MAYOR
JIMMIE SMITH
(P) 601.485.1927
(F) 601.485.1911

COUNCILMEMBERS
GEORGE M. THOMAS
Ward 1

DWAYNE DAVIS
Ward 2

JOSEPH NORWOOD
Ward 3

ROMANDE GAIL WALKER
Ward 4

TYEASHA "TY" BELL LINDSEY
Ward 5

COUNCIL CLERK:
(P) 601.485.1959
(F) 601.485.1913

CITY DEPARTMENTS:

Chief Administrative Officer:
(P) 601.485.1929
(F) 601.485.1911

Community Development:
(P) 601.485.1910
(F) 601.485.1913

Finance and Records:
(P) 601.485.1946
(F) 601.485.1979

Fire:
(P) 601.485.1822
(F) 601.485.1035

Homeland Security:
(P) 601.484.6890
(F) 601.484.6895

Parks and Recreation:
(P) 601.485.1802
(F) 601.485.1851

Police:
(P) 601.485.1841
(F) 601.484.6832

Public Works:
(P) 601.485.1920
(F) 601.485.1864

601 23rd Avenue
Post Office Box 1430
Meridian, MS 39302-1430
www.meridianms.org

FEBRUARY 28, 2025

Case No. 3:19-cv-00427-DPJ-FKB

EES Case Management Unit
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Washington, DC 20044-7611
Re: DOJ No. 90-5-1-1-11167

Chief, NPDES Permitting and Enforcement Branch
Water Protection Division
U.S. Environmental Protection Agency, Region 4
ATTN: Mr. John C. Goodwin
61 Forsyth Street, S.W.
Atlanta, GA 30303

Chief, Environmental Compliance and Enforcement Division
Office of Pollution Control
Mississippi Department of Environmental Quality
P.O. Box 2261
Jackson, MS 39225-2261

Re: City of Meridian, Mississippi – EPA Consent Decree
Annual Report No. 5

Dear Ladies and Gentlemen:

Please find enclosed the City of Meridian's Annual Report No. 5, as required in Section IX of the Consent Decree. Should you have any questions, please contact me.

Sincerely,

David M. Hodge, P.E., Director
Public Works Department
City of Meridian

Enclosure

Cc: Honorable Jimmie Smith, Mayor
David M. Ruhl, P.E., RPG Program Manager, Waggoner Engineering Inc.

Wastewater System Consent Decree
Meridian, Mississippi

Annual Report No. 5

February 28, 2025

311 27th Avenue, Meridian, MS 39301
P: 601.485.1920 | F: 601.485.1864

City of Meridian
Wastewater Consent Decree Program

Annual Report No. 5
January 2024 through December 2024

February 28, 2025

Prepared for:

City of Meridian

Department of Public Works

311 27th Ave.

Meridian, MS 39301

Prepared by:

Waggoner Engineering, Inc.
2211 5th Street, Suite 107
Meridian, MS 39301

City of Meridian, Mississippi
Annual Report No. 5
January 2024 through December 2024

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 such 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.

Jimmie Smith, Mayor
City of Meridian

2/27/25
Date

Annual Report No. 5
January 2024 through December 2024

Contents Page

1.0 Introduction....1-1
1.1 Overview....1-1
1.2 Authority to Promulgate....1-1
1.3 Consent Decree Requirements for Annual Report....1-1

2.0 Summary of Sanitary Sewer Overflows....2-1
2.1 Sanitary Sewer Overflows....2-1
Table 2-1 2022 Sanitary Sewer Overflows....2-3
Table 2-2 2023 Sanitary Sewer Overflows....2-10
Figure 2-1 Number of Sanitary Sewer Overflows....2-16
Figure 2-2 Volume from Sanitary Sewer Overflows....2-17
Figure 2-3 Duration of Sanitary Sewer Overflows....2-18
Figure 2-4 Causes of Sanitary Sewer Overflows....2-19
Figure 2-5 Location and Frequency of 2023 Sanitary Sewer Overflows....2-20

3.0 Summary of WWTP and WCTS Projects and Activities....3-1
3.1 Early Action Capital Improvement Project....3-1
3.2 Highway 80 Trunk Line....3-3
3.2.1 Highway 80 Trunk Line Work Plan....3-4
3.2.2 Highway 80 Trunk Line Rehabilitation Plan....3-4
3.2.3 Highway 80 Trunk Line Phase 2 Rehabilitation Project....3-4
3.3 Wastewater Collection and Transmission System....3-5
3.3.1 Sewerbasin Prioritization Work Plan....3-5
3.3.2 Sewerbasin Prioritization Report....3-5
3.3.3 Repair of 54-inch diameter Sanitary Sewer Interceptor....3-5
3.3.4 West Meridian Trunk Line Phase 1 Rehabilitation....3-6
3.3.5 Sanitary and Storm Sewer Rehabilitation Annual Contract....3-6
3.4 Chronic SSO Advanced Remote Monitoring Program....3-7
3.4.1 Chronic Sanitary Sewer Overflow List....3-7
3.4.2 Updated Chronic Sanitary Sewer Overflow List....3-7
3.4.3 Chronic SSO Advanced Remote Monitoring Program....3-8

4.0 Capacity, Management Operations and Maintenance Programs....4-1
4.1 Sewer Overflow Response Plan....4-1
Table 4-1A Implementation Schedule for Specific SORP Tasks....4-3
Table 4-1B Annual SORP Performance Measures....4-3
4.2 Emergency Response Plan....4-4
Table 4-2A Implementation Schedule for Specific ERP Tasks....4-5
Table 4-2B Annual ERP Performance Measures....4-6
4.3 Sewer Mapping Program....4-6

Table 4-3A Implementation Schedule for Specific SMP Tasks 4-8
Table 4-3B Annual SMP Performance Measures..... 4-9
4.4 Gravity Sewer System Operations and Maintenance Program 4-9
Table 4-4A Implementation Schedule for Specific GSSO&MP Tasks 4-11
Table 4-4B Annual GSSO&MP Performance Measures.....4-12
4.5 Pump Station & Force Main Operations & Preventative Maintenance Program...4-13
Table 4-5A Implementation Schedule for Specific PS&FMO&PMP Tasks 4-14
Table 4-5B Annual PS&FMO&PMP Performance Measures.....4-16
4.6 Legal Support Program 4-16
Table 4-6A Implementation Schedule for Specific LSP Tasks 4-17
4.7 Information Management System (IMS) Program 4-18
Table 4-7A Implementation Schedule for Specific IMS Program Tasks 4-18
Table 4-7B Annual IMS Program Performance Measures.....4-19
4.8 Fats, Oils, and Grease (FOG) Control Program.....4-19
Table 4-8A Implementation Schedule for Specific FOG Program Tasks..... 4-23
Table 4-8B Annual FOG Program Performance Measures.....4-24
4.9 Financing and Cost Analysis Program.....4-24
Table 4-9A Implementation Schedule for Specific FCA Program Tasks 4-25
Table 4-9B Annual FCA Program Performance Measures 4-25

5.0 Progress Schedule.....5-1

1.0 Introduction

The Meridian Consent Decree requires the development and submittal of reports to demonstrate continuing compliance with the US Environmental Protection Agency, the US Department of Justice, and the Mississippi Department of Environmental Quality. The Consent Decree outlines standard requirements for work in Meridian Wastewater Consent Decree projects and includes the requirements for project deliverables that will provide consistency and uniformity in execution of the work.

1.1 Overview

On August 6th, 2019, the City of Meridian, Mississippi (City) entered into a Consent Decree (CD) with the United States Environmental Protection Agency (EPA), the State of Mississippi Department of Environmental Quality (MDEQ) and the United States Department of Justice (USDOJ) to address deficiencies within the City's wastewater collection and transmission system (WCTS), with the goal of eliminating sanitary sewer overflows (SSOs) and achieving continued compliance, in full, with the Clean Water Act (CWA), the Mississippi Air and Water Pollution Control Act (MAWPCL) and the National Pollution Discharge Elimination System (NPDES) Permit.

One of the ongoing requirements of the EPA Consent Decree is to submit periodic reports to demonstrate continuing compliance. This report covers the reporting period from January 2024 to December 2024. The specific reporting requirements of the CD are described below.

1.2 Authority to Promulgate

The City retained Waggoner Engineering, Inc., Neel-Schaffer, Inc. and Kimley-Horn and Associates, Inc. to assist the City in addressing the requirements of the Consent Decree. Accordingly, Waggoner Engineering, Inc. prepared this Annual Report with input from the City and its various contractors to fulfill the requirements of Section IX ¶ 26 (b) set forth in the CD.

1.3 Consent Decree Requirements for Annual Report

As stated in the Consent Decree Section IX ¶ 26 (b), the Annual Report shall be submitted beginning two (2) Months after the first full Calendar Year following the Effective Date of this Consent Decree, and two (2) Months after each subsequent Calendar Year until termination of the Consent Decree, the City shall submit to EPA for review and approval an Annual Report. Each Annual Report shall cover the most recent applicable Calendar Year and shall include, at a minimum:

1) *A summary of the CMOM Programs implemented or modified pursuant to this Consent Decree, including a comparison of actual performance with any performance measures that have been established.*

2) *A trends analysis of the number, volume, duration, and cause of the City's SSOs for the previous two Calendar Years updated to reflect the SSOs that occurred during the previous twelve (12)-Month period except that the first Annual Report shall only include the first twelve (12) Months.*

2.0 Summary of Sanitary Sewer Overflows

The City has developed a multi-phased Sewer System Evaluation and Rehabilitation (SSER). The program serves to evaluate and rehabilitate their existing Wastewater Collection and Transmission System (WCTS) as required under the Consent Decree.

The SSER program approach focuses on prioritizing the assessment, analysis, and rehabilitation of the WCTS infrastructure by identifying structural defects, capacity issues, and other conditions associated with infiltration and inflow (I/I) that result in wet weather capacity related sanitary sewer overflows (SSOs).

The primary objective of the Consent Decree is elimination of SSOs within the WCTS. The Consent Decree defines an SSO as, “any discharge of wastewater to waters of the United States or the State from the City's Sewer System through a point source not specified in any NPDES permit, as well as any overflow, spill, or release of wastewater to public or private property from the Sewer System”.

2.1 Sanitary Sewer Overflows

As defined in the Consent Decree, a "Sanitary Sewer Overflow" or "SSO" shall mean any discharge of wastewater to waters of the United States or the State from the City's Sewer System through a point source not specified in any NPDES permit, as well as any overflow, spill, or release of wastewater to public or private property from the Sewer System that may not have reached waters of the United States or the State, including all Building Backups.

In 2024, the City of Meridian recorded 46 SSOs, reflecting a 27% reduction compared to the 63 overflows reported in 2023. Additionally, the total duration of overflows saw a notable decline, from 1,148 hours in 2023 to 423 hours in 2024.

Table 2.1 lists the Sanitary Sewer Overflows in the system from January 2024 through December 2024.

The City experienced a total of 46 SSOs from January 2024 through December 2024 with an estimated total duration of 423 hours and estimated total volume of 3.3 million gallons.

Figure 2-1 illustrates the number of Sanitary Sewer Overflows by month in the system from January 2023 through December 2024.

While rainfall remained a primary factor influencing SSOs, with 57.48 inches recorded in 2024 compared to 54.79 inches in 2023, the City's mitigation efforts have contributed to controlling the impact of excessive rainfall on the system. Notably, March 2024 experienced the highest overflow volume, exceeding 2 million gallons, highlighting seasonal variations and weather-related challenges.

Figure 2-2 lists the volume from Sanitary Sewer Overflows by month in the system from

January 2023 through December 2024.

The total estimated overflow volume decreased significantly from 14.3 million gallons in 2023 to 3.3 million gallons in 2024, representing a 76% reduction in the volume of discharged wastewater.

Figure 2-3 lists the duration of Sanitary Sewer Overflows by month in the system from January 2023 through December 2024.

Figure 2-4 lists the causes of Sanitary Sewer Overflows in the system from January 2023 through December 2023 and January 2024 through December 2024.

As in previous years, excessive rainfall continued to be the dominant cause of SSOs, exacerbating infiltration and inflow (I/I) into the system. However, the frequency of SSOs attributed to other causes, such as pump failures, defective pipes, and power outages, remained lower in 2024 compared to prior years.

Figure 2-5 lists the locations of Sanitary Sewer Overflows in the system that occurred more than once from January 2024 through December 2024.

During 2024 there were 46 SSOs at 10 separate locations. Seven SSOs at two locations were along the Highway 80 Trunk Line with no SSOs occurring at monitored locations on the Highway Trunk Line itself. There were 18 SSOs at the 65th Avenue location (SSO 7). The remaining SSOs were located at various locations within the wastewater collection and transmission system.

