CITY OF MERIDIAN

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

February 26, 2021

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

EES Case Management Unit
Environment and National 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. 1

Dear Ladies and Gentlemen:

Please find enclosed the City of Meridian Annual Report No. 1, as required in Section IX of the Consent Decree. Should you have any questions, please contact me.

Sincerely,

Hugh Smith, Jr., Director
Department of Public Works

Enclosure
Cc: Honorable Percy Bland III, Mayor
Jennifer Jorge, PhD., Program Manager, Waggoner Engineering Inc.

CITY OF MERIDIAN
Public Works Department

Wastewater System Consent Decree
Meridian, Mississippi

Annual Report No. 1

February 28, 2021

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

City of Meridian
Wastewater Consent Decree Program

Annual Report No. 1
January 2020 through December 2020

February 28, 2021

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. 1
January 2020 through December 2020

CITY OF MERIDIAN

Public Works Department

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.

Hugh Smith, Jr., Director
Department of Public Works

2-26-21
Date

Annual Report No. 1
January 2020 through December 2020

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1.0 Introduction

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 reports covers the reporting period from January 2020 to December 2020.

1.2 Authority to Promulgate

Waggoner Engineering, Inc., Neel-Schaffer, Inc. and Kimley-Horn and Associates, Inc. were retained 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 experienced conditions related to the ongoing COVID-19 pandemic that are having an impact on the City, its employees, and the support personnel involved in the Consent Decree compliance program. The City's basic operations have been directly impacted by the spread of COVID-19 within the ranks of City Employees. This has created difficult working conditions associated with resource limitations, restrictions on the ability of employees to work together in an efficient manner, and a redirection of employee resources on unexpected revamping and training related to improved safety and operating procedures. The City is making the health and safety of our employees, citizens, and supporting personnel the highest priority at this time. Unfortunately, we are being forced to make decisions to maintain current day-to-day operations in a safe and effective manner. These decisions may have longer-term implications related to compliance with some Consent Decree schedule milestones.

2.0 Summary of Sanitary Sewer Overflows and Effluent Violations

2.1 Sanitary Sewer Overflows

A Sanitary Sewer Overflow (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 2020 through December 2020.

The City experienced a total of forty-nine (49) SSOs for the reporting period with an estimated total duration of 1624 hours and estimated total volume of 33.1 million gallons.

Chart 2-1 lists Number of Sanitary Sewer Overflows by month in the system from January 2020 through December 2020.

Chart 2-2 lists Volume from Sanitary Sewer Overflows by month in the system from January 2020 through December 2020.

Chart 2-3 lists Duration of Sanitary Sewer Overflows by month in the system from January 2020 through December 2020.

Chart 2-4 lists Causes of Sanitary Sewer Overflows in the system from January 2020 through December 2020.

Table 2-1
City of Meridian, Mississippi
Annual Report No. 1 – January 2020 through December 2020
Sanitary Sewer Overflows

COUNT	LOCATION	DATE / TIME BEGAN	SOURCE	ESTIMATED DURATION (hours)	ESTIMATED VOLUME (Gallons)	STATE WATERS AFFECTED	CAUSE	RAINFALL (Meridian NWS) (inches)
1	22nd Ave S. / North Frontage Rd	1/2/20 9:15 AM	Manhole	11.08	99,750	Sowashee Creek	Excessive Rain	3.33
2	Sowashee Street	1/2/20 8:15 AM	Manhole	4.75	28,500	Sowashee Creek	Excessive Rain	3.33
3	181 65th Ave	1/2/20 8:00 AM	Manhole	46.50	697,500	Okatibee Creek	Excessive Rain	3.33
4	36th St / Parkway Blvd	1/2/20 1:34 PM	Manhole	3.93	47,200	Magnolia Creek	Excessive Rain	3.33
5	21st Ave / B Street	1/2/20 1:55 PM	Manhole	6.83	61,500	Sowashee Creek	Excessive Rain	3.33
6	181 65th Ave	1/10/20 5:45 PM	Manhole	39.58	593,750	Okatibee Creek	Excessive Rain	2.37
7	Sowashee Street	1/10/20 5:50 PM	Manhole	24.67	148,000	Sowashee Creek	Excessive Rain	2.37
8	22nd Ave S. / North Frontage Rd	1/11/20 7:30 AM	Manhole	12.50	150,000	Sowashee Creek	Excessive Rain	2.37
9	125 Hwy 11/80 Old Stribling Equipment	1/11/20 7:45 AM	Manhole	13.75	371,250	Sowashee Creek	Excessive Rain	2.37
10	18th Ave / North Frontage Rd	1/11/20 1:25 PM	Manhole	4.58	41,250	Sowashee Creek	Excessive Rain	2.37
11	118 Hwy 11/80 (Cracker Barrel)	1/11/20 12:45 PM	Manhole	5.25	15,750	Sowashee Creek	Excessive Rain	2.37
12	18th Ave / North Frontage Rd	1/14/20 1:45 PM	Manhole	22.08	132,500	Sowashee Creek	Excessive Rain	2.68
13	22nd Ave S. / North Frontage Rd	1/14/20 1:30 PM	Manhole	27.87	418,000	Sowashee Creek	Excessive Rain	2.68

Table 2-1-Continued
City of Meridian, Mississippi
Annual Report No. 1 – January 2020 through December 2020
Sanitary Sewer Overflows

COUNT	LOCATION	DATE / TIME BEGAN	SOURCE	ESTIMATED DURATION (hours)	ESTIMATED VOLUME (Gallons)	STATE WATERS AFFECTED	CAUSE	RAINFALL (Meridian NWS) (inches)
14	181 65th Ave	1/14/20 1:20 PM	Manhole	29.25	614,250	Okatibee Creek	Excessive Rain	2.68
15	Sowashee Street	1/14/20 1:35 PM	Manhole	22.00	198,000	Sowashee Creek	Excessive Rain	2.68
16	125 Hwy 11/80 Old Stribling Equipment	1/14/20 3:30 PM	Manhole	23.50	634,500	Sowashee Creek	Excessive Rain	2.68
17	118 Hwy 11/80 (Cracker Barrel)	2/6/20 8:10 AM	Manhole	7.83	4,700	Sowashee Creek	Excessive Rain	3.51
18	22nd Ave S. / North Frontage Rd	2/6/20 7:50 AM	Manhole	13.78	289,450	Sowashee Creek	Excessive Rain	3.51
19	181 65th Ave	2/5/20 6:00 PM	Manhole	27.98	587,650	Okatibee Creek	Excessive Rain	3.51
20	Sowashee Street	2/6/20 8:00 AM	Manhole	13.75	123,750	Sowashee Creek	Excessive Rain	3.51
21	125 Hwy 11/80 Old Stribling Equipment	2/6/20 7:45 AM	Manhole	14.75	398,250	Sowashee Creek	Excessive Rain	3.51
22	118 Hwy 11/80 (Cracker Barrel)	2/10/20 4:20 PM	Manhole	38.67	348,000	Sowashee Creek	Excessive Rain	2.83
23	22nd Ave S. / North Frontage Rd	2/10/20 4:00 PM	Manhole	39.30	825,300	Sowashee Creek	Excessive Rain	2.83
24	181 65th Ave	2/10/20 4:41 PM	Manhole	39.85	836,850	Okatibee Creek	Excessive Rain	2.83
25	Sowashee Street	2/10/20 4:05 PM	Manhole	39.30	353,700	Sowashee Creek	Excessive Rain	2.83

Table 2-1-Continued
City of Meridian, Mississippi
Annual Report No. 1 – January 2020 through December 2020
Sanitary Sewer Overflows

COUNT	LOCATION	DATE / TIME BEGAN	SOURCE	ESTIMATED DURATION (hours)	ESTIMATED VOLUME (Gallons)	STATE WATERS AFFECTED	CAUSE	RAINFALL (Meridian NWS) (inches)
26	125 Hwy 11/80 Old Stribling Equipment	2/10/20 4:22 PM	Manhole	38.67	1,044,000	Sowashee Creek	Excessive Rain	2.83
27	40th Ave / 26th St	2/20/20 11:05 AM	Manhole	5.92	35,500	Gallagher Creek	Excessive Rain	2.52
28	36th St / Parkway Blvd	2/20/20 10:30 AM	Manhole	6.08	73,000	Magnolia Creek	Excessive Rain	2.52
29	118 Hwy 11/80 (Cracker Barrel)	2/20/20 10:15 AM	Manhole	5.75	17,250	Sowashee Creek	Excessive Rain	2.52
30	22nd Ave S. / North Frontage Rd	2/20/20 9:45 AM	Manhole	9.58	86,250	Sowashee Creek	Excessive Rain	2.52
31	181 65th Ave	2/20/20 8:45 AM	Manhole	11.25	236,250	Okatibee Creek	Excessive Rain	2.52
32	Sowashee Street	2/20/20 9:35 AM	Manhole	6.42	57,750	Sowashee Creek	Excessive Rain	2.52
33	125 Hwy 11/80 Old Stribling Equipment	2/20/20 10:00 AM	Manhole	9.17	247,500	Sowashee Creek	Excessive Rain	2.52
34	22nd Ave S. / North Frontage Rd	3/4/20 8:00 AM	Manhole	31.03	837,900	Sowashee Creek	Excessive Rain	5.32
35	181 65th Ave	3/4/20 7:45 AM	Manhole	31.92	670,250	Okatibee Creek	Excessive Rain	5.32
36	40th Ave / 26th St	3/4/20 1:45 PM	Manhole	20.62	123,700	Gallagher Creek	Excessive Rain	5.32
37	Sowashee Street	3/4/20 8:15 AM	Manhole	25.50	229,500	Sowashee Creek	Excessive Rain	5.32

Table 2-1-Continued
City of Meridian, Mississippi
Annual Report No. 1 – January 2020 through December 2020
Sanitary Sewer Overflows

COUNT	LOCATION	DATE / TIME BEGAN	SOURCE	ESTIMATED DURATION (hours)	ESTIMATED VOLUME (Gallons)	STATE WATERS AFFECTED	CAUSE	RAINFALL (Meridian NWS) (inches)
38	125 Hwy 11/80 Old Stribling Equipment	3/4/20 8:30 AM	Manhole	25.50	688,500	Sowashee Creek	Excessive Rain	5.32
39	St. Paul St / North Frontage Rd	3/9/20 8:30 AM	24" Sewer Main Break	1.50	9,000	Sowashee Creek	Defective Pipe	NA
40	St. Paul St / North Frontage Rd	3/19/20 11:00 AM	24" Sewer Main Break	626.00	7,512,000	Sowashee Creek	Defective Pipe	NA
41	22nd Ave S. / North Frontage Rd	4/19/20 4:45 PM	Manhole	15.25	91,500	Sowashee Creek	Excessive Rain	2.79
42	Sowashee Street	4/19/20 5:50 PM	Manhole	14.67	43,000	Sowashee Creek	Excessive Rain	2.79
43	181 65th Ave	4/19/20 5:20 PM	Manhole	14.50	217,500	Okatibee Creek	Excessive Rain	2.79
44	St. Paul St / North Frontage Rd	5/12/20 11:30 AM	24" Sewer Main Break	4.50	108,000	Sowashee Creek	Defective Pipe	NA
45	Atlas Roofing/ Sowashee Creek	5/29/20 2:01 PM	54" Sewer Main Break	147.98	12,331,944	Sowashee Creek	Creek Bank Erosion	NA
46	181 65th Ave	6/24/20 3:15 PM	Manhole	15.83	237,500	Okatibee Creek	Excessive Rain	2.84
47	409 Windover Cir	9/8/20 2:00 PM	Manhole	1.00	6,000	Newell Branch	Grease	0.00

Table 2-1-Continued
City of Meridian, Mississippi
Annual Report No. 1 – January 2020 through December 2020
Sanitary Sewer Overflows

COUNT	LOCATION	DATE / TIME BEGAN	SOURCE	ESTIMATED DURATION (hours)	ESTIMATED VOLUME (Gallons)	STATE WATERS AFFECTED	CAUSE	RAINFALL (Meridian NWS) (inches)
48	181 65th Ave	10/28/20 9:40 AM	Manhole	21.33	192,000	Okatibee Creek	Excessive Rain	4.48
49	28th Ave / Mt. Barton Pl	11/17/20 8:30 AM	Bypass Pump	0.50	1,500	Sowashee Creek	Pump failure w/ bypass pump	0.00

Chart 2-1
City of Meridian, Mississippi
Annual Report No. 1 – January 2020 through December 2020
Number of Sanitary Sewer Overflows

