INSPECTION REPORT

Inspection Entry Date/Time	11/09/2022 09:00 AM (ET)	Announced: Yes
Inspection Exit Date/Time	11/09/2022 12:00 PM (ET)	Access: Granted
Weather	Sunny, 45 degrees Fahrenheit	
Media	Water	
Statute(s)/Program(s)	Clean Water Act, NPDES	
Type of Inspection	CEI - Compliance Evaluation Inspection	
Permittee Name	Scioto County Commissioners (South Webster WWTP)	
Facility or Site Name	South Webster WWTP	
Facility/Site Physical Address	County Road 12	
City, State, Zip Code	South Webster, OH 45682	
County/Borough/Parish	Scioto County	
Facility GPS Coordinates	38.81667, -82.73701	
Mailing Address (If different)	602 7th Street, Room 104 Courthouse	
City, State, Zip Code	Portsmouth, Ohio 45662	
FRS ID	110009163172	
Permit Number(s) (If Applicable)	OH0041416	
SIC and/or NAICS	4952	
Regulatory Representatives Participating in Inspection:		

Title	Name	Organization
Inspector	Anne Marie Vincent	EPA Region 5

Lead Inspector:			
Megan Zale	MEGAN ZALE Digitally signed by MEGAN ZALE Date: 2023.01.05 13:48:39 -05'00'		
	EPA Region 5	zale.megan@epa.gov	(440) 250-1711
Supervisor Review:			
Brooke Furio	BROOKE FURIO Digitally signed by BROOKE FURIO Date: 2023.01.06 08:04:26 -05'00'		
	EPA Region 5	furio.brooke@epa.gov	(440) 250-1705

SECTION I – INTRODUCTION

Site Entry and Inspection Objectives

EPA Region 5 Lead Inspector, Megan Zale, arrived at the South Webster WWTP (the "Site" or "Facility"), located at County Road 12, South Webster, OH 45682, at 09:00 AM (ET) on 11/09/2022 for an announced inspection. EPA Region 5 Lead Inspector presented credentials to Ryan Smith and informed him that this was an EPA Region 5 inspection to determine compliance as authorized by Clean Water Act (CWA) Section 308 and implementing regulations. This report is based on information supplied by South Webster WWTP 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, measurements taken by EPA Region 5 inspectors, verbal or written statements made by information supplied by South Webster WWTP 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 South Webster WWTP 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.

Attendees

Organization	Attendee Name	Title	Present in Opening Conf.	Present in Closing Conf.
EPA Region 5	Megan Zale	Lead Inspector	Yes	Yes
EPA Region 5	Anne Marie Vincent	Inspector	Yes	Yes
EPA Region 5	Danny Nguyen	Inspector	Yes	Yes
Scioto County Sanitary Engineers	Ryan Smith	Treatment Coordinator	Yes	Yes
Scioto County Sanitary Engineers	Johnny McKenzie	Backup operator, Lab tech	Yes	Yes

Facility/Site Description

EPA Region 5 lead inspector confirmed the following facility information:

The Wastewater Treatment Plant (WWTP) was built by the Village of South Webster in 1999. The county took over ownership and operation of the South Webster WWTP in 2013. The county is planning to upgrade the 20-year-old HMI system (computerized control system) for operating the plant because parts have become difficult to find for replacements. They are also planning to install a bar screen and wet well with a lift station at the headworks in the future, after disconnecting two package plants in the area (Tanglewood and Scaff-Staritt).

The plant consists of two sequencing batch reactors (SBRs), one sludge holding tank/digester, and ultraviolet light disinfection. At the time of the inspection there was no physical bar screen or grit removal mechanism at the headworks of the plant to remove trash and debris. The SBR units continuously complete sequences consisting of five cycles. Sludge wasting happens at end of each sequence. From the sludge holding tank, decant liquid flow goes to the on-site lift station, into the force main (combines with influent after the influent flow meter), then to one of the SBR units (a computer program controls which unit receives flow). Decant liquid from the SBRs goes through ultra-violet disinfection prior to discharge at the outfall. There are no industrial users or facilities that require pretreatment which are tributary to the WWTP.