Table 1
Sanitary Sewer Overflows Reported
Annual Report No. 5 - January 2024 through December 2024

COUNT	SSO #	SOURCE	START	END	DURATION (Minutes)	GALLONS	IMPACTED WATERS	CAUSE	RAINFAL
1.	7	Manhole (E25-037)	01/08/2024 11:15 PM	01/09/2024 9:45 AM	630	126,000	Okatibbee Creek	Rain	2.99”
2.	8	Manhole (H31-113)	01/08/2024 11:45 PM	01/09/2024 1:05 AM	80	11,250	Robbins Branch to Sowashee Creek	Rain	2.99”
3.	8	Manhole (H31-113)	01/24/2024 1:05 PM	01/24/2024 1:20 PM	15	750	Robbins Branch to Sowashee Creek	Rain	3.63”
4.	7	Manhole (E25-037)	01/24/2024 1:35 PM	01/25/2024 5:55 PM	1,095	340,000	Okatibbee Creek	Rain	3.43”
5.	7	Manhole (E25-037)	01/27/2024 1:25 PM	01/27/2024 1:30 PM	5	750	Okatibbee Creek	Rain	.58”
6.	7	Manhole (E25-037)	02/11/2024 11:40 PM	02/12/2024 5:20 PM	855	128,250	Okatibbee Creek	Rain	1.77”
7.	Hwy 39 LS #2	Lift Station (SLS-I36-003)	02/26/2024 9:00 AM	02/27/2024 11:00 AM	1,560	78,000	McLemore Branch	Pump Failure	0”
8.	4706 Country Club Dr.	Manhole (SMH-I33-021)	02/27/2024 8:00 AM	02/27/2024 9:30	90	1,800	Unnamed Tributary	Blockage	0”
9.	7	Manhole (E25-037)	03/01/2024 10:20 AM	03/01/2024 8:15 PM	595	89,250	Okatibbee Creek	Rain	1.61”
10.	1	Manhole (SMH-J28-026)	03/02/2024 8:10 AM	03/02/2024 1:10 AM	1,020	102,000	Sowashee Creek	Blockage	0”
11.	1	Manhole (J28-026)	03/06/2024 7:35 PM	03/06/2024 11:40 PM	235	23,500	Sowashee Creek	Blockage	0.01”
12.	1	Manhole (J28-026)	03/07/2024 6:55 AM	03/07/2024 11:35 PM	1,000	100,000	Sowashee Creek	Blockage	0”
13.	1	Manhole (J28-026)	03/08/2024 10:25 AM	03/11/2024 12:40 PM	4,455	693,000	Sowashee Creek	Rain	4.43”
14.	8	Manhole (H31-113)	03/08/2024 10:45 AM	03/08/2024 7:00 PM	400	40,000	Robbins Branch to Sowashee Creek	Rain	4.43”

Table 1
Sanitary Sewer Overflows Reported
Annual Report No. 5 - January 2024 through December 2024

COUNT	SSO #	SOURCE	START	END	DURATION (Minutes)	GALLONS	IMPACTED WATERS	CAUSE	RAINFAL
15.	7	Manhole (E25-037)	03/08/2024 11:00 AM	03/10/2024 1:15 PM	2,295	229,500	Okatibbee Creek	Rain	4.43”
16.	9	Manhole (G30-068)	03/08/2024 11:30 AM	03/08/2024 8:50 PM	100	56,000	Gallagher Creek	Rain	4.43”
17.	5	Manhole (H25-061)	03/08/2024 12:15 AM	03/08/2024 3:20 PM	185	37,000	Sowashee Creek	Rain	4.43”
18.	1208 Roebuck Dr.	Manhole (I24-005)	03/08/2024 12:15 AM	03/08/2024 3:20 PM	185	15,725	Sowashee Creek	Rain	4.43”
19.	31st St., Parkway Blvd.	Manhole (H30-104)	03/08/2024 10:50 AM	03/08/2024 6:55 PM	345	34,500	Robbins Creek to Sowashee Creek	Rain	4.43”
20.	1628 32nd St.	Manhole (H30-138)	03/08/2024 10:45 AM	03/08/2024 7:00 PM	345	34,500	Robbins Creek to Sowashee Creek	Rain	4.43”
21.	7	Manhole (E25-037)	03/15/2024 12:10 PM	03/15/2024 1:00 PM	40	3,000	Okatibbee Creek	Rain	0.42”
22.	7	Manhole (E25-037)	03/17/2024 7:45 AM	03/18/2024 8:25 PM	1,860	279,000	Okatibbee Creek	Rain	1.64”
23.	9	Manhole (G30-068)	03/17/2024 1:30 PM	03/17/2024 3:00 PM	90	7,200	Gallagher Creek to Sowashee Creek	Rain	1.64”
24.	8	Manhole (H31-113)	03/17/2024 1:45 PM	03/17/2024 2:30 PM	45	2,250	Robbins Branch	Rain	1.64”
25.	7	Manhole (E25-037)	03/26/2024 1:55 AM	03/27/2024 12:10 PM	1,335	200,250	Okatibbee Creek	Rain	2.17”
26.	9	Manhole (G30-068)	03/26/2024 5:20 AM	03/26/2024 7:35 AM	135	10,125	Gallagher Creek to Sowashee Creek	Rain	2.17”
27.	8	Manhole (H31-113)	03/26/2024 5:25 AM	03/26/2024 6:25 AM	60	9,000	Robbins Branch to Sowashee Creek	Rain	2.17”
28.	1	Manhole (SMH-J28-026)	03/26/2024 3:55 AM	03/26/2024 8:05 PM	970	97,000	Sowashee Creek	Rain	2.17”
29.	7	Manhole (E25-037)	04/10/2024	04/10/2024	330	49,000	Okatibbee Creek	Rain	0.94”

Table 1
Sanitary Sewer Overflows Reported
Annual Report No. 5 - January 2024 through December 2024

COUNT	SSO #	SOURCE	START	END	DURATION (Minutes)	GALLONS	IMPACTED WATERS	CAUSE	RAINFAL
30.	7	Manhole (E25-037)	05/10/2024 1:30 AM	05/10/2024 2:58 AM	40	6,000	Okatibbee Creek	Rain	1.15”
31.	3202 Hwy 45 N.	Manhole (J30-021)	06/03/2024 7:00 AM	06/03/2024 10:30 AM	210	73,500	Sowashee Creek	Bloackage	O”
32.	7	Manhole (E25-037)	7/27/2024 20:30	7/28/2024 0:30	225	39,375	Okatibbee Creek	Rain	.86”
33.	8	Manhole (H31-113)	7/21/2024 16:45	7/21/2024 17:35	50	7,500	Robbins Branch to Sowashee Creek	Rain	4.15”
34.	Northwood Common Cir. Lift Station	Lift Station (SLS-132-002)	8/3/2024 19:00	8/4/2024 10:00	900	13,500	Unnamed Tributary	Blockage	0”
35.	Chip Pickering Bypass	Manhole	9/9/2024 7:00	9/9/2024 13:00	360	30240	Lockhart Ground	Broken Force Main	0"
36.	7	Manhole (E25-037)	9/15/2024 16:35	9/16/2024 6:00	335	50250	Okatibbee Creek	Excessive Rain	1.95"
37.	HWY 45N WWTP Bypass	Manhole	9/24/2024 10:00	9/24/2024 14:45	285	42750	Sowashee Creek	Excessive Rain	2.26"
38.	7	Manhole (E25-037)	9/24/2024 8:35	9/25/2024 16:50	460	69000	Okatibbee Creek	Rain	2.26”
39.	Bonita Dr. Lift Station	Lift Station (SLS-K28-001)	10/16/2024 9:32	10/16/2024 10:30	58	1450	Ground	Drive Shorted	0”
40.	Bonita Dr. Lift Station	Lift Station (SLS-K28-001)	10/29/2024 6:25	10/29/2024 7:20	55	1430	Ground	Pump Failure	0”
41.	7	Manhole (E25-037)	10/31/2024 21:30	11/1/2024 2:35	305	45750	Okatibbee Creek	Rain	2.82”
42.	Bonita Dr. Lift Station	Lift Station (SLS-K28-001	11/7/2024 10:50	11/7/2024 11:20	30	600	Ground	Drive Shorted	0”
43.	7	Manhole (E25-037)	11/13/2024 23:50	11/14/2024 2:15	145	21750	Okatibbee Creek	Rain	1.44”
44.	7	Manhole (E25-037)	11/19/2024 7:50	11/19/2024 13:55	330	49500	Okatibbee Creek	Rain	1.23”
45.	7	Manhole (E25-037)	12/27/2024 15:25	12/29/2024 10:35	1125	146,250	Okatibbee Creek	Rain	4.55”
46.	5	Manhole (H25-061)	12/28/2024 21:30	12/28/2024 22:25	55	11,000	Sowashee Creek	Rain	4.55”

Figure 2-1
Number of Sanitary Sewer Overflows and Rainfall
January 2023 through December 2024
Annual Report No. 5

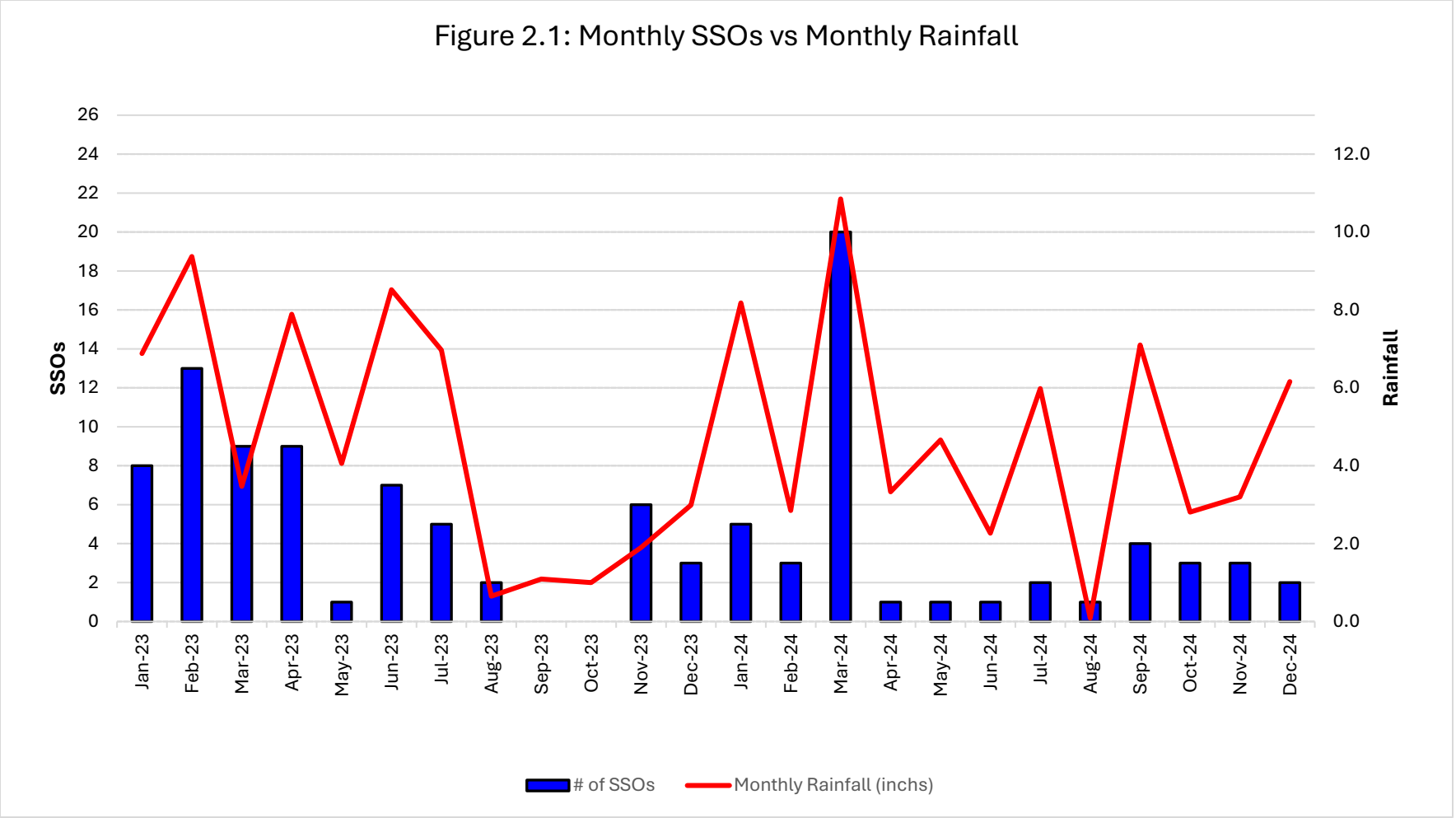


Figure 2-2
Volume from Sanitary Sewer Overflows and Rainfall
January 2023 through December 2024
Annual Report No. 5

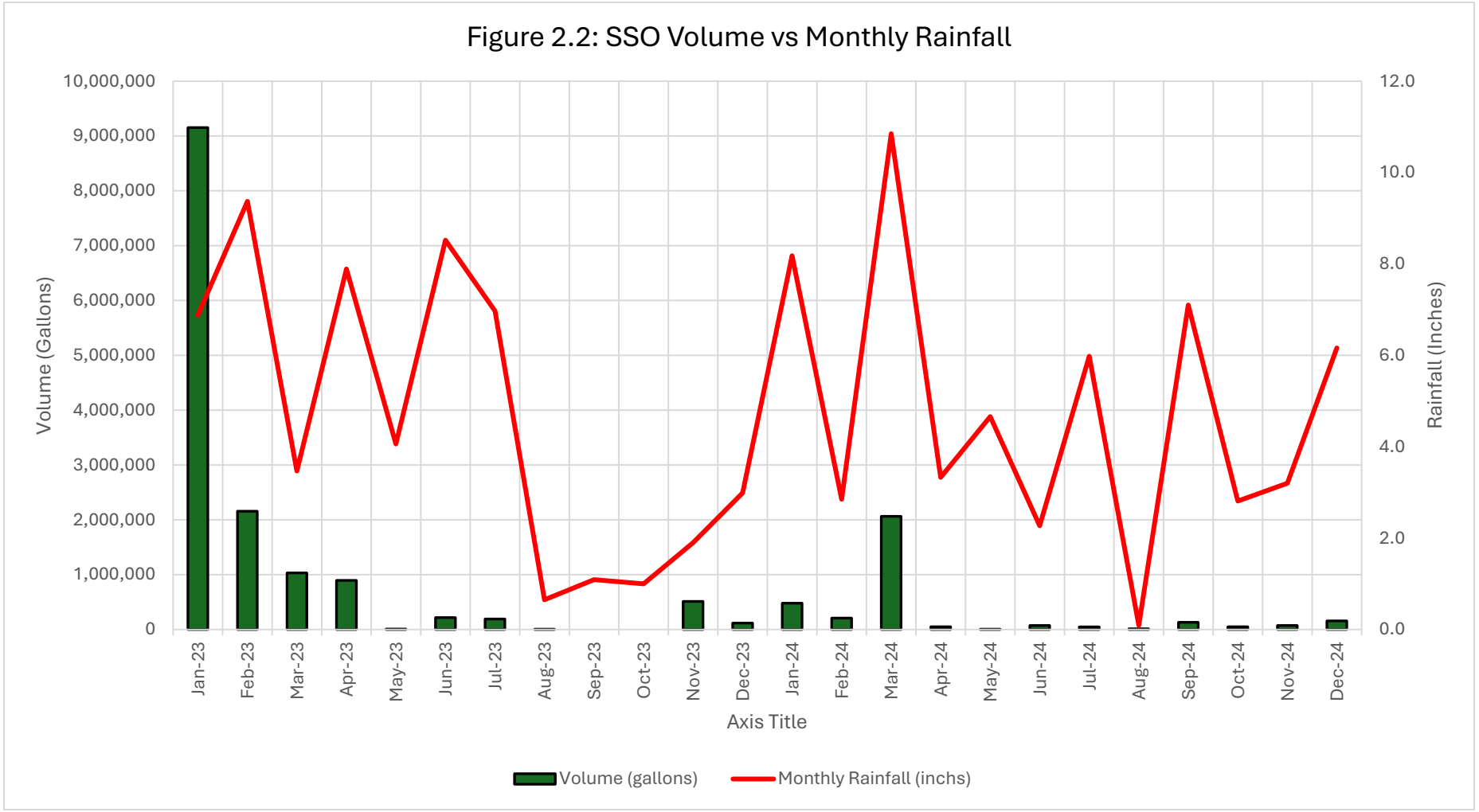


Figure 2-3
Duration of Sanitary Sewer Overflows and Rainfall
January 2023 through December 2024
Annual Report No. 5