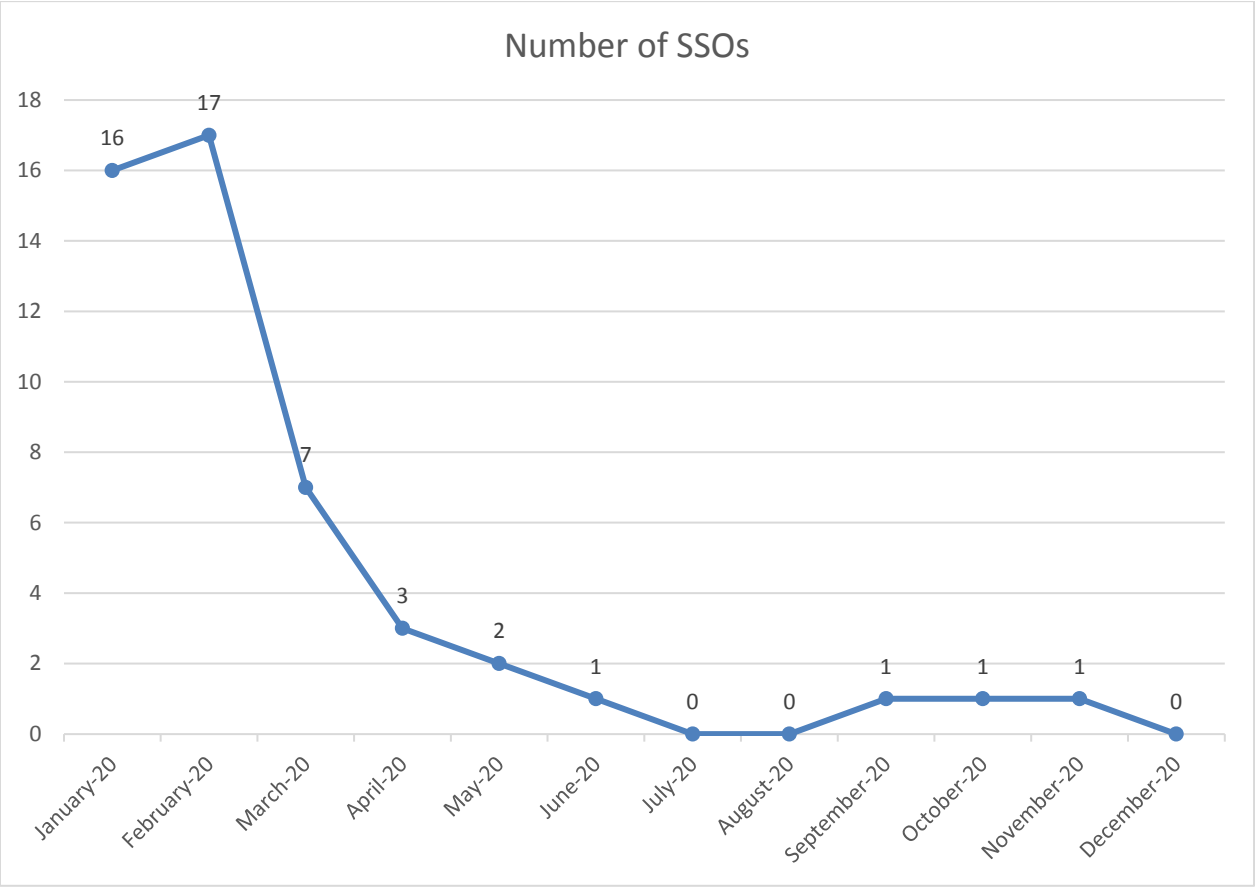


Chart 2-2
City of Meridian, Mississippi
Annual Report No. 1 – January 2020 through December 2020
Volume from Sanitary Sewer Overflows

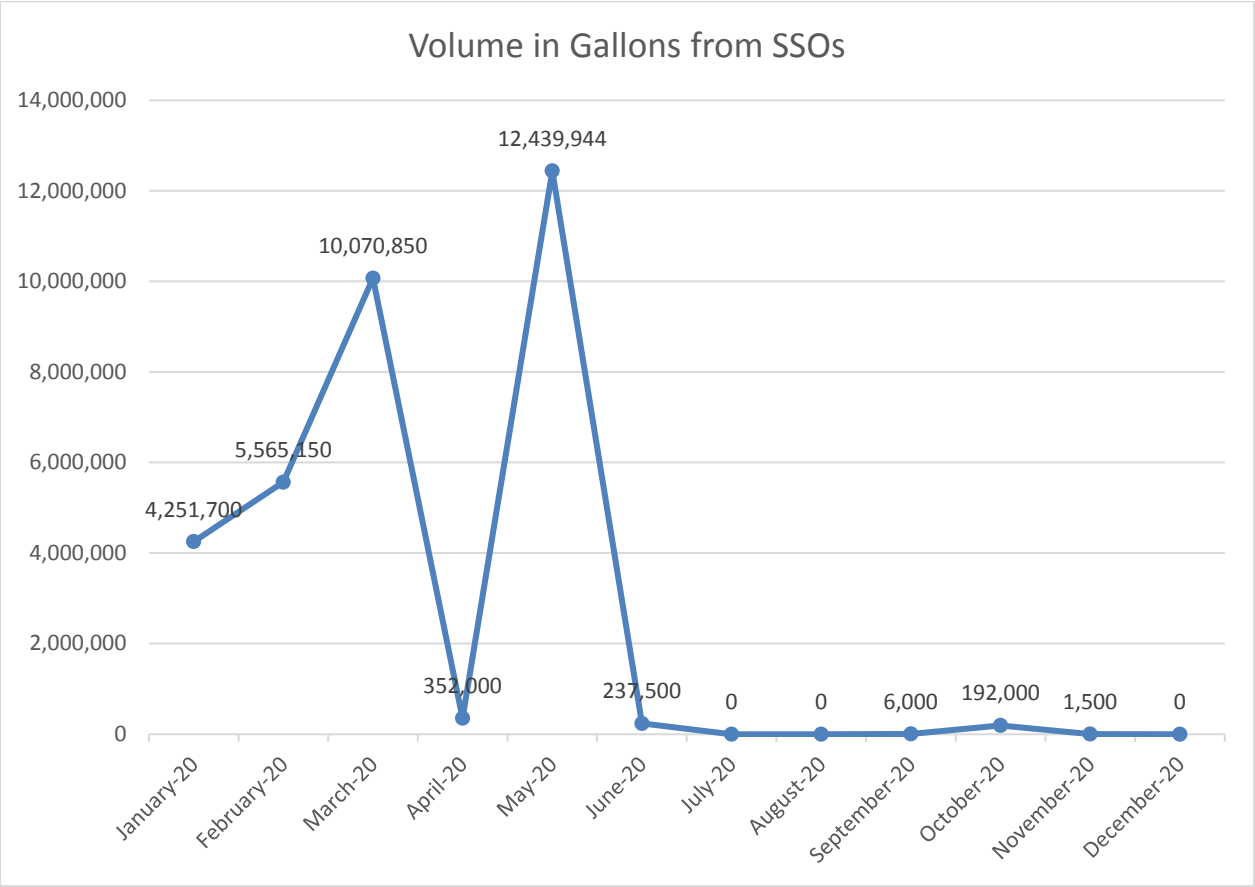


Chart 2-3
City of Meridian, Mississippi
Annual Report No. 1 – January 2020 through December 2020
Duration of Sanitary Sewer Overflows

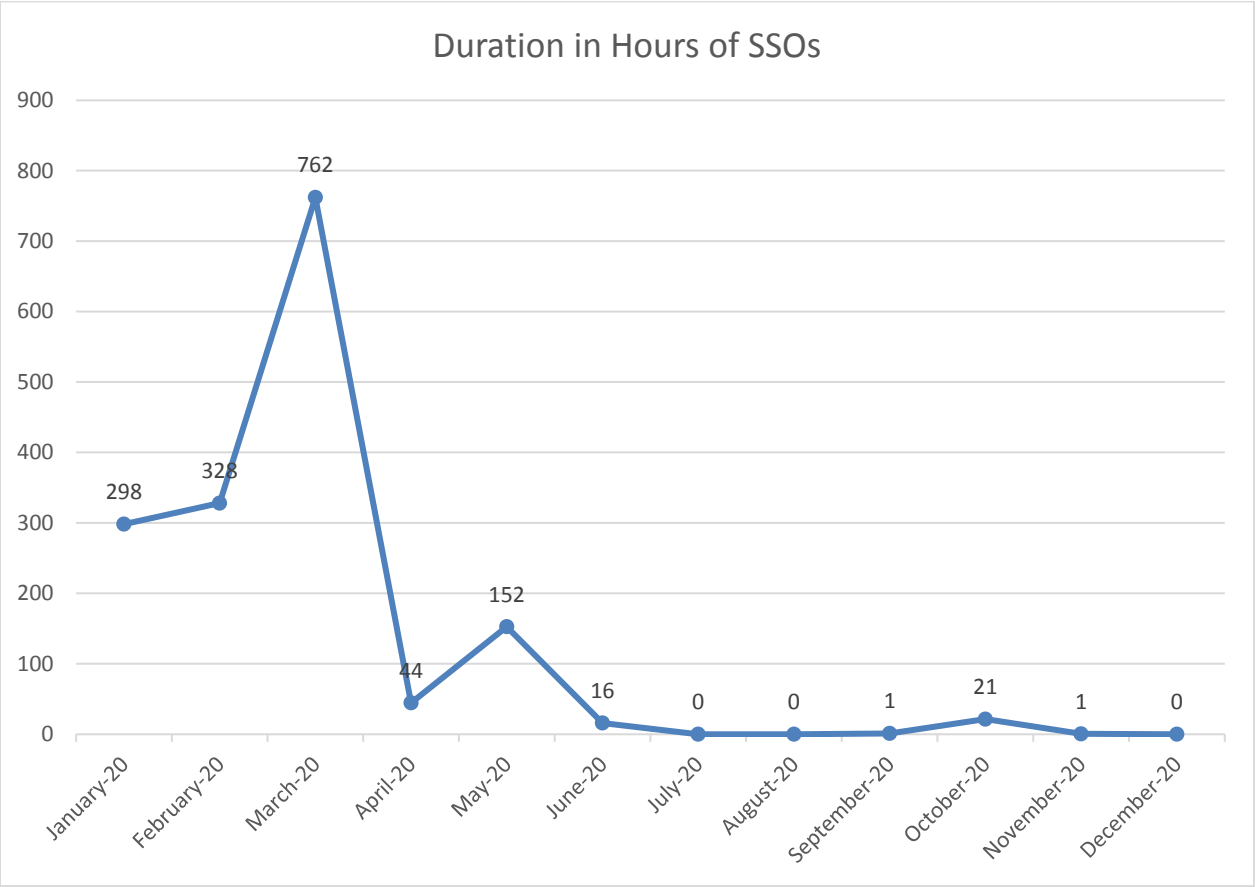
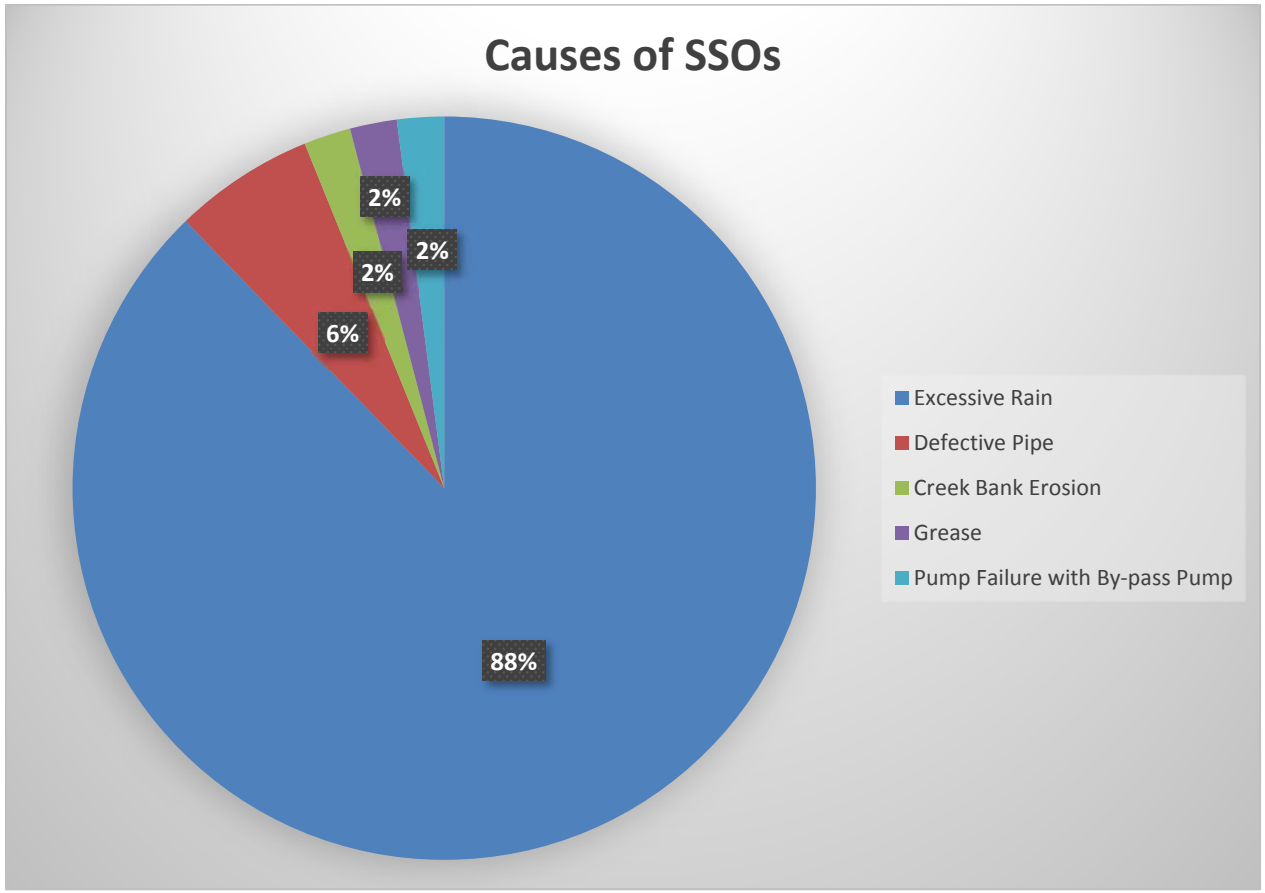


Chart 2-4
City of Meridian, Mississippi
Annual Report No. 1 – January 2020 through December 2020
Causes of Sanitary Sewer Overflows



2.2 Wastewater Treatment Plant Effluent Permit Exceedances

The City of Meridian owns and operates two (2) wastewater treatment facilities, the East Meridian facility located at Old Hwy 45 North (Dale Dr.) and the South Meridian facility located at 2304 Hwy 11 South. These facilities are collectively permitted to discharge into the Sowashee Creek under NPDES Permit MS0020117.

