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FEBRUARY 28, 2023

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. 3

Dear Ladies and Gentlemen:

Please find enclosed the City of Meridian's Annual Report No. 3, as required in Section IX of the Consent Decree. Should you have any questions, please contact me.

Sincerely,

Dal M. Hodge

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. 3

February 28, 2023

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

City of Meridian
Wastewater Consent Decree Program

Annual Report No. 3
January 2022 through December 2022

February 28, 2023

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. 3
January 2022 through December 2022

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

2/27/23
Date

Annual Report No. 3
January 2022 through December 2022

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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. The specific reporting requirements of the CD are described below. This report covers the reporting period from January 2022 to December 2022.

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.*

1.4 COVID 19 Impacts

The City has seen a reduction in the impacts of the ongoing COVID-19 pandemic. The City's basic operations do not appear to be directly impacted by the virus at this time. However, it has indirectly impacted the ability to find qualified staff to work in the wastewater sector. Competition in the work place is strong and resources in Meridian are limited. As a result, the City is changing some of its hiring practices to attract personnel who will be qualified and dedicated to operating and maintaining the improvements made under this consent decree for years to come.

2.0 Summary of Sanitary Sewer Overflows

The City has developed a multi-phased Sewer System Evaluation and Rehabilitation (SSER) The program 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.

Table 2.1 lists Sanitary Sewer Overflows in the system from January 2021 through December 2021.

The City experienced a total of thirty-three (33) SSOs from January 2021 through December 2021 with an estimated total duration of 528 hours and estimated total volume of 5.6 million gallons.

Table 2.2 lists Sanitary Sewer Overflows in the system from January 2022 through December 2022.

The City experienced a total of seventy-nine (79) SSOs from January 2022 through December 2022 with an estimated total duration of 722 hours and estimated total volume of 8.8 million gallons.

Figure 2-1 lists Number of Sanitary Sewer Overflows by month in the system from January 2021 through December 2022.

As can be observed in the figure, the number of SSOs increased beginning in 2022. This may be attributable in part to the City implementing the Chronic SSO remote monitoring program. The number of SSOs in 2022 at the monitored locations increased by 27 events as compared to the same locations in 2021. The monitoring site with the most frequent SSO events (14) in 2022 was SSO-7 - 181 65th Ave. Several pipe failures were discovered on the West Meridian Trunk Line downstream of this location. The design of the West Meridian Trunk Line Phase 1 repairs/rehabilitation are underway at the time of this report. Another monitoring site with frequent SSOs (22) in 2022 is the I-20/59 Bypass Pump location on the 54" Interceptor. The repair of this location is under construction at the time of this report. Monitoring locations along the Highway 80 Trunk Line also experienced an increase in SSOs (21) in 2022. This

increase is likely due to the implementation of the Chronic SSO remote monitoring program. During March 2020, a collapsed pipe segment was discovered on the Highway 80 Trunk line and was repaired during 2021 as part of the Highway 80 Trunk Line Rehabilitation Project, Phase 1. The Highway 80 Trunk Line Phase 2 Rehabilitation Project includes rehabilitation or replacement of approximately 6,725 linear feet of existing 24-inch diameter pipe along the Highway 80 Trunk Line. The project has been divided into two phases. Phase 2-A includes replacement of approximately 1,550 linear feet and is currently under construction and Phase 2-B will rehabilitate approximately 5,175 through replacement or cured in place pipe lining and is currently being designed. Both projects were incorporated into the Highway 80 Trunk Line Rehabilitation Plan which was submitted to EPA for approval on January 20, 2023.

Figure 2-2 lists Volume from Sanitary Sewer Overflows by month in the system from January 2021 through December 2022.

As previously observed with the number of SSOs increasing, the volume has also increased. The I-20/59 Bypass Pump location on the 54" Interceptor contributed approximately 53% of the 2022 total volume while the SSO-7 181 65th Avenue site contributed approximately 21%. As discussed above, the repair of the 54" interceptor is currently under construction and the West Meridian Trunk Line Project Phase 1 is currently being designed. Both of these projects will be incorporated into the Sewerbasin Prioritization Report which is to be submitted to EPA for approval by January 19, 2024.

Figure 2-3 lists Duration of Sanitary Sewer Overflows by month in the system from January 2021 through December 2022.

As would be anticipated with the increase in number and volume of SSOs, the duration of SSOs also increased.

Figure 2-4 lists Causes of Sanitary Sewer Overflows in the system from January 2021 through December 2021 and January 2022 through December 2022.

In both 2021 and 2022, the majority of SSOs were caused by excessive rainfall entering the system through inflow and infiltration. At the time of this report, the City has submitted the Highway 80 Trunk Line Rehabilitation Plan for approval and is developing the Sewerbasin Prioritization Report in order to evaluate the geographical location and the severity of inflow and infiltration that enters the City's sanitary sewer system. Once these areas have been identified and prioritized, the City will proceed with the necessary repairs/rehabilitation of the system.

Figure 2-5 lists Locations of Sanitary Sewer Overflows in the system from January 2021 through December 2021

During 2021 there were thirty-three (33) SSOs at seventeen (17) separate locations. Twelve (12) SSOs at five (5) locations were along the Highway 80 Trunk Line and eight (8) SSOs occurred at the 65th Avenue location. The remaining SSOs were located in the remainder of the system.

Figure 2-6 lists Locations of Sanitary Sewer Overflows in the system from January 2022 through December 2022.

During 2022 there were seventy-nine (79) SSOs at twenty (20) separate locations. Twenty-one (21) SSOs at five (5) locations were along the Highway 80 Trunk Line, fourteen (14) SSOs occurred at the 65th Avenue location on the West Meridian Trunk Line and twenty-two (22) SSOs occurred at the I 20/59 Bypass Pump location on the 54" interceptor. The remaining SSOs were located in the remainder of the system.

Table 2-1
Sanitary Sewer Overflows
January 2021 through December 2021
Annual Report No. 3
City of Meridian, Mississippi

COUNT	LOCATION	DATE / TIME BEGAN	SOURCE	ESTIMATED DURATION (hours)	ESTIMATED VOLUME (Gallons)	STATE WATERS AFFECTED	CAUSE	RAINFALL (Meridian NWS) (inches)
1	Chip Pickering Lift Station	2/18/21 9:40 AM	Lockhart Lift Station	10.00	720,000	Sowashee Creek	Power Outage	0.25
2	181 65th Ave	2/18/21 8:15 AM	Manhole	7.75	46,500	Okatibee Creek	Excessive Rain	0.25
3	23rd St / B Place	3/4/21 2:00 PM	Manhole	20.00	90,000	Sowashee Creek	Debris	0.00
4	419 Windover Cir	3/8/21 7:30 AM	Manhole	5.50	16,500	Newell Branch	Roots	0.00
5	22nd Ave S. / North Frontage Rd	3/16/21 10:00 AM	Manhole	45.33	136,000	Sowashee Creek	Excessive Rain/Debris	3.48
6	181 65th Ave	3/16/21 10:30 AM	Manhole	71.50	1,072,500	Okatibee Creek	Excessive Rain/Debris	3.48
7	Sowashee Street	3/16/21 10:30 AM	Manhole	45.08	135,250	Sowashee Creek	Excessive Rain/Debris	3.48
8	1020 Hwy 39N	3/16/21 1:00 PM	Manhole	31.00	465,000	Sowashee Creek	Excessive Rain/Debris	3.48
9	181 65th Ave	3/23/21 12:45 PM	Manhole	6.75	101,250	Okatibee Creek	Excessive Rain/Debris	1.24
10	181 65th Ave	3/25/21 7:00 AM	Manhole	27.50	247,500	Okatibee Creek	Excessive Rain/Debris	2.26
11	125 Hwy 11/80 Old Stribling Equipment	3/25/21 10:30 AM	Manhole	20.50	61,500	Sowashee Creek	Excessive Rain/Debris	2.26

Table 2-1 Continued
Sanitary Sewer Overflows
January 2021 through December 2021
Annual Report No. 3
City of Meridian, Mississippi

COUNT	LOCATION	DATE / TIME BEGAN	SOURCE	ESTIMATED DURATION (hours)	ESTIMATED VOLUME (Gallons)	STATE WATERS AFFECTED	CAUSE	RAINFALL (Meridian NWS) (inches)
12	22nd Ave S. / North Frontage Rd	3/25/21 11:00 AM	Manhole	20.25	121,500	Sowashee Creek	Excessive Rain/Debris	2.26
13	Sowashee Street	3/25/21 11:15 AM	Manhole	20.25	60,750	Sowashee Creek	Excessive Rain/Debris	2.26
14	Old Hwy 80 W Lift Station #3	6/29/21 8:15 AM	Lift Station	0.25	13,500	Okatibee Creek	Prison Bypassing Pumps	0.00
15	Old Hwy 80 W Lift Station #2	6/30/21 7:59 AM	Lift Station	0.05	300	Burwell Creek	Power Outage	0.00
16	· Sowashee Street	7/19/21 8:00 AM	Manhole	3.00	9,000	Sowashee Creek	Excessive Rain	1.97
17	3136 Parkway Blvd	7/19/21 8:15 AM	Manhole	3.75	45,000	Magnolia Creek	Excessive Rain	1.97
18	East WWTP Hwy 45 N	7/19/21 8:45 AM	Manhole	4.25	25,500	Sowashee Creek	Excessive Rain	1.97
19	125 Hwy 11/80 Old Stribling Equipment	7/19/21 9:30 AM	Manhole	5.50	115,500	Sowashee Creek	Excessive Rain	1.97
20	181 65th Ave	7/19/21 10:00 AM	Manhole	4.00	36,000	Okatibee Creek	Excessive Rain	1.97
21	6305 Saint Louis St Tower Automotive	7/22/21 8:00 AM	Lift Station	2.00	24,000	Sowashee Creek	Lift Station Failure	0.02
22	1555 Tommy Webb Dr Pilot Truck Stop	7/27/21 4:30 PM	Manhole	26.02	468,300	Sowashee Creek	Bypass Pump Failure	0.00

Table 2-1 Continued
Sanitary Sewer Overflows
January 2021 through December 2021
Annual Report No. 3
City of Meridian, Mississippi

COUNT	LOCATION	DATE / TIME BEGAN	SOURCE	ESTIMATED DURATION (hours)	ESTIMATED VOLUME (Gallons)	STATE WATERS AFFECTED	CAUSE	RAINFALL (Meridian NWS) (inches)
23	181 65th Ave	8/30/21 10:00 AM	Manhole	20.00	300,000	Sowashee Creek	Excessive Rain	3.46
24	Sowashee Street	8/30/21 2:30 PM	Manhole	9.00	27,000	Sowashee Creek	Excessive Rain	3.46
25	118 Hwy 11/80 (Cracker Barrel)	8/30/21 2:45 PM	Manhole	8.83	53,000	Sowashee Creek	Excessive Rain	3.46
26	125 Hwy 11/80 Old Stribling Equipment	8/30/21 2:50 PM	Manhole	32.83	689,500	Sowashee Creek	Excessive Rain	3.46
27	East WWTP Hwy 45 N	8/30/21 3:00 PM	Manhole	9.00	81,000	Sowashee Creek	Excessive Rain	3.46
28	I-20/59 & Sowashee Creek Bypass Pump	11/8/21 12:00 PM	Gravity Sewer Pipe	2.00	144,000	Sowashee Creek	Bypass Pump Failure	0.00
29	181 65th Ave	12/11/21 12:14 PM	Manhole	3.27	29,400	Okatibee Creek	Excessive Rain	0.68
30	22nd Ave S. / North Frontage Rd	12/11/21 12:30 PM	Manhole	2.00	6,000	Sowashee Creek	Excessive Rain	0.68
31	21st Ave / B St	12/27/21 8:00 AM	Gravity Sewer Pipe	52.00	156,000	Sowashee Creek	Broken Pipe	0.00
32	Old Hwy 80 #2 Lift Station	12/27/21 3:30 PM	Lift Station	4.50	54,000	Okatibee Creek	Lift Station Failure	0.00
33	181 65th Ave	12/30/21 2:00 PM	Manhole	4.50	13,500	Okatibee Creek	Excessive Rain	1.34

Table 2-2
Sanitary Sewer Overflows
January 2022 through December 2022
Annual Report No. 3
City of Meridian, Mississippi

COUNT	LOCATION	DATE / TIME BEGAN	SOURCE	ESTIMATED DURATION (hours)	ESTIMATED VOLUME (Gallons)	STATE WATERS AFFECTED	CAUSE	RAINFALL (Meridian NWS) (inches)
1	181 65th Ave	1/9/22 3:00 PM	Manhole	5.50	49,500	Okatibee Creek	Excessive Rain	0.84
2	3136 Parkway Blvd	1/9/22 4:35 PM	Manhole	1.67	5,000	Magnolia Creek	Excessive Rain	0.84
3	181 65th Ave	1/15/22 7:00 PM	Manhole	25.00	225,000	Okatibee Creek	Excessive Rain	1.47
4	181 65th Ave	1/19/22 10:35 PM	Manhole	23.00	207,000	Okatibee Creek	Excessive Rain	1.18
5	I-20/59	1/20/22 10:35 AM	Manhole	2.00	18,000	Sowashee Creek	Excessive Rain	1.18
6	I-20/59	2/1/22 10:51 AM	Manhole	5.00	7,500	Sowashee Creek	Bypass Pump Failure	0.00
7	I-20/59	2/3/22 12:52 PM	Manhole	4.13	37,200	Sowashee Creek	Bypass Pump Failure	3.01
8	I-20/59	2/3/22 1:29 PM	Manhole	1.52	36,400	Sowashee Creek	Bypass Pump Failure	3.01
9	181 65th Ave	2/3/22 1:30 PM	Manhole	20.00	240,000	Okatibee Creek	Excessive Rain	3.01
10	3136 Parkway Blvd	2/3/22 12:25 PM	Manhole	0.75	1,125	Magnolia Creek	Excessive Rain	2.83
11	118 Hwy 11/80 (Cracker Barrel)	2/3/22 12:30 PM	Manhole	13.00	19,500	Sowashee Creek	Excessive Rain	3.01

Table 2-2 Continued
Sanitary Sewer Overflows
January 2022 through December 2022
Annual Report No. 3
City of Meridian, Mississippi

COUNT	LOCATION	DATE / TIME BEGAN	SOURCE	ESTIMATED DURATION (hours)	ESTIMATED VOLUME (Gallons)	STATE WATERS AFFECTED	CAUSE	RAINFALL (Meridian NWS) (inches)
12	East WWTP Hwy 45 N	2/3/22 1:50 PM	Manhole	5.00	15,000	Sowashee Creek	Excessive Rain	2.83
13	Sowashee Street	2/3/22 12:25 PM	Manhole	2.83	17,000	Sowashee Creek	Excessive Rain	2.83
14	125 Hwy 11/80 Old Stribling Equipment	2/3/22 2:00 PM	Manhole	5.00	82,500	Sowashee Creek	Excessive Rain	3.46
15	Old Hwy 80 W Lift Station #2	2/25/22 8:54 AM	Lift Station	0.53	800	Okatibee Creek	Lift Station Failure	0.00
16	181 65th Ave	3/15/22 10:10 AM	Manhole	4.50	54,000	Okatibee Creek	Excessive Rain	1.15
17	I-20/59	3/15/22 10:56 AM	Manhole	5.07	76,000	Sowashee Creek	Excessive Rain / Bypass Pump Failure	1.15
18	22nd Ave S. / North Frontage Rd	3/15/22 1:02 PM	Manhole	5.97	17,900	Sowashee Creek	Excessive Rain	1.15
19	181 65th Ave	3/15/22 4:00 PM	Manhole	8.08	97,000	Okatibee Creek	Excessive Rain	1.15
20	22nd Ave S. / North Frontage Rd	3/18/22 9:00 AM	Manhole	2.00	18,000	Sowashee Creek	Excessive Rain	1.17
21	118 Hwy 11/80 (Cracker Barrel)	3/18/22 9:35 AM	Manhole	0.67	2,000	Sowashee Creek	Excessive Rain	1.17