According to Ryan Smith, James Gulley (not present during the inspection), the primary operator of record for the South Webster WWTP, is on site 5 days a week for a minimum of four hours a day. Mr. Gulley is a Class III operator. Mr. Gulley's previous and expired professional operator's certificate was displayed in the WWTP office, but his most current operator certification/renewal card was not displayed on site. A printed hard copy

of the NPDES permit was not available on site, however, the permit is available electronically on the facility office computer. Operational parameters at the WWTP are monitored daily by the operator on site and computer-based adjustments to the operating parameters are made as needed.

The flume and flow meter for effluent are inspected and calibrated annually by a contract company, Tru Flow Meters & Calibrations, LLC. The influent flow meter (Greyline Instruments Inc. DFM 5.1 doppler flow meter) is also calibrated annually. The most recent calibration was 10/26/2022. During the inspection the flume was observed to be clean and free of debris. Operators check the flow meters daily for operability. The field monitoring meters for pH, dissolved oxygen and temperature are calibrated by either Johnny McKenzie or James Gulley when they pick up the meters from the Wheelersburg WWTP prior to use at the South Webster Plant. No additional testing/sampling is done beyond permit parameters.

Ryan Smith stated that the largest controlling factor impacting ammonia exceedances is the operational adjustment for how much sludge to waste. Sludge wasting is currently based on time at this plant. Mr. Smith stated that SBR1 was programmed to waste sludge at the end of the sequence for approximately 0.8 minutes. In addition, Mr. Smith also believes that the general sludge disposal problem that the county is experiencing across the whole system of plants is contributing to the ammonia exceedances at the plants including South Webster. South Webster WWTP can hold about a year of sludge, according to Mr. Smith, but the sludge hauling/disposal issues have slowed the sludge removal process for over a year. Sludge is transported to the Wheelersburg WWTP for processing. The county used to be able to remove sludge at the Wheelersburg Plant two times per week, but now can only send 1 box of sludge solids per month for landfill disposal due to the requirement to achieve a set “sludge to trash ratio” at the landfills.

The WWTP is conducting time-based composite sampling, not flow-proportionate sampling. The new permit, effective October 1, 2022, removed the previous permit requirement for flow-proportionate composite sampling. The language in the new permit states, under Part II Other Requirements, Item G, “Composite samples shall be comprised of a series of grab samples collected over a 24-hour period. Such samples shall be collected at such times and locations, and in such a fashion, as to be representative of the facility's overall performance.” as required by the permit. Copies of chains of custody for all collected samples are maintained at the Wheelersburg WWTP which serves as a centralized document retention location.

The South Webster WWTP has an alarm system for essential equipment. The alarms register within the main Supervisory Control and Data Acquisition (SCADA) system which is monitored. However, the plant operators do not receive automatic system call outs alerting them to the specific alarms. Only an alarm for a total power failure at the South Webster WWTP would be sent out as a phone call alert directly to the operators. The facility has standby power for the treatment units on site. The standby power generator is operated on a set periodic cycle to ensure continued operability.

Facility/Site Information

Responsible Official	James Gulley
WWTP Design Capacity & Average Daily Flow	Design Flow is 0.150 MGD. Avg Flow is 0.127 MGD
WWTP Approx. # of residents served	300
Contributing (or shared) Jurisdictions	N/A

Outfalls: (and do the numbers, locations, and receiving waters match the permit?)	1 outfall. OF 001 was not flowing at the time of inspection.
Do you use in-house or contract out for laboratory analyses? (including for metals or WET testing?)	At plant: pH, temperature, Dissolved Oxygen (DO). To Wheelersburg WWTP lab: Ammonia, Total Suspended Solids (TSS), Carbonaceous Biochemical Oxygen Demand (CBOD), Escherichia coli (E.coli), hardness. To MASI lab: everything else (including Total Kjeldahl Nitrogen (TKN), nitrate-nitrite and Total Phosphorus (TP) when needed).
Do you accept waste from septage haulers? If so, what problems have you experienced?	No
Is there currently any portion of the treatment train that is non-operational?	n/a

Location(s)

Location/Area/Sub-area	Description
Receiving stream	Skull Creek
Treatment	

SECTION II – OBSERVATIONS

Location: Receiving stream	
Observation #: MZ2-OB-001	**Date:** 11/09/2022
EPA observed algal mats in the receiving stream.	