The Permit establishes various parameters these facilities must meet and report in the monthly Discharge Monitoring Reports (DMRs). The East Meridian facility parameters are reported from samples collected from Outfall 201 and the South Meridian facility parameters are reported from samples collected from Outfall 101. Outfall 002 is the combined wastewater effluent from Outfalls 101 and 201. Samples are collected from Outfall 002 prior to effluent being discharged to Sowashee Creek.

The City of Meridian also has a contract to sell treated effluent from the WWTPs to the Mississippi Power Kemper County Plant for use as cooling water. During the reporting period from January 2020 through December 2020, approximately 481.9 million gallons or 33% of the total effluent was sent to the Kemper County facility.

There were no prohibited bypasses reported from the East Meridian facility or the South Meridian facility during the reporting period.

The City received a Notice of Violation letter for the April, May, and June 2020 monitoring periods on September 8, 2020.

Table 2-2 lists NPDES Permit number MS 0020117 Effluent exceedances at the Meridian Publicly Owned Treatment Works (POTW) from January 2020 through December 2020.

Table 2-2
City of Meridian, Mississippi
Annual Report No. 1 – January 2020 through December 2020
NPDES Permit Effluent Exceedances

Count	Location	Outfall Number	Parameter		Monitoring Period	Permit Requirement		Reported Value		Deviation	Duration, days	WWTP Volume, million gallons	Cause
1	Meridian POTW	002	Copper, Total Recoverable	Monthly Average	Apr 1, 2020 - Apr 30, 2020	0.0052	mg/l	0.00587	mg/l	13%	30	66.76	High Influent copper loading. Source and treatment alternatives will be determined by Design Engineer for plant improvements required by Consent Decree.
2	Meridian POTW	002	Copper, Total Recoverable	Monthly Average	May 1, 2020 - May 31, 2020	0.0052	mg/l	0.008217	mg/l	58%	31	57.77	
3	Meridian POTW	002	Copper, Total Recoverable	Weekly Average	May 1, 2020 - May 31, 2020	0.0072	mg/l	0.00882	mg/l	23%	7	57.77	
4	Meridian POTW	002	Copper, Total Recoverable	Monthly Average	Jun 1, 2020 - Jun 30,2020	0.0052	mg/l	0.00859	mg/l	65%	30	135.67	
5	Meridian POTW	002	Copper, Total Recoverable	Weekly Average	Jun 1, 2020 - Jun 30,2020	0.0072	mg/l	0.00899	mg/l	25%	7	135.67	
6	Meridian POTW	101	Solids, Total Suspended	Weekly Average	Jun 1, 2020 - Jun 30,2020	45	mg/l	46	mg/l	2%	7	135.67	Solids bulking in Clarifiers due to increased flow. 4 of 6 clarifiers operational.
7	Meridian POTW	201	Solids, Suspended Percent Removal		July 1, 2020 - July 31, 2020	85	%	83	%	2%	30	0.57	Line Break in March 2020 and repaired in June 2020. Resulted in bulking solids.

Table 2-2 - Continued
City of Meridian, Mississippi
Annual Report No. 1 – January 2020 through December 2020
NPDES Permit Effluent Exceedances

Count	Location	Outfall Number	Parameter		Monitoring Period	Permit Requirement		Reported Value		Deviation	Duration, days	WWTP Volume, million gallons	Cause
8	Meridian POTW	101	Solids, Suspended Percent Removal		Sept 1, 2020 - Sept 30, 2020	85	%	81	%	5%	30	4.31	Bulking solids created additional loading on the plant.
9	Meridian POTW	101	Solids, Suspended	Monthly Average	Sept 1, 2020 - Sept 30, 2020	30.0	mg/l	43.2	mg/l	44%	30	4.31	Bulking solids.
10	Meridian POTW	101	Solids, Suspended	Weekly Average	Sept 1, 2020 - Sept 30, 2020	45.0	mg/l	57.9	mg/l	29%	7	4.31	Bulking solids.
11	Meridian POTW	101	BOD, carbonaceous	Monthly Average	Sept 1, 2020 - Sept 30, 2020	7.0	mg/l	7.5	mg/l	7%	30	4.31	Bulking solids.
12	Meridian POTW	101	BOD, carbonaceous	Weekly Average	Sept 1, 2020 - Sept 30, 2020	10.5	mg/l	10.6	mg/l	1%	7	4.31	Bulking solids.
13	Meridian W	002	Copper, Total Recoverable	Monthly Average	Oct 1, 2020 - Oct 31 ,2020	0.0052	mg/l	0.00625	mg/l	20%	14	61.92	High Influent copper loading. Source and treatment alternatives will be determined by Design Engineer for plant improvements required by Consent Decree.

3.0 Summary of Project and Activities

3.1 Early Action Capital Improvement Project

The Consent Decree requires that the City implement 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 in August 2020 for review and approval.

The City Council approved an Engineering Services contract on November 19, 2019, with Waggoner Engineering, Inc. (WEI). As part of the Scope of that contract, WEI has prepared the STSCAP for the City of Meridian.

Additionally, during this period, the City of Meridian conducted the process for selecting the firm to perform the Project's design and construction oversight. According to Appendix A of the Consent Decree, this project is scheduled to be completed within forty-two (42) months after EPA's approval of the STSCAP. The City of Meridian selected Neel-Schaffer for design and construction oversight services and is currently in the process of preparing and executing a Task Order for these services.

The following sections briefly address the Early Action Capital Improvement Project and Sewer System Evaluation and Rehabilitation activities for the reporting period (January 1, 2020 – December 31, 2020).

During this reporting period:

- Conducted additional site visits to the WWTP.
- Completed operational data analysis.
- Completed and Submitted STSCAP to EPA in August 2020.
- Procured Neel-Schaffer for design and construction engineering services for project.

3.2 Highway 80 Trunk Line

3.2.1 Highway 80 Trunk Line Work Plan

The City Council approved an Engineering Services contract on November 19, 2019, with Kimley-Horn and Associates, Inc. As part of the Scope of that contract, Kimley-Horn has prepared the Highway 80 Trunk Line Work Plan for the City of Meridian. The Highway 80 Work Plan was submitted to EPA in August 2020 for review and approval.

During the reporting period:

- Continued review of existing geographical information system (GIS) data and record drawings associated with this trunk line.
- Performed limited field investigations of the existing Highway 80 Trunk Line for verification of existing GIS data.
- Continued updating the existing GIS with Record Drawing data and data collected during field investigations.
- Completed and submitted the Highway 80 Trunk Line Work Plan for Agency review in August 2020.

3.3 Wastewater Collection and Transmission System

3.3.1 Sewerbasin Prioritization Work Plan

The City Council approved an Engineering Services contract on November 19, 2019, with Kimley-Horn and Associates, Inc. As part of the Scope of that contract, Kimley-Horn has prepared the Sewerbasin Prioritization Work Plan for the City of Meridian. The Sewerbasin Prioritization Work Plan was submitted to EPA in August 2020 for review and approval.

During the reporting period:

- Continued identification of existing geographical information system (GIS) data and record drawings of existing sanitary sewer mains.
- Performed limited field investigations of the existing waste collection and transmission system (WCTS) for verification of existing GIS data.
- Continued updating the existing GIS with Record Drawing data and data collected during field investigations.
- Completed and submitted the Sewerbasin Prioritization Work Plan for agency review in August 2020.

3.4 Chronic SSO Advanced Remote Monitoring Program

The City Council approved an Engineering Services contract on November 19, 2019, with Kimley-Horn and Associates, Inc. As part of the Scope of that contract, Kimley-Horn has prepared the Chronic Sanitary Sewer Overflow (SSO) Advanced Remote Monitoring Program for the City of Meridian. The Chronic SSO List was submitted to EPA in August 2020 for review and approval.

During the reporting period:

- Continued evaluation of the sanitary sewer overflow reports.
- Conducted field investigations of sites for installation of remote surcharge monitors.
- Completed and submitted the Chronic SSO Advanced Remote Monitoring Program document.

4.0 Capacity, Management, Operations and Maintenance Programs

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 address CMOM activities for the reporting period (January1, 2020 – December 31, 2020).

4.1 Sewer Overflow Response Plan (SORP)

During this reporting period:

- Completed development of the SORP – February 2020 and submitted to EPA for review and approval on February 05, 2020. Received review comments from EPA and MDEQ on June 1, 2020.
- Submitted the SORP – June 2020 Resubmittal and Meridian's response letter to EPA, MDEQ, and DOJ on June 30, 2020**.**
- In September 2020, City received approval from EPA/MDEQ on the June 2020 SORP resubmittal.
- Following receipt of approved document, City initiated the implementation of the approved SORP. Table 4-1A lists City's activities in relation to implementation of the SORP.
- Initiated the Training component of the SORP.
- Conducted kickoff training workshop with pertinent staff on utilization of the new SSO Reporting Form.
- In October 2020, began development of the SORP public outreach.
    - The theme of the outreach initiative is "SSO 101 – What Customers Should Know about SSOs".
    - The information will be available on a dedicated page on the City of Meridian's website(www.meridianms.org).
    - Purpose of the early outreach is as follows:
        - Providing customers/citizens with general information on SSOs.
        - Appropriate actions to be taken by customers/citizens in the event of a possible SSO.
        - How customers can help prevent these events (i.e., leverage prevention).
- Began development of the SOPs related to SSO response.

During the next reporting period:

- Complete the Sewer Overflow Response Training for all staff associated with SSO response.
- Complete the "SSO 101 – What Customers Should Know about SSOs" public outreach webpage (by end of March 2021).
- Complete development of the SOPs related to SSO response.
- Begin tracking performance measures in accordance with SORP as outlined in Table 4-1B.

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 a workshop training with pertinent staff on the utilization of the new SSO reporting form.
Within 12 months of EPA approval of the SORP	Completion of SORP's SOP development	SORP's SOPs under development and scheduled to be complete before next reporting period.
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	Working to finalize list.
	Develop list of potential SSO locations in the event of a Pump Station failure	List under development and scheduled to be complete before next reporting period.

Table 4-1B. 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%	TBD*
	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%	TBD*
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%	TBD*
Periodic Evaluation of SORP	Annual review, evaluation, and revision, as necessary, to SORP	Value	Once per Year	TBD*
Frequency of SSOs	Track the number of annual SSOs per 100 miles of WCTS system	(Number of SSOs/100 mi. of sewer) / year	Trend	TBD*
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	TBD*

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

4.2 Emergency Response Plan (ERP)

During this reporting period:

- Submitted the ERP to the EPA, MDEQ, and DOJ for review and approval in August 2020.
- City received approval from EPA/MDEQ on the ERP in September 2020.
- Following receipt of approved document, City initiated the implementation of the approved ERP. Table 4-2A lists City's activities in relation to implementation of the ERP.
- Began development of the SOPs related to emergency response activities.
- Completed procurement and installation of video conferencing system for the Public Works Complex Conference Room (task included as a part of the ERP's implementation schedule).

During the next reporting period:

- Continue development of the SOPs related to emergency response activities.
- Initiate staff training activities on ERP-related modules.
- Begin tracking performance measures in accordance with ERP as outlined in Table 4-2B.

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	Procurement and installation of video conferencing system in Public Works Complex Conference Room has been completed.
ERP SOP development	Within 12 months of EPA approval	Under development.
Initiation of ERP training & implementation	Within 12 months of EPA approval *	See SORP Activities for training related to SSO response. ERP training curriculum for other emergency events under development.
All program elements implemented/in-place	18 months from EPA approval of plan	Under development.