Table 2-2 Continued
Sanitary Sewer Overflows
January 2022 through December 2022
Annual Report No. 3
City of Meridian, Mississippi

COUNT	LOCATION	DATE / TIME BEGAN	SOURCE	ESTIMATED DURATION (hours)	ESTIMATED VOLUME (Gallons)	STATE WATERS AFFECTED	CAUSE	RAINFALL (Meridian NWS) (inches)
22	I-20/59	3/22/22 5:00 PM	Manhole	23.50	1,410,000	Sowashee Creek	Excessive Rain	2.94
23	118 Hwy 11/80 (Cracker Barrel)	3/22/22 5:45 PM	Manhole	10.50	6,300	Sowashee Creek	Excessive Rain	2.94
24	Sowashee Street	3/22/22 6:00 PM	Manhole	4.33	6,500	Sowashee Creek	Excessive Rain	2.94
25	18th Ave / North Frontage Rd	3/22/22 6:00 PM	Manhole	9.50	57,000	Sowashee Creek	Excessive Rain	2.94
26	181 65th Ave	3/22/22 5:01 PM	Manhole	6.97	83,600	Okatibee Creek	Excessive Rain	2.94
27	40th Ave / 26th St	3/22/22 6:00 PM	Manhole	4.75	14,250	Sowashee Creek	Excessive Rain	2.94
28	36th St / Parkway Blvd	3/22/22 6:20 PM	Manhole	4.42	13,250	Magnolia Creek	Excessive Rain	2.94
29	36th St / Parkway Blvd	3/30/22 8:35 PM	Manhole	0.33	1,000	Magnolia Creek	Excessive Rain	1.39
30	181 65th Ave	3/30/22 9:05 PM	Manhole	4.75	57,000	Okatibee Creek	Excessive Rain	1.39
31	118 Hwy 11/80 (Cracker Barrel)	3/30/22 9:35 PM	Manhole	0.92	1,375	Sowashee Creek	Excessive Rain	1.39
32	Sowashee Street	3/30/22 8:55 PM	Manhole	1.42	4,250	Sowashee Creek	Excessive Rain	1.39
33	I-20/59	3/31/22 3:45 PM	Manhole	16.75	603,000	Sowashee Creek	Excessive Rain	1.39
34	I-20/59	4/4/22 10:20 AM	Manhole	2.42	50,750	Sowashee Creek	Bypass Pump Failure	0.00

Table 2-2
Sanitary Sewer Overflows
January 2022 through December 2022
Annual Report No. 3
City of Meridian, Mississippi

COUNT	LOCATION	DATE / TIME BEGAN	SOURCE	ESTIMATED DURATION (hours)	ESTIMATED VOLUME (Gallons)	STATE WATERS AFFECTED	CAUSE	RAINFALL (Meridian NWS) (inches)
35	I-20/59	4/5/22 6:15 AM	Manhole	16.92	406,080	Sowashee Creek	Excessive Rain	1.57
36	118 Hwy 11/80 (Cracker Barrel)	4/5/22 8:10 AM	Manhole	7.67	19,740	Sowashee Creek	Excessive Rain	1.57
37	Sowashee Street	4/5/22 8:20 AM	Manhole	1.75	21,000	Sowashee Creek	Excessive Rain	1.57
38	181 65th Ave	4/5/22 9:49 AM	Manhole	6.85	82,200	Okatibee Creek	Excessive Rain	1.57
39	I-20/59	4/7/22 6:45 PM	Manhole	2.58	54,180	Sowashee Creek	Excessive Rain / Bypass Pump Failure	0.00
40	I-20/59	4/13/22 10:55 PM	Manhole	5.83	139,920	Sowashee Creek	Excessive Rain	1.21
41	181 65th Ave	4/13/22 10:40 PM	Manhole	9.33	111,960	Okatibee Creek	Excessive Rain	1.21
42	I-20/59	4/16/22 3:05 PM	Manhole	11.17	268,000	Sowashee Creek	Excessive Rain	1.00
43	118 Hwy 11/80 (Cracker Barrel)	4/16/22 3:15 PM	Manhole	5.58	38,500	Sowashee Creek	Excessive Rain	1.00
44	181 65th Ave	4/16/22 3:20 PM	Manhole	24.42	146,500	Okatibee Creek	Excessive Rain	2.47
45	36th St / Parkway Blvd	4/16/22 3:20 PM	Manhole	1.00	6,000	Magnolia Creek	Excessive Rain	1.00
46	40th Ave / 26th St	4/16/22 3:35 PM	Manhole	0.75	2,250	Sowashee Creek	Excessive Rain	1.00

Table 2-2 Continued
Sanitary Sewer Overflows
January 2022 through December 2022
Annual Report No. 3
City of Meridian, Mississippi

COUNT	LOCATION	DATE / TIME BEGAN	SOURCE	ESTIMATED DURATION (hours)	ESTIMATED VOLUME (Gallons)	STATE WATERS AFFECTED	CAUSE	RAINFALL (Meridian NWS) (inches)
47	36th St / Parkway Blvd	4/17/22 10:25 AM	Manhole	1.17	7,000	Magnolia Creek	Excessive Rain	1.47
48	40th Ave / 26th St	4/17/22 10:30 AM	Manhole	1.42	4,250	Sowashee Creek	Excessive Rain	1.47
50	Sowashee Street	4/17/22 10:45 AM	Manhole	1.75	5,250	Sowashee Creek	Excessive Rain	1.47
51	118 Hwy 11/80 (Cracker Barrel)	4/17/22 10:55 AM	Manhole	5.75	34,500	Sowashee Creek	Excessive Rain	1.47
52	181 65th Ave	4/18/22 3:20 PM	Manhole	10.58	63,000	Okatibee Creek	Excessive Rain	2.47
53	I-20/59	4/19/22 4:45 PM	Manhole	0.50	10,500	Sowashee Creek	Excessive Rain	1.47
54	I-20/59	4/24/22 12:50 AM	Manhole	0.92	19,250	Sowashee Creek	Bypass Pump Failure-Blockage	0.00
55	I-20/59	6/5/22 1:20 AM	Manhole	8.75	131,250	Sowashee Creek	Bypass Pump Failure	0.00
56	20th St / College Dr	6/16/22 2:36 PM	Manhole	97.40	584,400	Okatibee Creek	Debris / Grease / Roots	0.00
57	Lower Bounds Rd. Lift Station	6/24/22 2:30 PM	Lift Station	1.00	1,500	Loper Creek	Lift Station Failure	0.00
58	I-20/59	7/1/22 8:20 PM	Manhole	2.67	40,000	Sowashee Creek	Excessive Rain	0.67

Table 2-2 Continued
Sanitary Sewer Overflows
January 2022 through December 2022
Annual Report No. 3
City of Meridian, Mississippi

COUNT	LOCATION	DATE / TIME BEGAN	SOURCE	ESTIMATED DURATION (hours)	ESTIMATED VOLUME (Gallons)	STATE WATERS AFFECTED	CAUSE	RAINFALL (Meridian NWS) (inches)
59	I-20/59	7/21/22 8:20 PM	Manhole	5.58	83,750	Sowashee Creek	Excessive Rain	3.15
60	18th Ave / North Frontage Rd	7/21/22 11:05 PM	Manhole	1.42	8,500	Sowashee Creek	Excessive Rain	3.42
61	Newell Rd	8/5/22 12:30 PM	Manhole	10.40	62,400	Unknown Tributary Branch	Debris / Roots	0.00
62	Hwy 39N-Northwood East Apt	8/12/22 2:30 PM	Lift Station	2.00	6,000	Unknown Tributary Branch	Lift Station Failure	0.00
63	61st Court Lift Station	8/16/22 10:20 AM	Lift Station	2.67	16,000	McClemore Branch	Power Outage	0.00
64	I-20/59	8/23/22 2:45 PM	Manhole	34.33	309,000	Sowashee Creek	Excessive Rain	5.60
65	18th Ave / North Frontage Rd	8/24/22 8:50 AM	Manhole	10.17	61,000	Sowashee Creek	Excessive Rain	5.60
66	36th St / Parkway Blvd	8/24/22 8:15 AM	Manhole	5.58	50,250	Magnolia Creek	Excessive Rain	5.60
67	40th Ave / 26th St	8/24/22 8:35 AM	Manhole	6.33	38,000	Sowashee Creek	Excessive Rain	5.60
68	181 65th Ave	8/24/22 12:00 PM	Manhole	19.00	285,000	Okatibee Creek	Excessive Rain	5.60
69	118 Hwy 11/80 (Cracker Barrel)	8/24/22 9:20 AM	Manhole	11.58	104,250	Sowashee Creek	Excessive Rain	5.60

Table 2-2 Continued
Sanitary Sewer Overflows
January 2022 through December 2022
Annual Report No. 3
City of Meridian, Mississippi

COUNT	LOCATION	DATE / TIME BEGAN	SOURCE	ESTIMATED DURATION (hours)	ESTIMATED VOLUME (Gallons)	STATE WATERS AFFECTED	CAUSE	RAINFALL (Meridian NWS) (inches)
70	Sowashee Street	8/24/22 8:40 AM	Manhole	5.08	45,750	Sowashee Creek	Excessive Rain	5.60
71	10th Ave/B Street	8/24/22 9:00 AM	Manhole	2.25	6,750	Sowashee Creek	Excessive Rain	5.60
72	406 45th St	8/24/22 2:55 PM	Manhole	4.08	36,750	Newell Tributary Branch	Excessive Rain	5.60
73	Sowashee Street	8/26/22 6:35 PM	Manhole	1.42	12,750	Sowashee Creek	Excessive Rain	1.58
74	I-20/59	8/26/22 7:15 PM	Manhole	3.83	34,500	Sowashee Creek	Excessive Rain	1.58
75	I-20/59	9/6/22 4:30 AM	Manhole	2.75	4,125	Sowashee Creek	Bypass Pump Failure	0.00
76	I-20/59	9/9/22 8:15 PM	Manhole	4.83	43,500	Sowashee Creek	Excessive Rain	0.58
77	John C. Stennis Dr. / Rabbit Dr.	12/3/22 6:00 AM	Broken Pipe	84.00	836,640	Wright Creek/ Sucarnoochee River	Broken Force Main	0.00
78	181 65th Ave	12/14/22 3:00 PM	Manhole	5.83	52,500	Okatibee Creek	Excessive Rain	2.59
79	36th St / Parkway Blvd	12/14/22 3:50 PM	Manhole	0.33	500	Robbin's Branch / Sowashee Creek	Excessive Rain	2.59

Figure 2-1
Number of Sanitary Sewer Overflows and Rainfall
January 2021 through December 2022
Annual Report No. 3
City of Meridian, Mississippi

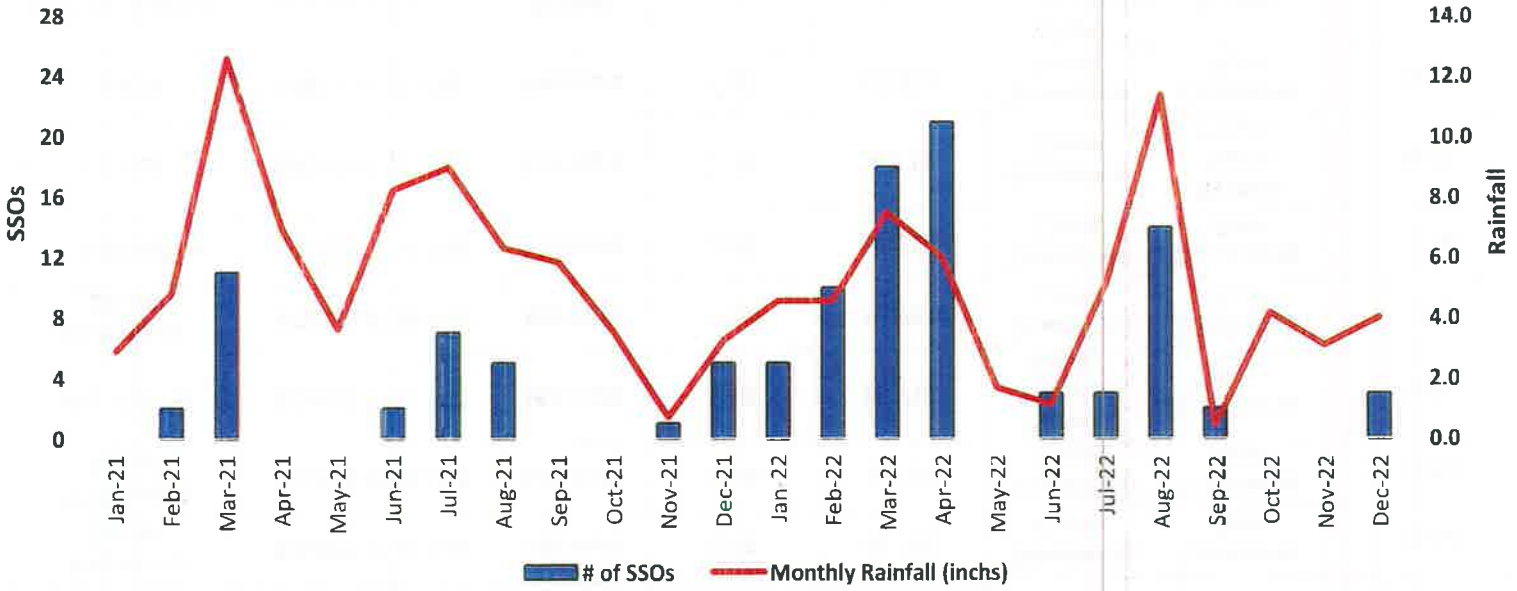


Figure 2-2
Volume from Sanitary Sewer Overflows and Rainfall
January 2021 through December 2022
Annual Report No. 3
City of Meridian, Mississippi