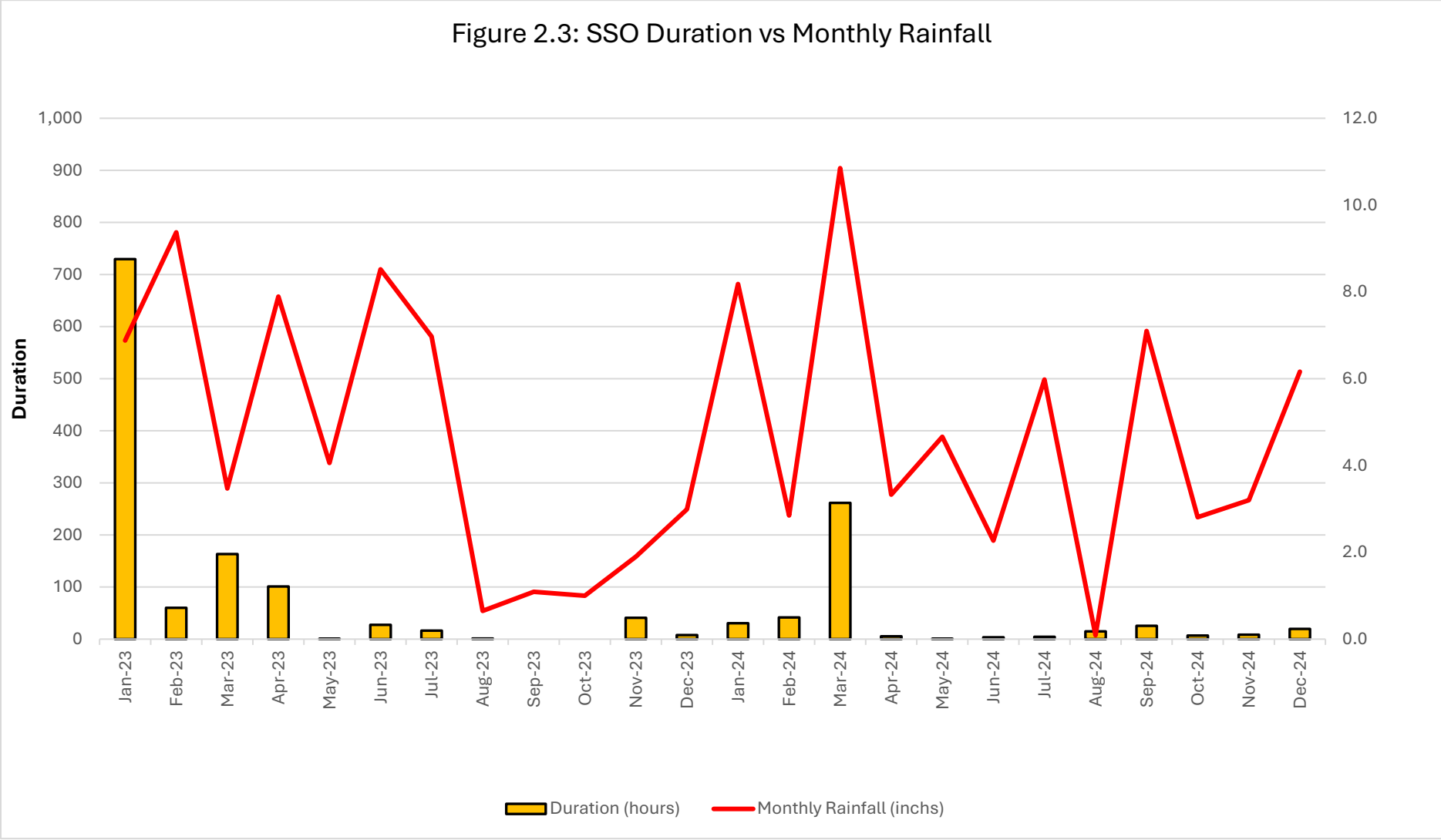
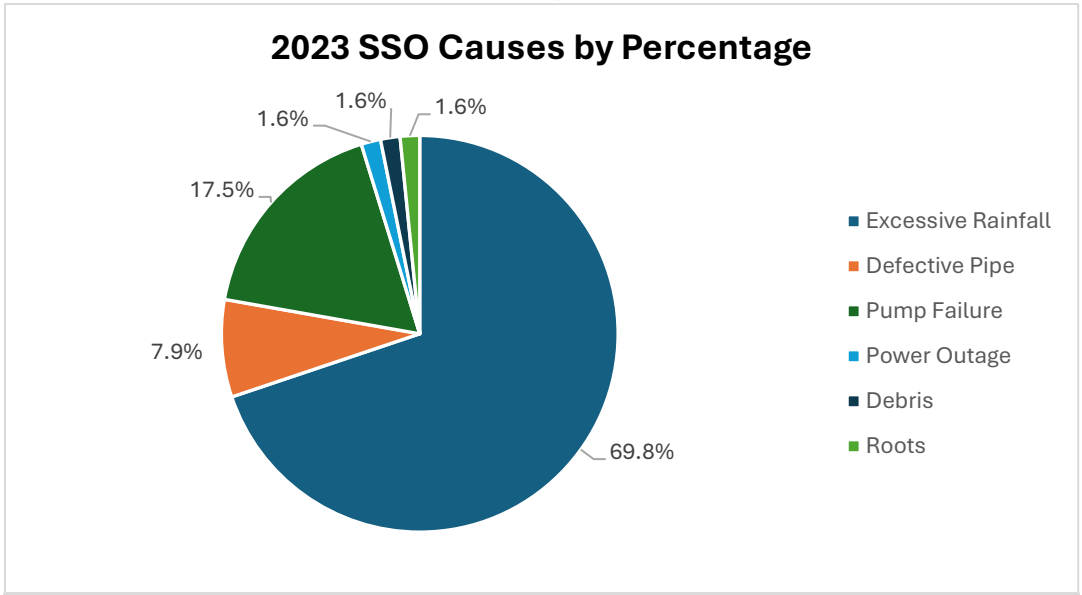


Figure 2-4
Causes of Sanitary Sewer Overflows
January 2023 through December 2024
Annual Report No. 5



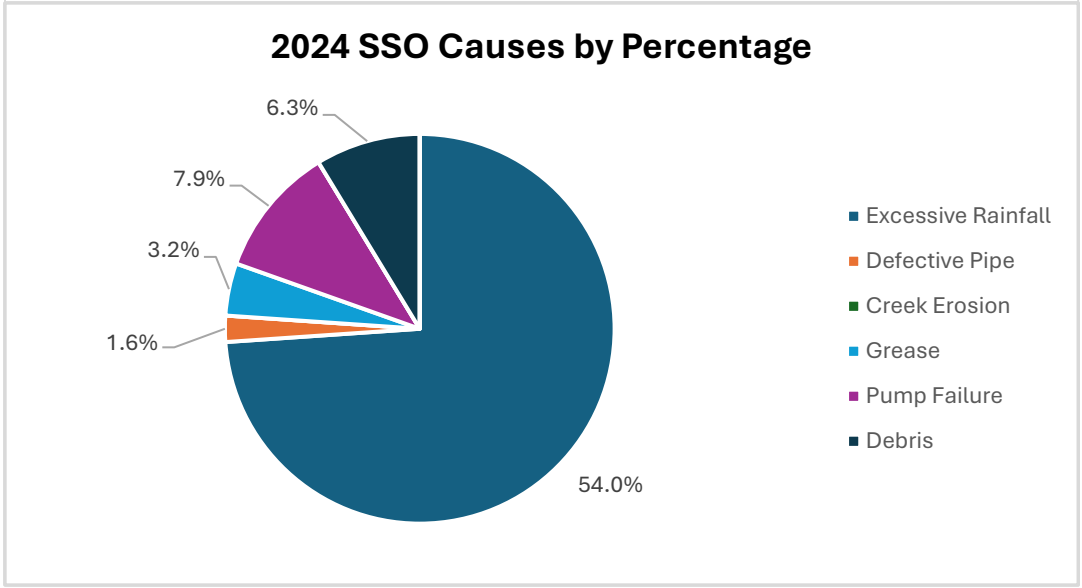
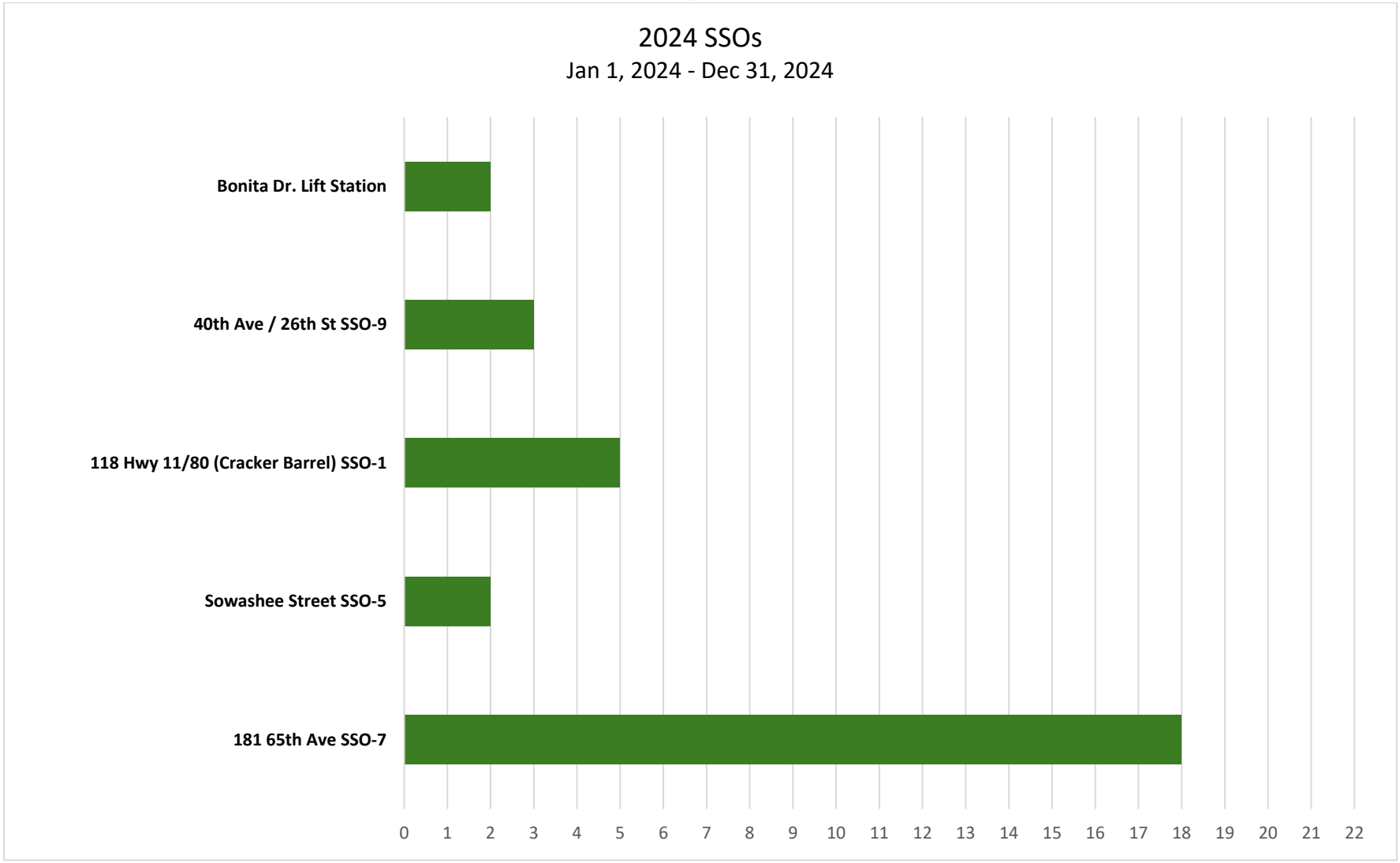


Figure 2-5
Sanitary Sewer Overflows Occurring More Than Once
January 2024 through December 2024
Annual Report No. 5



3.0 Summary of WWTP and WCTS Projects and Activities

The South Wastewater Treatment Plant Rehabilitation Plan was prepared to fulfill the requirements set forth in the Consent Decree. The city is required to develop and implement a Sewer Treatment System Correction Action Plan for the South Wastewater Treatment Plant (WWTP) to address deficiencies in the City's wastewater collection and transmission system with the goal of elimination of SSOs. The following sections briefly overview the Projects and Activities performed during this reporting period (January 1, 2024 – December 31, 2024) and planned activities for the subsequent reporting period (January 1, 2025 - December 31, 2025).