Location: Treatment	
Observation #: MZ2-OB-002	**Date:** 11/09/2022
EPA did not observe a wet thermometer in the influent autosampler's refrigerator.	

Location: Treatment	
Observation #: MZ2-OB-003	**Date:** 11/09/2022
There were no emergency numbers listed inside office/control room building at the time of the inspection	

Location: Treatment

Observation #: MZ2-OB-004	**Date:** 11/09/2022
EPA did not observe any type of trash screening mechanism at the WWTP's headworks.	

Location: Treatment	
Observation #: MZ2-OB-005	**Date:** 11/09/2022
EPA observed the operator's logbook on site which included on-site dates, times, identification of the operator, and activities completed.	

Location: Treatment	
Observation #: MZ2-OB-006	**Date:** 11/09/2022
EPA observed some vegetation growing in the SBRs	

Location: Treatment	
Observation #: MZ2-OB-007	**Date:** 11/09/2022
EPA noted that the current professional operator certificate for the operator of record was not on site at the time of the inspection.	

Location: Treatment	
Observation #: MZ2-OB-008	**Date:** 11/09/2022
According to the operator, the WWTP is conducting time-based composite sampling, not flow-proportionate sampling. The facility's new permit, effective October 1, 2022, requires time-based composite sampling, which replaced the previous permit requirement for flow-proportionate composite sampling.	

Location: Receiving stream	
Observation #: MZ2-OB-009	**Date:** 11/09/2022
Effluent composite sampler refrigerator did not have a wet thermometer. Refrigerator door was propped open to defrost the refrigerator which had iced over around the collection jug. The unit had a visible thermostat to control temperature.	

Location: Records Review - Facility logbook	
Observation #: MZ2-RR-001	**Date:** 1/5/2023
In follow-up communications after the site visit, on December 9, 2022, Ryan Smith emailed documents to EPA for the month of November 2022, including photos from the logbook. Logbook photos for the month of November 2022 do not show evidence that the facility is being visited five times per week, as required by its permit. They show the facility was visited only 8 days during the month.	

SECTION III – RECORDS REVIEW

The South Webster WWTP has an office/control room on site where the operators maintain an on-site logbook. The logbook for South Webster was reviewed on site. Maintenance and repair activities are documented in the logbook. Daily operator entries in the logbook include dates, times on site, identification of the operator and the activities completed. A separate log sheet in the WWTP office is maintained to record daily temperature, DO and pH measurements as well as daily flow values. In follow-up communications after the site visit, Ryan Smith emailed documents to EPA for the month of November 2022, including photos from the logbook, daily discharge monitoring report forms, annual sewage sludge report forms, sanitary sewer overflow report forms, and internal laboratory chain of custody forms.

SECTION IV – SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

No sampling was conducted.

SECTION V - AREAS OF CONCERN

Areas of Concern may not be in sequential order.

The presentation of areas of concern does not constitute a formal compliance determination or violation.

AOC Reference #: MZ2-OB-002	**Location: Treatment**
Regulation and/or Permit Requirement Regulation: 40 CFR Part 136 Table II: Required Containers, Preservation Techniques, and Holding Times, footnote 18: "Aqueous samples must be preserved at ≤6 °C."; Permit requirement: Part III Item 2.A: General Conditions - Facility Operation and Quality Control: "All wastewater treatment works shall be operated in a manner consistent with the following: A. At all times, the permittee shall maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee necessary to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures."	
AOC: No wet thermometer in influent composite sampler refrigerator. The computer panel for the automatic composite sampler did not appear to be set up to read the refrigerator temperature.	