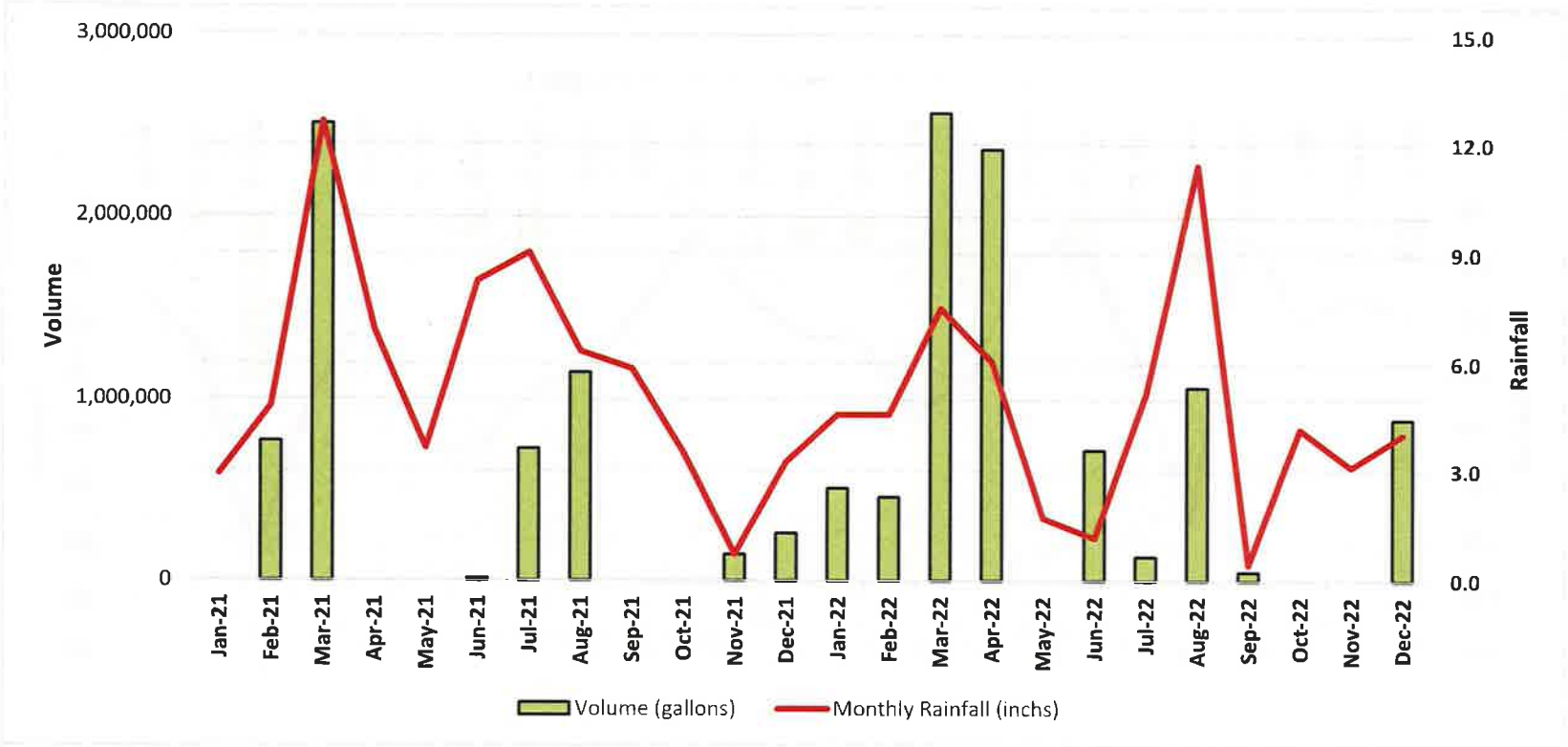


Figure 2-3
Duration of Sanitary Sewer Overflows and Rainfall
January 2021 through December 2022
Annual Report No. 3
City of Meridian, Mississippi

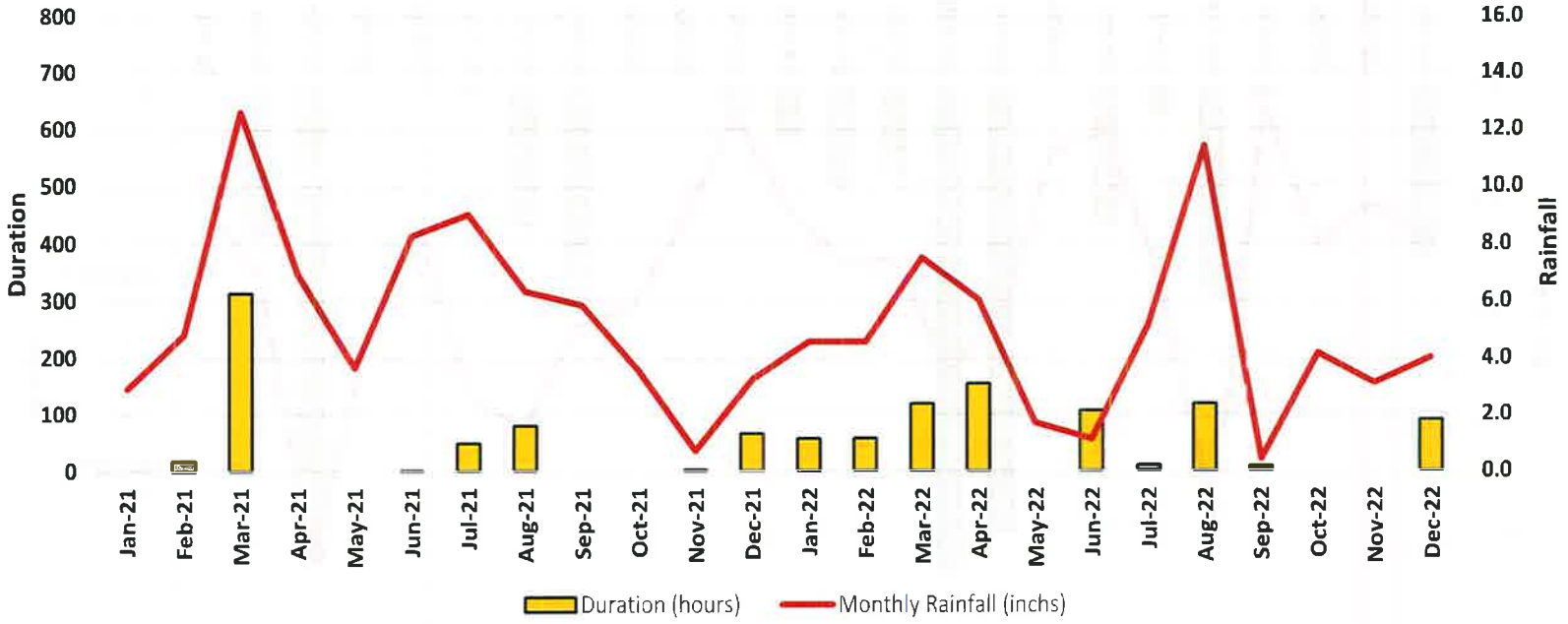
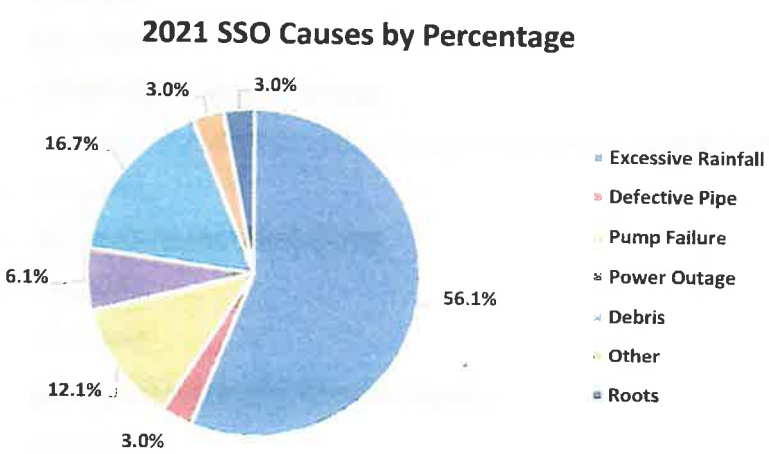


Figure 2-4
Causes of Sanitary Sewer Overflows
January 2021 through December 2022
Annual Report No. 3
City of Meridian, Mississippi



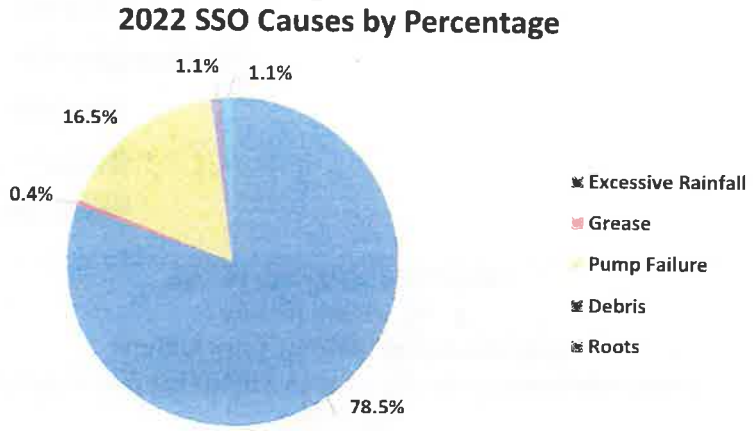
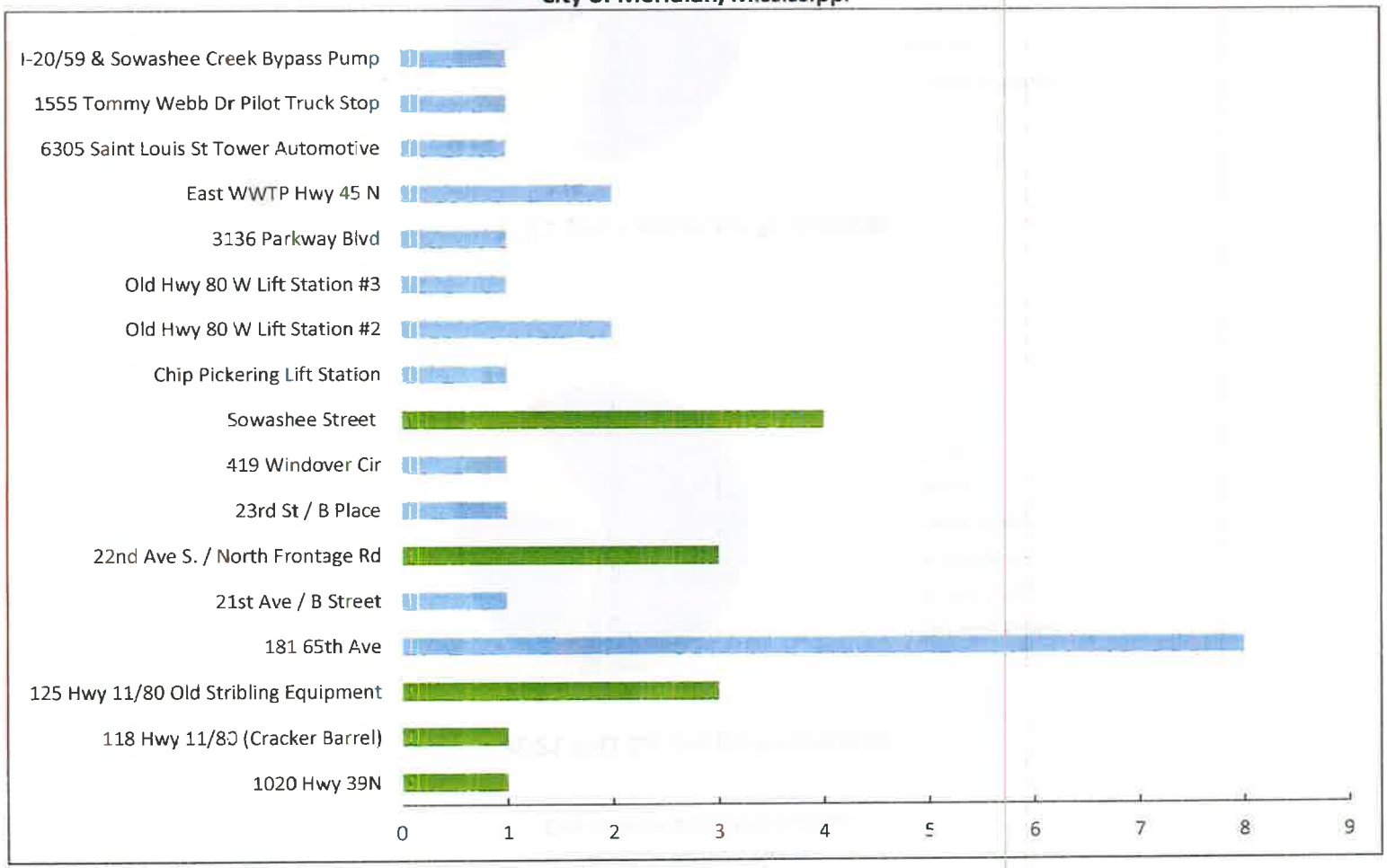
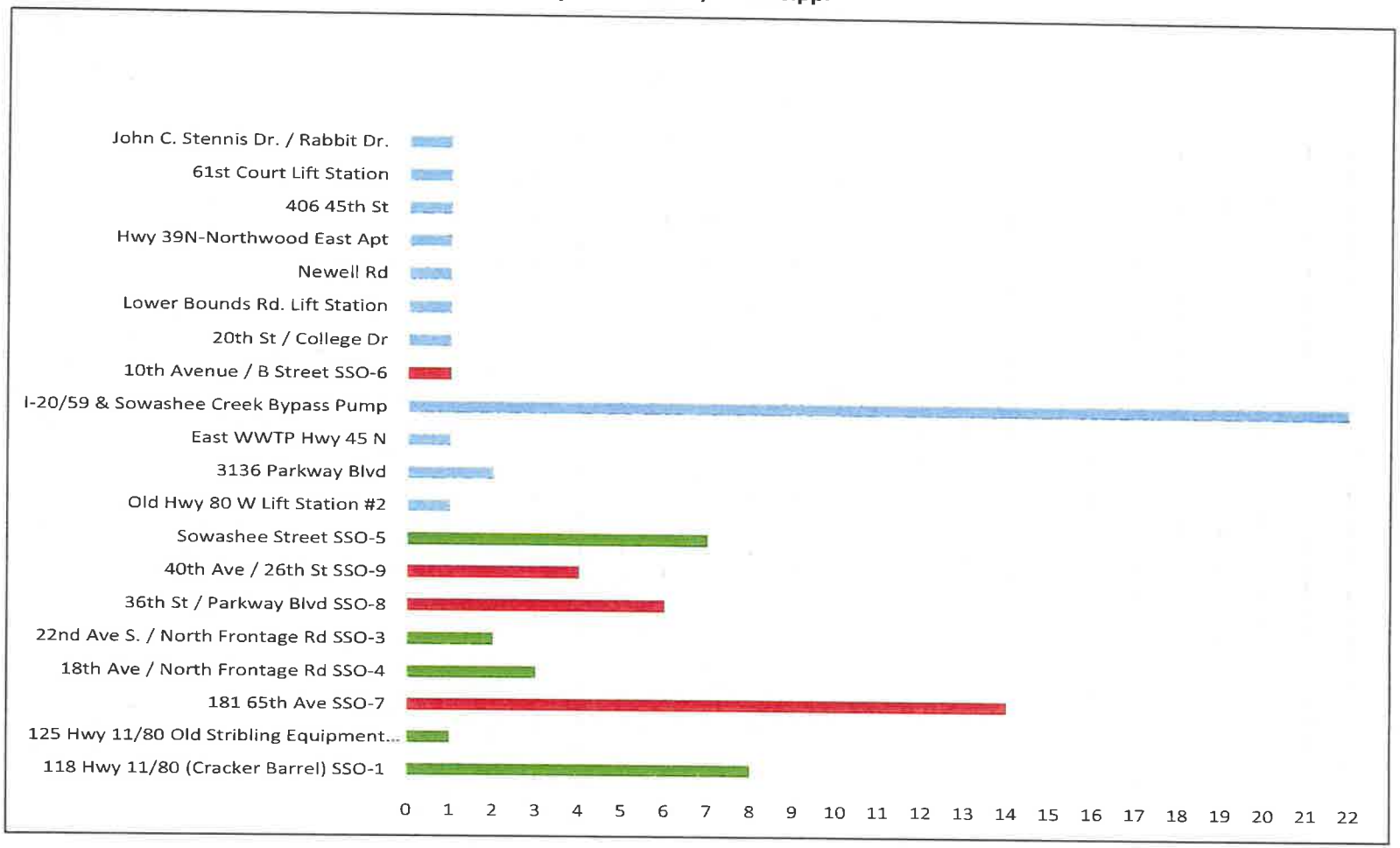


Figure 2-5
Location and Frequency of 2021 Sanitary Sewer Overflows
January 2021 through December 2021
Annual Report No. 3
City of Meridian, Mississippi



** Locations in green are located on or along the Highway 80 Trunk Line*

Figure 2-6
Location and Frequency of 2022 Sanitary Sewer Overflows
January 2022 through December 2022
Annual Report No. 3
City of Meridian, Mississippi



** Locations in Green and Red are monitored as part of the Chronic SSO Advanced Remote Monitoring Program implemented in 2022. Locations in Green are located on or along the Highway 80 Trunk Line.*

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, 2022 – December 31, 2022) and planned activities for the subsequent reporting period (January 1, 2023 - December 31, 2023)

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, 2022 – December 31, 2022) and planned activities for the subsequent reporting period (January 1, 2023 - December 31, 2023).