***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	TBD*
Routine Evaluation of ERP	Annual review, evaluation, and revision, as necessary, to ERP	Value	Once per Year	TBD*
ERP Orientation	Orientation of new employees to include basic ERP training module	(# of new employees trained / ∑ # of new employees hired) * 100	100%	TBD*
ERP Training	All personnel involved in ERP procedures participate in annual ERP training	(# of employees trained / ∑ # of employees with ERP responsibilities) * 100	100%	TBD*
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*

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

4.3 Sewer Mapping Program

- Submitted the Sewer Mapping Program to the EPA, MDEQ, and DOJ for review and approval in August 2020.
- City received approval from EPA/MDEQ on the Sewer Mapping Program in September 2020.
- Following receipt of approved document, City initiated the implementation of the approved Program. Table 4-3A lists City's activities in relation to implementation of the Sewer Mapping Program.
- Commenced with the process whereby the City selects and procures the appropriate GIS software package (task included as a part of the Sewer Mapping Program's implementation schedule).
    - Completed evaluation of the various GIS software packages.
    - Selected a GIS package to support satisfying all requisites of the Sewer Mapping Program.
- As part of the City's WCTS framework for the GIS-based system map, began compiling and digitizing the City's existing record drawings.
- Initiated development of a 'data dictionary' (task included as a part of the Sewer Mapping Program's implementation schedule). The data dictionary establishes the standardized structure (i.e.-schema) for capturing information such as the size, length, and material of the assets, as well as service status, age, maintenance, and assessment activities. It also creates the mapping framework for the City's WCTS database by identifying each GIS feature and its relationship to other objects.
- Began development of the SOPs related to the Program.

During the next reporting period:

- City will complete procurement process of GIS software and begin utilizing as part of its Consent Decree Program.
- Finalize development of data dictionary.
- Continue the process of locating and digitizing the City's existing record drawings.
- Continue development of Meridian's WCTS geodatabase.
- Begin tracking performance measures in accordance with Sewer Mapping Program as outlined in Table 4-3B.

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.
Finalization of Data Dictionary		Within 9 months of EPA approval	Data Dictionary under development and scheduled to be complete before next reporting period.
System capabilities for integrating electronic maps showing locations of following:	Surface streets/ addresses	Within 12 months of EPA approval	Under development.
	Surface water bodies		Under development.
	Political boundaries		Under development.

Development of standardized project specifications for inclusion in City's construction documents	Within 12 months of EPA approval	Under development.
Development of Sewerbasin layer	Within 12 months of EPA approval	Under development.
Sewer Mapping Program SOP development	Within 18 months of EPA approval	Under development.
Creation of a FOG establishments layer	Within 18 months of EPA approval	To be developed.
Electronic mapping of each basin in the WCTS	**	To be developed.
All Program elements implemented/in-place	18 months from EPA approval of plan	Under development.

**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	0	TBD*
# 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

During this reporting period:

- Conducted Gravity Sewer System Operations and Maintenance Program kickoff workshop with the City of Meridian staff.
- Initiated drafting of the Gravity Sewer System Operations and Maintenance Program.
- Gravity Sewer System Operations and Maintenance Program draft development.
    - Completed and submitted the 60% and 90% drafts of the Gravity Sewer System Operations and Maintenance Program for the Program Team's internal review.
    - Addressed comments received from the Program Team's 60% and 90% review of the drafts.

During the next reporting period:

- By no later than February 5, 2021, submit the Gravity Sewer System Operations and Maintenance Program to EPA, MDEQ, and DOJ for review and approval.
- Await response from EPA/MDEQ on the Gravity Sewer System Operations and Maintenance Program.
- If comments are received from EPA/MDEQ, they will be addressed within the Consent Decree-allotted time frame following receipt of EPA's correspondence.

4.5 Pump Station and Force Main Operations and Preventative Maintenance Program

During this reporting period:

- Conducted Pump Station and Force Main Operations and Preventative Maintenance Program kickoff workshop with the City of Meridian staff.
- Initiated drafting of the Pump Station and Force Main Operations and Preventative Maintenance Program.
- Pump Station and Force Main Operations and Preventative Maintenance Program draft development.
    - Completed and submitted the 60% draft of the Pump Station and Force Main Operations and Preventative Maintenance Program for the Program Team's internal review.
    - Addressed comments received from the Program Team's 60% of the drafts.
    - Continued development of the Pump Station and Force Main Operations and Preventative Maintenance Program 90% draft.

During the next reporting period:

- Complete and submit Pump Station and Force Main Operations and Preventative Maintenance Program 90% draft for internal review by Program Team.
- Address Program Team's comments from their review of the Pump Station and Force Main Operations and Preventative Maintenance Program 90% draft.
- By no later than February 5, 2021, submit the Pump Station and Force Main Operations and Preventative Maintenance Program to EPA, MDEQ, and DOJ for review and approval.
- Await response from EPA/MDEQ on the Pump Station and Force Main Operations and Preventative Maintenance Program.

- If comments are received from EPA/MDEQ, they will be addressed within the Consent Decree-allotted time frame following receipt of EPA's correspondence.

4.6 Legal Support Program

During this reporting period:

- Conducted Legal Support Program kickoff workshop with the City of Meridian staff.
- Initiated drafting of the Legal Support Program.
- Legal Support Program draft development
    - Completed and submitted the 60% draft of the Legal Support Program for the Program Team's internal review.
    - Addressed comments received from the Program Team's 60% of the drafts.
    - Continued development of the Legal Support Program 90% draft.

During the next reporting period:

- Complete and submit the Legal Support Program 90% draft for internal review by Program Team.
- Address Program Team's comments from their review of the Legal Support Program 90% draft.
- By no later than February 5, 2021, submit the Legal Support Program to EPA, MDEQ, and DOJ for review and approval.
- Await response from EPA/MDEQ on the Legal Support Program.
- If comments are received from EPA/MDEQ, they will be addressed within the Consent Decree-allotted time frame following receipt of EPA's correspondence.

4.7 Information Management System (IMS) Program

During this reporting period:

- Continued early evaluation of specific IMS Program components, specifically those related to requisites of other CMOM programs such as the Sewer Mapping Program.
- Continued assessment as to how the City's future GIS software might interface with IMS Program platforms.
- Conducted IMS kickoff workshop with the City of Meridian staff.
- Began evaluating compatibility of modular components based on the Consent Decree requirements of the IMS Program.
- Initiated evaluation of IMS software to determine the best fit for Public Works. These activities include participation in demonstrations given by two of the major computerized maintenance management and infrastructure asset management systems.

During the next reporting period:

- Initiate the formal development of the IMS Program. Due for submittal to EPA/MDEQ by August 2021.
- Coordinate and conduct follow-up workshop(s) with the City of Meridian staff.
- In following with the Program Team's current system for document production, develop and submit the IMS Program 30% and 60% drafts for the team's review and address comments accordingly.

- Continue evaluation of IMS software to determine the best fit for Public Works.

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

During this reporting period:

- Conceptualization of potential approaches to developing the FOG Control Program.
- Identifying points of intersection between the FOG Control Program and programs already approved/under development.

During the next reporting period:

- Initiate the formal development of the FOG Control Program. Due for submittal to EPA/MDEQ by August 2021.
- Coordinate and conduct FOG Control Program kickoff workshop with the City of Meridian staff.
- In following with the Program Team's current system for document production, develop and submit the FOG Control Program 30% and 60% drafts for the team's review and address comments accordingly.
- Initiate the development of the FOG Control Program 90% draft in preparation for the Program Team's review.

4.9 Financing and Cost Analysis Program

During this reporting period:

- Conceptualization of potential approaches to developing the Financing and Cost Analysis Program.
- Identifying points of intersection between the Financing and Cost Analysis Program and programs already approved/under development.

During the next reporting period:

- Initiate the formal development of the Financing and Cost Analysis Program.
- Coordinate and conduct Financing and Cost Analysis Program kickoff workshop with the City of Meridian staff.
- In following with the Program Team's current system for document production, develop and submit the Financing and Cost Analysis Program 30% and 60% drafts for the team's review and address comments accordingly.
- Initiate the development of the Financing and Cost Analysis Program 90% draft in preparation for the Program Team's review.

5.0 Additional Information

The following is additional information the City has determined to be appropriate to demonstrate that the City is implementing the remedial actions required under this Consent Decree in an adequate and timely manner.

Hwy 80 Trunk Line Repair/Rehabilitation- St. Paul Street Site

- History and Description:
  - The City verified the location of a defective pipe causing a sanitary sewer overflow on March 9, 2020.
  - Creek bank erosion along Sowashee Creek exposed a section of the Highway 80 Trunk Line that was contributing to the referenced SSO. This section of the Trunk Line is 24-inch diameter reinforced concrete pipe of unknown age. Visual inspection of the exposed pipe confirmed severe deterioration of the pipe crown due to sulfide corrosion. Upon further investigation, several collapsed sections of the Trunk Line were identified upstream of the creek bank failure. Examination of the pipe from one of the collapse locations confirmed sulfide corrosion that resulted in complete deterioration of the pipe crown.
- Steps performed to date:
  - The City installed a temporary pump and force main system to bypass approximately 4,600 linear feet of the Highway 80 Trunk Line to stop the SSO.
  - The City has completed design and acquisition of the required railroad crossing permit associated with replacement of approximately 4,200 linear feet of the Trunk Line.
  - Quotes for the Highway 80 Trunk Line Emergency Repair Project have been received and the City is proceeding with award of the contract.
- Estimated construction start date: February 2021

Interceptor Sewer Repair/Rehabilitation – Atlas Roofing Site

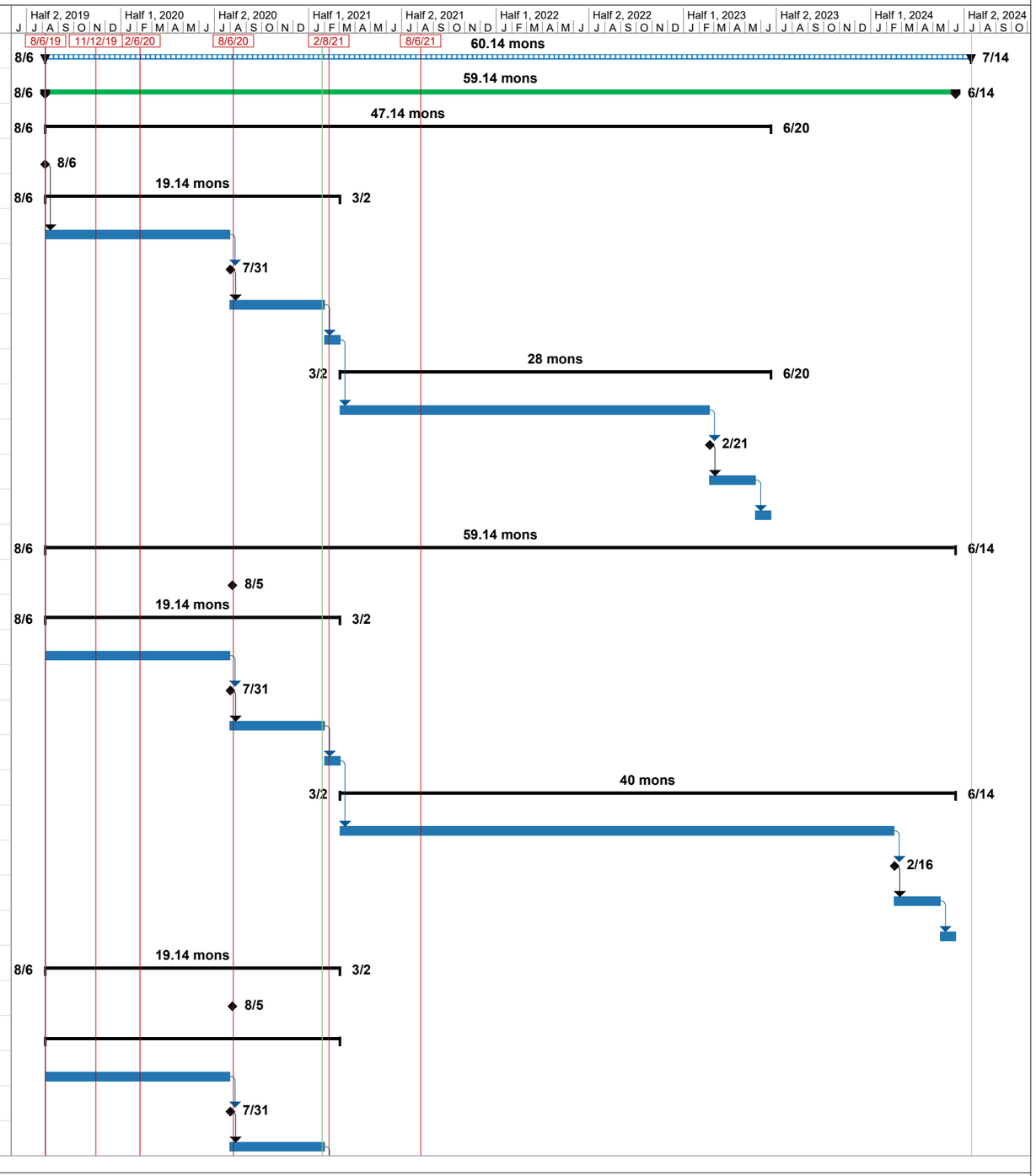
- History and Description:
  - The City verified the location of a defective pipe causing an SSO on May 29, 2020.
  - Creek bank erosion along Sowashee Creek undermined approximately 100 linear feet of the existing 54-inch diameter sanitary sewer interceptor, resulting in collapse of the pipe into the creek.
- Steps performed to date:
  - The City installed a temporary pump and force main system to bypass the collapsed section of the interceptor to stop the SSO.
  - The City has contracted with STRADA for design activities associated with replacing and supporting the collapsed pipe section. STRADA has completed the design and surveying activities and are awaiting City procurement of a Contractor.
- Estimated construction start date: March 2021.