3.1 Early Action Capital Improvement Project

The Consent Decree requires the implementation of a Sewer Treatment System Correction Action Plan (STSCAP) for the South Wastewater Treatment Plant (WWTP). The purpose of the STSCAP is to provide a plan for the construction of improvements. The STSCAP was submitted to EPA and MDEQ in August 2020 for review and approval. The STSCAP was approved by EPA and MDEQ on May 3, 2021.

The following sections address the Early Action Capital Improvement Project activities for the reporting period (January 1, 2024 – December 31, 2024) and planned activities for the subsequent reporting period (January 1, 2025 - December 31, 2025).

During this reporting period:

South WWTP Equalization Basins Cleanout Project

- Completed all construction activities
  - Finalized removal of all solids from EQ Cells 2, 3, & 4
  - Disposal of solids (6,340 dry tons)
  - Restoration of construction site
  - Substantial completion – September 2024
  - Final completion – October 2024

South WWTP Improvements Phase 1-A Project

- Installed new equipment in three (3) first and three (3) second stage clarifiers at the 9MGD plant, retrofitted of the two fine screens from ¼" bar screens to 6 mm punch plate screens, retrofitted the screenings compactor, installed a new sludge belt filter press system and corresponding sludge belt conveyor, installed a new coagulant feed system for 4MGD and 9MGD plants, installed of a new 4-inch water main, and installed the third influent pump with new VFDs on all three influent pumps, including electrical and control improvements
- Removed additional sludge and debris from the 9 MGD Primary Clarifiers #5-8 provide improved treatment
- Modified the 9MGD waste activated sludge system to prevent damage to pumps, sludge overflows, and simplify operations for operators
- Continued evaluating, cleaning, and rehabilitating equipment at the South WWTP to improve plant performance
- Installed several Mission Control RTUs to monitoring key process equipment at the WWTPs
- Completed small, bundled, bid packages and issue purchase orders to address

intermediate needs at the South WWTP to remain in compliance with the NPDES permit

- Removed and replaced the bushings and supports on the grit removal screw shaft and realign to reduce stress on the previous operations

Other WWTP Work

- Complete small, bundled, bid packages or issue purchase orders to address intermediate needs at the South WWTP and to remain in compliance with the NPDES permit

As discussed in Semi-Annual Report No. 6., a letter was sent by the City on June 15, 2022, to the United States Environmental Protection Agency (EPA) and the Mississippi Department of Environmental Quality (MDEQ) proposing modifications to the scope and schedule of the approved South Wastewater Treatment Plant (SWWTP) Rehabilitation Plan (Rehab Plan). This letter's objective was to outlay the ongoing Total Maximum Daily Load (TMDL) study being conducted by the MDEQ to determine new nutrient limits for Total Nitrogen and Phosphorous. MDEQ provided the City with a draft NPDES permit for review in December 2023. The City reviewed and returned the draft to MDEQ and anticipates MDEQ submitting the draft to the EPA for consideration and approval in the first quarter of 2024. The draft permit was deferred by the EPA and MDEQ until additional information could be collected for evaluation and development of a revised draft. A draft permit is expected for review by the city in February 2025. In the interim, the City is committed to continuous improvements at the WWTP to meet its current NPDES permit requirements.

The City will continue to evaluate the feasibility of a new wastewater treatment plant that can accommodate the City's anticipated future flows, growth in residential, commercial, and industrial users, and anticipated changes to the future NPDES permit limits. Additionally, the City is looking at property needed to accommodate a new facility. The following actions in the past 12-month period have resulted in continued improvements in meeting the WWTP's NPDES permit limits.

During the next reporting period:

South WWTP Equalization Basins Cleanout Project

- Issue a certification of solids reuse as an agricultural amendment to the Alabama Department of Environmental Management (ADEM)

South WWTP Improvements Phase 1-A Project. Install 3 of 6 remaining second stage clarifiers at the 9 MGD plant.

- Install a new course screen which failed after the award of project in 2024,
- Train WWTP staff on the operations and maintenance of process equipment
- Substantial Completion June 2025
- Final Completion and closeout July 2025
- Continue evaluating, cleaning, and rehabilitating equipment at the South WWTP to improve plant performance

Other WWTP Work

- Complete small, bundled, bid packages or issue purchase orders to address intermediate needs at the South WWTP and to remain in compliance with the NPDES

permit

- Replace the SWWTP curtain around EQ4 Weir and install a new chlorine disinfection system
- Construct EWWTP upgrades at the influent pump station and headworks, install new valves, and replace aeration diffusers and miscellaneous small improvements
- Design a new cover for the treated effluent lagoon

3.2 Highway 80 Trunk Line

The Consent Decree requires work to be performed on the Highway 80 Trunk Line. The Highway 80 Trunk Line Work Plan was approved by EPA and MDEQ on January 21, 2021. The City will assess the Highway 80 Trunk Line to determine the location and extent of structural, capacity, or infiltration and inflow issues within the system. Several techniques will be employed to assess the capacity and condition of the existing Trunk Line. The evaluation will include flow and rainfall monitoring to estimate the quantity of infiltration and inflow (I/I) entering the Highway 80 Trunk Line from contributing sewerbasins. Video inspection of the existing pipe and manholes may be performed; however, the city may proceed with rehabilitation and/or replacement of sections of the existing Trunk Line where imminent structural failure is suspected based on input from operations and maintenance staff, historical information, and initial field investigations. Additional technologies and methodologies may be considered for inspection and evaluation at the discretion of the City.

3.2.1 Highway 80 Trunk Line Work Plan

The Highway 80 Trunk Line Work Plan included methodologies and procedures for monitoring, evaluating, and assessing the Highway 80 Trunk Line. The city received approval from EPA for the Highway 80 Trunk Line Work Plan on January 21, 2021.

3.2.2 Highway 80 Trunk Line Rehabilitation Plan

The Highway 80 Trunk Line Rehabilitation Plan included flow and rainfall monitoring, estimation of infiltration and inflow, condition assessment of the Trunk Line, and development of the rehabilitation plan. Highway 80 Trunk Line Rehabilitation Project, Phase 1 (Complete), Highway 80 Trunk Line Rehabilitation Project, Phase 2-A (Complete) and Highway 80 Trunk Line Rehabilitation Project, Phase 2-B (Awarded), Phase 3 (Start Design) will be incorporated into the Highway 80 Trunk Line Rehabilitation Plan.

During this reporting period:

- Awarded the Hwy 80 Phase 2-B construction project
- Drafting a letter agreement with the USACE for a WRDA 219 design-build of the Hwy 80 Phase 3 project

During the next reporting period:

- Continue to work on projects for rehabilitation of the Hwy 80 Trunk Line including construction of the Hwy 80 Phase 2-B project
- Initiation of planning and design of the Hwy 80 Phase 3 project using WRDA 219 funding in conjunction with the Mobile District Army Corps of Engineers

3.2.3 Highway 80 Trunk Line Phase 2/3 Rehabilitation Project

The Highway 80 Trunk Line Phase 2 Rehabilitation Project includes rehabilitation or replacement of approximately 6,725 linear feet of the existing 24-inch diameter Highway 80 Trunk Line. The project has been divided into two phases. Phase 2-A includes replacement of approximately 1,550 linear feet and Phase 2-B will rehabilitate approximately 5,175 through replacement or cured-in-place pipe lining.

During this reporting period:

- HWY 80 Phase 2-B - Completed design documents, bid, and awarded the construction

During the next reporting period:

- Hwy 80 Phase 2-B – Commence construction
- Hwy 80 Phase 3 - Begin planning and design

3.3 Wastewater Collection and Transmission System (WCTS)

The Consent Decree requires work to be performed on the Wastewater Collection and Transmission System (WCTS). The City of Meridian has developed a phased approach for prioritizing assessment, analysis, and rehabilitation of the existing WCTS as required under the Consent Decree. This phased approach will facilitate identification, prioritization, and rehabilitation of structural defects, capacity issues, and problems that allow infiltration and inflow(I/I) into the WCTS.

3.3.1 Sewerbasin Prioritization Work Plan

The Sewerbasin Prioritization Work Plan includes methodologies and procedures for estimating Infiltration and Inflow within each Sewerbasin and for assessing the capacity of the WCTS in areas with known capacity related SSOs. EPA and MDEQ approved the City's Sewerbasin Prioritization Work Plan on January 21, 2021.

3.3.2 Sewerbasin Prioritization Report

This work includes flow and rainfall monitoring, estimation of base infiltration and rainfall dependent infiltration and inflow, updates to existing GIS data, capacity evaluation of major sanitary sewer gravity mains, and development of the Sewerbasin Prioritization Report to be submittal by January 21, 2024.

During this reporting period:

- Submitted the Sewerbasin Prioritization Report for agency review and approved on June 25, 2024

During the next reporting period:

- Submit the Sewerbasin Evaluation Plan for agency review and approval

- Start the approved work for the SSES and Pump Station Evaluation

3.3.3 Repair of 54-Inch Diameter Sanitary Sewer Interceptor

The Repair of 54-Inch Diameter Sanitary Sewer Interceptor Project included replacing a segment of the existing interceptor south of I-20/59 that was damaged due to creek bank erosion along Sowashee Creek. Completed construction on August 19, 2023.

3.3.4 West Meridian Trunk Line Phase 1 and Phase 2 Rehabilitation

The West Meridian Trunk Line Phase 1 Rehabilitation Project includes realignment of a reinforced concrete gravity sewer pipe, with diameters of 24-inch and 30-inch, which conveys wastewater from the westernmost portions of the City of Meridian to the 54-inch diameter pipe near 49th Avenue, south of Sowashee Creek. Two major collapses have occurred along this portion of the West Meridian Trunk Line and other sink holes are beginning to develop along the existing alignment. These collapses contribute to half of the City's sanitary sewer overflows at SSO-7, located at 181 65th Avenue.

During this reporting period:

Phase 1

- Worked on acquiring a final easement for the West Meridian Phase 1 Project from the Greenfield Trust required to advertise prior to bidding the project
- Completed 100% design drawings and specifications
- Completed and received approval of MDOT permits
- Completed easement documents and negotiating with property owners to acquire easements prior to bidding (Exception: Greenfield Trust)

Phase 2

- Reviewed a Letter Agreement with the UASCE to start planning and design of the West Meridian Phase 2 Project under a Section 219 grant

During the next reporting period:

- Complete Greenfield easement acquisition and bid the West Meridian Phase 1 Project and start construction
- Sign the Letter Agreement and begin the planning and design of the West Meridian Phase 2 Project with the USACE
- Create a task order for approval of a design of a portion of the West Meridian Phase 2 Project to be constructed under a CDBG grant

3.3.5 Sanitary and Storm Sewer Rehabilitation Annual Contract

The Sanitary and Storm Sewer Rehabilitation Annual Contract will be used to perform open cut and trenchless rehabilitation of gravity sanitary sewer mains and manholes.

During this reporting period:

- The Sanitary and Storm Sewer Rehabilitation Annual Contract was rebid and awarded to a Contractor to start a new project using Coronavirus and matching ARPA money
- Completed construction of new Work Orders 1 and 2 (ARPA Contract 24-08), which included gravity sanitary sewer rehabilitation at various SSO locations and critical repair sites discovered in 2024, as well as work provided under a separate contract (Contract 24-23) with CES:

City of Meridian, MS 2024 Sewer Maintenance and Rehabilitation			
Item	Contract 24-23	Contract 24-08 (ARPA)	Total (ft)
8" Dia. Cleaning	26,408	28,246	54,654
10" Dia. Cleaning	2,329	4,740	7,069
12" Dia. Cleaning	13,108	3,603	16,711
15" Dia. Cleaning	4,965	8,310	13,275
18" Dia. Cleaning	2,291	0	2,291
24" Dia Cleaning	4,478	0	4,478
CCTV	55,267	44,899	100,166
Sonar Inspection	23,418	0	23,418
8" Dia. CIPPL	0	814	814
10" Dia. CIPPL	0	4,740	4,740
12" Dia. CIPPL	0	3,603	3,603
15" Dia. CIPPL	0	6,672	6,672

During the next reporting period:

- Continue construction of Work Order 1/2 under the new Sanitary and Storm Rehabilitation Annual Contract in repairing wastewater gravity sewer at critical areas with the gravity sewer system to reduce SSOs and target high priority repairs when failures occur
- Continue with a contract with CES to clean large diameter gravity sewer lines

3.3.6 Eastern Gardens Pump Station

The City identified a sewer main break at an inverted siphon located in the northeast portion of the WCTS causing sewage to be discharged into Sowashee Creek. A temporary bypass pump system was installed to halt the release and convey the sewage from the existing 18-inch gravity sewer main, across Sowashee Creek, and into the WCTS. Plans are being developed to construct a new permanent pump station. This new pump station will also eliminate an existing 10-inch diameter aerial gravity sewer main, which is in poor condition, currently crossing Sowashee Creek. The City's plan for the design of this new pump station will include the flexibility to pump to either the East or the South WWTPs.

During this reporting period:

- Operated and maintained temporary bypass pumping system
- Completion of 95% Design Drawings
- Received approval of the USACE permit
- Responded to requests for additional information associated with the railroad permit
- Prepared easement plat

During the next reporting period:

- Continue operation of the temporary bypass pumping system
- Complete 100% design of new pump station, gravity sewer, force main, and gravity sewer rehabilitation
- Acquire easements
- Receive approval of the railroad permit
- Advertise once permits and easements are fully executed and bid for construction

3.3.7 B Street Sanitary Sewer Replacement

Historical information and observations of the existing 24-inch diameter B Street gravity sewer main indicate critical structural issues along the existing vitrified clay pipe (VCP) from 8th Avenue to St. Andrews Street. City staff have reported numerous pipe failures over the last thirty years. The B Street Sanitary Sewer Replacement Project will replace approximately 6,130 linear feet of existing pipe eliminating problems associated with the deteriorating clay pipe.