During this reporting period:

- Started removing waste activated sludge from the WWTP. Isolated 9 MGD Train first stage and second stage clarifiers and pumped all liquids and solids to the EQ basins for later removal. Inspected and repaired solids removal equipment including boards, chains, pumps, valves, etc., to get each clarifier, as possible, back online and removing/recirculating/wasting solids to the aeration basins or the digestors.
- Completed the 60% design package for the 9 MGD first and second stage clarifier improvements.
- Completed major maintenance of both 4 MGD Train Secondary Clarifier Equipment to keep units operational.
- Completed 60% design package for installation of Third Influent Pump.
- Equalization Cells Project
  - Completed solids survey of Equalization Cells.
  - Completed a field wetland delineation
  - Completed and submitted 90% draft of design and RFQ documents associated with the EQ Basin Cleanout project.
  - Scheduled 90% draft design meeting with internal Program team members
- Completed cleanout and rehabilitation of the Grit Chamber.
- Completed repairs on the course bar screen.
- Completed temporary repairs on fine screen no. 1.
- Evaluated the fine screens for repair or replacement. Decision was made to convert fine screen from ¼" bar openings to 6 mm punch plate for improved screening capability.
- Evaluated the sludge filter press system for repair or replacement. Decision was made to install a new belt press.
- Repaired/rebuilt RAS and WAS pumps as required.
- Completed design for a new coagulant feed system for the 9 MGD and 4 MGD plant

clarifiers, to improve overall operations for settling, which should translate to improved TSS levels, etc.

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).

As proposed in the Semi-Annual Report No. 6, the City initiated an evaluation of current wastewater generation and treatment needs to stay in compliance with the NPDES permit requirements. The actions implemented in the past 12-month period presented above, have resulted in improvements that has allowed the City to meet the SWWTP's NPDES permit limits.

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 commercial and industrial users, and infiltration/inflow results from ongoing flow monitoring, and possible regional wastewater needs. Additionally, the City is looking at property needed to accommodate a new facility.

Items discussed in Semi-Annual Report No. 6 but not completed as a result of the proposed modifications above include the following:

- None.

The City has been in contact with the MDEQ and they are continuing to work on the development of nutrient TMDLs for Sowashee Creek. In the interim, the City is committed to continuous improvements at the WWTP to meet its current NPDES permit requirements.

During the next reporting period:

- Equalization Cells Project
  - Complete and submit 100% draft design and RFQ documents.
  - Initiate procurement phase including advertisement of RFP.

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

  - Complete the Bid Package, advertise for bid, and award contract to install new equipment in two first stage and two second stage clarifiers at the 9MGD plant. This bid package will include the retrofit of the fine screens described above, purchase and installation of a new sludge belt filter press system, and purchase and installation of the third influent pump.
  - Removal of waste activated sludge from the digestors to the EQ Basins to provide storage for waste activated sludge until new belt press is installed and operational.
  - Cleanout of 9 MGD primary clarifiers.
  - Modify 9 MGD plant WAS sludge piping and install new pumps to improve operator control over sludge wasting.
  - Continue evaluating, cleaning, and rehabilitating equipment at the South WWTP to improve plant performance.

- Review the addition of remote monitoring of some processes at the SWWTPs.
- Complete the installation of the new coagulant feed system at the SWWTP 4MGD and 9MGD plants.

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 visual inspection of the 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 includes 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 includes 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 (Under Construction) and Highway 80 Trunk Line Rehabilitation Project, Phase 2-B (Design Phase) will be incorporated into the Highway 80 Trunk Line Rehabilitation Plan.

During this reporting period:

- Completed sewer flow and rain monitoring
- Completed analysis of flow and rainfall data
- Completed Rain Dependent Infiltration and Inflow (RDII) Model
- Completed hydraulic analysis of Highway 80 Trunk Line

During the next reporting period:

- Complete and submit Highway 80 Trunk Line Rehabilitation Plan for Agency review
- Address any Agency comments to the Highway 80 Trunk Line Rehabilitation Plan

3.2.3 Highway 80 Trunk Line Phase 2 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:

- Phase 2-A
  - Advertised and received bids for construction, awarded the contract, and issued the Notice to Proceed for October 31, 2022
  - Began construction with a projected completion date of March 30, 2023
- Phase 2-B
  - Completed 100% Phase 2-B Design Drawings and Specifications
  - Submitted Mississippi Department of Transportation (MDOT) Permit Application
  - Finalized easements

During the next reporting period:

- Phase 2-A
  - Complete construction of the Highway 80 Trunk Line Phase 2-A Rehabilitation Project.
- Phase 2-B
  - Acquire easements
  - Finalize the Highway 80 Trunk Line Phase 2-B Bid Documents

3.3 Wastewater Collection and Transmission System (WCTS)

The Consent Decree requires work to be performed on the Wastewater Collection and Transmission System. The City of Meridian has developed a phased approach for prioritizing assessment, analysis, and rehabilitation of the existing Wastewater Collection and Treatment System (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:

- Completed initial flow and rainfall monitoring
- Began analysis of flow and rain data and needs for additional flow and rainfall monitoring to accurately categorize the sewerbasins.
- Began preparation of RDII model
- Began hydraulic capacity evaluation
- Collected Record Documentation for updates to GIS data.

During the next reporting period:

- Install additional flow and rainfall monitors to improve the accuracy of RDII modeling, if needed
- Continue analysis of flow and rain data
- Continue preparation of RDII model
- Continue hydraulic capacity evaluation

3.3.3 Repair of 54-Inch Diameter Sanitary Sewer Interceptor

The Repair of 54-Inch Diameter Sanitary Sewer Interceptor Project includes replacing a segment of the existing interceptor south of I-20/59 that was damaged due to creek bank erosion along Sowashee Creek.

During this reporting period:

- Completed 100% design drawings and specifications.
- Completed hydrologic and hydraulic study of Sowashee Creek adjacent to the site.
- Advertised and received bids for construction, awarded the contract, and conducted the Preconstruction Conference.

During the next reporting period:

- Issue the Notice to Proceed for January 2, 2023
- Begin construction with a projected completion date of May 31, 2023

3.3.4 West Meridian Trunk Line Phase 1 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, that conveys wastewater from the western-most portions of the City of Meridian to the 54-inch diameter interceptor 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 Chronic overflows at SSO-7 located at 181 65th Avenue.

During this reporting period:

- Completed topographic survey

- Completed geotechnical investigation
- Completed 30% design drawings and specifications.

During the next reporting period:

- Continue development of the design drawings and specifications
- Prepare and submit MDOT permit
- Prepare easement documents

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:

- Advertised and received bids for construction, awarded the contract, and conducted the Preconstruction Conference
- Issued the Notice to Proceed for December 14, 2022

During the next reporting period:

- Begin construction for Work Order 1 which includes gravity sanitary sewer rehabilitation in the Medical District to include the following streets:
  - 18th Avenue from 6th Street to 14th Street
  - 19th Avenue from 6th Street to 14th Street
  - 20th Avenue from 9th Street to 14th Street
  - Constitution Avenue from Front Street to 14th Street
- Prepare additional Work Orders for rehabilitation in other locations

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.

3.4.1 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) and an Updated Chronic SSO List EPA and MDEQ for review and approval in February 2021(approved June 2021). Upon approval of the Updated Chronic SSO List, the City of Meridian implemented the Chronic SSO Advanced Remote Monitoring System. The Updated Chronic SSO List was submitted in June 2022 and will continue to be submitted each year thereafter for the duration of the Consent Decree.

3.4.2 Updated Chronic Sanitary Sewer Overflow List

The City of Meridian prepared and submitted the second Updated Chronic Sanitary Sewer

Overflow List for review and approval on June 29, 2022. 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 on June 29, 2022
- 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
- Receive Agency approval of 2022 Updated Chronic Sanitary Sewer Overflow List
- Prepare and submit the 2023 Updated Chronic SSO List as required by the Consent Decree

3.4.3 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 2021 Updated Chronic SSO List.
- Included Remote Monitoring alarm logs in Semi Annual Reports 6 and 7 as required in the Consent Decree

During the next reporting period:

- Upon receipt of Agency approval of the 2022 Updated Chronic Sanitary Sewer Overflow List, implement remote monitoring of the two (2) additional locations identified in the 2022 List.
- 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 8 and 9 as required in the Consent Decree
- Continue implementation of remote Monitoring Program

4.0 Capacity, Management, Operations and Maintenance Programs

The City will develop and implement 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 WCTS. Each of the respective Program deliverables is intended to be 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, and respond to SSO events.

The City Council approved an Engineering Services contract on November 19, 2019, with Neel Schaffer, Inc. (NSI). As part of the Scope of that contract, NSI is responsible for CMOM program development and implementation. Additionally, NSI is also tasked with facilitation of a comprehensive training program for the Meridian Public Works staff.

The following sections briefly overview the CMOM activities performed during this reporting period (January 1, 2022 – December 31, 2022) and planned activities for the subsequent reporting period (January 1, 2023 – June 30, 2023).

4.1 Sewer Overflow Response Plan (SORP)

The Consent Decree requires 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:

- Training
  - MsRWA-led Collection System Operators training
    - Organized and conducted two, separate, multi-day workshops onsite in Meridian for the WCTS field staff (first and second workshops taking place the week of 6/21/2022 and 7/12/2022, respectively).
    - Training provided Public Works attendees (specifically, Lines Maintenance field staff) applicable WCTS O&M skills, which is intended to serve as the basis for all additional training modules.
    - A total of **20** staff from the City's Public Works Department successfully completed the multi-day wastewater collection system course.

- Sanitary Sewer Overflow Plan (SORP) Refresher & SSO Simulation Training
  - Organized and executed two, separate, half-day workshops for the WCTS field staff. Training was conducted on Wednesday, November 30th, 2022, and Thursday, December 1st, 2022, at the Meridian Public Safety Training Facility.
  - Between the two sessions, **10** members of the Public Works field staff participated in the training.
- Developed an Excel-based tracking matrix listing Public Works staff and the training completed by each staff member. This matrix will be maintained until an electronic training log can be incorporated into the City's IMS platform.

- Periodic review, evaluation, and revision of SORP Program
  - Initiated periodic review and tracking of projected updates to the document. These revisions will be formally incorporated as part of the 2023 periodic annual update.
  - All projected revisions/updates to document are non-material (i.e., minor) in nature
  - Two forms, each of which are included as part of the program document's appendices, were updated. Examples of non-material updates include the following: Updated the City of Meridian's logo on the SSO Event Reporting Form; existing two service request form documents (one for normal business hours and one for after-hours) were consolidated into a single Service Request Form (for improved usability); updated City logo on the Service Request Form;
- 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)
- Program resources:
  - New bypass pumps - During this period, the City procured four new portable bypass pumps, which may be utilized as part of its SSO response procedures

During the next reporting period:

- Training (for all staff associated with SSO response and/or reporting)
  - New employee training
    - Conduct SORP Program training for all new Department employees whose roles involve SSO response and/or reporting
    - Administer SORP Program orientation for new incoming Line Maintenance Senior Secretary. Orientation training to include the following:
      - Overview of SORP Program
      - SSO reporting and documentation procedures
  - Annual refresher class for Department staff who have already successfully completed their required Sewer Overflow Response Training (which shall incorporate SSO volume estimating module using the SSO simulation unit constructed in 2022)
  - Supplement training program (as appropriate) with more targeted SSO response training 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 update the program documents accordingly.
- Any amendments or revisions made to this plan shall be recorded in the Summary of Revisions to the SORP matrix, which is included on Page III of the document. Furthermore, within 14 days of the formal updates, the City shall provide a copy of the amended document to EPA and MDEQ, along with placing it on the Program's Public Document Repository (PDR).

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	The City conducted two training workshops with pertinent staff on the SSO response activities (SORP refresher) and SSO volume estimation (using SSO simulator)
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,* which is due within 18 months of the Effective Date of the Consent Decree (i.e. 2/6/2021)	Develop list of pump station SSOs having been recorded as overflowing more than once in the previous twelve (12) Months	Completed (2021)
	Develop list of potential SSO locations in the event of a Pump Station failure	Completed (2021)

Table 4-1B. 2022 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%	94%
	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%	38%
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	23.6
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	33,149

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 failure, etc. Catastrophic emergencies include situations such as floods, tornadoes, or other natural events. 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
  - Collection System Operators training
    - Organized and conducted two, separate, multi-day workshops onsite in Meridian for the WCTS field staff (first and second workshops taking place the week of 6/21/2022 and 7/12/2022, respectively).

- Training provided Public Works attendees (specifically, Lines Maintenance field staff) applicable WCTS O&M skills, which is intended to serve as the basis for all additional training modules. Specifics of the training is as follows:
  - The training included detailed modules related to emergency response procedures
- A total of **20** staff from the City's Public Works Department successfully completed the multi-day wastewater collection system course.

- 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.
- Program resources:
  New bypass pumps - During this period, the City procured four new portable bypass pumps, which may be utilized as part of its SSO and general emergency response procedures
- Periodic review, evaluation, and revision of ERP Program document
  - Initiated periodic review and tracking of projected updates to the document. These revisions will be formally incorporated as part of the 2023 periodic annual update.
  - To date, all projected revisions/updates to document are non-material (i.e., minor) in nature (e.g., updating of City logo)

During the next reporting period:

- 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 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. Furthermore, within 14 days of the formal updates, the City shall provide a copy of the amended document to EPA and MDEQ, along with placing it on the Program's Public Document Repository (PDR).