AOC Reference #: MZ2-OB-004	**Location: Treatment**
Regulation and/or Permit Requirement Part III Item 2.A: General Conditions - Facility Operation and Quality Control: "All wastewater treatment works shall be operated in a manner consistent with the following: A. At all times, the permittee shall maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee necessary to achieve compliance with the terms and conditions of this permit."	
AOC: Lack of any type of trash screening mechanism at headworks.	

AOC Reference #: MZ2-OB-007	Location: Treatment
Regulation and/or Permit Requirement N/A	
AOC: Current professional operator certificate for the operator of record was not on site	

AOC Reference #: MZ2-OB-009	Location: Treatment
Regulation and/or Permit Requirement Regulation: 40 CFR Part 136 Table II: Required Containers, Preservation Techniques, and Holding Times, footnote 18: "Aqueous samples must be preserved at ≤6 °C."; Permit requirement: Part III Item 2.A: General Conditions - Facility Operation and Quality Control: "All wastewater treatment works shall be operated in a manner consistent with the following: A. At all times, the permittee shall maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee necessary to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures."	
AOC: Effluent composite sampler refrigerator did not have a wet thermometer. Refrigerator door was propped open to defrost the refrigerator which had iced over around the collection jug. The unit had a visible thermostat to control temperature.	

AOC Reference #: N/A	Location: N/A
Regulation and/or Permit Requirement Permit requirement: Part III Item 2.A: General Conditions - Facility Operation and Quality Control: "All wastewater treatment works shall be operated in a manner consistent with the following: A. At all times, the permittee shall maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee necessary to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures."	
AOC: 38 effluent limit exceedances were reported in the facility's discharge monitoring reports for ammonia at outfall 001 between January 2017 and January 2022.	

AOC Reference #: MZ2-RR-001	Location: Records review - Facility logbook
Regulation and/or Permit Requirement Ohio Administrative Code 3745-7-04	
The Class II facility staffing requirement is 5 days a week for a minimum of 20 hours per week.	
AOC:	

In follow-up communications after the site visit, on December 9, 2022, Ryan Smith emailed documents to EPA for the month of November 2022, including photos from the logbook. Logbook photos for the month of November 2022 do not show evidence that the facility is being visited five times per week, as required by its permit. They show the facility was visited only 8 days during the month.

SECTION VI – CLOSING CONFERENCE AND FOLLOW UP

Closing Conference

The EPA Region 5 Lead Inspector held a closing conference with Facility personnel at 11:36 AM (ET) on 11/09/2022 for the inspection. During the closing conference, EPA Region 5 Lead Inspector discussed the observations and Areas of Concern identified during the inspection. Observations and Areas of Concern have not yet been evaluated for a formal compliance determination.

EPA inspectors told facility representatives:

- Emergency numbers should be displayed on site
- Algal mats observed in receiving stream
- Some vegetation observed in SBRs

Facility representatives informed EPA inspectors:

- They will hang up list of emergency numbers
- Despite algal mats in receiving stream, facility is not losing sludge. They clean trash out of stream regularly.
- Vegetation in SBRs not a hindrance to plant performance. SBR design makes it difficult to deal with vegetation mats. Have to raise the wastewater level in the units to remove vegetation.
- There is always a little bit of scum in sludge holding tanks but no mats.
- Decant liquid from the sludge holding tank flows to the on-site lift station, to the force main (combines with influent), then to one of the SBR units (the computer controls which unit receives flow)
- Plant can run on one SBR if needed.
- There are Inflow/Infiltration issues in the village, with a lot of downspouts tied in. The County is planning to address this in the future after other issues are addressed. There are no flow volume capacity problems as the facility is not close to its operational design capacity volume.

