

# Clean Water 2020 Program

## CONSENT DECREE QUARTERLY REPORT

October 1, 2022 – December 31, 2022



## Table of Contents

Section 1	Introduction .....	3
1.1	Summary of Reporting Requirements .....	3
1.2	Report Organization.....	3
Section 2	Schedule of Projects and Activities .....	5
Section 3	Additional Information Demonstrating Implementation of Consent Decree Requirements ...	9
3.1	MOM Programs.....	9
3.1.1	Information Management System (IMS) Program.....	9
3.1.2	Sewer Mapping Program .....	9
3.2	Infrastructure Rehabilitation Report (IRR) for the WCTS.....	10
3.3	Sewer System Hydraulic Model .....	12
Section 4	Quarterly SSO Report.....	13

## List of Tables

Table 1 – SSO Report, 4th Quarter 2022.....	13
Table 2 – Building Backup Report, 4th Quarter 2022 .....	14

## Section 1 Introduction

### 1.1 Summary of Reporting Requirements

On May 21, 2014, the City of Columbia (City) entered into a Consent Decree (CD) with the United States Environmental Protection Agency (EPA), the United States Department of Justice (DOJ) and the South Carolina Department of Health and Environmental Control (SCDHEC). To fulfill the reporting requirements as defined in Section IX.39.a of the CD, the City has prepared this *Quarterly Report* that includes the following information (as excerpted from the CD):

1. A description of all projects and activities conducted during the most recently completed calendar quarter to comply with the requirements of this Consent Decree, in Gantt chart or similar format. This description shall include completion percentages of early action capital improvement projects under Paragraph 10, continuing sewer assessments under the CSAP, and the subsequent remedial actions under the IR Report;
2. The date, time, location, source, duration, estimated volume, receiving water (if any), cause, and actions taken to repair or otherwise resolve the cause of all SSOs for the most recently completed quarter in a tabulated electronic format;
3. The anticipated projects and activities that will be performed in the next quarter to comply with the requirements of this Consent Decree, in Gantt chart or similar format;
4. Any additional information that demonstrates that Columbia is implementing the remedial measures required in this Consent Decree

### 1.2 Report Organization

This Quarterly Report is organized as follows:

#### **Section 1 – Introduction**

This section includes a summary of the reporting requirements and describes the report organization.

#### **Section 2 – Schedule of Projects and Activities**

This section addresses the requirements of Sections IX.39.a.(i) and IX.39.a.(iii) of the Consent Decree. The section includes the projects and activities conducted during the most recently completed calendar quarter to comply with the requirements of the CD as well as the anticipated projects and activities that will be performed in the next quarter to comply with the requirements of the CD. A Gantt chart schedule of these activities is provided and includes completion percentages of remedial actions under the IR Report, as applicable.