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 *	See SORP Activities for training related to SSO response. Initiated ERP training curriculum and implementation for other emergency events.
All program elements implemented/in-place	18 months from EPA approval of plan	September 2021

***Initiation of SORP training & implementation (for SSO events) is scheduled to begin immediately upon EPA's approval of the SORP.**

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	TBD*

**** Next scheduled revision and submittal of South WWTP's RMP set for 4/1/2024***

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 will utilize the GIS platform as the basis of its forthcoming 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 is to be 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
- Completed the database of commercial FOG generating facilities
- Initiate Program training and begin tracking and recording data related to Program's performance measures
- Conducted training for Public Works Department personnel on utilization of the ArcGIS software and added additional license for additional access
- Launched the constructed 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
- Implement field data collection process
- Continued field data collection activities
- The City procurement additional GIS software license (Esri ArcGIS)
- Continued populate of 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
- Conduct 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
- Continue 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
- Updating priority easement layer in GIS

During the next reporting period:

- Continued refinement of the Sewer Mapping Program's SOPs based on staff training and

implementation of computerized work order management system (Cityworks)

- Add new of 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 connecting and sharing additional content across the organization
- Add rehabilitation and replacement projects to GIS

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 approval of plan	Program in-place for addition of new construction and data collected during the 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	25
# 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	TBD*
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	TBD*
# (or %) of Sewer Mains Mapped	Number of lines mapped/ updated per year	Value (or # Linear Feet Mapped / ∑ Linear Feet in System)	—	TBD*
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.	TBD*

***To be determined and reported during next reporting period.**

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
  - MsRWA-led Collection System Operators training
    - Organized and conducted two, separate, multi-day workshops onsite in Meridian for the WCTS field staff (first and second workshops taking place the week of 6/21/2022 and 7/12/2022, respectively).
    - Training provided Public Works attendees (specifically, Lines Maintenance field staff) applicable WCTS O&M skills, which is intended to serve as the basis for all additional training modules. Specifics of the training is as follows:
      - The training included detailed modules related to gravity sewer operations and maintenance procedures

        - A total of **20** staff from the City's Public Works Department successfully completed the multi-day wastewater collection system course.
    - Virtual Vactor 2100i for Operators
        - City's combination sewer cleaning truck operators participated in the one-day virtual technical training
        - Total of eight Line Maintenance staff successfully completed the course
        - The interactive training class was conducted by ESG, parent company of Vactor.
        - Two of the City's Lines Maintenance Division's four combination sewer cleaning trucks are Vactor 2100i.
- Program SOP development
    - Completed draft standard operating procedures (SOPs) associated with the Program.
    - Continued refinement of Program-related SOPs (based on training activities and feedback from field staff)
- Focal easements
    - Identification of City's "focal easements" (WCTS easements located in remote or wooded areas, specifically the areas where large equipment might be obstructed from gaining access)
    - Scanned (i.e., digitized) paper maps of City's current focal easements associated with the WCTS.
    - Developed ArcGIS map illustrating approximate location of identified focal easements associated with the WCTS.
    - Equipment
        - In 2022, the City procured an easement mulching unit. The unit comprises a dedicated skid-steer and mulching head for clearing vegetation.
        - City is currently awaiting manufacturer-organized training on the mulching equipment to begin utilizing for easement clearing and control.
- Other equipment/resources
  Sewer inspection unit - City is currently in the process of evaluating portable pipeline video inspection systems (i.e., portable CCTV unit). The City intends to budget and procure a portable unit for conducting inspections on gravity sewer lines.
    - Based upon the City's specific rehabilitation and repair activities, as well as industry standards, continued refining City's gravity sewer design guidelines.

During the next reporting period:

- Continue refinement of SOPs related to gravity sewer system operations and maintenance procedures based on training 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.
- Training
    - Anticipate conducting training related to gravity sewer system corrosion control (*Identification of Potential Sulfide and Corrosion Degradation*).
    - Addition of supplemental training curriculum (as appropriate) associated with the operation and maintenance of the gravity sewer system.

- Periodic review, evaluation, and revision of Gravity Sewer System Operations and Maintenance Program document
  - 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.
- Continue updating/refining City's gravity sewer design standards.

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	Part of SUO amendments
Location of Focal Easements	Within 9 months of EPA approval	Completed in February 2022
Initiation of program training & implementation	Within 12 months of EPA approval	Initiated in May 2022
SOP development	Within 12 months of EPA approval	Completed in May 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%*	1.6% ***
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%*	1.6% ***
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**	To be performed beginning in 2023
Easement Footage Cleared	Linear footage of easements cleared		Value	1/5 of Linear Footage**	To be performed beginning in 2023
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	0.2
Routine Evaluation of Program	Annual review, evaluation, & revision to Program (as required)		Value	Once per Year	In Progress

** 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
  - MsRWA-led Collection System Operators training
    - Organized and conducted two, separate, multi-day workshops onsite in Meridian for the WCTS field staff (first and second workshops taking place the week of 6/21/2022 and 7/12/2022, respectively).
    - Training provided Public Works attendees (specifically, Lines Maintenance field staff) applicable WCTS O&M skills, which is intended to serve as the basis for all additional training modules. Specifics of the training is as follows:
      - The training included detailed modules related to pump station and force main operations and maintenance procedures
    - A total of **20** staff from the City's Public Works Department successfully completed the multi-day wastewater collection system course.
  - New staff training
    - City began training of new Lift Station Technician.
- Program SOP development
  - Completed draft standard operating procedures (SOPs) associated with the Program.
  - Continued refinement of Program-related SOPs (based on training activities and feedback from field staff)
- Focal easements
  - Identification of City's "focal easements" (WCTS easements located in remote or wooded areas, specifically the areas where large equipment might be obstructed from gaining access)
  - Scanned (i.e., digitized) paper maps of City's current focal easements associated with the WCTS.
  - Developed ArcGIS map illustrating approximate location of identified focal easements associated with the WCTS.
  - Equipment
    - In 2022, the City procured an easement mulching unit. The unit comprises a dedicated skid-steer and mulching head for clearing vegetation.
    - City is currently awaiting manufacturer-organized training on the mulching equipment to begin utilizing for easement clearing and control.

- Continue updating/refining City's pump station and force main design standards
- Pump stations remote monitoring systems
  - Began and completed evaluation and classification of City's 66 pump stations as being "high", "medium", or "low" risk.
- Began development of necessary procurement documents, which, when finalized; the City will utilize in procuring remote monitoring units for WCTS pump stations classified as either "high" or "medium" risk.
- Participated in the demonstration of two separate remote monitoring systems as part of the remote monitoring system evaluation process.

During the next reporting period:

- Pump stations remote monitoring systems
  - Complete remote monitoring system performance-based procurement documents.
  - City to conduct and complete procurement phase for purchasing and installation of remote monitoring units for WCTS pump stations classified as either "high" or "medium" risk.
- Continue refinement of SOPs related to pump station and force main operations and maintenance procedures based on training 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.
- Training
  - Anticipate conducting training related to pump station and force main corrosion control (*Recognizing Possible Corrosion Degradation to WCTS Assets Caused by Hydrogen Sulfides or Other Corrosives*).
  - Addition of supplemental training curriculum (as appropriate) associated with the operation and maintenance of the gravity sewer system.
- Periodic review, evaluation, and revision of Pump Station and Force Main Operations and Preventative Maintenance Program document
  - 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.
- Continue updating/refining City's pump station and force main design standards

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	Part of SUO amendments
Classification of each PS as "**high**, **medium**, or **low risk**"	Within 9 months of EPA approval	Completed in February 2022
Initiation of program training & implementation	Within 12 months of EPA approval	Initiated in June 2022
SOP development	Within 12 months of EPA approval	Completed in May 2022
Development/implementation of remote monitoring system component	Phased implementation*	Initiated in March 2022
All program elements implemented/in-place	12 months from EPA approval of plan	All components in progress

* *Task includes evaluation and selection of the most appropriate remote monitoring system for Meridian's system (taking into consideration interface/compatibility with forthcoming IMS). Evaluation phase may include pilot testing of different units. Upon selection of the monitoring system, "high-risk" stations determined to have higher priority will be equipped with devices first.*

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	5.4
SSOs per Pump Station	Number of annual SSOs per number of pump stations	(# of SSOs) / ∑ # of PS	Reduction in Annual Trend	1.2
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	3.8%
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	0.3%
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	**	**
Routine Evaluation of Program	Annual review, evaluation, and revision, as necessary, to Program	Value	Once per Year	In Progress
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%

** 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:

- Conducted evaluation with the objective of identifying deficits within the City's current Sewer Use Regulations to support effective implementation and enforcement of requisites as prescribed by the Consent Decree.
- Drafted amendments to the City's Water and Sewer Ordinance, specifically as it applies to the following:
  - Rules and Regulations Program
  - Grease Control
  - Private Lateral

- Conducted meetings with City Attorney and Community Development Department to review proposed amendments to the City's Water and Sewer Ordinance.
- Initiated the development phase for the Program's associated **enforcement response guides**, which comprises the following:
  - FOG Management and Enforcement Response Guide
  - Private Lateral Enforcement Response Guide
- Updated specific minimum sewer system design requirements to adhere to modern industry standards for sewer system rehabilitation and construction.

During the next reporting period:

- Finalize proposed amendments to City's Sewer Use Ordinance
- Submit amended ordinance to City Council for ultimate approval.
- Initiate implementation of updated ordinance procedures.

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	In progress
Adoption of amended Water and Sewers Ordinance by City Council	Within twelve (12) months of EPA and MDEQ approval of the FOG Control Program	To be executed in 2023

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:

- Prioritized and developed business processes for IMS
- Conducted final preliminary evaluation of required IMS software
- Initiated and completed procurement process of IMS Software
- Continued development of IMS Configuration/Programming
- Coordinated and conducted follow-up workshop(s) with the City of Meridian staff
- Coordinate 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
- Configure and install Cityworks software and identified system administrators and provided training
- Began development of requisitions and work order process for priority activities

During the next reporting period:

- Train users in public works on the Cityworks software use
- Generate work orders and tracking dash boards to support management staff work tracking
- Quarterly track work order generation and work order close out
- Establish new work order templates for additional identified task in Public Works Department

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

Program Task	Date of Completion
Initiation of Selection/Procurement of IMS Software	IMS Package selected 2/22
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*

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:

- Training
  - Identified training opportunities for City's FOG Coordinator to participate in as part of the FOG Coordinator training curriculum (and establishing a strong FOG-management foundation from which to develop).
  - Organized the City's FOG Coordinator attendance at the in-person 8-hr. training event in Louisiana on August 10th, 2022. The **FOG Abatement Training** event was part of the USDA sponsored *National Fats, Oils and Grease (FOG) Training Program and Abatement Technical Assistance: Serving Small Communities to Address Common Maintenance and Management Challenges Associated with FOG* (funded through the USDA Rural Utilities Service (RUS) with the objective to provide technical training and assistance to small, rural communities in FOG abatement).
- 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).
- FOG Characterization Study

- Coordinated and conducted FOG Control Program kickoff workshop with the City of Meridian staff
- Initiated and completed preliminary list of focal FOG "hot spot" areas.
- Completed development of the City's draft FOG Characterization Study

- Began 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.

During the next reporting period:

- Continue implementation activities associated with staffing (technical/legal) and equipment requirements for Program's execution.
- Development of SOPs related to FOG Control Program, specifically as they apply to inspection and recordkeeping.
- Training
  - Continue identification of industry-sponsored FOG control training 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.
- Development of compliance and construction inspection protocols
- Initiate outreach activities for focal commercial FOG generators identified as part of the FOG Characterization Study.
- Continue refinement of "living" list (including the electronic database) of commercial establishment FOG generators.

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	Draft report completed (2022)
Establishment of staffing (technical/legal) & equipment requirements	Within 16 months of EPA/MDEQ approval	Under development
Development of design and construction standards	Within 18 months of EPA/MDEQ approval	To be developed
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	Preliminary list completed
Establishment of a FOG Control Program training component	Within 18 months of EPA/MDEQ approval	In progress
Development of compliance and construction inspection protocols	Within 18 months of EPA/MDEQ approval	In progress
Enactment of the FOG Ordinance	Within 24 months of EPA/MDEQ approval	In progress
Development of FOG control device BMPs	Within 24 months of EPA/MDEQ approval	Initiated
Development of compliance assistance program for FOG generators	Within 24 months of EPA/MDEQ approval	To be developed
Development of a public education/outreach component targeting non-commercial/residential customers	Within 24 months of EPA/MDEQ approval	In progress
All program elements implemented/in-place	Within 24 months of EPA/MDEQ approval	In progress

Table 4-8B. 2022 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	1
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	TBD*
Resolution of Non-Compliance	The City will track resolution of commercial FOG generators determined to be out of compliance with Program/ordinance.	Value	100%	TBD*
Program Training	All personnel involved in FOG Control Program complete the required training curriculum.	Value	100%	TBD*
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	TBD*

** To be determined upon full implementation of the FOG Control Program*

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
- Coordinated and conducted Financing and Cost Analysis Program kickoff workshop with the City of Meridian staff
- Continue Financing and Cost Analysis Program implementation.
- Obtained additional program funding from ARPA

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

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 the City's Annual Report (pursuant to 26.b of the Consent Decree).

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

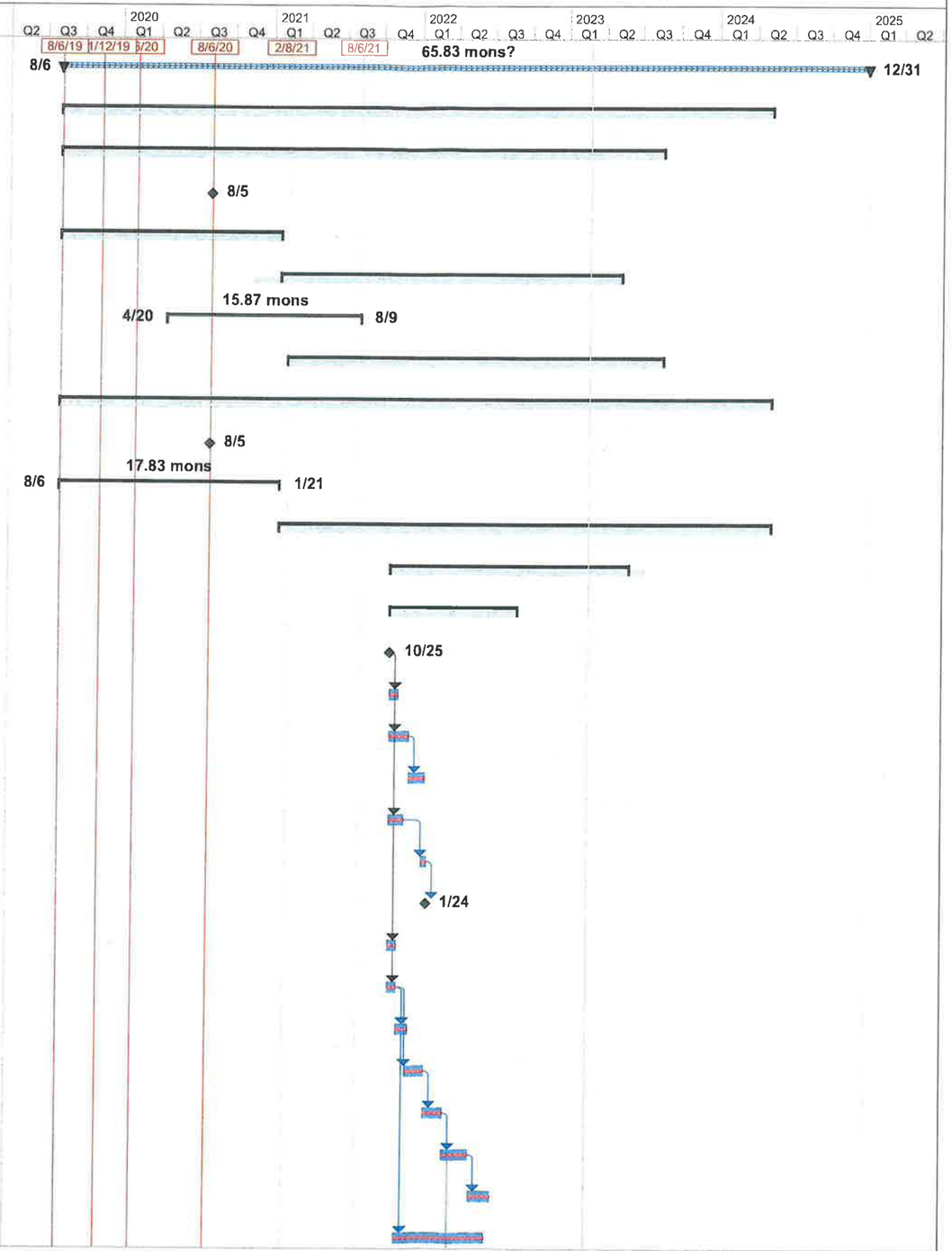
Performance Measure	Description	Calculation	Target Annual Value
Meeting Minimum Required Debt Service Coverage Ratio (DCR)	Debt service coverage ratio measures the system's ability to pay its long-term debts. The minimum DCR will be as defined per City's bond covenant.	Value	≥ Minimum DCR
Adequate Financing 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
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
Routine Evaluation of Customer Rates	Annual review, evaluation, and revision (if necessary) to customer rates	Value	Once per Year
Routine Program Evaluation	Annual review, evaluation, and revision (as necessary), to Program	Value	Once per Year

5.0 Consent Decree Progress Schedule

A chart indicating the overall progress of Consent Decree required activities and milestones is shown on the following pages.