During this reporting period:

- Performed field topographic survey and received CADD drawings
- Working on 30% plan documents

During the next reporting period:

- Perform geotechnical investigation and create any easements documents required for the work
- Prepare 100% drawings and specifications
- Prepare railroad crossing permit
- Acquire any easements for the work

3.4 Chronic SSO Advanced Remote Monitoring Program

The Consent Decree requires a Chronic Sanitary Sewer Overflow (SSO) Advanced Remote Monitoring Program which includes compiling a list of Chronic SSO locations in the WCTS which has experienced more than one wet-weather capacity-related SSO in the previous twelve months.

3.4.3 Chronic Sanitary Sewer Overflow List

The City of Meridian was required to submit an initial Chronic SSO List to the EPA and MDEQ in August 2020 for review and approval (approved January 2021). An Updated Chronic SSO List was submitted in June 2022, June 2023 and June 2024 and will continue to be submitted each year thereafter for the duration of the Consent Decree. The most recent updated 2024 Chronic SSO report was submitted on June 27, 2024, and approved by the EPA on December 13, 2024. Upon approval of each Updated Chronic SSO List, the City of Meridian implemented the Chronic SSO Advanced Remote Monitoring System each year.

3.4.4 Updated Chronic Sanitary Sewer Overflow List

The City of Meridian prepared and submitted the fourth Updated Chronic Sanitary Sewer Overflow List for review and approval on June 29, 2024. The Updated Chronic Sanitary Sewer Overflow List included updating the previously approved Updated Chronic SSO List and added two (2) additional reported sanitary sewer overflows that met the definition of a Chronic SSO.

During this reporting period:

- Prepared the Updated Chronic Sanitary Sewer Overflow List and submitted for agency review and approval on June 27, 2024; approved on December 13, 2024
- Implemented the 2024 Updated Chronic Sanitary Sewer Overflow List
- Reported SSO occurrences as per the approved SORP and CD requirements

During the next reporting period:

- Continue to report SSOs per the approved SORP and CD requirements
- Prepare and submit the 2025 Updated Chronic SSO List as required by the Consent Decree in June 2025 with comments on potentially removing some of the existing SSO locations based on work performed by the city and the reduces frequency of SSOs at each location

3.4.5 Chronic SSO Advanced Remote Monitoring Program

Subsequent to the approval of the 2021 Updated Chronic Sanitary Sewer Overflow (SSO) List on June 30, 2021, the City of Meridian implemented the Chronic SSO Advanced Remote Monitoring System and began remotely monitoring nine (9) locations identified in the List.

During this reporting period:

- Continued monitoring, recording, and notifying City staff of full pipe, surcharge, and overflow conditions identified by the monitors installed at locations identified in the approved 2024 Updated Chronic SSO List
- Included Remote Monitoring alarm logs in Semi Annual Reports 10 and 11 as required in the Consent Decree

During the next reporting period:

- Continue recording and reporting all surcharge conditions identified by the monitors on subsequent Semi Annual and Annual Reports as required by the Consent Decree

- Include Remote Monitoring alarm logs in Semi Annual Reports 12 and 13 as required in the Consent Decree
- Continue implementation of remote Monitoring Program

4.0 Capacity, Management, Operations and Maintenance Programs

The City has developed and implemented effective Capacity, Management, Operations, and Maintenance (CMOM) programs, prepared based on the guidance provided by the EPA. The aggregate CMOM is comprised of separate programs developed to address deficiencies within specific elements of the City of Meridian's Wastewater Collection and Transmission System (WCTS). Each of the respective Programs is used by the City of Meridian as guidelines for the implementation of a defined set of procedures to satisfy the long-term requirements of EPA and promote compliance with the Clean Water Act (CWA).

The Consent Decree requires the City to implement various programs to properly address capacity and to maintain, operate and manage sanitary wastewater collection, transmission, and treatment systems, respond to SSO events, and track the financial and legal performance of the city in meeting its obligations mandated in the Consent Decree.

The following sections briefly overview the CMOM activities performed during this reporting period (January 1, 2024 – December 31, 2024) and planned activities for the subsequent reporting period (January 1, 2025 – December 31, 2025).

4.1 Sewer Overflow Response Plan (SORP)

The Consent Decree required the development and implementation of a Sewer Overflow Response Plan (SORP). The SORP is a component of the City's comprehensive CMOM Programs and is intended to establish standardized procedures for the City of Meridian Public Works Department staff to follow in the event of a sanitary sewer overflow (SSO). The procedures prescribed in the SORP comprise specific documentation/reporting and response measures to convey pertinent and practical SSO information with the goal of minimizing the impact of SSO events to public health and the environment. The objective of the SORP is to provide a plan for responding to, cleaning up, and minimizing the impact of SSOs in a timely manner. The Program was approved by EPA on September 14, 2020, and implemented September 2021.

During this reporting period:

- Continued working with city staff on QA of SSO reporting and assistance with questions related to the SORP & SSO reporting and documentation procedures
- Maintained the current Excel spreadsheet training matrix, which lists Public Works staff, and the training completed by each staff member. Tracking system to be maintained until IMS Program is fully implemented
- Continued refinement of Program-related SOPs (based on training activities and feedback from field staff)
- Continued to manually track and document performance measures
- Began the review process of the SORP document for revisions to original plan approved in 2020

During the next reporting period:

- Training
  - Conduct SORP-related training, as required, for Public Works staff, which shall be based upon knowledge based and past training of personnel
    - New employee training

      Conduct SORP Program training for all new Department employees whose roles involve SSO response and/or reporting
    - Existing staff training

      Annual refresher class for Department staff who have already successfully completed their required Sewer Overflow Response Training (which may incorporate SSO volume estimating module using the SSO simulation unit, constructed in 2022 for the program training)
  - Addition of supplemental training curriculum (as appropriate) associated with SORP response and reporting activities
  - Continue maintaining Excel-based tracking matrix, which lists Public Works staff, and the training completed by each staff member, until the training log can be incorporated into the City's IMS platform
- As appropriate, continue refinement of Program-related SOPs (based on training activities and feedback from field staff)
- Continue to manually track and document performance measures
- Periodic review, evaluation, and revision of SORP Program document
  - SORP Program document shall be updated to account for circumstantial changes within both the wastewater industry as well as the Public Works Department
  - Evaluate the overall effectiveness of the plan and any associated SOPs to determine whether the objectives set forth by the Consent Decree are being met; and based upon evaluation, update the program documents accordingly
  - Plan to submit the revised SORP (Rev.1) with SOPs in the first half of 2025

Table 4-1A. Implementation Schedule for Specific SORP Tasks

Date of Implementation	Task	Activity
Immediately upon EPA approval of the SORP	Initiation of SORP training & implementation	Completed & Training Ongoing
Within 12 months of EPA approval of the SORP	Completion of SORP's SOP development	Completed (2021)
Concurrently with the development of the Pump Station and Force Main Operations and Preventative Maintenance Program, due within	Develop list of pump station SSOs having been recorded as overflowing more than once in the previous twelve (12) Months	Completed (2021)

18 months of the Effective Date of the Consent Decree (i.e., 2/6/2021)	Develop list of potential SSO locations in the event of a Pump Station failure	Completed (2021)

Table 4-1B. 2023 Annual SORP performance measures

Performance Measure	Description	Calculation	Target Annual Value	Actual Annual Value
Compliance with Regulatory Agency Reporting of SSOs	On-time compliance for submittal of 24-hour oral notification of confirmed SSO to MDEQ	(# of notifications completed within 24-hrs. / ∑ # of reports per year) * 100	100%	83%
	On-time compliance for submittal of 5-day follow-up written report of confirmed SSO to MDEQ	(# of follow-up written reports / ∑ # of reports per year) * 100	100%	96%
SSO Response Training	All personnel involved in SSO response, reporting, & record keeping participate in annual SORP training	(# of employees trained / ∑ # of employees with SSO responsibilities) * 100	100%	100%
Periodic Evaluation of SORP	Annual review, evaluation, and revision, as necessary, to SORP	Value	Once per Year	Completed
Frequency of SSOs	Track the number of annual SSOs per 100 miles of WCTS system	(Number of SSOs/100 mi. of sewer) / year	Trend	14.4
Average SSO Volume	Track the average SSO release volume per 100 miles of WCTS system annually	(Volume of overflow/ # of SSOs / 100 mi. of sewer) / year	Trend	22,418

4.2 Emergency Response Plan (ERP)

The Consent Decree requires the development and implementation of an Emergency Response Plan (ERP). The purpose of the ERP is to provide a plan for responding to routine and catastrophic emergencies. Routine emergencies include such situations as overflowing manholes, line breaks, pump station failures, etc. Catastrophic emergencies include situations such as floods, tornadoes, or other natural events. Catastrophic emergencies are managed by the Lauderdale County Emergency Response Team with the City participating under a local agreement with the county. The Program was approved by EPA on September 14, 2020. Per the approved report, implementation of the Program was to be achieved by September 2021.

During this reporting period:

- Training
  - Daily morning safety "toolbox talks"/safety briefing
  - Mississippi Damage Prevention Summit (ACTS/MS811)
  - CPR/First Aid Training
    - Specific Lines Maintenance staff members participated in CPR training
  - Scheduled updated training to be conducted by City's Public Safety Department
- Continued refinement of SOPs related to emergency response activities based on training activities
- Continued manually tracking and documenting performance measures until IMS Program is fully implemented, at which time, the IMS can begin being utilized for tracking established performance measures.
- Continued to manually track and document performance measures
- Began the review process of the ERP document for revisions to original plan approved in 2020

During the next reporting period:

- Training
  - Staff to participate in training to be conducted by City's Public Safety Department
  - Continue maintaining Excel-based tracking matrix, which lists Public Works staff, and the training completed by each staff member, until the training log can be incorporated into the City's IMS platform
- As appropriate, continue refinement of Program-related SOPs (based on training activities and feedback from field staff)
- Continue to manually track and document performance measures
- South WWTP's Risk Management Program (RPM) to be revised and resubmitted to EPA
- Periodic review, evaluation, and revision of ERP Program document
  - ERP Program document shall be updated to account for circumstantial changes within both the wastewater industry as well as the Public Works Department

- Evaluate the overall effectiveness of the plan and any associated SOPs to determine whether the objectives set forth by the Consent Decree are being met, and update the program documents accordingly
- Any amendments or revisions made to this plan shall be recorded in the Summary of Revisions to the ERP matrix, which is included on Page III of the document.
- Plan to submit the revised ERP (Rev. 1) with SOPs in the first half of 2025

Table 4-2A. Implementation Schedule for Specific ERP Tasks

Task	Date of Completion	Activity
Procurement and installation of video conferencing system in Public Works Complex Conference Room	Within 6 months of EPA approval	Completed (2021)
ERP SOP development	Within 12 months of EPA approval	Completed (2021)
Initiation of ERP training & implementation	Within 12 months of EPA approval	Completed (2021) & training activities ongoing
All program elements implemented/in-place	18 months from EPA approval of plan	Completed (2021)

Table 4-2B. Annual ERP Performance Measures

Performance Measure	Description	Calculation	Target Annual Value	Actual Annual Value
Adherence to SORP's Performance Measures	Due to the interrelationships/ commonalities between the two plans, successful adherence of SORP's listed performance measures will promote effectiveness of ERP.	Value	See SORP	Achieved
Routine Evaluation of ERP	Annual review, evaluation, and revision, as necessary, to ERP	Value	Once per Year	Completed
ERP Orientation	Orientation of new employees to include basic ERP training module	(# of new employees trained / ∑ # of new employees hired) * 100	100%	100%
ERP Training	All personnel involved in ERP procedures participate in annual ERP training	(# of employees trained / ∑ # of employees with ERP responsibilities) * 100	100%	100%
Conformance with EPA's RMP Requirements	South WWTP's RMP to be revised and resubmitted to EPA every five years	Value	Every Five Years	Revised and Submitted 04/2024

4.3 Sewer Mapping Program

The Sewer Mapping Program is a component of the City's comprehensive CMOM programs and is intended to establish standardized procedures for the City of Meridian Public Works Department staff to follow in updating the City's GIS-based sewer mapping system. The program shall provide for the maintenance of a comprehensive inventory of WCTS components and assets, including relevant attributes, catalogued by service area. As part of the comprehensive CMOM programs development and implementation, the City utilizes the GIS platform and Cityworks as the basis of its Information Management System (IMS) to provide real-time, visual information for planning and scheduling system maintenance and operations. The Consent Decree requires the implementation of a Sewer Mapping Program. The Program was approved by EPA on September 14, 2020, and was implemented by March 14, 2022.