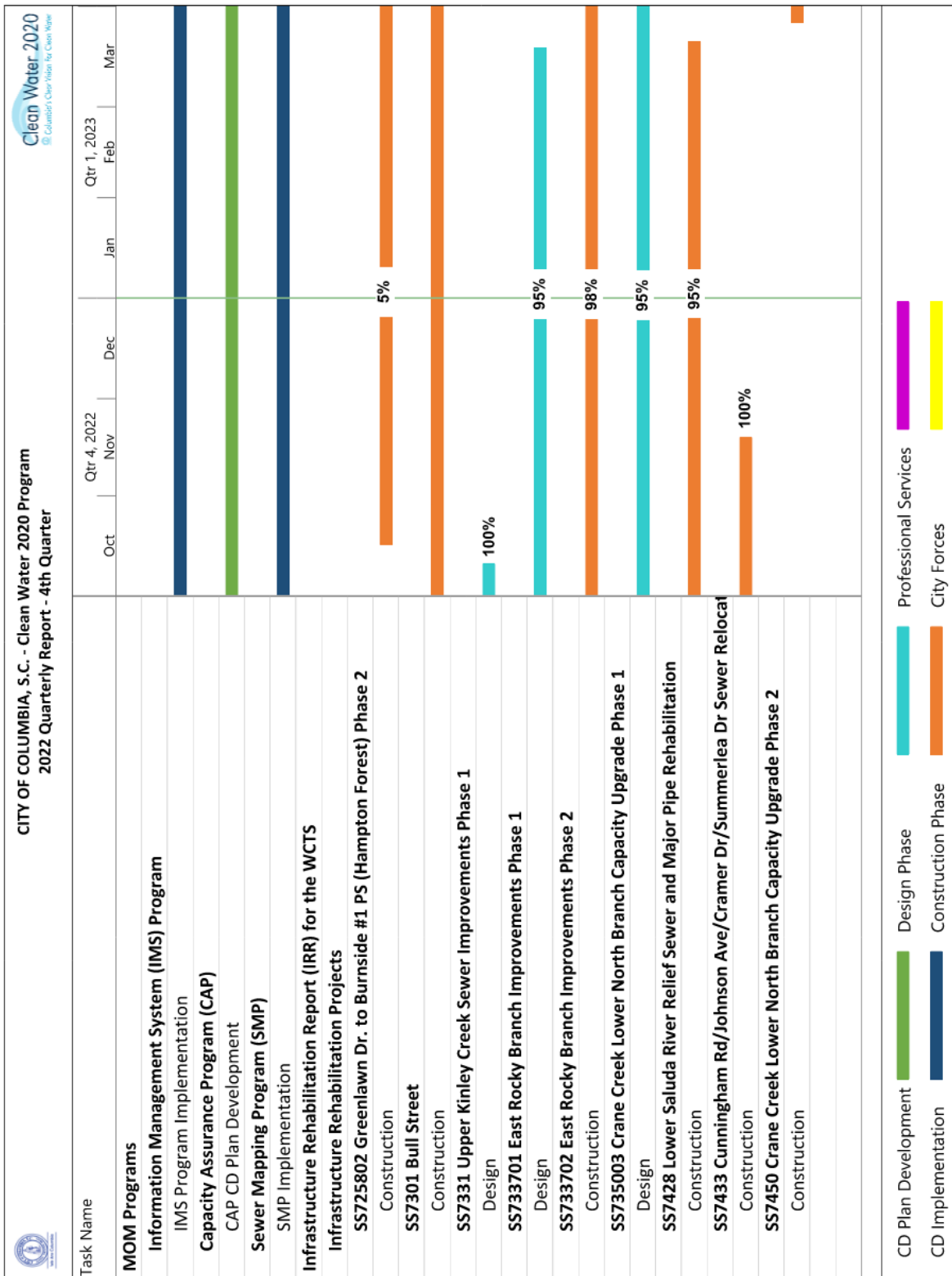
**Section 3 – Additional Information Demonstrating Implementation of Consent Decree Requirements**