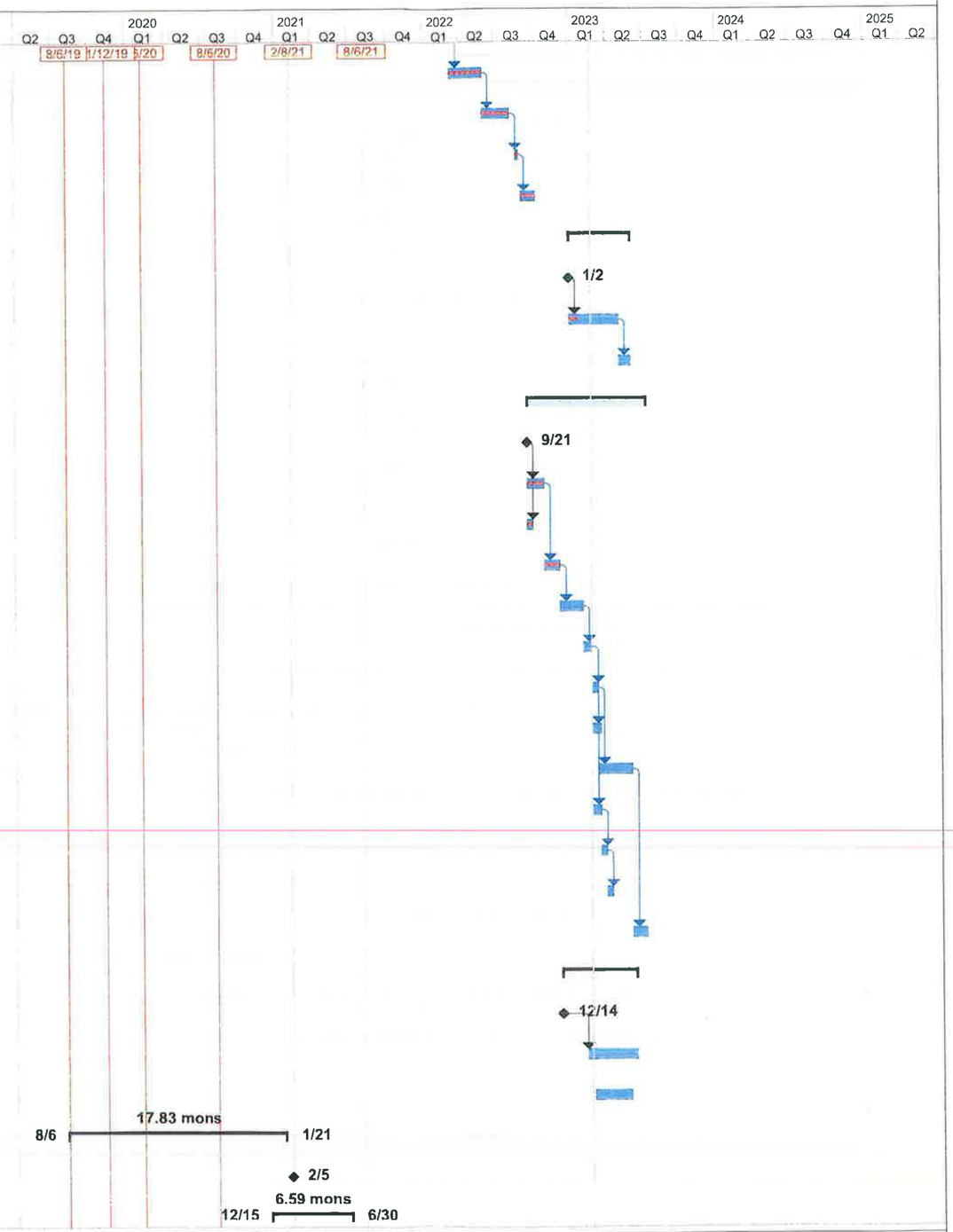
Meridian Consent Decree

ID	WBS	Task Name	Duration	Start	Finish	% Complete
0		**City of Meridian EPA Consent Decree Schedule**	**65.83 mons?**	**Tue 8/6/19**	**Tue 12/31/24**	**58%**
1	**1**	**1 Wastewater Collection and Transmission System (WCTS)**	**57.93 mons?**	**Tue 8/6/19**	**Wed 5/8/24**	**64%**
2	**1.1**	**1.1 Highway 80 Trunk Line Work Plan and Rehabilitation Plan**	**49.23 mons?**	**Tue 8/6/19**	**Mon 8/21/23**	**84%**
3	1.1.1	**1.1.1 Highway 80 Trunk Line Work Plan Deadline**	**0 mons**	**Wed 8/5/20**	**Wed 8/5/20**	**100%**
4	**1.1.2**	**1.1.2 Highway 80 Trunk Line Work Plan**	**17.83 mons**	**Tue 8/6/19**	**Thu 1/21/21**	**100%**
18	**1.1.3**	**1.1.3 Highway 80 Trunk Line Rehabilitation Plan**	**28 mons**	**Thu 1/21/21**	**Wed 5/10/23**	**87%**
34	**1.1.4**	**1.1.4 Highway 80 Trunk Line Phase 1 Rehabilitation**	**15.87 mons**	**Mon 4/20/20**	**Mon 8/9/21**	**100%**
40	**1.1.5**	**1.1.5 Highway 80 Trunk Line Phase 2 Rehabilitation**	**30.83 mons?**	**Mon 2/8/21**	**Mon 8/21/23**	**78%**
71	**1.2**	**1.2 Sewerbasin Work Plan and Prioritization Report**	**57.93 mons?**	**Tue 8/6/19**	**Wed 5/8/24**	**49%**
72	1.2.1	**1.2.1 Sewerbasin Prioritization Work Plan Deadline**	**0 mons**	**Wed 8/5/20**	**Wed 8/5/20**	**100%**
73	**1.2.2**	**1.2.2 Sewerbasin Prioritization Work Plan**	**17.83 mons**	**Tue 8/6/19**	**Thu 1/21/21**	**100%**
87	**1.2.3**	**1.2.3 Sewerbasin Prioritization Report**	**40.13 mons**	**Thu 1/21/21**	**Wed 5/8/24**	**28%**
104	**1.2.4**	**1.2.4 54-inch Diameter Sanitary Sewer Interceptor**	**19.47 mons?**	**Mon 10/25/21**	**Wed 5/31/23**	**49%**
105	**1.2.4.1**	**1.2.4.1 Design Phase Services**	**10.37 mons**	**Mon 10/25/21**	**Wed 8/31/22**	**100%**
106	1.2.4.1.1	1.2.4.1.1 Notice to Proceed	0 wks	Mon 10/25/21	Mon 10/25/21	100%
107	1.2.4.1.2	1.2.4.1.2 Field Survey	3.1 wks	Mon 10/25/21	Mon 11/15/21	100%
108	1.2.4.1.3	1.2.4.1.3 Access Road to Site (by City of Meridian)	6.71 wks	Mon 10/25/21	Fri 12/10/21	100%
109	1.2.4.1.4	1.2.4.1.4 Geotechnical Investigation	5.86 wks	Fri 12/10/21	Wed 1/19/22	100%
110	1.2.4.1.5	1.2.4.1.5 Hydrologic/Hydraulic Study	5.1 wks	Mon 10/25/21	Mon 11/29/21	100%
111	1.2.4.1.6	1.2.4.1.6 Hydrologic/Hydraulic Report	2 wks	Mon 1/10/22	Mon 1/24/22	100%
112	1.2.4.1.7	1.2.4.1.7 Hydrologic/Hydraulic Evaluation Results	0 wks	Mon 1/24/22	Mon 1/24/22	100%
113	1.2.4.1.8	1.2.4.1.8 Wetland Delineation	3.1 wks	Mon 10/25/21	Mon 11/15/21	100%
114	1.2.4.1.9	1.2.4.1.9 30% Design Drawings	3.1 wks	Mon 10/25/21	Mon 11/15/21	100%
115	1.2.4.1.10	1.2.4.1.10 City Review of 30% Draft	3.9 wks	Mon 11/15/21	Sun 12/12/21	100%
116	1.2.4.1.11	1.2.4.1.11 60% Design Drawings and Specifications	6.61 wks	Mon 12/6/21	Fri 1/21/22	100%
117	1.2.4.1.12	1.2.4.1.12 City Review of 60% Submittal	7 wks	Fri 1/21/22	Thu 3/10/22	100%
118	1.2.4.1.13	1.2.4.1.13 Easement Preparation	9.14 wks	Thu 3/10/22	Thu 5/12/22	100%
119	1.2.4.1.14	1.2.4.1.14 City Review of Easement Documents	7.43 wks	Mon 5/16/22	Wed 7/6/22	100%
120	1.2.4.1.15	1.2.4.1.15 USACE Permitting	31.2 wks	Mon 11/15/21	Wed 6/22/22	100%