6.0 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	Task Name	Duration	Start	Finish
0	**City of Meridian EPA Consent Decree Schedule**	**60.14 mons**	**Tue 8/6/19**	**Sun 7/14/24**
1		**59.14 mons**	**Tue 8/6/19**	**Fri 6/14/24**
2	**1.1 Highway 80 Trunk Line Work Plan and Rehabilitation Plan**	**47.14 mons**	**Tue 8/6/19**	**Tue 6/20/23**
3	**1.1.1 Highway 80 Trunk Line Work Plan Deadline**	**0 mons**	**Tue 8/6/19**	**Tue 8/6/19**
4	**1.1.2 Highway 80 Trunk Line Work Plan**	**19.14 mons**	**Tue 8/6/19**	**Tue 3/2/21**
5	1.1.2.1 Highway 80 Trunk Line Work Plan Development	12 mons	Tue 8/6/19	Thu 7/30/20
6	1.1.2.2 Transmit to EPA/MDEQ	0 mons	Fri 7/31/20	Fri 7/31/20
7	1.1.2.3 EPA/MDEQ Review	6.14 mons	Fri 7/31/20	Sun 1/31/21
8	1.1.2.4 Final Edits and Submittal	1 mon	Sun 1/31/21	Tue 3/2/21
9	**1.1.3 Highway 80 Trunk Line Rehabilitation Plan**	**28 mons**	**Tue 3/2/21**	**Tue 6/20/23**
10	1.1.3.1 Highway 80 Trunk Line Rehabilitation Plan Development	24 mons	Tue 3/2/21	Mon 2/20/23
11	1.1.3.2 Transmit to EPA/MDEQ	0 mons	Tue 2/21/23	Tue 2/21/23
12	1.1.3.3 EPA/MDEQ Review	3 mons	Mon 2/20/23	Sun 5/21/23
13	1.1.3.4 Final Edits and Submittal	1 mon	Sun 5/21/23	Tue 6/20/23
14	**1.2 Sewerbasin Work Plan and Prioritization Report**	**59.14 mons**	**Tue 8/6/19**	**Fri 6/14/24**
15	**1.2.1 Sewerbasin Prioritization Work Plan Deadline**	**0 mons**	**Wed 8/5/20**	**Wed 8/5/20**
16	**1.2.2 Sewerbasin Prioritization Work Plan**	**19.14 mons**	**Tue 8/6/19**	**Tue 3/2/21**
17	1.2.2.1 Sewerbasin Prioritization Work Plan Development	12 mons	Tue 8/6/19	Thu 7/30/20
18	1.2.2.2 Transmit to EPA/MDEQ	0 mons	Fri 7/31/20	Fri 7/31/20
19	1.2.2.3 EPA/MDEQ Review	6.14 mons	Fri 7/31/20	Sun 1/31/21
20	1.2.2.4 Final Edits and Submittal	1 mon	Sun 1/31/21	Tue 3/2/21
21	**1.2.3 Sewerbasin Prioritization Report**	**40 mons**	**Tue 3/2/21**	**Fri 6/14/24**
22	1.2.3.1 Sewerbasin Prioritization Report Development	36 mons	Tue 3/2/21	Thu 2/15/24
23	1.2.3.2 Transmit to EPA/MDEQ	0 mons	Fri 2/16/24	Fri 2/16/24
24	1.2.3.3 EPA/MDEQ Review	3 mons	Thu 2/15/24	Wed 5/15/24
25	1.2.3.4 Final Edits and Submittal	1 mon	Wed 5/15/24	Fri 6/14/24
26	**1.3 Chronic SSO Advanced Remote Monitoring Program**	**19.14 mons**	**Tue 8/6/19**	**Tue 3/2/21**
27	**1.3.1 Chronic SSO List and Monitoring Plan Deadline**	**0 mons**	**Wed 8/5/20**	**Wed 8/5/20**
28	**1.3.2 Chronic SSO List and Monitoring Plan**	**19.14 mons**	**Tue 8/6/19**	**Tue 3/2/21**
29	1.3.2.1 Chronic SSO List Development	12 mons	Tue 8/6/19	Thu 7/30/20
30	1.3.2.2 Transmit to EPA/MDEQ	0 mons	Fri 7/31/20	Fri 7/31/20
31	1.3.2.3 EPA/MDEQ Review	6.14 mons	Fri 7/31/20	Sun 1/31/21



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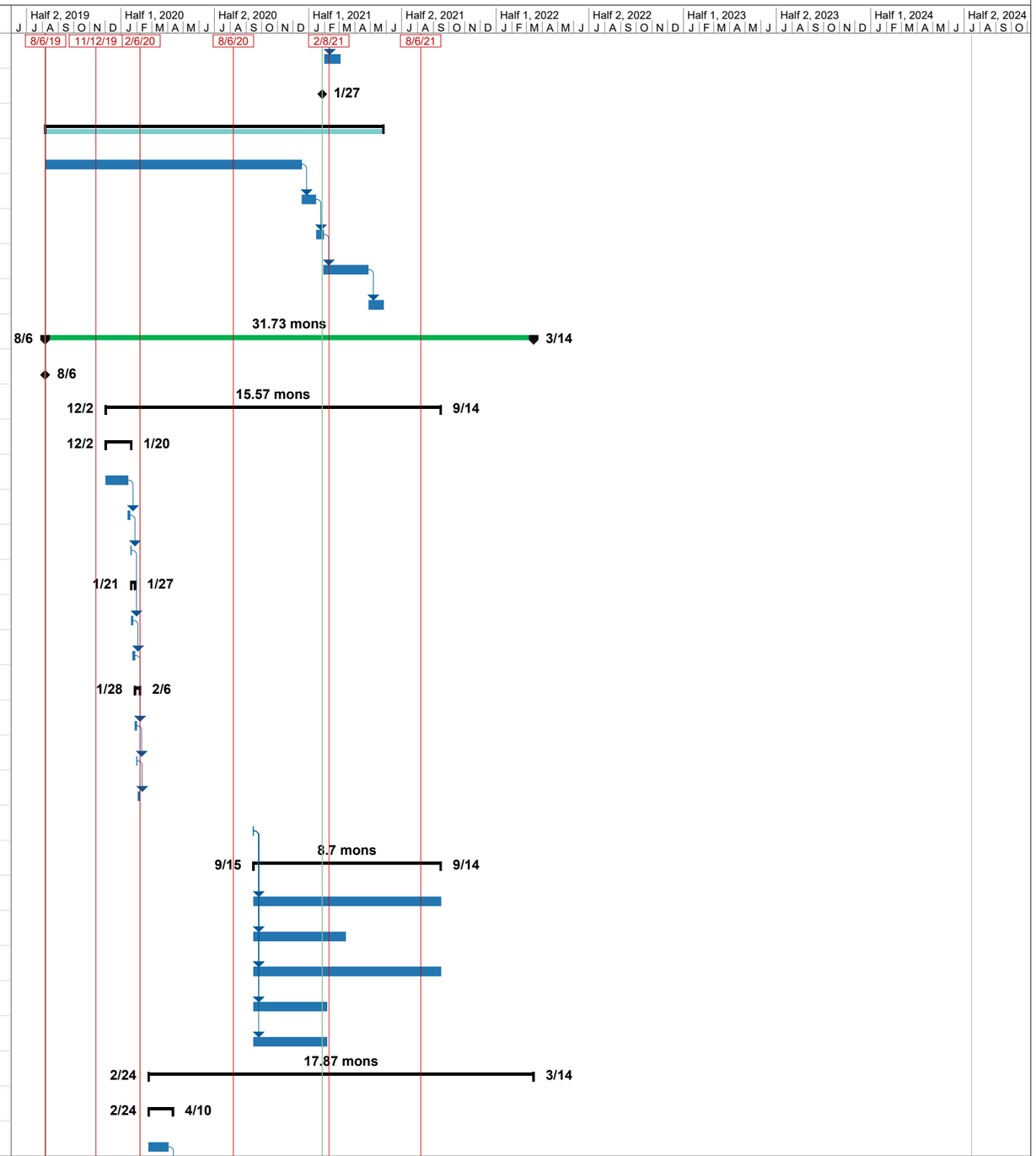
ID	Task Name	Duration	Start	Finish
32	1.3.2.4 Final Edits and Submittal	1 mon	Sun 1/31/21	Tue 3/2/21
33	**1.4 Updated Chronic SSO List Development and Monitoring Plan Deadline**	**0 mons**	**Wed 1/27/21**	**Wed 1/27/21**
34	**1.5 Updated Chronic SSO List Development and Monitoring Plan**	**21.97 mons**	**Tue 8/6/19**	**Wed 5/26/21**
35	1.5.1 Chronic SSO List Development	16.65 mons	Tue 8/6/19	Thu 12/17/20
36	1.5.2 City of Meridian and Program Manager review	0.9 mons	Fri 12/18/20	Thu 1/14/21
37	1.5.3 Transmit to EPA/MDEQ	0.47 mons	Fri 1/15/21	Fri 1/29/21
38	1.5.4 EPA/MDEQ Review	2.9 mons	Fri 1/29/21	Mon 4/26/21
39	1.5.5 Final Chronic Report Update Edits and Submittal	0.95 mons	Tue 4/27/21	Wed 5/26/21
40	**2 Capacity, Operations, Maintenance & Management (CMOM) Programs**	**31.73 mons**	**Tue 8/6/19**	**Mon 3/14/22**
41	**2.1 Effective Date of Consent Decree**	0 mons	Tue 8/6/19	Tue 8/6/19
42	**2.2 Task 6.01: Sewer Overflow Response Plan (SORP) Program Component (6 Mos.)**	**15.57 mons**	**Mon 12/2/19**	**Tue 9/14/21**
43	**2.2.1 80% Draft Plan**	**1.2 mons**	**Mon 12/2/19**	**Mon 1/20/20**
44	2.2.1.1 Development of 80% Draft	31 days	Mon 12/2/19	Mon 1/13/20
45	2.2.1.2 Review by Program Manager& City	4 days	Tue 1/14/20	Fri 1/17/20
46	2.2.1.3 Meeting to Discuss 80% Draft (if deemed necessary)	1 day	Mon 1/20/20	Mon 1/20/20
47	**2.2.2 100% Plan**	**0.17 mons**	**Tue 1/21/20**	**Mon 1/27/20**
48	2.2.2.1 100% Plan Preparation	3 days	Tue 1/21/20	Thu 1/23/20
49	2.2.2.2 Review by Program Manager& City	2 days	Fri 1/24/20	Mon 1/27/20
50	**2.2.3 Final Plan**	**0.27 mons**	**Tue 1/28/20**	**Thu 2/6/20**
51	2.2.3.1 Final Plan Preparation	3 days	Tue 1/28/20	Thu 1/30/20
52	2.2.3.2 Final Plan to Program Manager& City	1 day	Fri 1/31/20	Fri 1/31/20
53	**2.2.3.3 Submittal to EPA**	**4 days**	**Mon 2/3/20**	**Thu 2/6/20**
54	**2.2.4 Approval of SORP**	**1 day**	**Mon 9/14/20**	**Mon 9/14/20**
55	**2.2.5 SORP Deliverables**	**8.7 mons**	**Tue 9/15/20**	**Tue 9/14/21**
56	2.2.5.1 Initiate SORP training & implementation	261 days	Tue 9/15/20	Tue 9/14/21
57	2.2.5.2 1st Public Outreach on SSOs (Waggoner)	129 days	Tue 9/15/20	Fri 3/12/21
58	2.2.5.3 Completion of SORP's SOP development	261 days	Tue 9/15/20	Tue 9/14/21
59	2.2.5.4 Develop list of pump station SSOs having been recorded as overflowing more than once in the previous twelve (12) Months	103 days	Tue 9/15/20	Thu 2/4/21
60	2.2.5.5 Develop list of potential SSO locations in the event of a Pump Station failure	103 days	Tue 9/15/20	Thu 2/4/21
61	**2.3 Task 6.02: Emergency Response Plan (12 Mos.)**	**17.87 mons**	**Mon 2/24/20**	**Mon 3/14/22**
62	**2.3.1 30% Draft Plan**	**1.17 mons**	**Mon 2/24/20**	**Fri 4/10/20**
63	2.3.1.1 Development of 30% Draft	28 days	Mon 2/24/20	Wed 4/1/20