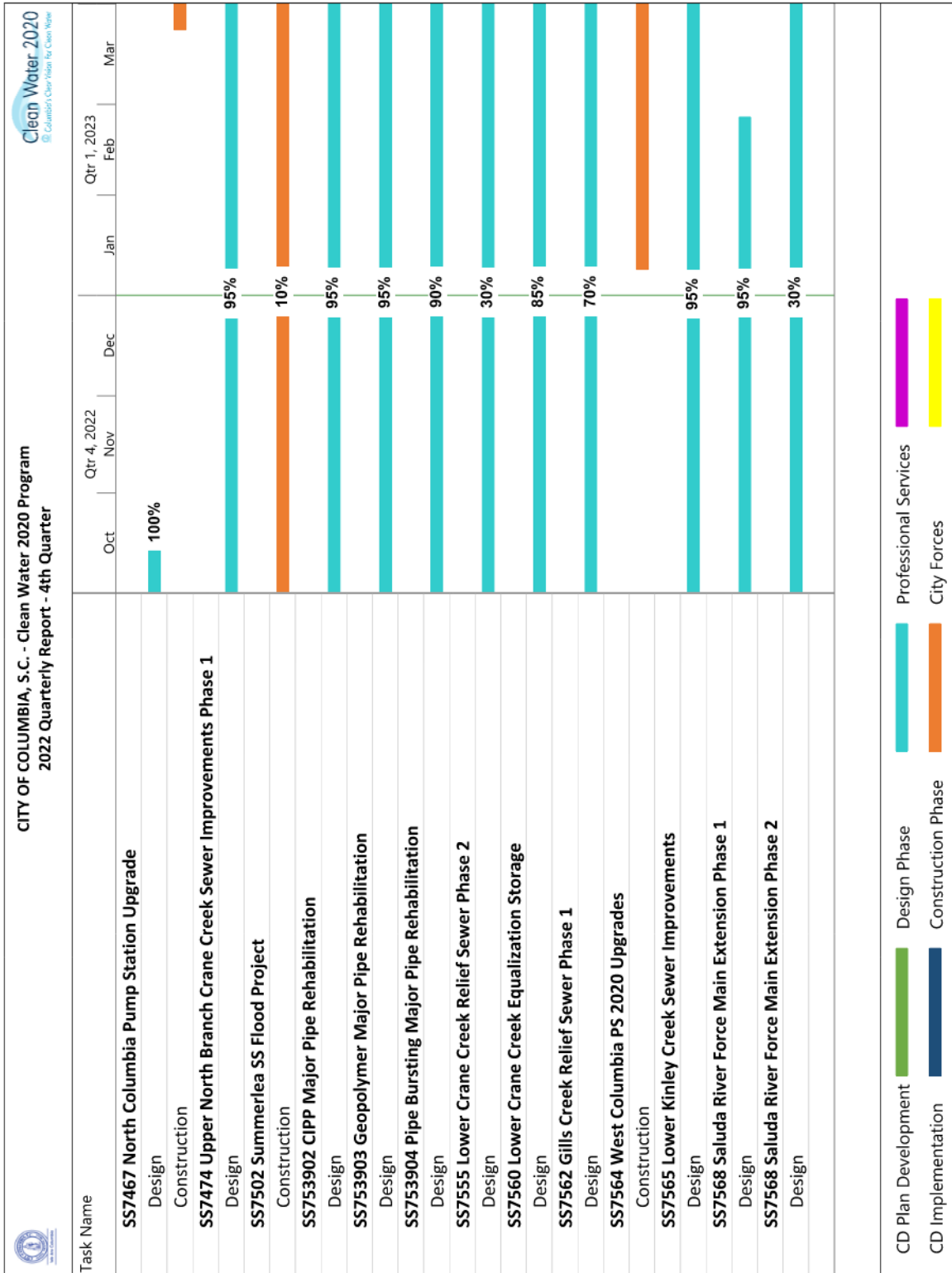
This section addresses the requirements of Section IX.39.a.(iv) of the Consent Decree and includes additional information that demonstrates that Columbia is implementing the remedial measures required in the CD. Information supplemental to that which is provided in Section 2 is provided in this section.