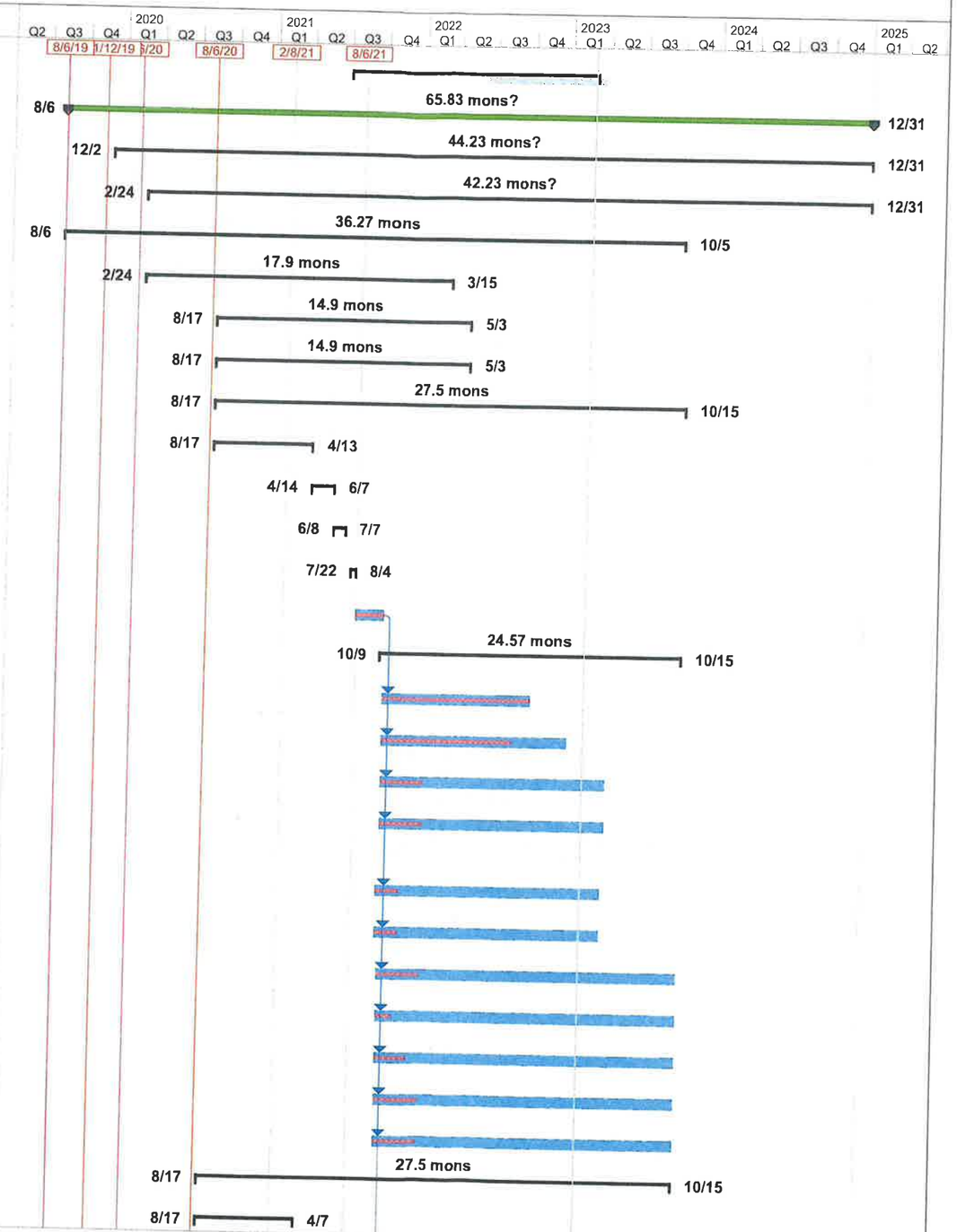
Meridian Consent Decree

ID	WBS	Task Name	Duration	Start	Finish	% Complete
121	1.2.4.1.16	1.2.4.1.16 MDOT Permit Preparation	11.9 wks	Thu 3/10/22	Wed 6/1/22	100%
122	1.2.4.1.17	1.2.4.1.17 MDOT Permit Approval	10 wks	Wed 6/1/22	Wed 8/10/22	100%
123	1.2.4.1.18	1.2.4.1.18 Final Drawings and Specifications	1 wk	Thu 8/25/22	Wed 8/31/22	100%
124	1.2.4.2	1.2.4.2 Bid Phase Services	5 wks	Thu 9/8/22	Wed 10/12/22	100%
125	**1.2.4.3**	**1.2.4.3 Construction Phase**	**5 mons**	**Mon 1/2/23**	**Wed 5/31/23**	**14%**
126	1.2.4.3.1	1.2.4.3.1 Notice to Proceed	0 mons	Mon 1/2/23	Mon 1/2/23	100%
127	1.2.4.3.2	1.2.4.3.2 Construction/Substantial Completion	4 mons	Mon 1/2/23	Mon 5/1/23	17%
128	1.2.4.3.3	1.2.4.3.3 Final Completion	1 mon	Tue 5/2/23	Wed 5/31/23	0%
129	**1.2.4.4**	**1.2.4.4 West Meridian Trunkline Phase 1 Rehabilitation**	**9.67 mons**	**Wed 9/21/22**	**Fri 7/7/23**	**25%**
130	1.2.4.4.1	1.2.4.4.1 Notice to Proceed	0 ewks	Wed 9/21/22	Wed 9/21/22	100%
131	1.2.4.4.2	1.2.4.4.2 Field Survey	6 ewks	Wed 9/21/22	Wed 11/2/22	100%
132	1.2.4.4.3	1.2.4.4.3 Geotechnical Investigaiton	2 ewks	Wed 9/21/22	Wed 10/5/22	100%
133	1.2.4.4.4	1.2.4.4.4 30% Design Drawings	5.3 ewks	Wed 11/2/22	Fri 12/9/22	100%
134	1.2.4.4.5	1.2.4.4.5 City Review of 30% Draft	8 ewks	Fri 12/9/22	Fri 2/3/23	0%
135	1.2.4.4.6	1.2.4.4.6 60% Design Drawings and Specifications	3 ewks	Fri 2/3/23	Fri 2/24/23	0%
136	1.2.4.4.7	1.2.4.4.7 City Review of 60% Submittal	2 ewks	Fri 2/24/23	Fri 3/10/23	0%
137	1.2.4.4.8	1.2.4.4.8 Easement Preparation	3 ewks	Fri 2/24/23	Fri 3/17/23	0%
138	1.2.4.4.9	1.2.4.4.9 MDOT Permitting	12 ewks	Fri 3/10/23	Fri 6/2/23	0%
139	1.2.4.4.10	1.2.4.4.10 90% Design Drawings and Specifications	3 ewks	Fri 2/24/23	Fri 3/17/23	0%
140	1.2.4.4.11	1.2.4.4.11 City Review of 90% Submittal	2 ewks	Fri 3/17/23	Fri 3/31/23	0%
141	1.2.4.4.12	1.2.4.4.12 Final Drawings and Specifications	2 ewks	Fri 3/31/23	Fri 4/14/23	0%
142	1.2.4.4.13	1.2.4.4.13 Bid Phase Services	5 ewks	Fri 6/2/23	Fri 7/7/23	0%
143	**1.2.4.5**	**1.2.4.5 Sanitary and Storm Sewer Rehabilitation Annual Contract**	**6 mons**	**Wed 12/14/22**	**Sun 6/11/23**	**0%**
144	1.2.4.5.1	1.2.4.5.1 Notice to Proceed (Construction)	0 mons	Wed 12/14/22	Wed 12/14/22	100%
145	1.2.4.5.2	1.2.4.5.2 Work Order 1 - Medical District	4 mons	Sun 2/12/23	Sun 6/11/23	0%
146	1.2.4.5.3	1.2.4.5.3 Work Order 2 - Industrial Park Sewer Main	3 mons	Wed 3/1/23	Mon 5/29/23	0%
147	**1.3**	**1.3 Chronic SSO Advanced Remote Monitoring Program**	**17.83 mons**	**Tue 8/6/19**	**Thu 1/21/21**	**100%**
159	1.4	**1.4 Updated Chronic SSO List Development and Monitoring Plan Deadline**	**0 mons**	**Fri 2/5/21**	**Fri 2/5/21**	**100%**
160	**1.5**	**1.5 Updated Chronic SSO List Development and Monitoring Plan**	**6.59 mons**	**Tue 12/15/20**	**Wed 6/30/21**	**100%**



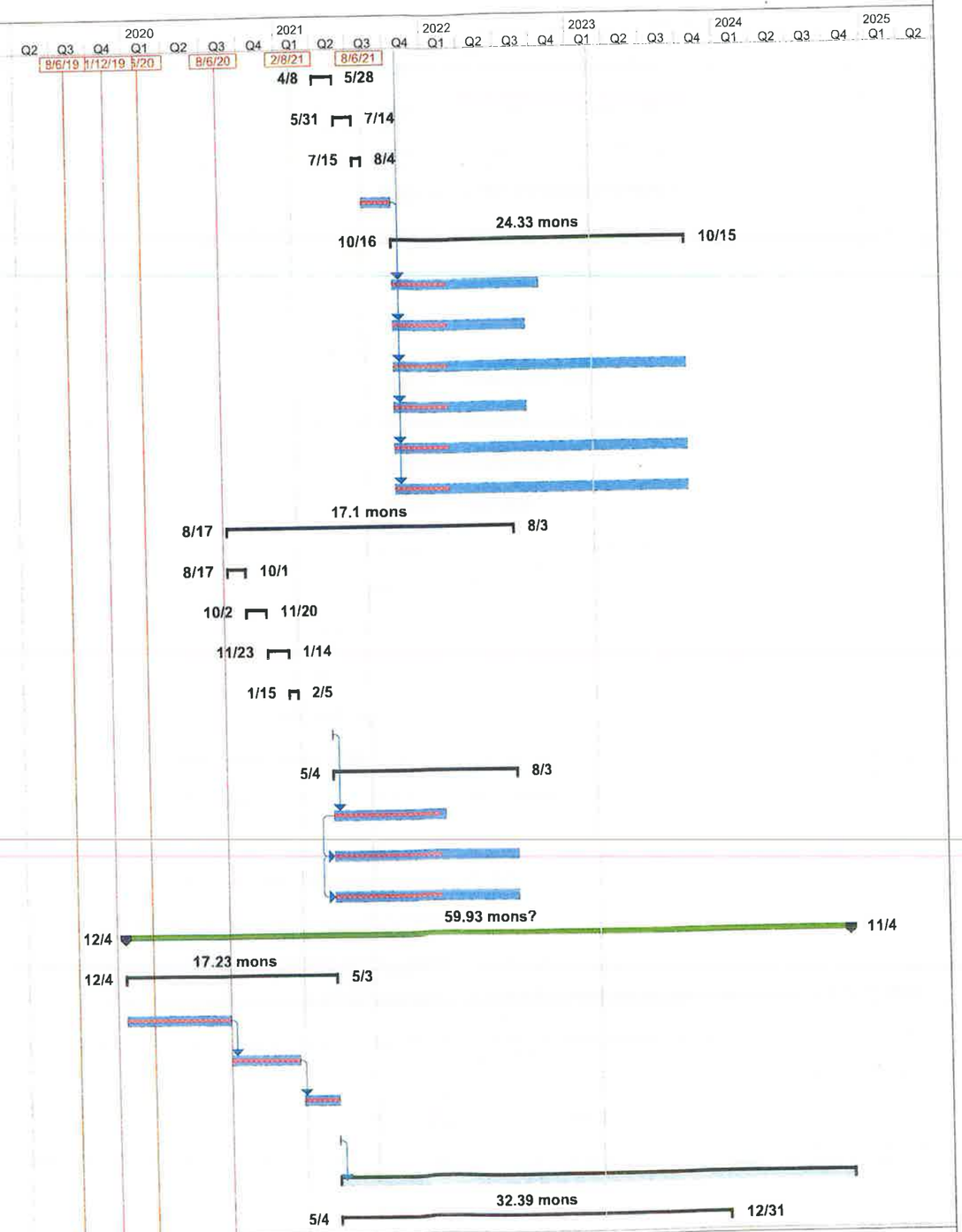
Meridian Consent Decree

ID	WBS	Task Name	Duration	Start	Finish	% Complete
167	**1.6**	**1.6 Implement Remote Monitoring Program**	**14.47 mons?**	**Wed 6/30/21**	**Mon 2/27/23**	**40%**
176	**2**	**2 Capacity, Operations, Maintenance & Management (CMOM) Programs**	**65.83 mons?**	**Tue 8/6/19**	**Tue 12/31/24**	**61%**
177	**2.2**	**2.1 Task 6.01: Sewer Overflow Response Plan (SORP) Program Component (6 Mos.)**	**44.23 mons?**	**Mon 12/2/19**	**Tue 12/31/24**	**68%**
199	**2.3**	**2.2 Task 6.02: Emergency Response Plan (12 Mos.)**	**42.23 mons?**	**Mon 2/24/20**	**Tue 12/31/24**	**67%**
223	**2.4**	**2.3 Task 6.03: IMS Program Plan (24 Mo. Deliverable)**	**36.27 mons**	**Tue 8/6/19**	**Thu 10/5/23**	**79%**
246	**2.6**	**2.4 Task 6.04: Sewer Mapping Program Plan (12 Mos.)**	**17.9 mons**	**Mon 2/24/20**	**Tue 3/15/22**	**100%**
272	**2.7**	**2.5 Task 6.05: Gravity Sewer System Operations & Maintenance Program Plan (18 Mos.)**	**14.9 mons**	**Mon 8/17/20**	**Tue 5/3/22**	**100%**
295	**2.9**	**2.6 Task 6.06: Pump Station & Force Main Operations & Preventative Maintenance Program Plan (18 Mos.)**	**14.9 mons**	**Mon 8/17/20**	**Tue 5/3/22**	**99%**
319	**2.11**	**2.7 Task 6.07: FOG Program Plan (24 Mo. Deliverable)**	**27.5 mons**	**Mon 8/17/20**	**Sun 10/15/23**	**24%**
320	**2.11.1**	**2.7.1 30% Draft Plan**	**5.73 mons**	**Mon 8/17/20**	**Tue 4/13/21**	**100%**
324	**2.11.2**	**2.7.2 60% Draft Plan**	**1.3 mons**	**Wed 4/14/21**	**Mon 6/7/21**	**100%**
328	**2.11.3**	**2.7.3 90% Draft Plan**	**0.73 mons**	**Tue 6/8/21**	**Wed 7/7/21**	**100%**
332	**2.11.4**	**2.7.4 Final Report**	**0.33 mons**	**Thu 7/22/21**	**Wed 8/4/21**	**100%**
335	2.11.5	**2.7.5 Approval Of FOG Control Program**	**52 days**	**Thu 8/5/21**	**Fri 10/15/21**	**100%**
336	**2.11.6**	**2.7.6 Implementation of FOG Control Program**	**24.57 mons**	**Sat 10/9/21**	**Sun 10/15/23**	**21%**
337	2.11.6.1	2.7.6.1 Perform FOG Characterization Study	365 days	Sat 10/16/21	Sat 10/15/22	100%
338	2.11.6.2	2.7.6.2 Establishment of staffing (technical/legal) & equipment requirements	456 days	Sat 10/16/21	Sat 1/14/23	70%
339	2.11.6.3	2.7.6.3 Development of design and construction standards	547 days	Sat 10/16/21	Sat 4/15/23	18%
340	2.11.6.4	2.7.6.4 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)	547 days	Sat 10/16/21	Sat 4/15/23	18%
341	2.11.6.5	2.7.6.5 Establishment of a FOG Control Program training component	547 days	Sat 10/9/21	Sat 4/8/23	10%
342	2.11.6.6	2.7.6.6 Development of compliance and construction inspection protocols	547 days	Sat 10/9/21	Sat 4/8/23	10%
343	2.11.6.7	2.7.6.7 Enactment of the FOG Ordinance	730 days	Sat 10/16/21	Sun 10/15/23	14%
344	2.11.6.8	2.7.6.8 Development of FOG control device BMPs	730 days	Sat 10/16/21	Sun 10/15/23	5%
345	2.11.6.9	2.7.6.9 Development of a compliance assistance program for FOG generators	730 days	Sat 10/16/21	Sun 10/15/23	10%
346	2.11.6.10	2.7.6.10 Development of a public education/outreach component targeting non-commercial/residential customers	730 days	Sat 10/16/21	Sun 10/15/23	14%
347	2.11.6.11	2.7.6.11 All program elements implemented/in-place	730 days	Sat 10/16/21	Sun 10/15/23	14%
348	**2.13**	**2.8 Task 6.08: Financing & Cost Analysis Program Plan (24 Mo. Deliverable)**	**27.5 mons**	**Mon 8/17/20**	**Sun 10/15/23**	**31%**
349	**2.13.1**	**2.8.1 30% Draft Plan**	**5.6 mons**	**Mon 8/17/20**	**Wed 4/7/21**	**100%**