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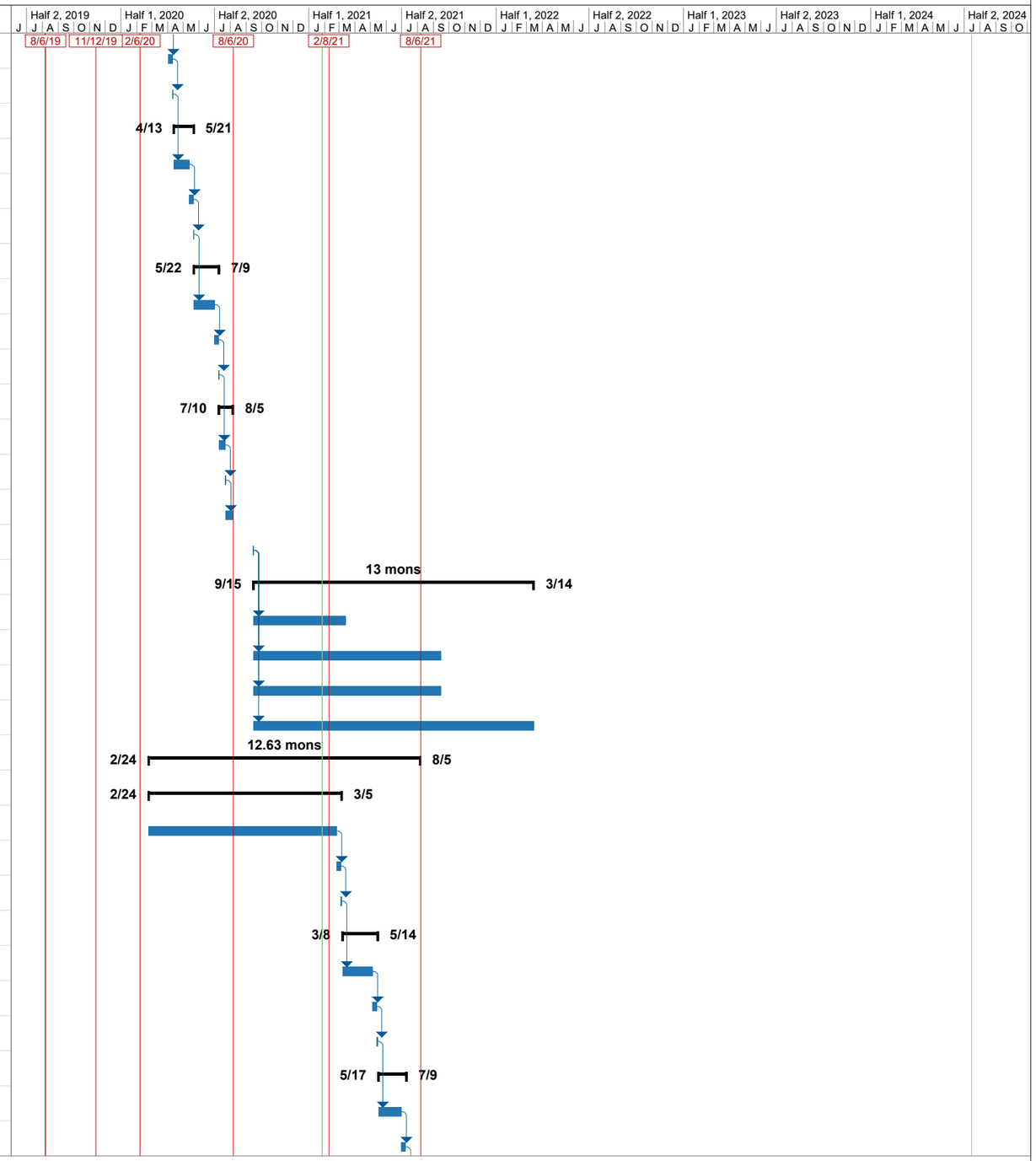
ID	Task Name	Duration	Start	Finish
64	2.3.1.2 Review by Program Manager & City	6 days	Thu 4/2/20	Thu 4/9/20
65	2.3.1.3 Meeting to Discuss 30% Draft (as necessary)	1 day	Fri 4/10/20	Fri 4/10/20
66	**2.3.2 60% Draft Plan**	**0.97 mons**	**Mon 4/13/20**	**Thu 5/21/20**
67	2.3.2.1 Development of 60% Draft	22 days	Mon 4/13/20	Tue 5/12/20
68	2.3.2.2 Review by Program Manager& City	6 days	Wed 5/13/20	Wed 5/20/20
69	2.3.2.3 Meeting to Discuss 60% Draft (as necessary)	1 day	Thu 5/21/20	Thu 5/21/20
70	**2.3.3 90% Draft Plan**	**1.17 mons**	**Fri 5/22/20**	**Thu 7/9/20**
71	2.3.3.1 Development of 90% Draft	28 days	Fri 5/22/20	Tue 6/30/20
72	2.3.3.2 Review by Program Manager& City	6 days	Wed 7/1/20	Wed 7/8/20
73	2.3.3.3 Meeting to Discuss 90% Draft (as necessary)	1 day	Thu 7/9/20	Thu 7/9/20
74	**2.3.4 Final Report**	**0.63 mons**	**Fri 7/10/20**	**Wed 8/5/20**
75	2.3.4.1 Final Report Preparation	8 days	Fri 7/10/20	Tue 7/21/20
76	2.3.4.2 Submittal to Program Manager& City	1 day	Wed 7/22/20	Wed 7/22/20
77	**2.3.4.3 Submittal to EPA**	**10 days**	**Thu 7/23/20**	**Wed 8/5/20**
78	**2.3.5 Approval of ERP**	**1 day**	**Mon 9/14/20**	**Mon 9/14/20**
79	**2.3.6 ERP Deliverables**	**13 mons**	**Tue 9/15/20**	**Mon 3/14/22**
80	2.3.6.1 Procurement & installation of video conferencing system in Public Works Complex Conference Room	129 days	Tue 9/15/20	Fri 3/12/21
81	2.3.6.2 ERP SOP development	261 days	Tue 9/15/20	Tue 9/14/21
82	2.3.6.3 Initiation of ERP training & implementation	261 days	Tue 9/15/20	Tue 9/14/21
83	2.3.6.4 All program elements implemented/in-place	390 days	Tue 9/15/20	Mon 3/14/22
84	**2.4 Task 6.03: IMS Program Plan (24 Mo. Deliverable)**	**12.63 mons**	**Mon 2/24/20**	**Thu 8/5/21**
85	**2.4.1 30% Draft Plan**	**9 mons**	**Mon 2/24/20**	**Fri 3/5/21**
86	2.4.1.1 Development of 30% Draft	262 days	Mon 2/24/20	Tue 2/23/21
87	2.4.1.2 Review by Program Manager& City	6 days	Wed 2/24/21	Wed 3/3/21
88	2.4.1.3 Meeting to Discuss 30% Draft (as necessary)	2 days	Thu 3/4/21	Fri 3/5/21
89	**2.4.2 60% Draft Plan**	**1.67 mons**	**Mon 3/8/21**	**Fri 5/14/21**
90	2.4.2.1 Development of 60% Draft	42 days	Mon 3/8/21	Tue 5/4/21
91	2.4.2.2 Review by Program Manager& City	6 days	Wed 5/5/21	Wed 5/12/21
92	2.4.2.3 Meeting to Discuss 60% Draft (as necessary)	2 days	Thu 5/13/21	Fri 5/14/21
93	**2.4.3 90% Draft Plan**	**1.33 mons**	**Mon 5/17/21**	**Fri 7/9/21**
94	2.4.3.1 Development of 90% Draft	32 days	Mon 5/17/21	Tue 6/29/21
95	2.4.3.2 Review by Program Manager& City	6 days	Wed 6/30/21	Wed 7/7/21



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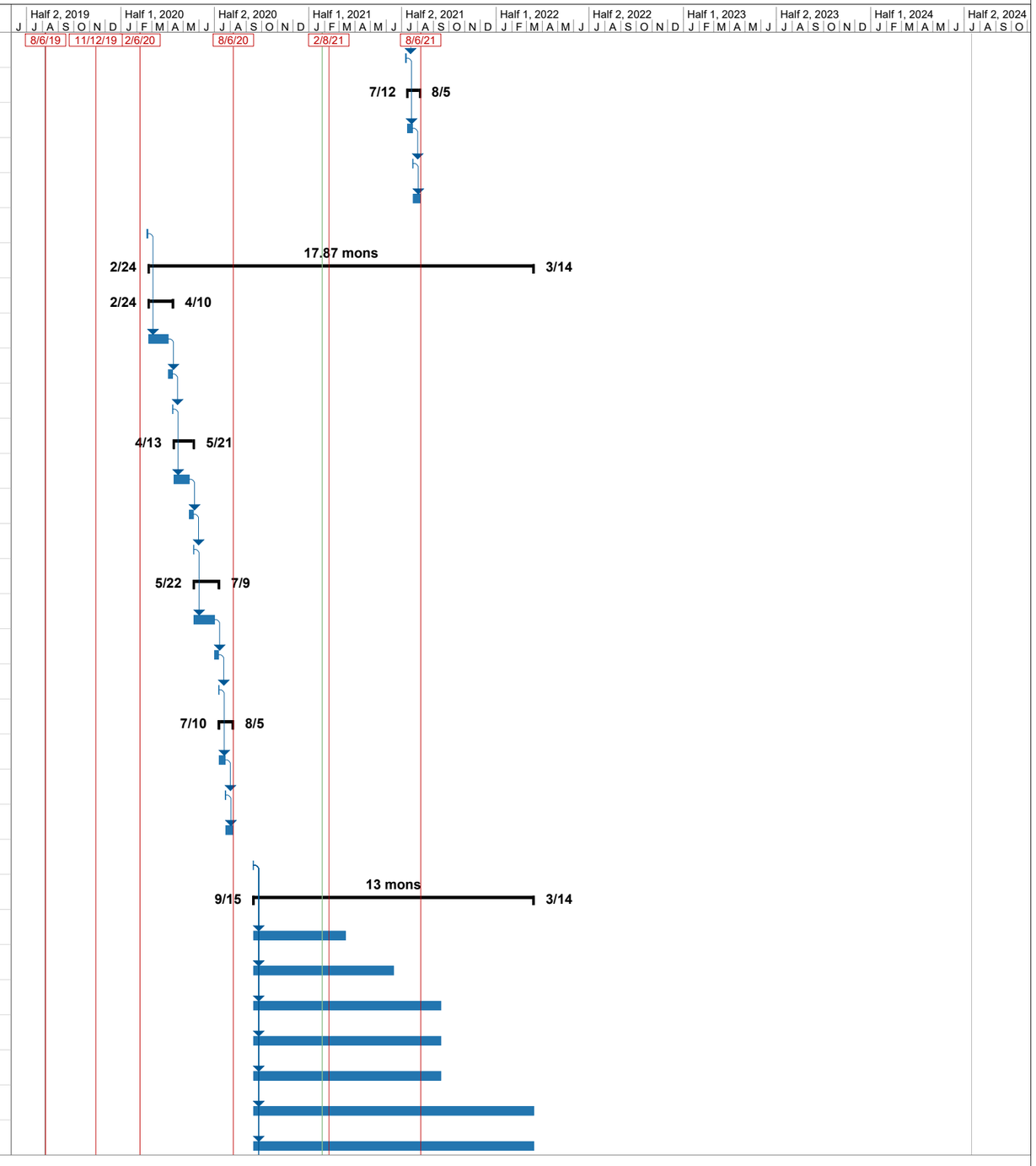
ID	Task Name	Duration	Start	Finish
96	2.4.3.3 Meeting to Discuss 90% Draft (as necessary)	2 days	Thu 7/8/21	Fri 7/9/21
97	**2.4.4 Final Report**	**0.63 mons**	**Mon 7/12/21**	**Thu 8/5/21**
98	2.4.4.1 Final Report Preparation	8 days	Mon 7/12/21	Wed 7/21/21
99	2.4.4.2 Submittal to Program Manager& City	1 day	Thu 7/22/21	Thu 7/22/21
100	**2.4.4.3 Submittal to EPA**	**10 days**	**Fri 7/23/21**	**Thu 8/5/21**
101	**2.5 12 Mo. Deliverables Kickoff Meeting(Task 6.04)**	**2 days**	**Thu 2/20/20**	**Fri 2/21/20**
102	**2.6 Task 6.04: Sewer Mapping Program Plan (12 Mos.)**	**17.87 mons**	**Mon 2/24/20**	**Mon 3/14/22**
103	**2.6.1 30% Draft Plan**	**1.17 mons**	**Mon 2/24/20**	**Fri 4/10/20**
104	2.6.1.1 Development of 30% draft	28 days	Mon 2/24/20	Wed 4/1/20
105	2.6.1.2 Review by Program Manager& City	6 days	Thu 4/2/20	Thu 4/9/20
106	2.6.1.3 Meeting to Discuss 30% Draft (as necessary)	1 day	Fri 4/10/20	Fri 4/10/20
107	**2.6.2 60% Draft Plan**	**0.97 mons**	**Mon 4/13/20**	**Thu 5/21/20**
108	2.6.2.1 Development of 60% Draft	22 days	Mon 4/13/20	Tue 5/12/20
109	2.6.2.2 Review by Program Manager& City	6 days	Wed 5/13/20	Wed 5/20/20
110	2.6.2.3 Meeting to Discuss 60% Draft (as necessary)	1 day	Thu 5/21/20	Thu 5/21/20
111	**2.6.3 90% Draft Plan**	**1.17 mons**	**Fri 5/22/20**	**Thu 7/9/20**
112	2.6.3.1 Development of 90% Draft	28 days	Fri 5/22/20	Tue 6/30/20
113	2.6.3.2 Review by Program Manager& City	6 days	Wed 7/1/20	Wed 7/8/20
114	2.6.3.3 Meeting to Discuss 90% Draft (as necessary)	1 day	Thu 7/9/20	Thu 7/9/20
115	**2.6.4 Final Report**	**0.63 mons**	**Fri 7/10/20**	**Wed 8/5/20**
116	2.6.4.1 Final Report Preparation	8 days	Fri 7/10/20	Tue 7/21/20
117	2.6.4.2 Submittal to Program Manager& City	1 day	Wed 7/22/20	Wed 7/22/20
118	**2.6.4.3 Submittal to EPA**	**10 days**	**Thu 7/23/20**	**Wed 8/5/20**
119	**2.6.5 Approval of SMP**	**1 day**	**Mon 9/14/20**	**Mon 9/14/20**
120	**2.6.6 Sewer Mapping Program Deliverables**	**13 mons**	**Tue 9/15/20**	**Mon 3/14/22**
121	2.6.6.1 Procurement of GIS software	129 days	Tue 9/15/20	Fri 3/12/21
122	2.6.6.2 Finalization of Data Dictionary	195 days	Tue 9/15/20	Mon 6/14/21
123	2.6.6.3 System capabilities for integrating electronic maps displaying following locations: Surface streets/addresses; surface waterbodies; political boundaries	261 days	Tue 9/15/20	Tue 9/14/21
124	2.6.6.4 Development of standardized project specifications for inclusion in City's construction documents	261 days	Tue 9/15/20	Tue 9/14/21
125	2.6.6.5 Development of Sewerbasin layer	261 days	Tue 9/15/20	Tue 9/14/21
126	2.6.6.6 Sewer Mapping Program SOP development	390 days	Tue 9/15/20	Mon 3/14/22
127	2.6.6.7 Creation of a FOG establishments layer	390 days	Tue 9/15/20	Mon 3/14/22