Follow Up

In follow-up communications after the site visit, on December 9, 2022, Ryan Smith emailed documents to EPA for the month of November 2022, including photos from the logbook, daily discharge monitoring report forms, annual sewage sludge report forms, sanitary sewer overflow report forms, and internal laboratory chain of custody forms.

Communication Log

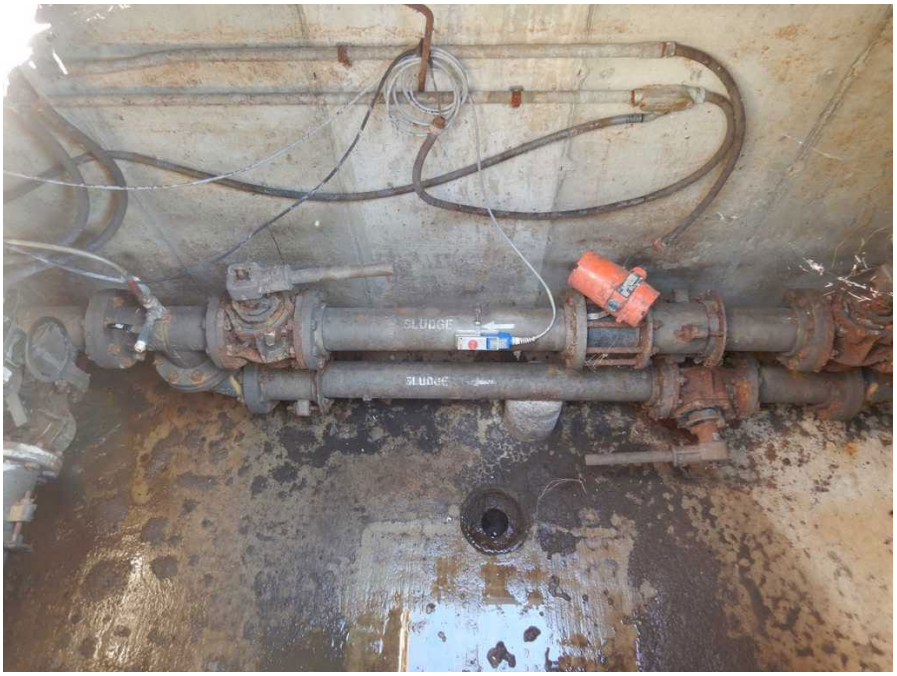
In follow-up communications after the site visit, on December 9, 2022, Ryan Smith emailed documents to EPA for the month of November 2022, including photos from the logbook, daily discharge monitoring report forms, annual sewage sludge report forms, sanitary sewer overflow report forms, and internal laboratory chain of custody forms.

SECTION VII – LIST OF APPENDICES

1. Photo Log

APPENDIX 1: PHOTO LOG

HMI System Control Panel	DSCN0331.JPG	
11/09/2022 09:23 AM	Photographer: Megan Zale	
WWTP office building	No CBI	No PII



Flow meter in influent force main	DSCN0332.JPG	
11/09/2022 09:30 AM	Photographer: Megan Zale	
At WWTP, south of office building	No CBI	No PII

Influent force main	DSCN0333.JPG	
11/09/2022 09:31 AM	Photographer: Megan Zale	
At WWTP, south of office building	No CBI	No PII

Influent composite sampler readout screen	DSCN0334.JPG	
11/09/2022 09:32 AM	Photographer: Megan Zale	
At WWTP, south of office building	No CBI	No PII