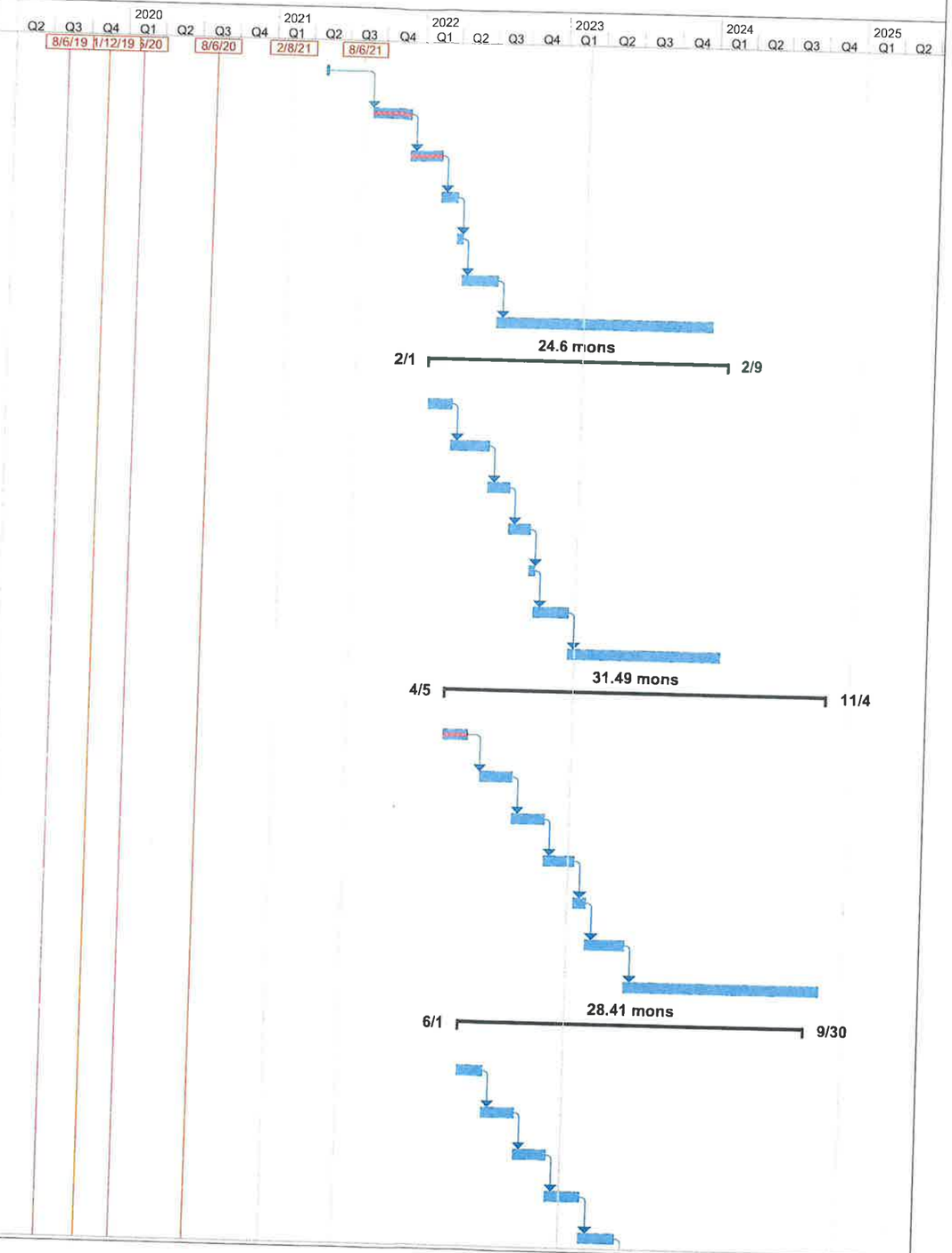
Meridian Consent Decree

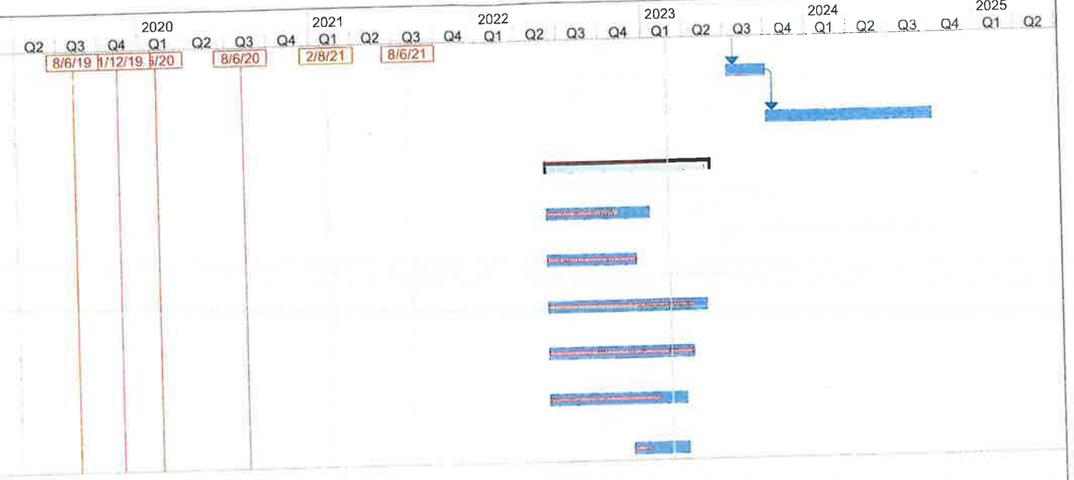
ID	WBS	Task Name	Duration	Start	Finish	% Complete
353	**2.13.2**	**2.8.2 60% Draft Plan**	**1.23 mons**	**Thu 4/8/21**	**Fri 5/28/21**	**100%**
357	**2.13.3**	**2.8.3 90% Draft Plan**	**1.1 mons**	**Mon 5/31/21**	**Wed 7/14/21**	**100%**
361	**2.13.4**	**2.8.4 Final Report**	**0.5 mons**	**Thu 7/15/21**	**Wed 8/4/21**	**100%**
364	2.13.5	**2.8.5 Approval of Financial & Cost Analysis Program**	**52 days**	**Thu 8/5/21**	**Fri 10/15/21**	**100%**
365	**2.13.6**	**2.8.6 Implementation of the Financing and Cost Analysis Program**	**24.33 mons**	**Sat 10/16/21**	**Sun 10/15/23**	**25%**
366	2.13.6.1	2.8.6.1 Budget and Cost Analysis Component	365 days	Sat 10/16/21	Sat 10/15/22	37%
367	2.13.6.2	2.8.6.2 CIP Financing Component	11 mons	Sat 10/16/21	Sat 9/10/22	41%
368	2.13.6.3	2.8.6.3 Life Cycle Cost Analysis Process Development	24.33 mons	Sat 10/16/21	Sun 10/15/23	18%
369	2.13.6.4	2.8.6.4 Adequacy of Customer Rates Evaluation	11 mons	Sat 10/16/21	Sat 9/10/22	41%
370	2.13.6.5	2.8.6.5 FOG Control Program Related Fees Established	730 days	Sat 10/16/21	Sun 10/15/23	18%
371	2.13.6.6	2.8.6.6 All Program elements implemented/in-place	730 days	Sat 10/16/21	Sun 10/15/23	18%
372	**2.15**	**2.9 Task 6.09: Legal Support Program Plan (18 Mos.)**	**17.1 mons**	**Mon 8/17/20**	**Wed 8/3/22**	**71%**
373	**2.15.1**	**2.9.1 30% Draft Plan**	**1.13 mons**	**Mon 8/17/20**	**Thu 10/1/20**	**100%**
377	**2.15.2**	**2.9.2 60% Draft Plan**	**1.2 mons**	**Fri 10/2/20**	**Fri 11/20/20**	**100%**
381	**2.15.3**	**2.9.3 90% Draft Plan**	**1.3 mons**	**Mon 11/23/20**	**Thu 1/14/21**	**100%**
385	**2.15.4**	**2.9.4 Final Report**	**0.53 mons**	**Fri 1/15/21**	**Fri 2/5/21**	**100%**
388	2.15.5	**2.9.5 Approval of Legal Support Program Plan**	**1 day**	**Mon 5/3/21**	**Mon 5/3/21**	**100%**
389	**2.15.6**	**2.9.6 Legal Support Program Deliverables**	**10.9 mons**	**Tue 5/4/21**	**Wed 8/3/22**	**67%**
390	2.15.6.1	2.9.6.1 Development of amended Water and Sewers Ordinance	198 days	Tue 5/4/21	Thu 2/3/22	95%
391	2.15.6.2	2.9.6.2 Adoption of amended Water and Sewers Ordinance by City Council	327 days	Tue 5/4/21	Wed 8/3/22	58%
392	2.15.6.3	**2.9.6.3 All program elements implemented/in-place**	327 days	Tue 5/4/21	Wed 8/3/22	58%
393	**3**	**3 South Wastewater Treatment Plant**	**59.93 mons?**	**Wed 12/4/19**	**Mon 11/4/24**	**37%**
394	**3.1**	**3.1 Sewer Treatment System Correction Action Plan (See 3.2.5)**	**17.23 mons**	**Wed 12/4/19**	**Mon 5/3/21**	**100%**
395	3.1.1	3.1.1 Rehabilitation Plan	8.2 mons	Wed 12/4/19	Wed 8/5/20	100%
396	3.1.2	3.1.2 Submittal to EPA for Review, Comment and/or Approval	5.75 mons	Thu 8/6/20	Mon 1/25/21	100%
397	3.1.3	3.1.3 ReSubmittal to EPA/MDEQ for Review, Comment and/or Approval	2.95 mons	Thu 2/4/21	Mon 5/3/21	100%
398	3.1.4	3.1.4 EPA/MDEQ Approval of Rehabilitation Plan	1 day	Mon 5/3/21	Mon 5/3/21	100%
399	**3.2**	**3.2 Design & Construction of STCAP**	**42.7 mons?**	**Tue 5/4/21**	**Mon 11/4/24**	**31%**
400	**3.2.1**	**3.2.1 Phase 1: 9 MGD Train, 4 MGD Train, RAS Pump, Influent Pump and Basin Rehabilitation (See 3.2.5)**	**32.39 mons**	**Tue 5/4/21**	**Sun 12/31/23**	**20%**



Meridian Consent Decree

ID	WBS	Task Name	Duration	Start	Finish	% Complete
401	3.2.1.1	3.2.1.1 30% Design for all Phase 1	0.03 mons	Tue 5/4/21	Tue 5/4/21	100%
402	3.2.1.2	3.2.1.2 60% Design for all Phase 1	3.02 mons	Wed 9/1/21	Tue 11/30/21	100%
403	3.2.1.3	3.2.1.3 90% Design for all Phase 1	2.65 mons	Tue 11/30/21	Fri 2/18/22	100%
404	3.2.1.4	3.2.1.4 100% Design for all Phase 1 (ON HOLD - Awaiting Nutrient TMDL Approval)	1.4 mons	Fri 2/18/22	Fri 4/1/22	0%
405	3.2.1.5	3.2.1.5 Advertise for Bid for all Phase 1 (ON HOLD - Awaiting Nutrient TMDL Approval)	0.48 mons	Fri 4/1/22	Fri 4/15/22	0%
406	3.2.1.6	3.2.1.6 Begin Construction for all Phase 1 (ON HOLD - Awaiting Nutrient TMDL Approval)	3.15 mons	Fri 4/15/22	Mon 7/18/22	0%
407	3.2.1.7	3.2.1.7 Complete Construction for all Phase 1 (ON HOLD - Awaiting Nutrient TMDL Approval)	17.72 mons	Mon 7/18/22	Sun 12/31/23	0%
408	**3.2.2**	**3.2.2 Phase 2: Rehab of Filter Press and Dewatering Builiding Electrical Upgrade (See 3.2.5)**	**24.6 mons**	**Tue 2/1/22**	**Fri 2/9/24**	**0%**
409	3.2.2.1	3.2.2.1 30% Design for all Phase 2 (ON HOLD - Awaiting Nutrient TMDL Approval)	2 mons	Tue 2/1/22	Fri 4/1/22	0%
410	3.2.2.2	3.2.2.2 60% Design for all Phase 2 (ON HOLD - Awaiting Nutrient TMDL Approval)	3.3 mons	Fri 4/1/22	Fri 7/8/22	0%
411	3.2.2.3	3.2.2.3 90% Design for all Phase 2 (ON HOLD - Awaiting Nutrient TMDL Approval)	1.9 mons	Fri 7/8/22	Fri 9/2/22	0%
412	3.2.2.4	3.2.2.4 100% Design for all Phase 2 (ON HOLD - Awaiting Nutrient TMDL Approval)	1.9 mons	Fri 9/2/22	Fri 10/28/22	0%
413	3.2.2.5	3.2.2.5 Advertise for Bid for all Phase 2 (ON HOLD - Awaiting Nutrient TMDL Approval)	0.5 mons	Fri 10/28/22	Fri 11/11/22	0%
414	3.2.2.6	3.2.2.6 Begin Construction for all Phase 2 (ON HOLD - Awaiting Nutrient TMDL Approval)	2.92 mons	Fri 11/11/22	Mon 2/6/23	0%
415	3.2.2.7	3.2.2.7 Complete Construction for all Phase 2 (ON HOLD - Awaiting Nutrient TMDL Approval)	12.25 mons	Mon 2/6/23	Fri 2/9/24	0%
416	**3.2.3**	**3.2.3 Cleanout of EQ Cells 1, 2, 3, and 4 Design including aerator upgrade**	**31.49 mons**	**Tue 4/5/22**	**Mon 11/4/24**	**7%**
417	3.2.3.1	3.2.3.1 30% Design for all Phase 3	2 mons	Tue 4/5/22	Fri 6/3/22	100%
418	3.2.3.2	3.2.3.2 60% Design for all Phase 3	2.82 mons	Fri 7/8/22	Fri 9/30/22	0%
419	3.2.3.3	3.2.3.3 90% Design for all Phase 3	2.8 mons	Sat 10/1/22	Fri 12/23/22	0%
420	3.2.3.4	3.2.3.4 100% Design for all Phase 3	2.55 mons	Sat 12/24/22	Fri 3/10/23	0%
421	3.2.3.5	3.2.3.5 Advertise for Bid for all Phase 3	0.95 mons	Fri 3/10/23	Fri 4/7/23	0%
422	3.2.3.6	3.2.3.6 Begin Construction for all Phase 3	3.12 mons	Sat 4/8/23	Mon 7/10/23	0%
423	3.2.3.7	3.2.3.7 Complete Construction for all Phase 3	16.1 mons	Mon 7/10/23	Mon 11/4/24	0%
424	**3.2.4**	**3.2.4 Phase 4: 4 MGD Train Rehab/Upgrade, Structure Rehabilitation and Septage/FOG Receiving Station (See 3.2.5)**	**28.41 mons**	**Wed 6/1/22**	**Mon 9/30/24**	**0%**
425	3.2.4.1	3.2.4.1 30% Design for all Phase 4 (ON HOLD - Awaiting Nutrient TMDL Approval)	2.2 mons	Wed 6/1/22	Fri 8/5/22	0%
426	3.2.4.2	3.2.4.2 60% Design for all Phase 4 (ON HOLD - Awaiting Nutrient TMDL Approval)	2.82 mons	Fri 8/5/22	Fri 10/28/22	0%
427	3.2.4.3	3.2.4.3 90% Design for all Phase 4 (ON HOLD - Awaiting Nutrient TMDL Approval)	2.8 mons	Fri 10/28/22	Fri 1/20/23	0%
428	3.2.4.4	3.2.4.4 100% Design for all Phase 4 (ON HOLD - Awaiting Nutrient TMDL Approval)	2.8 mons	Fri 1/20/23	Fri 4/14/23	0%
429	3.2.4.5	3.2.4.5 Advertise for Bid for all Phase 4 (ON HOLD - Awaiting Nutrient TMDL Approval)	2.8 mons	Fri 4/14/23	Fri 7/7/23	0%



Meridian Consent Decree

ID	WBS	Task Name	Duration	Start	Finish	% Complete
430	3.2.4.6	3.2.4.6 Begin Construction for all Phase 4 (ON HOLD - Awaiting Nutrient TMDL Approval)	2.9 mons	Fri 7/7/23	Mon 10/2/23	0%
431	3.2.4.7	3.2.4.7 Complete Construction for all Phase 4 (ON HOLD - Awaiting Nutrient TMDL Approval)	12.12 mons	Mon 10/2/23	Mon 9/30/24	0%
432	**3.2.5**	**3.2.5 Phase 5 - Evaluation of Immediate and Short-term Needs**	**12 mons**	**Wed 6/1/22**	**Fri 5/26/23**	**84%**
433	3.2.5.1	3.2.5.1 Enhancements to Existing Screening Systems - Bar and Fine Screens	7.5 mons	Wed 6/1/22	Wed 1/11/23	70%
434	3.2.5.2	3.2.5.2 Enhancements to Existing Grit Removal System	6.5 mons	Wed 6/1/22	Mon 12/12/22	100%
435	3.2.5.3	3.2.5.3 Removal of Waste Collected Sludge from WWTP units	11.6 mons	Wed 6/1/22	Sun 5/14/23	91%
436	3.2.5.4	3.2.5.4 South WWTP Evaluation, Cleaning, and Rehabilitation of Clarifiers	10.57 mons	Wed 6/1/22	Thu 4/13/23	100%
437	3.2.5.5	3.2.5.5 South WWTP Design - Rehabilitation of Clarifiers, Fine Screen, New Belt Press, New Influent Pump, SCADA, and electrical improvements	10 mons	Wed 6/1/22	Mon 3/27/23	80%
438	3.2.5.6	3.2.5.6 Installation of new coagulant feed system for 4 and 9 MGD plant clarifiers	4 mons	Thu 12/1/22	Thu 3/30/23	30%