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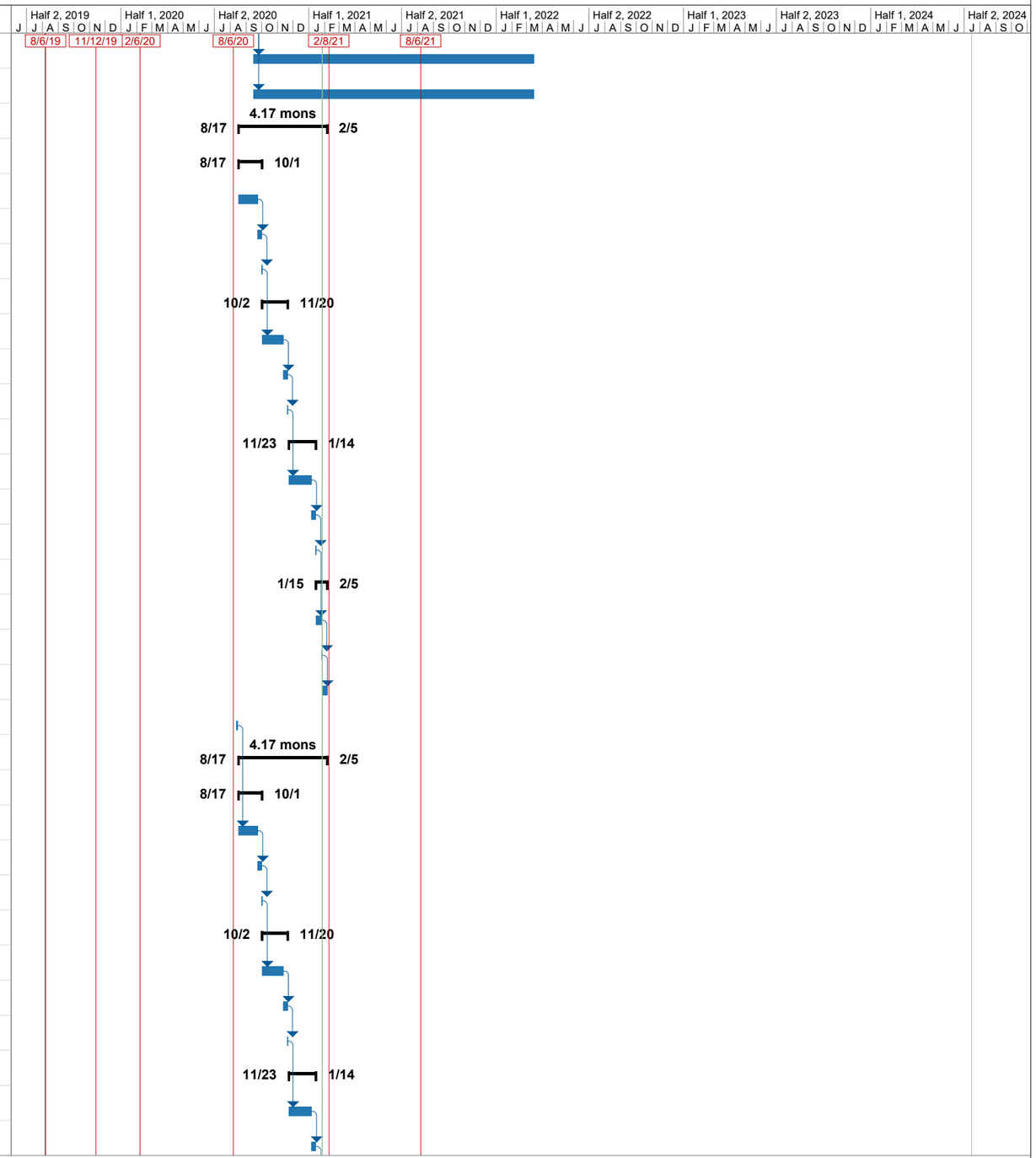
ID	Task Name	Duration	Start	Finish
128	2.6.6.8 Electronic mapping of each basin in the WCTS (see notation)	390 days	Tue 9/15/20	Mon 3/14/22
129	2.6.6.9 All program elements implemented/in-place	390 days	Tue 9/15/20	Mon 3/14/22
130	**2.7 Task 6.05: Gravity Sewer System Operations & Maintenance Program Plan (18 Mos.)**	**4.17 mons**	**Mon 8/17/20**	**Fri 2/5/21**
131	**2.7.1 30% Draft Plan**	**1.13 mons**	**Mon 8/17/20**	**Thu 10/1/20**
132	2.7.1.1 Development of 30% Draft	27 days	Mon 8/17/20	Tue 9/22/20
133	2.7.1.2 Review by Program Manager& City	6 days	Wed 9/23/20	Wed 9/30/20
134	2.7.1.3 Meeting to Discuss 30% Draft (as necessary)	1 day	Thu 10/1/20	Thu 10/1/20
135	**2.7.2 60% Draft Plan**	**1.2 mons**	**Fri 10/2/20**	**Fri 11/20/20**
136	2.7.2.1 Development of 60% Draft	29 days	Fri 10/2/20	Wed 11/11/20
137	2.7.2.2 Review by Program Manager& City	6 days	Thu 11/12/20	Thu 11/19/20
138	2.7.2.3 Meeting to Discuss 60% Draft (as necessary)	1 day	Fri 11/20/20	Fri 11/20/20
139	**2.7.3 90% Draft Plan**	**1.3 mons**	**Mon 11/23/20**	**Thu 1/14/21**
140	2.7.3.1 Development of 90% Draft	32 days	Mon 11/23/20	Tue 1/5/21
141	2.7.3.2 Review by Program Manager& City	6 days	Wed 1/6/21	Wed 1/13/21
142	2.7.3.3 Meeting to Discuss 90% Draft (as necessary)	1 day	Thu 1/14/21	Thu 1/14/21
143	**2.7.4 Final Report**	**0.53 mons**	**Fri 1/15/21**	**Fri 2/5/21**
144	2.7.4.1 Final Report Preparation	7 days	Fri 1/15/21	Mon 1/25/21
145	2.7.4.2 Submittal to Program Manager& City	1 day	Tue 1/26/21	Tue 1/26/21
146	**2.7.4.3 Submittal to EPA**	**8 days**	**Wed 1/27/21**	**Fri 2/5/21**
147	**2.8 18 Mo. Deliverables Kickoff Meeting(Task 6.06)**	**2 days**	**Thu 8/13/20**	**Fri 8/14/20**
148	**2.9 Task 6.06: Pump Station & Force Main Operations & Prevenatitive Maintenance Program Plan (18 Mos.)**	**4.17 mons**	**Mon 8/17/20**	**Fri 2/5/21**
149	**2.9.1 30% Draft Plan**	**1.13 mons**	**Mon 8/17/20**	**Thu 10/1/20**
150	2.9.1.1 Development of 30% Draft	27 days	Mon 8/17/20	Tue 9/22/20
151	2.9.1.2 Review by Program Manager& City	6 days	Wed 9/23/20	Wed 9/30/20
152	2.9.1.3 Meeting to Discuss 30% Draft (as necessary)	1 day	Thu 10/1/20	Thu 10/1/20
153	**2.9.2 60% Draft Plan**	**1.2 mons**	**Fri 10/2/20**	**Fri 11/20/20**
154	2.9.2.1 Development of 60% Draft	29 days	Fri 10/2/20	Wed 11/11/20
155	2.9.2.2 Review by Program Manager& City	6 days	Thu 11/12/20	Thu 11/19/20
156	2.9.2.3 Meeting to Discuss 60% Draft (as necessary)	1 day	Fri 11/20/20	Fri 11/20/20
157	**2.9.3 90% Draft Plan**	**1.3 mons**	**Mon 11/23/20**	**Thu 1/14/21**
158	2.9.3.1 Development of 90% Draft	32 days	Mon 11/23/20	Tue 1/5/21
159	2.9.3.2 Review by Program Manager& City	6 days	Wed 1/6/21	Wed 1/13/21