During this reporting period:

- Continued the refinement of the Sewer Mapping Program's SOPs based on staff training and progress of IMS
- Continued updating and adding to the database of commercial FOG generating facilities
- Purchased FOG software (BMP) to track FSEs and other FOG producing facilities and continued populating the database for use in tracking FOG program
- Continued program training as needed and begin tracking and recording data related to Program's performance measures
- Continued training for Public Works Department personnel on utilization of the ArcGIS software and Cityworks and added additional license for additional access
- Continued improving the geodatabase via the City's ArcGIS Online platform to begin connecting and sharing content across the organization.
- Added additional collection system data and as-built drawing information
- Continued implementation of field data collection process
- Continued field data collection activities
- The City procured additional GIS software licenses (Esri ArcGIS)
- The City maintained the Cityworks asset management system and added employees to access the network for completing service requests and work orders
- Continued populating the Program's data dictionary which establishes the standardized structure for capturing information such as the size, length, and material of the assets, as well as service status, age, maintenance, and assessment activities.
- Continued the process of locating and digitizing the City's existing record drawings
- Updated and validated an electronic pump station dataset
- Continued training for Public Works Department personnel on utilization of the ArcGIS software on the following topics:
    - Collection of WCTS asset coordinate data
    - Incorporation of field data into geodatabase
    - Checking and validation of data
- Continued with development of Meridian's WCTS geodatabase by completing the following activities:
    - Locating and collection of attribute data for WCTS assets

    - Updating database of commercial FOG generating facilities
- Updated focal easement area layer in GIS
- Began the review process of the Sewer Mapping document for revisions to original plan approved in 2020

During the next reporting period:

- Continue refinement of the Sewer Mapping Program's SOPs based on staff training and implementation of computerized work order management system (Cityworks)
- Add new commercial FOG generating facilities to database as they are identified
- Continue tracking and recording data related to Program's performance measures
- Expand training for Public Works Department personnel on utilization of mobile ArcGIS software
- Expand the City's ArcGIS Online platform and Cityworks connecting and sharing additional content across the organization
- Add rehabilitation and replacement projects to GIS
- Plan to submit the revised Sewer Mapping Program (Rev. 1) with SOPs in the first half of 2025

Table 4-3A Implementation Schedule for Specific Sewer Mapping Program Tasks

Task		Date of Completion	Activity
Procurement of GIS software		Within 6 months of EPA approval	GIS software package selected. 3/15/2021
Finalization of Data Dictionary		Within 9 months of EPA approval	Data Dictionary finalized. 6/15/2021
System capabilities for integrating electronic maps showing locations of following:	Surface streets/ addresses	Within 12 months of EPA approval	Completed 9/15/2021
	Surface water bodies		Completed 9/15/2021
	Political boundaries		Completed 9/15/2021
Development of standardized project specifications for inclusion in City's construction documents		Within 12 months of EPA approval	Completed 9/15/2021
Development of Sewerbasin layer		Within 12 months of EPA approval	Completed 9/15/2021
Sewer Mapping Program SOP development		Within 18 months of EPA approval	SOP's developed 3/2022
Creation of a FOG establishments layer		Within 18 months of EPA approval	FOG data loaded into GIS 3/2022; new facilities will be added as they are permitted.
Electronic mapping of each basin in the WCTS		*	Basins identified based on available data and as built. Basin boundaries will be validated during Sewer System Evaluation
All Program elements implemented/in-place		18 months from EPA	Program in-place for addition of new construction and data collected during the

	approval of plan	sewer evaluation program for priority basins.

**As part of the implementation phase, assets located within each respective Sewerbasin will be captured over time using the prioritization methodology defined within the Sewer Basin Prioritization Work Plan and Sewerbasin Prioritization Report*

Table 4-3B. Annual Sewer Mapping Program performance measures

Performance Measure	Description	Calculation	Target Annual Value	Actual Annual Value
# of Record Drawings Backlogged	Number of new record drawings to be incorporated into GIS system database during report period	Value	25	1
# of New WCTS Assets Backlogged	Number of new WCTS assets not incorporated into GIS system database within 60 days of their activation in the field	Value	0	0
Average Change Time	The average time from the receipt of data indicating new sewer assets and the sewer network being updated to display those assets	Average of days between new data being received and it being added to the system	60 days	60
# (or %) of Sewer Mains Mapped	Number of lines mapped/ updated per year	Value (or # Linear Feet Mapped / ∑ Linear Feet in System)	100	250
Training Hours	Number of hours spent every year on continuing GIS education, per employee	# of training hours logged by GIS Staff / # of GIS Staff	40 hrs.	App. 16 hrs./ 1 employee

4.4 Gravity Sewer System Operations and Maintenance Program

The Consent Decree requires the development and implementation of a Gravity Sewer System Operations and Maintenance Program. The purpose of the Gravity Sewer System Operations and Maintenance Program is to provide a plan for preventative operations and maintenance (O&M) in order to reduce the occurrence of gravity sewer blockages and/or line deterioration, specifically those of which contribute to potential SSO events. The Program was approved by EPA on May 3, 2021. Per the approved report, implementation of the Program was to be achieved by May 2022.

During this reporting period:

- Training – Additional on-the-job training of vac truck operations of City staff being

provided outside contractors (CES, etc.)

- Focal easements - City continued clearing focal gravity system easements
  - Clearing is being performed using the City's new skid-steer drum mulcher
- Continued manually tracking and documenting performance measures until IMS Program is fully implemented.
- Continued refinement of Program-related SOPs (based on training activities and feedback from field staff)
- Began review process of Gravity Sewer System Operations and Maintenance Program document for potential revisions to original 2021 approved plan

During the next reporting period:

- Portable CCTV unit
  - Conduct follow-up field training for Public Works staff on safe and effective operations of the unit
  - Public Works staff to increase frequency with which unit is utilized for identification of potential "problem areas" within the City's gravity sewer system
- Training
  - Addition of supplemental training curriculum (as appropriate) associated with the operation and maintenance of the gravity sewer system
- Continue refinement of SOPs related to gravity sewer system operations and maintenance procedures based on training activities
- Continue updating/refining City's gravity sewer design standards.
- Continue manually tracking and documenting performance measures until IMS Program is fully implemented, at which time, the IMS can begin being utilized for tracking established performance measures
- Plan to submit the revised Gravity Sewer System Operations and Maintenance Program (Rev. 1) with SOPs in the first half of 2025

Table 4-4A. Implementation Schedule for Specific Gravity Sewer System O&M Tasks

Task	Date of Required Implementation	Activity
Development of City's GS design standards	Within 6 months of EPA approval	Completed (2023)
Location of Focal Easements	Within 9 months of EPA approval	Completed (2022)
Initiation of program training & implementation	Within 12 months of EPA approval	Completed
SOP development	Within 12 months of EPA approval	Completed (2022)

All program elements implemented	12 months from EPA approval of Program	In Progress*

** All Program elements will be implemented upon EPA's approval of the Sewer Group Evaluation Plan.*

Table 4-4B. Gravity Sewer System O&M Program Annual Performance Measures

Performance Measure	Description	Trigger	Calculation	Target Annual Value	Actual Annual Value
Linear Footage of Gravity Sewer Line Cleaned	Linear footage of gravity sewer pipe cleaned annually	Corrective	Value	Reduction in Annual Trend	***
		Preventive	Value	6.67%*	6.3% ***
Linear Footage of Gravity Sewer Line Inspected	Linear footage of gravity sewer pipe inspected annually	Corrective	Value	Reduction in Annual Trend	***
		Preventive	Value	6.67%*	7.4% ***
Number of Manholes Cleaned/Maintained	Number of manholes cleaned/maintained annually	Corrective	Value	Reduction in Annual Trend	***
		Preventive	Value	6.67%*	1.2% ***
Number of Manholes Inspected	Number of manholes inspected annually	Corrective	Value	Reduction in Annual Trend	***
		Preventive	Value	6.67%*	1.2% ***
Easement Footage Inspected	Linear footage of easements inspected	NA	Value	1/5 of Linear Footage**	25,603
Easement Footage Cleared	Linear footage of easements cleared		Value	1/5 of Linear Footage**	25,000
SSOs per Mile of Gravity Sewer	Number of annual SSOs per mile of gravity sewer piping		(# of SSOs) / ∑ mi. of GS pipe	Reduction in Annual Trend	0.14
Routine Evaluation of Program	Annual review, evaluation, & revision to Program (as required)		Value	Once per Year	Completed

** Based on running annual average over the previous three years.*

*** Based on running annual average over the previous five years.*

**** Cleaning and/or inspection of WCTS assets located within Sewer Group 3, as determined in the forthcoming Sewerbasin Prioritization Report, will be addressed as part of the CMOM's Gravity Sewer System Operations and Maintenance Program (see following description). As part of the Consent Decree-required Sewer Group Evaluation Report and Rehabilitation Plan, the WCTS service area is to be divided into discrete sewerbasins. Then, based upon identified rehabilitative needs, the sewerbasins will be assigned classification within Sewer Groups 1, 2, or 3. As described in the Gravity Sewer System Operations and Maintenance Program plan, once the WCTS is delineated into final sewerbasins and a classification of Sewer Group 1, 2, or 3 is assigned, the City will initiate the process of scheduling and performing routine cleaning systematically by sewerbasin on gravity lines within Sewer Group 3 (i.e., starting at*

the upstream portion of the basin and working downstream). Cleaning and/or inspection of WCTS assets located within Sewer Group 3 will be addressed as part of this Program and the procedures as described herein.

4.5 Pump Station and Force Main Operations and Preventative Maintenance Program

The Consent Decree requires the development and implementation of a Pump Station and Force Main Operations and Preventative Maintenance Program. The purpose of the Pump Station and Force Main Operations and Preventative Maintenance Program is to facilitate proper operation and maintenance activities associated with the Pump Stations and Force Mains within the WCTS. Per the approved report, implementation of the Program was to be achieved by May 2022.

During this reporting period:

- Training
  - City continued field training of new Lift Station Technicians.
- **Pump stations wireless remote monitoring systems**
  Objective of the project is to provide Public Works staff the ability to actively monitor the operational conditions at each location remotely (digital alarm inputs), as well as collect station-specific trend data at to be analyzed.
  - Completed the installation of 45 Pump Station Mission RTUs at medium and high-risk pump stations
  - As part of the project's construction phase, Public Works staff received three full days of onsite training on the system and its web-based interface
- Focal easements
  - City continued clearing focal easements
    - Clearing is being performed using the City's new skid-steer drum mulcher
    - Additional clearing is being performed by contracted easement clearing service
- Continued refinement of SOPs related to pump station and force main operations, and maintenance procedures based on training and field-related activities
- Continued manually tracking and documenting performance measures until IMS Program is fully implemented, at which time, the IMS can begin being utilized for tracking established performance measures
- Continued review process of Pump Station and Force Main Operations and Preventative Maintenance Program document for potential revisions to original 2021 approved plan
- Began the review process of the Pump Station and Force Main Operations and Preventative Maintenance Program document for revisions to original plan approved in 2020

During the next reporting period:

- Training
  - Wireless remote monitoring system
    - Staff shall receive two additional days of onsite training at intervals

approximately three & six-months following construction's final completion

- Addition of supplemental training curriculum associated with the operation and maintenance of the pump station and force main system
- Continue refinement of SOPs related to pump station and force main operations and maintenance procedures based on training and field-related activities
- Continue manually tracking and documenting performance measures until IMS Program is fully implemented, at which time, the IMS can begin being utilized for tracking established performance measures
- Continue updating/refining City's pump station and force main design standards
- Finalize and submit revisions to original Pump Station and Force Main Operations and Preventative Maintenance Program document (Rev.1) approved in 2021

Table 4-5A. Implementation Schedule for Specific PS/FM O&PM Program Tasks

Program Task	Date of Required Implementation	Activity
Development of City's PS and FM design standards	Within 6 months of EPA approval	Completed (2023)
Classification of each PS as "high, medium, or low risk"	Within 9 months of EPA approval	Completed (2022)
Initiation of program training & implementation	Within 12 months of EPA approval	Initiated June 2022
SOP development	Within 12 months of EPA approval	Completed (2022)
Development/implementation of remote monitoring system component	Phased implementation*	See previous summary
All program elements implemented/in-place	12 months from EPA approval of plan	All components in progress

* *Task comprises evaluation and selection of the most appropriate remote monitoring system for Meridian's system (taking into consideration interface/compatibility with forthcoming IMS). Evaluation phase included pilot testing of different units. Upon selection of the monitoring system, "high" & "medium" risk stations to be prioritized to equipped with remote monitoring devices. Evaluation & selection of system – Completed; design and bid phase – Completed.*

Table 4-5B. Pump Station and Force Main O&PM Program Annual Performance Measures

Performance Measure	Description	Calculation	Target Annual Value	Actual Annual Value
Linear Footage of FM Inspected	Linear footage of force main pipe inspected annually (surface inspection)	Value	33.3%*	** Value to be tracked using IMS
SSOs per Mile of FM	Number of annual SSOs per linear mile of force main piping	(# of SSOs) / ∑ miles of FM	Reduction in Annual Trend	0.03
SSOs per Pump Station	Number of annual SSOs per number of pump stations	(# of SSOs) / ∑ # of PS	Reduction in Annual Trend	7.0
Percentage of Pump Station-Related SSOs	Number of annual SSOs resulting from PS malfunctions	(# of SSOs from PS malfunctions / ∑ # annual SSOs events) * 100	Reduction in Annual Trend	11%
Percentage of Force Main-Related SSOs	Number of annual force main-related SSOs per mile of force main	((# of SSOs from FM SSOs / ∑ miles of FM) / ∑ # annual SSOs events) * 100	Reduction in Annual Trend	0%
Unscheduled Pump Station Maintenance	Number of UNPLANNED pump station maintenance activities based on issued work orders	Value	Reduction in Annual Trend	** Value to be tracked using IMS
Force Main System Report Generation	Generation of reports listing equipment problems/status of work orders generated during prior Month	Value	To commence 2024/Monthly	TBD in 2025**
Routine Evaluation of Program	Annual review, evaluation, and revision, as necessary, to Program	Value	Once per Year	Completed
Pump Station and Force Main System Training	All personnel involved in procedures participate in annual training	(# of employees trained / ∑ # of employees with FM responsibilities) * 100	100%	100%/ 3 employees

** Based on running annual average over the previous three years.*

*** KPI data to be generated upon City's full implementation of the IMS component of CMOM*

4.6 Legal Support Program

The Consent Decree requires the implementation of a Legal Support Program. The purpose of the Legal Support Program is to provide a means for the development and enforcement of rules and regulations with respect to (FOG) control and Private Laterals. The Program was approved by EPA on May 3, 2021. Per the approved report, implementation of the Program was to be achieved by October 2022.

During this reporting period:

- Amendments to *Chapter 25 Water and Sewers* of the City of Meridian's Code of Ordinances
  - option, implementation phase initiated
- Chapter 25 Supplementary documents
  These supplemental documents are intended to provide guidance in assisting customers with adherence to the amended ordinances; as well as the supporting the City in taking fair, consistent, and equitable enforcement actions against violators of the City of Meridian's Water and Sewers Ordinances.

