn By	
Revision Description	
Revision Number	
Designed By	G
Drawn By	G
Checked By	P
Approved By	F
Filename	002CK
Project No.	13
Project Date	06/0

CITY OF ELKHART WASTEWATER TREATMENT PLANT CAPACITY UPGRADES PHASE 2 ELKHART, INDIANA



Sheet No.	12
Drawing No.	

002-CK