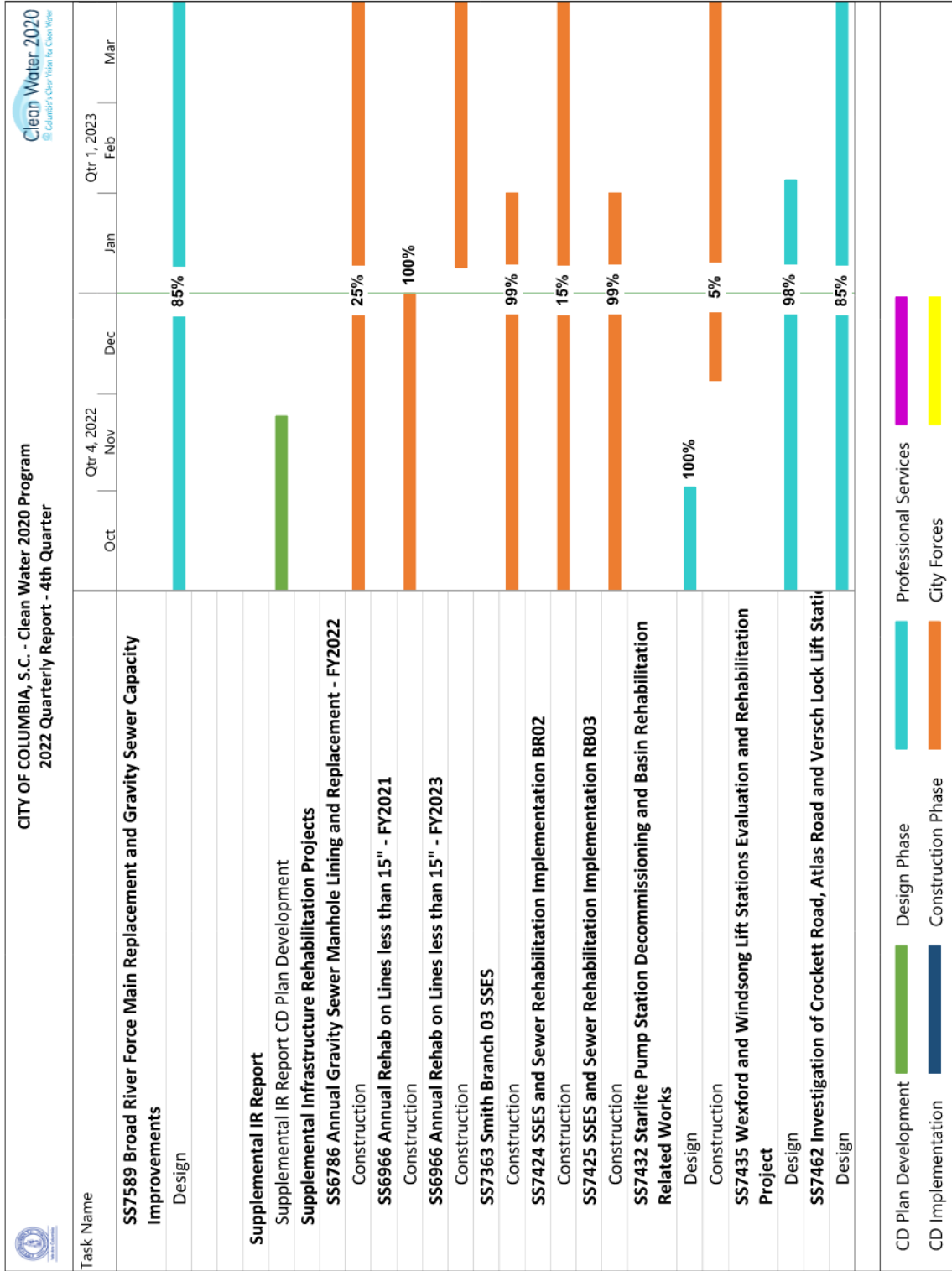
**Section 4 – Quarterly SSO Report**

This section addresses the requirements of Section IX.39.a.(ii) of the Consent Decree and provides a tabular listing of sanitary sewer overflows (SSOs). The table includes the date, time, location, source, duration, estimated volume, receiving water (if any), cause, and actions taken to repair or otherwise resolve the cause of all SSOs that occurred during the most recently completed calendar quarter.