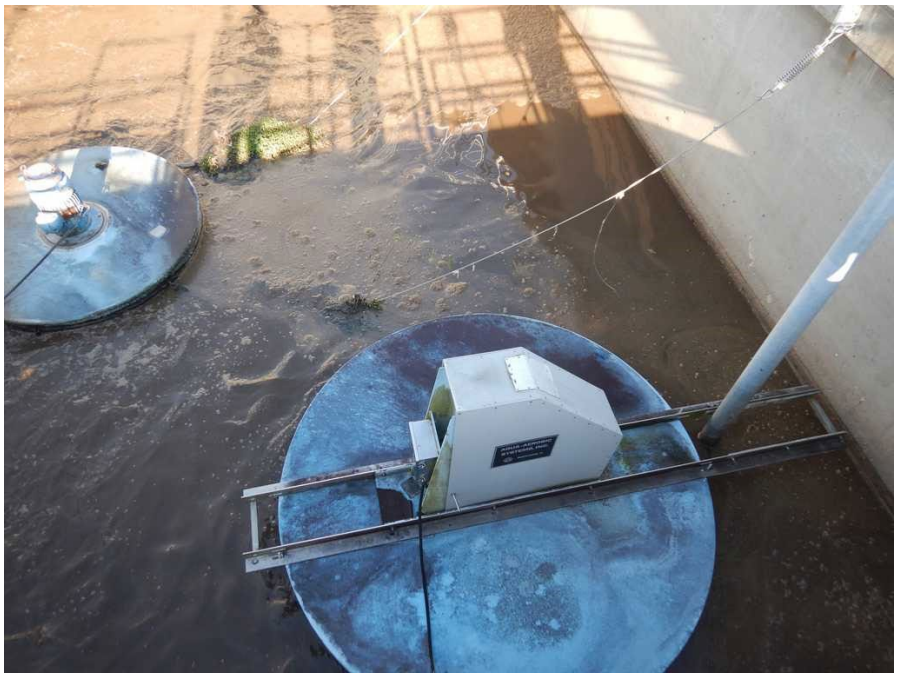
Influent sampler refrigerator	DSCN0335.JPG	
11/09/2022 09:32 AM	Photographer: Megan Zale	
At WWTP, south of office building	No CBI	No PII

Sludge holding tank/digester	DSCN0336.JPG	
11/09/2022 09:40 AM	Photographer: Megan Zale	
WWTP facility, south of office building	No CBI	No PII

Sludge holding tank/digester	DSCN0337.JPG	
11/09/2022 09:41 AM	Photographer: Megan Zale	
WWTP facility, south of office building	No CBI	No PII

SBR1 in decant phase. Decanter in upper right corner of photo.	DSCN0338.JPG	
11/09/2022 09:41 AM	Photographer: Megan Zale	
WWTP facility, south of office building	No CBI	No PII

SBR2 in mix fill phase	DSCN0339.JPG	
11/09/2022 09:44 AM	Photographer: Megan Zale	
WWTP facility, south of office building	No CBI	No PII



SBR2 decanter	DSCN0340.JPG	
11/09/2022 09:44 AM	Photographer: Megan Zale	
WWTP facility, south of office building	No CBI	No PII

Decant pump station	DSCN0341.JPG	
11/09/2022 10:03 AM	Photographer: Megan Zale	
WWTP facility, south of office building	No CBI	No PII
Notes: Everything from maintenance building, including toilet, flows here.		

Effluent composite sampler	DSCN0342.JPG	
11/09/2022 10:04 AM	Photographer: Megan Zale	
WWTP facility, west of office building	No CBI	No PII
Notes: Sigma 900 model. The refrigerator had iced over, and staff was defrosting it during the inspection to remove the ice build-up.		

Effluent composite sampler readout screen	DSCN0343.JPG	
11/09/2022 10:05 AM	Photographer: Megan Zale	
WWTP facility, west of office building	No CBI	No PII

Effluent flow meter with flume	DSCN0344.JPG	
11/09/2022 10:07 AM	Photographer: Megan Zale	
WWTP facility, west of office building	No CBI	No PII

UV treatment system controls	DSCN0345.JPG	
11/09/2022 10:12 AM	Photographer: Megan Zale	
WWTP facility, west of office building	No CBI	No PII

UV treatment system	DSCN0346.JPG	
11/09/2022 10:14 AM	Photographer: Megan Zale	
WWTP facility, west of office building	No CBI	No PII
Notes: UV treatment occurs before effluent sampler.		