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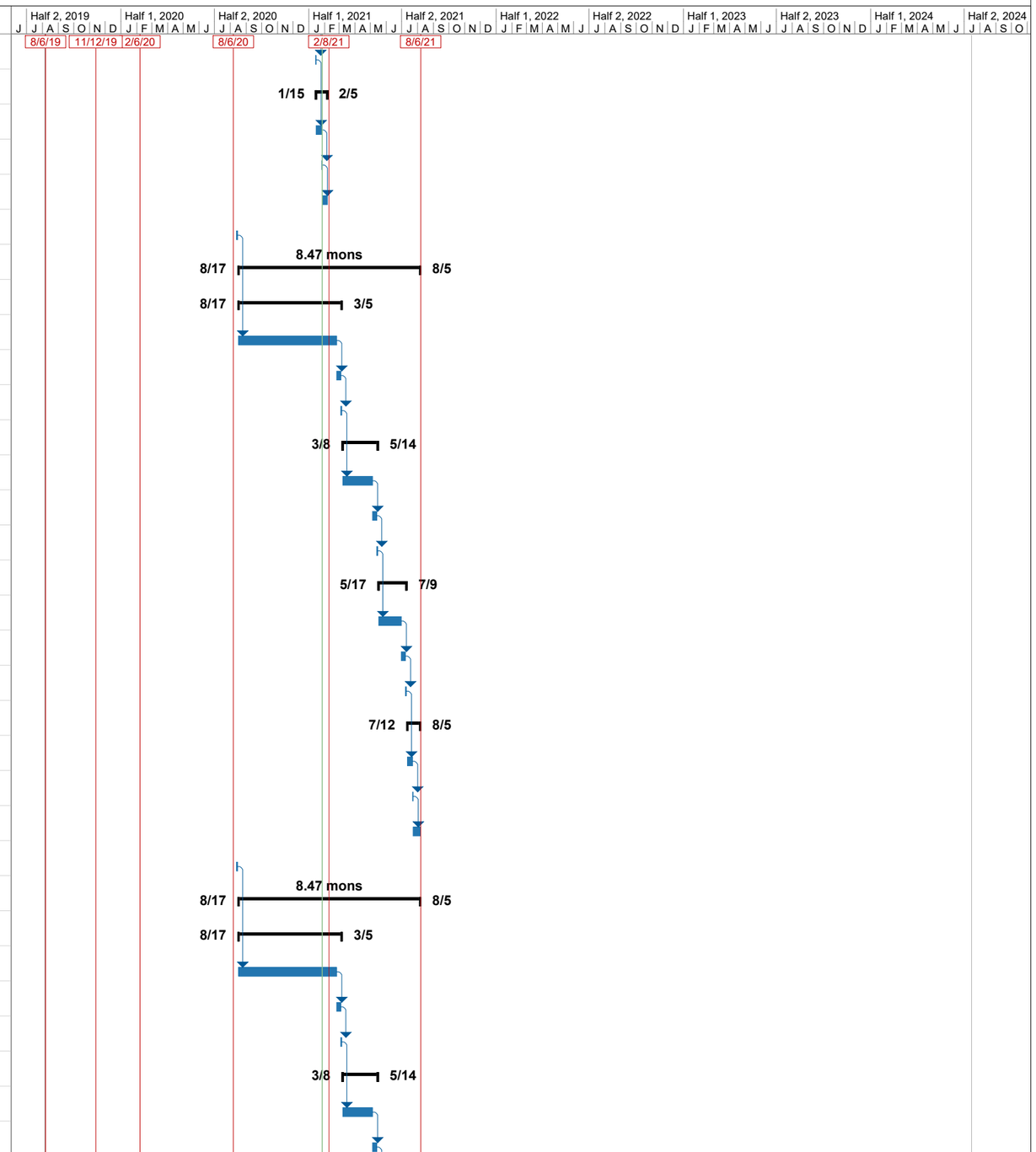
ID	Task Name	Duration	Start	Finish
160	2.9.3.3 Meeting to Discuss 90% Draft (as necessary)	1 day	Thu 1/14/21	Thu 1/14/21
161	**2.9.4 Final Report**	**0.53 mons**	**Fri 1/15/21**	**Fri 2/5/21**
162	2.9.4.1 Final Report Preparation	7 days	Fri 1/15/21	Mon 1/25/21
163	2.9.4.2 Submittal to Program Manager& City	1 day	Tue 1/26/21	Tue 1/26/21
164	**2.9.4.3 Submittal to EPA**	**8 days**	**Wed 1/27/21**	**Fri 2/5/21**
165	**2.10 18 Mo. (& FOG) Deliverables Kickoff Meeting(Task 6.07)**	**2 days**	**Thu 8/13/20**	**Fri 8/14/20**
166	**2.11 Task 6.07: FOG Program Plan (24 Mo. Deliverable)**	**8.47 mons**	**Mon 8/17/20**	**Thu 8/5/21**
167	**2.11.1 30% Draft Plan**	**4.83 mons**	**Mon 8/17/20**	**Fri 3/5/21**
168	2.11.1.1 Development of 30% Draft	137 days	Mon 8/17/20	Tue 2/23/21
169	2.11.1.2 Review by Program Manager& City	6 days	Wed 2/24/21	Wed 3/3/21
170	2.11.1.3 Meeting to Discuss 30% Draft (as necessary)	2 days	Thu 3/4/21	Fri 3/5/21
171	**2.11.2 60% Draft Plan**	**1.67 mons**	**Mon 3/8/21**	**Fri 5/14/21**
172	2.11.2.1 Development of 60% Draft	42 days	Mon 3/8/21	Tue 5/4/21
173	2.11.2.2 Review by Program Manager& City	6 days	Wed 5/5/21	Wed 5/12/21
174	2.11.2.3 Meeting to Discuss 60% Draft (as necessary)	2 days	Thu 5/13/21	Fri 5/14/21
175	**2.11.3 90% Draft Plan**	**1.33 mons**	**Mon 5/17/21**	**Fri 7/9/21**
176	2.11.3.1 Development of 90% Draft	32 days	Mon 5/17/21	Tue 6/29/21
177	2.11.3.2 Review by Program Manager& City	6 days	Wed 6/30/21	Wed 7/7/21
178	2.11.3.3 Meeting to Discuss 90% Draft (as necessary)	2 days	Thu 7/8/21	Fri 7/9/21
179	**2.11.4 Final Report**	**0.63 mons**	**Mon 7/12/21**	**Thu 8/5/21**
180	2.11.4.1 Final Report Preparation	8 days	Mon 7/12/21	Wed 7/21/21
181	2.11.4.2 Submittal to Program Manager& City	1 day	Thu 7/22/21	Thu 7/22/21
182	**2.11.4.3 Submittal to EPA**	**10 days**	**Fri 7/23/21**	**Thu 8/5/21**
183	**2.12 Financing & Cost Analysis Deliverables Kickoff Meeting(Task 6.08)**	**2 days**	**Thu 8/13/20**	**Fri 8/14/20**
184	**2.13 Task 6.08: Financing & Cost Analysis Program Plan (24 Mo. Deliverable)**	**8.47 mons**	**Mon 8/17/20**	**Thu 8/5/21**
185	**2.13.1 30% Draft Plan**	**4.83 mons**	**Mon 8/17/20**	**Fri 3/5/21**
186	2.13.1.1 Development of 30% Draft	137 days	Mon 8/17/20	Tue 2/23/21
187	2.13.1.2 Review by Finance Team, Program Manager,& City	6 days	Wed 2/24/21	Wed 3/3/21
188	2.13.1.3 Meeting to Discuss 30% Draft (as necessary)	2 days	Thu 3/4/21	Fri 3/5/21
189	**2.13.2 60% Draft Plan**	**1.67 mons**	**Mon 3/8/21**	**Fri 5/14/21**
190	2.13.2.1 Development of 60% Draft	42 days	Mon 3/8/21	Tue 5/4/21
191	2.13.2.2 Review by Finance Team, Program Manager,& City	6 days	Wed 5/5/21	Wed 5/12/21



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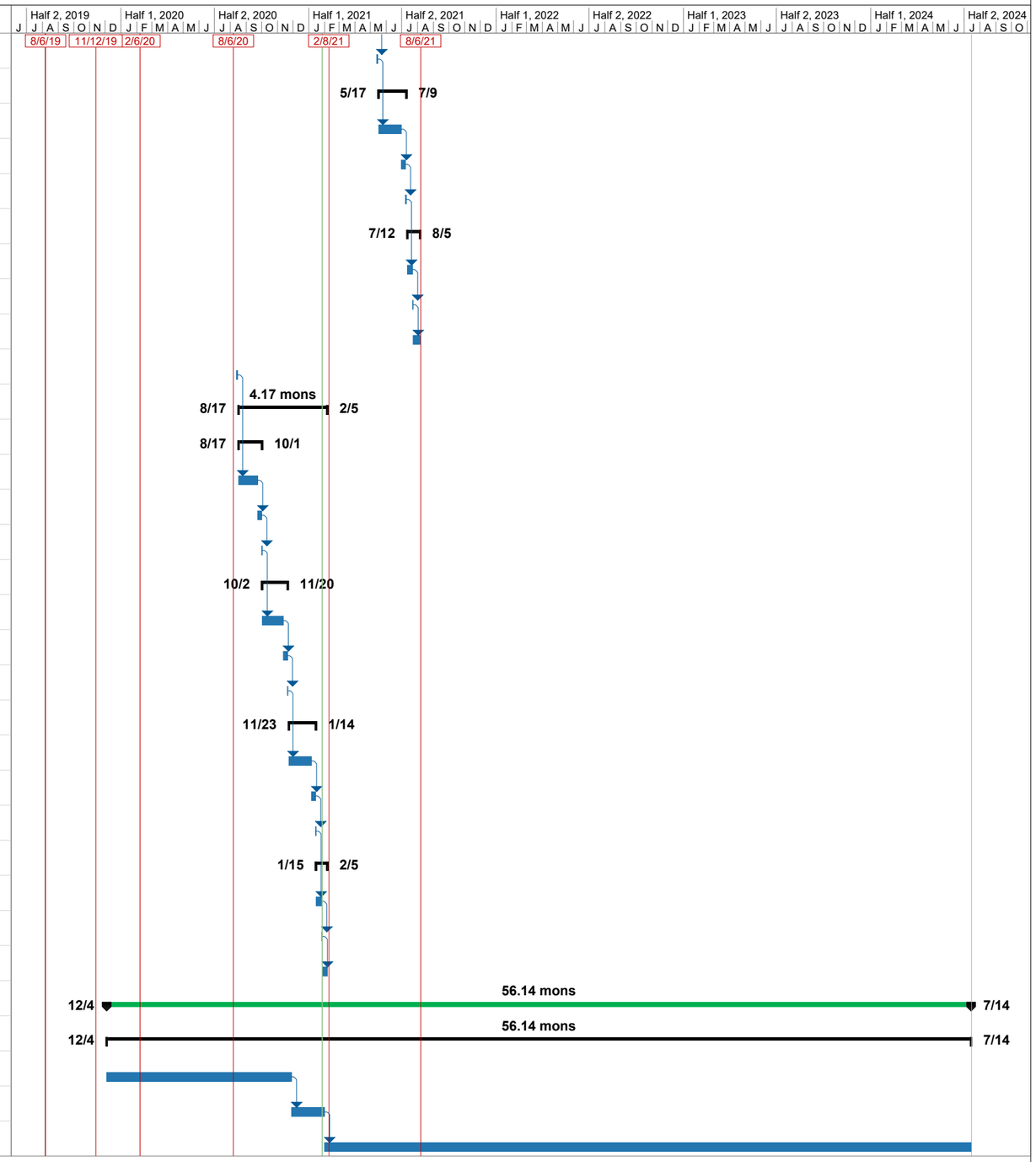
ID	Task Name	Duration	Start	Finish
192	2.13.2.3 Meeting to Discuss 60% Draft (as necessary)	2 days	Thu 5/13/21	Fri 5/14/21
193	**2.13.3 90% Draft Plan**	**1.33 mons**	**Mon 5/17/21**	**Fri 7/9/21**
194	2.13.3.1 Development of 90% Draft	32 days	Mon 5/17/21	Tue 6/29/21
195	2.13.3.2 Review by Finance Team, Program Manager,& City	6 days	Wed 6/30/21	Wed 7/7/21
196	2.13.3.3 Meeting to Discuss 90% Draft (as necessary)	2 days	Thu 7/8/21	Fri 7/9/21
197	**2.13.4 Final Report**	**0.63 mons**	**Mon 7/12/21**	**Thu 8/5/21**
198	2.13.4.1 Final Report Preparation	8 days	Mon 7/12/21	Wed 7/21/21
199	2.13.4.2 Submittal to Program Manager& City	1 day	Thu 7/22/21	Thu 7/22/21
200	**2.13.4.3 Submittal to EPA**	**10 days**	**Fri 7/23/21**	**Thu 8/5/21**
201	**2.14 18 Mo. Deliverables Kickoff Meeting(Task 6.09)**	**2 days**	**Thu 8/13/20**	**Fri 8/14/20**
202	**2.15 Task 6.09: Legal Support Program Plan (18 Mos.)**	**4.17 mons**	**Mon 8/17/20**	**Fri 2/5/21**
203	**2.15.1 30% Draft Plan**	**1.13 mons**	**Mon 8/17/20**	**Thu 10/1/20**
204	2.15.1.1 Development of 30% Draft	27 days	Mon 8/17/20	Tue 9/22/20
205	2.15.1.2 Review by Program Manager& City (including Legal)	6 days	Wed 9/23/20	Wed 9/30/20
206	2.15.1.3 Meeting to Discuss 30% Draft (as necessary)	1 day	Thu 10/1/20	Thu 10/1/20
207	**2.15.2 60% Draft Plan**	**1.2 mons**	**Fri 10/2/20**	**Fri 11/20/20**
208	2.15.2.1 Development of 60% Draft	29 days	Fri 10/2/20	Wed 11/11/20
209	2.15.2.2 Review by Program Manager& City (including Legal)	6 days	Thu 11/12/20	Thu 11/19/20
210	2.15.2.3 Meeting to Discuss 60% Draft (as necessary)	1 day	Fri 11/20/20	Fri 11/20/20
211	**2.15.3 90% Draft Plan**	**1.3 mons**	**Mon 11/23/20**	**Thu 1/14/21**
212	2.15.3.1 Development of 90% Draft	32 days	Mon 11/23/20	Tue 1/5/21
213	2.15.3.2 Review by Program Manager& City (including Legal)	6 days	Wed 1/6/21	Wed 1/13/21
214	2.15.3.3 Meeting to Discuss 90% Draft (as necessary)	1 day	Thu 1/14/21	Thu 1/14/21
215	**2.15.4 Final Report**	**0.53 mons**	**Fri 1/15/21**	**Fri 2/5/21**
216	2.15.4.1 Final Report Preparation	7 days	Fri 1/15/21	Mon 1/25/21
217	2.15.4.2 Submittal to Program Manager& City	1 day	Tue 1/26/21	Tue 1/26/21
218	**2.15.4.3 Submittal to EPA**	**8 days**	**Wed 1/27/21**	**Fri 2/5/21**
219	**3 South Wastewater Treatment Plant**	**56.14 mons**	**Wed 12/4/19**	**Sun 7/14/24**
220	**3.1 Sewer Treatment System Correction Action Plan**	**56.14 mons**	**Wed 12/4/19**	**Sun 7/14/24**
221	3.1.1 Rehabilitation Plan	12 mons	Wed 12/4/19	Fri 11/27/20
222	3.1.2 EPA Review & Approval (3)	2.14 mons	Sat 11/28/20	Sun 1/31/21
223	3.1.3 Design & Construction of STSCAP	42 mons	Sun 1/31/21	Sun 7/14/24