The supplemental documents are as follows:

- FOG Management and Enforcement Response Guide (FMERG) &
- Private Lateral Enforcement Response Guide (PLERG)

- Statuses of supplemental documents
  - Documents currently in the implementation phase

- As part of the Chapter 25 amendment process, specific minimum sewer system design requirements were updated so as to adhere to modern industry standards for sewer system rehabilitation and construction.
- Maintained the current Excel spreadsheet training matrix, which lists Public Works staff, and the training completed by each staff member
- Began the review process of the Legal Support Program document for revisions to original plan approved in 2020

During the next reporting period:

- Continue implementation of updated ordinance procedures
- Maintain the current Excel spreadsheet training matrix, which lists Public Works staff, and the training completed by each staff member
- Continue refinement of SOPs related to the Legal Support Program and based on training and field-related activities
- Continue manually tracking and documenting progress
- Finalize and submit revisions to original Legal Support Program document (Rev. 1) in first half of 2025

Table 4-6A. Implementation Schedule for Legal Support Tasks

Program Task	Date of Completion	Activity
Development of amended Water and Sewers Ordinance	Within six (6) months of EPA and MDEQ approval of the FOG Control Program	Completed
Adoption of amended Water and Sewers Ordinance by City Council	Within twelve (12) months of EPA and MDEQ approval of the FOG Control Program	Completed

4.7 Information Management System (IMS) Program

The Consent Decree requires the development and implementation of an Information Management System (IMS) Program. The purpose of the Information Management System (IMS) Program is to provide City Managers and supervisors guidance and reporting capabilities for Management, Operations and Maintenance activities. The Program was approved by EPA on October 15, 2021, and is to be implemented by October 15, 2023.

During this reporting period:

- Continued development of IMS Configuration/Programming
- Coordinated and conducted follow-up workshop(s) with the City of Meridian staff
- Coordinated integration of City's GIS software and Cityworks work order management system
- Conducted additional meetings with Meridian personnel to adapt the City's currentwork order process for effective Cityworks use
- Continued development of requisitions and work order process for priority activities
- Began the review process of the IMS Program document for revisions to original plan approved in 2020

During the next reporting period:

- Continue implementation of updated ordinance procedures
- Maintain the current Excel spreadsheet training matrix, which lists Public Works staff, and the training completed by each staff member
- Continue refinement of SOPs related to the IMS Program and based on training and field-related activities
- Continue manually tracking and documenting progress
- Finalize and submit revisions to original IMS Program document (Rev.1) approved in 2021 first half of 2025

Table 4-7A. Implementation Schedule for Specific IMS Program Tasks

Program Task	Date of Completion
Initiation of Selection/Procurement of IMS Software	IMS Package selected 2/2022
Development of IMS Configuration/Programming	12/2022 configuration and programing
Staff Training Program Component Developed	System Administrator trained 12/2022 User training scheduled 4/2023
All program elements implemented/in-place *	24 months from EPA/MDEQ approval
GIS mapping component implemented	GIS and Cityworks data base integration 01/23, full operation by August 5, 2023

* *All IMS Program components with exception of the GIS mapping component anticipated 10/2023*

Table 4-7B. Key IMS Program Performance Indicators

Performance Measure	Description	Calculation	Target Annual Value	Actual Annual Value
Average number of days to enter new assets into the IMS	The City will track the time from submittal of an as-built drawing to the time that the asset information is entered into the IMS.	Days from as-built submittal to asset entry	60 days or less	< 30 days
Average number of days to enter IMS inaccuracy report data into the IMS	The City will track the time from submittal of a GIS inaccuracy report to the time that the correction is made into the IMS.	Days from inaccuracy report submittal to data entry.	60 days or less	None Reported; TBD in 2024
Annual Training	At a minimum, all Public Works staff whose role requires interfacing with Program software will participate in annual "refresher" training.	Value	100%	100%
Routine Evaluation of Program	Annual review, evaluation, & revision to Program (as required)	Value	Once per Year	Completed

4.8 Fats, Oils, and Grease (FOG) Control Program

The Consent Decree requires the development and implementation of a Fats, Oils, and Grease (FOG) Control Program. The purpose of the FOG Control Program is to provide a plan to address Fats, Oils, and Grease in the WCTS. The Program was approved by EPA on October 15, 2021. Per the approved report, implementation of the Program was to be achieved by October 2022.

During this reporting period:

- **FSE site visits/inspections**
  - Routine visits/inspections
    - FOG Coordinator continued with first cycle/series of visiting City's FSEs to provide them with FOG program requirements (and offer support for achieving compliance with program's requisites)
    - Approximate number of FSEs inspected in 2024 was 75.
  - Support of non-compliance establishments
    - FOG Coordinator provided support for remediating/reconciling issue(s) and achieving compliance with program
    - Conducted necessary follow-up visits to (and tracking of) non-compliant FSEs
- Certified FOG Pumper/Hauler
  - Identified additional "certified pumper" (certified through the Mississippi Department of Health (MSDH)) to service FOG control devices operated by Meridian's FSEs
  - As necessary, FOG coordinator has two MSDH-certified pumper/hauler companies that may be recommended to FSEs for maintenance of FOG

control devices on recurrent basis.

- Continued development of "living inventory" of commercial FOG generators located on Meridian's WCTS, including creation of a GIS map illustrating the City's current food service establishments (FSEs)
- Continued refinement of electronic, ArcGIS-based FOG inspection form for use during visits to commercial FOG generating facilities
- **FOG management software**
  - Evaluation phase
    - Identified FOG-centric software package to support implementation of Meridian's FOG Program.
    - Coordinated a demonstration of FOG management software for City of Meridian.

  Software overview
    - The software is a turnkey, cloud based, platform developed to provide municipalities with a means to automate and manage all aspects of their FOG program (and is currently being utilized by numerous municipalities across the country).
    - Software provides the following capabilities:
      - Electronic cleaning record submission
      - Detailed FOG generator profiles
      - Mobile inspection capabilities
      - Automatic alerts
      - Electronic sewer overflow documentation
  - Based on the demonstration and assessment of the software, the City elected to purchase the software package.
  - As of the end of this reporting period, the City has initiated procurement of the software.
- **FOG Public Outreach**
  - Developed final draft of the *CMOM Public Outreach Plan* (for calendar year 2024), which includes the following information:
    - Recommendation for City to secure an annual plan with a media design firm to provide public outreach, campaign, educational, and promotional content related to the City's Consent Decree programs, specifically, FOG and WCTS compliance. The criteria for prospective firms were specialized knowledge and background in development and implementation of utility and local municipality outreach solutions related to wastewater issues, such as prevention of FOG (& other prohibited materials) contributions into the WCTS. A nationally recognized media firm, which specializes in municipal public works & utilities environmental compliance outreach, was vetted/evaluated as part of this process.
    - Recommended budget for Year 2024's public outreach/initiative activities, specifically as it applies to FOG.

- Basic outreach program for commercial customers (e.g., FSEs)
- Education/initiatives related to non-FSE customers public education/initiatives
    - Outreach themes
    - Outreach campaign materials

- Initiated preliminary outreach activities for focal commercial FOG generators identified as part of the FOG Characterization Study.

- FOG Characterization Study-related activities
    - Based on findings from the gravity sewer line inspections, chronic FOG source and remediation plan will be refined, as necessary, and implemented accordingly.
    - Continued developing plan for confirming and remediating chronic FOG sources that are contributing to "hot spot" areas within the WCTS; specifically, those associated with multi-family residential customers
- FOG Management & Enforcement Response Guide (FMERG)
    - Completed final draft FMERG, which will serve as the guideline for regulatory inspection and enforcement of commercial FOG generators
- Maintenance of the current Excel spreadsheet training matrix, which lists Public Works staff, and the training completed by each staff member
- Continued refinement of SOPs related to the FOG and based on training and field-related activities
- Continued manually tracking and documenting performance measures
- Began review process of FOG Control Program document for potential revisions to original 2021 approved plan

During the next reporting period:

- Continued <u>implementation phase activities</u> - Continue with recurrent facility inspection program of City's FSEs
- **FOG software**
    - Continue the incorporation of Meridian's existing FSE locations (and additional facility data) into their system
- **FOG Public Outreach**
  Procurement and implementation of recommendations from the Public Outreach Plan, which may include, but is not limited to, the following:
    - Develop and prepare material specifically for distribution to FSEs (as part of FOG Coordinator's required activities)
- Continue refinement of "living" list (including the electronic database) of commercial establishment FOG generators
- Continue CCTV inspection of identified FOG hotspots (as described in the FOG Characterization Study)
- Continue implementation activities associated with staffing (technical/legal) and equipment requirements for Program's execution

- **Training**
  - Continue to actively seek out industry-sponsored FOG control training opportunities for which the FOG Coordinator may participate
  - Addition of supplemental training curriculum (as appropriate) associated with FOG control requisites as described in the FOG Control Program
- Maintain the current Excel spreadsheet training matrix, which lists Public Works staff, and the training completed by each staff member
- Continue refinement of SOPs related to the FOG and based on training and field-related activities
- Continue manually tracking and documenting performance measures
- Finalize and submit revisions to original FOG Control Program document (Rev. 1) approved in 2021

Table 4-8A. Implementation Schedule for Specific FOG Program Tasks

Program Task	Date of Completion	Activities
Perform FOG Characterization Study	Within 12 months of EPA/MDEQ approval	Completed (2022)
Establishment of staffing (technical/legal) & equipment requirements	Within 16 months of EPA/MDEQ approval	Completed
Development of design and construction standards	Within 18 months of EPA/MDEQ approval	Completed
Development of a "living" list of commercial establishment FOG generators (which is to include a description of their FOG generating processes & estimated average quantity of FOG generate daily)	Within 18 months of EPA/MDEQ approval	Living List Development Completed
Establishment of a FOG Control Program training component	Within 18 months of EPA/MDEQ approval	Completed with training ongoing
Development of compliance and construction inspection protocols	Within 18 months of EPA/MDEQ approval	Completed
Enactment of the FOG Ordinance	Within 24 months of EPA/MDEQ approval	Completed
Development of FOG control device BMPs	Within 24 months of EPA/MDEQ approval	Completed
Development of compliance assistance program for FOG generators	Within 24 months of EPA/MDEQ approval	Completed
Development of a public education/outreach component targeting non-commercial/residential customers	Within 24 months of EPA/MDEQ approval	Outreach plan completed
All program elements implemented/in-place	Within 24 months of EPA/MDEQ approval	All components in progress

Table 4-8B. 2023 Annual FOG Control Program Annual Performance Measures

Performance Measure	Description	Calculation	Target Annual Value	Actual Annual Value
Number of SSOs due to FOG	The annual number of FOG-related SSOs	Value	Reduction in Annual Trend	0
Number of Inspections per Year for Each FSE	Upon full implementation, each listed FSE should be routinely inspected (including FOG control device) by City staff no less than once every two years.	Each FSE inspected ≥ once / every 2 years	100%	TBD*
Current Commercial Establishment FOG Generator List	The City will review and update its list of commercial establishment FOG generators (including permitted FSEs) on an annual basis.	Value	Once per Year	Completed
Resolution of Non-Compliance	The City will track resolution of commercial FOG generators determined to be out of compliance with Program/ordinance.	Value	100%	100%
Program Training	All personnel involved in FOG Control Program complete the required training curriculum.	Value	100%	100%
Routine Evaluation of Program	Annual review, evaluation, and revision, as necessary, to the Program. As part of this evaluation, the need for additional personnel will be assessed based on the Program's workload.	Value	Once per Year	Completed

** To be determined upon full implementation of the FOG Control Program. For Year 2024, FOG Coordinator conducted routine inspections on approximately 100 FSEs.*

4.9 Financing and Cost Analysis Program

The Consent Decree requires the development and implementation of a Financing and Cost Analysis Program. The purpose of the Financing and Cost Analysis Program is to provide a process that routinely reviews and updates all financial components of operating and maintaining a Sewer system which includes annual budgets, capital improvement expenditures, etc. The Program was approved by EPA on October 15, 2021, and is to be implemented by October 15, 2022.

During this reporting period:

- Initiated the formal development of the Financing and Cost Analysis Program FY 2023 and projections FY2024-FY2029
- Continued Financing and Cost Analysis Program implementation.
- Obtained additional program funding from WRDA, CDBG and other grant programs
- Began review process of Financing and Cost Analysis Program document for revisions to original 2021 approved plan

During the next reporting period:

- Implementation of the Financing and Cost Analysis Program annual re-evaluating the overall PCD Program budget based on the most current information
- Re-evaluate User rate structure needs for future bond programs
- Establish future capital budget requirements

- Finalize and submit revisions to original Financing and Cost Analysis Program document (Rev.1) approved in 2021

Table 4-9A. Implementation Schedule for Specific Financing & Cost Analysis Program Tasks

Program Task	Date of Implementation Initiation
Budget and Cost Analysis Component	Budget and cost analysis completed for FY 23 10/2022. Additional funding obtained from ARPA in 2022.
CIP Financing Component	CIP financing to be evaluated on an annual basis. CIP projected for FY 2023 & 2024
Life Cycle Cost Analysis Process Development	Implementation to be performed as part of the IMS Program implementation.
Adequacy of Customer Rates Evaluation	Customer rate increases (water/wastewater) enacted by the 2019 amendment to City Ordinances 25-40 & 25-41 to be reevaluated on annual basis.
FOG Control Program Related Fees Established	FOG Control Program enforcement and fees related to FOG Control Program established as part of its implementation phase.
All Program elements implemented/in-place	12 months from EPA approval of Program*

* *Depending on the approval date of this document, implementation of specific tasks may have already been initiated. Budgeting and planning components to be evaluated and assessed on a continual basis. Significant financial planning updates to be included as part of the City's Annual Report (pursuant to 26.b of the Consent Decree).*

Table 4-9B. Annual Financing and Cost Analysis Program Performance Measures

Performance Measure	Description	Calculation	Target Annual Value	Actual Annual Value
Meeting Minimum Required Debt Service Coverage Ratio (DCR)	Debt service coverage ratio measures the system's ability to pay its long-term debts. The minimum DCR will be as defined per City's bond covenant.	Value	≥ Minimum DCR	> 1.25
Adequate Financing for CMOM - Identified Capital Costs	City's capital improvement planning should be adequate to finance projects and O&M equipment identified as part of the CMOM programs	Value	Fully Funded	App. 250 Thousand
Financing for SSO-Related CIP Projects	City's capital improvement planning should be adequate to finance projects associated with Sewer Groups 1 & 2	Value	Fully Funded	App. 9.3 Million
Routine Evaluation of Customer Rates	Annual review, evaluation, and revision (if necessary) to customer rates	Value	Once per Year	Final 9% increase in 2025; Reviewing rates versus 2nd bond evaluation needs FY25-FY27
Routine Program Evaluation	Annual review, evaluation, and revision (as necessary), to Program	Value	Once per Year	Completed

5.0 Consent Decree Progress Schedule

A Gantt chart indicating the overall progress of Consent Decree required activities and milestones for the Annual Report No. 5 is shown on the following pages.