Outfall 001	DSCN0347.JPG	
11/09/2022 10:17 AM	Photographer: Megan Zale	
Skull Creek, northwest of WWTP facility	No CBI	No PII

Flow pathway from outfall towards the receiving stream	DSCN0348.JPG	
11/09/2022 10:18 AM	Photographer: Megan Zale	
Skull Creek, northwest of WWTP facility	No CBI	No PII
Notes: Algal mats observed		

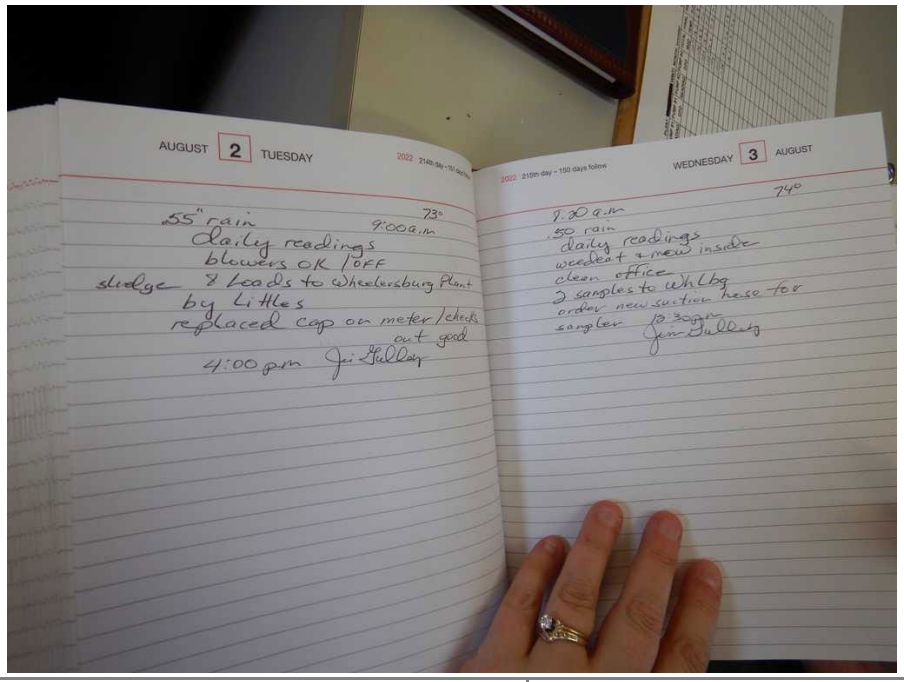
Flow pathway from the outfall towards the receiving stream	DSCN0349.JPG	
11/09/2022 10:18 AM	Photographer: Megan Zale	
Skull Creek, northwest of WWTP facility	No CBI	No PII
Notes: Algal mats observed		

Downstream sample location in the receiving stream	DSCN0350.JPG	
11/09/2022 10:20 AM	Photographer: Megan Zale	
Skull Creek, north of Outfall 001	No CBI	No PII

Downstream between outfall and downstream sample location	DSCN0351.JPG	
11/09/2022 10:22 AM	Photographer: Megan Zale	
Skull Creek, north of Outfall 001	No CBI	No PII

Discharge pipes from the abandoned reservoir adjacent to outfall 001.	DSCN0352.JPG	
11/09/2022 10:23 AM	Photographer: Megan Zale	
Skull Creek, north of WWTP facility	No CBI	No PII

Upstream sample location in receiving stream	DSCN0353.JPG	
11/09/2022 10:24 AM	Photographer: Megan Zale	
Skull Creek, east of Outfall 001	No CBI	No PII



Operator logbook for South Webster WWTP	DSCN0354.JPG	
11/09/2022 10:51 AM	Photographer: Megan Zale	
WWTP office	No CBI	No PII

Daily measurement log	DSCN0355.JPG	
11/09/2022 10:52 AM	Photographer: Megan Zale	
WWTP office	No CBI	No PII