City of Meridian Sewer Consent Decree Schedule (OBJECTIVE: Eliminate Sanitary Sewer Overflows, Achieve and Maintain Full Compliance with the CWA, the MAWPCL, and the NPDES Permits)

CD ASPECTS	CD Tasks	Years 1 through 8 (of 19)
	Consent Decree Effective Date: August 6, 2019	1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
	Calendar Year	2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027
	Fiscal Year/Current CITY GSA Contract (Grey)	2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027
	Month	Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M
Program Management (PrG)	**PrG Management, Reports, and Meetings**	
	Semi-Annual Reports (Due Jan 31, 20XX and July 31, 20XX)	1 2 3 4 5 6 6Rev 7 8a 9 10 11 13 14
	Annual Reports (Due Feb 28, 20XX)	1 2 3a 4 5 6
	Consent Decree Monthly Meetings	
	Quarterly Council Mtg CD Updates	Q Q Q Q Q Q Q Q Q Q Q CH Q Q Q Q Q Q Q Q Q Q Q

City of Meridian Sewer Consent Decree Schedule (OBJECTIVE: Eliminate Sanitary Sewer Overflows, Achieve and Maintain Full Compliance with the CWA, the MAWPCL, and the NPDES Permits)

CD ASPECTS | **CD Tasks** | **Years 1 through 8 (of 19)**

Consent Decree Effective Date: August 6, 2019

1	2	3	4	5	6	7	8	
Calendar Year	2019	2020	2021	2022	2023	2024	2025	2026	2027
Fiscal Year/Current CITY GSA Contract (Grey)	2019	2020	2021	2022	2023	2024	2025	2026	2027

Month Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M

Wastewater Treatment Plants (WWTPs)

Sewer Treatment System Corrective Action Plan (STSCAP)

SWWTP

- Draft/Submit Plan — 12 mo. | 5th — **31-Dec-24**
- EPA Review & Approval — 3rd
- Design & Construction of STSCAP (42 Months from Approval) — On Hold: Awaiting TMDL Study Results
- STSCAP On-Hold, as per City Letter Issued to DOJ/EPA/MDEQ on June 15, 2022) — 15th
- - SWWTP O&M Assistance — Various O&M
- - Miscellaneous SWWTP Plant Repairs and Improvements (Pumps, Blowers, Piping, Valves, Line Cleaning and Septage Station Plan, Grit Chamber Conveyance system Rehab, Power Monitor, EQ 4 Curtain, EQ 1 Dewatering/Sump Pump, etc.) — Various O&M
- - SWWTP Phase 1-A Rehab and Upgrades (ARPA - 6 Mill Spent on Construction) — Design | Bid | Award/Submittals | Construction
- SWWTP EQ Basins 2, 3, and 4 Sludge Solids Removal/Dewatering/Off-Site Soil Amendment (ARPA -Construction Complete - 4 Million Spent) — Design | Bid | Award/Permits | Construction
- Copper Study (Agreed Order/Meridian Modification Request)
- - WET Testing/Report due Oct. 31, 2023 — 31st
- - Chemical Translator Sampling/Report due Oct. 31, 2023; Submitted to MDEQ — 31st
- - Biological Translator Study (not needed)
- - MDEQ performing Chemical Translator Study/Draft NPDES Permit with Rationale to submit to EPA — Study | EPA Review
- NPDES Permit Application Renewal - Continue Tracking EPA and MDEQ Rationale (Future Cost 120 Million New Plant) — Tracking NPDES Permit Process/Rationale with MDEQ/EPA
- SWWTP Roof Project — Design | Bid | Construction

EWWTP

- EWWTP Upgrades (Headworks, PS, SBR Diffuser Sleeve and Air Valve Replacement) — Design | Bid | Construction
- EWWTP Upgrades (PLC Software Update) — Aqua Aerobics Eq. Lead Time | Installed

JOINT WWTPs

- MS Power Water Use Agreement Revision -Submitted conformed agreement to the city and MS Power.
- Planning

Capacity, Management , Operations and Maintenance Programs (CMOMs)

CMOM Programs

Draft/Submit Sewer Overflow Response Program (SORP) Revision 1 — 6 mo.

- EPA Review & Approval (3 months) — 14th
- Initiate and Implement SORP Training (Plan) — 14th
- Complete SORP SOPs (Plan) — 12 mo. | 14th
- Develop List of PS SSOs (Plan) — 18 mo. | 6th
- Develop List of potential PS SSOs in the event of Failure (Plan) — 18 mo. | 6th
- Submit Rev. 1 and continue Implementation and Annual Updates of SORP/Develop and present a training module — 12 mo. | Up
- Track KPIs/Include in Annual Reports (Plan)

Draft/Submit Emergency Response Plan (ERP) Revision 1 — 12 mo. | 5th

- EPA Review & Approval (3 months) — 14th
- Procure Video Conferencing at PWD Conference Room (Plan) — 6 mo. | 14th
- Complete ERP SOP (Plan) — 12 mo. | 14th
- Initiate and Implement ERP Training (Plan) — 12 mo. | 14th
- All Program Elements Implemented/In Place — 18 mo. | 14th
- Submit Rev. 1 and continue Implementation and Annual Updates of ERP/Develop and present a training module — 12 mo. | Up
- Track KPIs/Include in Annual Reports (Plan)

Draft/Submit Information Management Systems Program (IMS) Revision 1 — 24 mo. | 2nd

- EPA Review & Approval (3 months) — 15th
- Implement Geographic Information System (GIS) Map of the entire WCTS — 48 mo. | 5th
- EPA Review & Approval GIS Map (3 months) — 13th
- Submit Rev. 1 and continue Implementation and Annual Updates of IMS/Develop and present a training module — 12 mo. | Up
- Track KPIs/Include in Annual Reports (Plan)

Draft/Submit Sewer Mapping Program (SMP) Revision 1 — 12 mo. | 5th

- EPA Review & Approval (3 months) — 14th
- Initiate and Implement electronic mapping of each Basin in the WCTS — 18 mo. | 14th
- Procure GIS Software (Plan) — 6 mo. | 14th
- Finalize Data Dictionary (Plan) — 9 mo. | 14th
- Develop System to include display of Streets/Addresses, Water Bodies, and Political Boundaries (Plan) — 12 mo. | 14th
- Develop Standardize Project Specs for City's Construction Projects (Plan) — 12 mo. | 14th | Up
- Develop Sewer Basin Layer (Plan) — 12 mo. | 14th
- Develop Sewer Mapping SOPs (Plan) — 18 mo. | 14th
- Create FOG establishment Layer (Plan) — 18 mo. | 14th
- Capture assets in the electronic database in Sewer Basin Prioritization Work — 12 mo. | Up
- Submit Rev. 1 and continue Implementation and Annual Updates of SMP/Develop and present a training module — 12 mo. | Up
- Track KPIs/Include in Annual Reports (Plan) — Up

| Month No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 |
|---|---|---|---|---|---|---|---|---

City of Meridian Sewer Consent Decree Schedule (OBJECTIVE: Eliminate Sanitary Sewer Overflows, Achieve and Maintain Full Compliance with the CWA, the MAWPCL, and the NPDES Permits)

CD ASPECTS

CD Tasks	Years 1 through 8 (of 19)
Consent Decree Effective Date: August 6, 2019	1 | 2 | 3 | 4 | 5 | 6 | 7 | 8
Calendar Year	2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027
Fiscal Year/Current CITY GSA Contract (Grey)	2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027
Month	Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M Ap Ma J Ju Au S O N D Ja F M

Capacity, Management , Operations and Maintenance Programs (CMOMs)

Draft/Submit Gravity Sewer System Operations & Maintenance Program (GSSOMP) Revision 1	18 mo. | 5th
EPA Review & Approval (3 months)	3rd
Initiate and Implement GSSOMP	12 mo. | 3rd
Develop City's Gravity Sewer Design Standards (Plan)	6 mo. | 3rd
Provide Location of FOCAL Easements (Plan)	9 mo. | 3rd
Initiate Training (Plan)	12 mo. | 3rd
Develop SOPS (Plan)	12 mo. | 3rd
All Program Elements Implemented/In Place (Upon Approval of Sewer Group Evaluation Plan)	12 mo. | 3rd
Submit Rev. 1 and continue Implementation and Annual Updates of GSSOMP/Develop and present a training module	
Track KPIs/Include in Annual Reports (Plan)	
Draft/Submit Pump Station & Force Main Operations & Maintenance Program (PSFMOMP)	18 mo. | 3rd
EPA Review & Approval (3 months)	3rd
Develop City's PS and FM Design Standards (Plan)	6 mo. | 3rd
Classify each PS by Risk: High, Medium or Low Risk (Plan)	9 mo. | 3rd
Initiate Program Training and Implementation Plan (Plan)	12 mo. | 3rd
Develop SOPS (Plan)	12 mo. | 3rd
Develop/Implement Remote Monitoring System (Plan)	Phased Approach
- Pump Station Monitoring System Project - Design/Bid/Construction **Review TO this week for CA/RPR**	Design | Bid | Construction
All Program Elements Implemented/In Place (Plan)	12 | 3rd
Submit Rev. 1 and continue Implementation and Annual Updates of PSFMOMP/Develop and present a training module	
Track KPIs/Include in Annual Reports (Plan)	
Draft/Submit Fats, Oils & Grease Control Program (FOGP)	24 mo. | 5th
EPA Review & Approval (3 months)	15th
Perform FOG Characterization Study (Plan)	12 mo. | 15th
Establish Staffing (Technical and Legal) and Equipment Requirements (Plan)	18 mo. | 15th
Develop Design and Construction Standards (Plan)	18 mo. | 15th
Develop "Living" List of FOG generators (Include Process Descriptions and est. average daily FOG generation) (Plan)	18 mo. | 15th
Establish FOG Control Training Component (Plan)	18 mo. | 15th
Develop Construction and Compliance Inspection protocols (Plan)	18 mo. | 15th
Enactment of FOG Ordinance (CD)	24 mo. | 20th
Develop FOG control device BMPs (Plan) FMERG	24 mo. | 15th
Develop Compliance Assistance Program for FOG Generators (Plan) FMERG	24 mo. | 15th
Develop a public education/outreach component targeting non-commercial/residential customers (Plan) FMERG	24 mo. | 15th
All Program Elements Implemented/In Place (Plan)	24 mo. | 15th
Submit Rev. 1 and continue Implementation and Annual Updates of FOGP/Develop and present a training module	
Track KPIs/Include in Annual Reports (Plan)	
Provide support services for FOG implementation (Audits and BMP Software Development)	
Develop an RFP for the PS/FM O&M annual term for assisting the PS Division with Training and Support in 2025	
Draft/Submit Financing & Cost Analysis Program (FCAP)	24 mo. | 5th
EPA Review & Approval (3 months)	15th
Process and Schedule of Implementation to Perform Budget and Cost Analysis (CD)	12 mo. | 15th
Process and Schedule of Implementation to Evaluate CIP Financing Annually (CD)	12 mo. | 15th | 12 mo. | 15th | 12 mo. | 15th | 12 mo. | 15th
Process and Schedule of Implementation to Develop Life Cycle Costs Analysis Process as part of IMS Implementation (CD)	48 mo. | 15th
Process and Schedule of Implementation to Evaluate Customer Rates (Water/Sewer) Annually (CD)	12 mo. | 15th | 12 mo. | 15th | 12 mo. | 15th | 12 mo. | 15th
Establish FOG Control Program Fees as per FOG Control Program Implementation (Plan)	24 mo. | 15th
All Program Elements Implemented/In Place (CD)	12 mo. | 15th
*** Update Significant Financial Planning Elements as part of City's Annual Report (Plan)	12 mo. | 15th | 12 mo. | 15th | 12 mo. | 15th | 12 mo. | 15th
Submit Rev. 1 and continue Implementation and Annual Updates of FCAP/Develop and present a training module	
Track KPIs/Include in Annual Reports (Plan)	
Draft/Submit Legal Support Program (LSP)	18 mo. | 2nd
EPA Review & Approval (3 months)	3rd
Develop amended Water and Sewer Ordinance (Plan)	6 mo. | 3rd
Adoption of amended Water and Sewer Ordinance by City Council (Plan)	12 mo. | 3rd | 20th
PLERG	
All Program Elements Implemented/In Place (CD)	12 mo. | 3rd | 12 mo. | 3rd | 12 mo. | 3rd | 12 mo. | 3rd
Submit Rev. 1 and continue Implementation and Annual Updates of LSP/Develop and present a training module	
Track KPIs/Include in Annual Reports (Plan)	

31-Dec-24

	1	2	3	4	5	6	7	8
Month No.	12	24	36	48	60	72	84	92
Year No.	1	2	3	4	5	6	7	