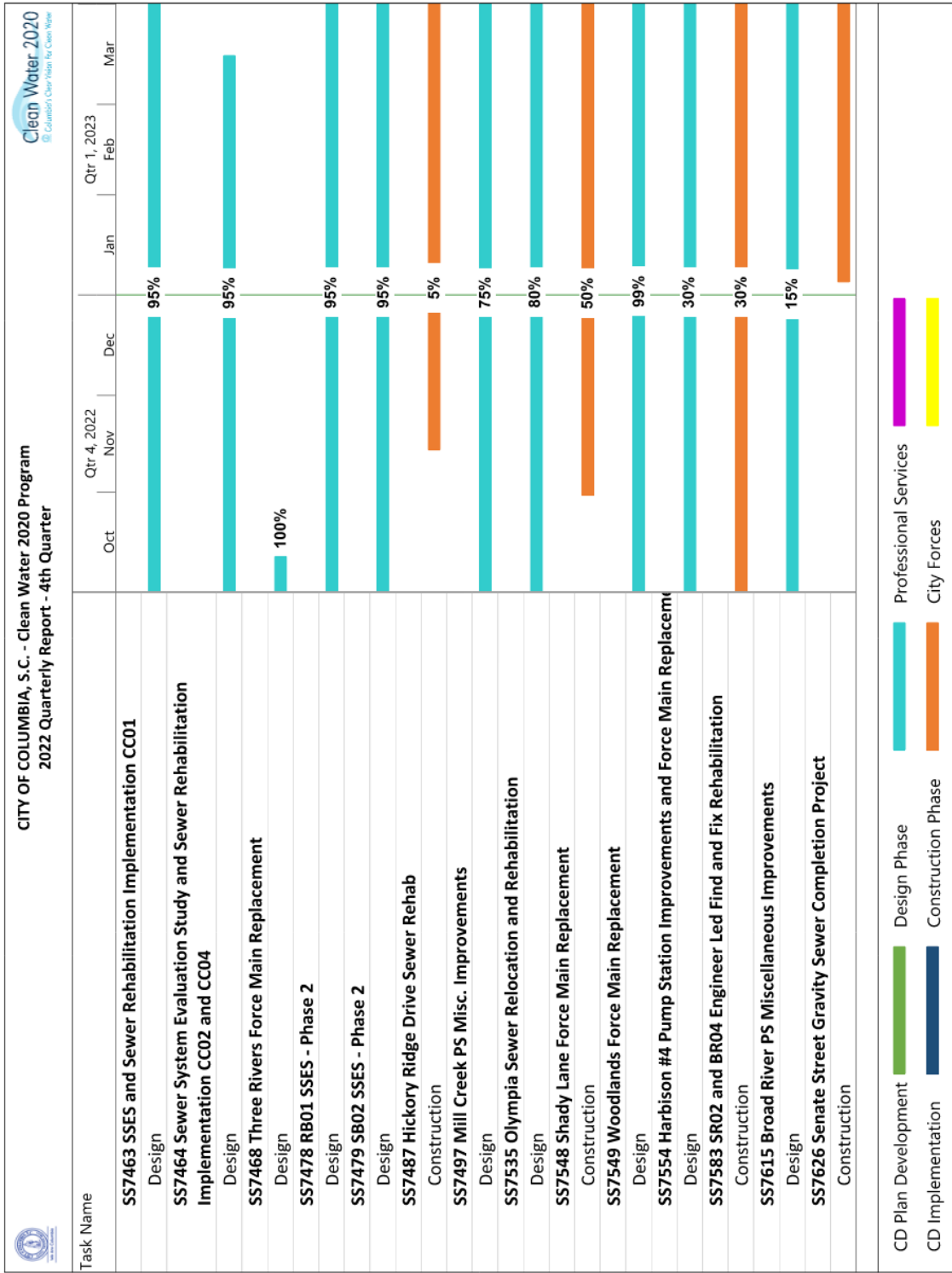
## Section 2 Schedule of Projects and Activities











## Section 3 Additional Information Demonstrating Implementation of Consent Decree Requirements

In accordance with Section IX.39.a.(iv) of the CD, the following section provides additional information that demonstrates that the City is implementing the remedial measures required in the CD.

### 3.1 MOM Programs

In accordance with Section V.12 of the CD, the City is developing and implementing specific Management, Operations, and Maintenance (MOM) programs. The Program elements addressed in this section provide information regarding activities involving the Metro WWTP as well as the City's Wastewater Collection and Transmission System (WCTS).

#### 3.1.1 Information Management System (IMS) Program

The IMS Program was submitted to EPA and SCDHEC on January 4, 2016. The City received final approval of the IMS Program from EPA and SCDHEC on May 23, 2016.

The activities completed or in progress during the current reporting period are as follows:

- Sewer Mapping Program – 95% Complete

#### 3.1.2 Sewer Mapping Program

In accordance with the requirements of the CD, the City was to develop and submit a Sewer Mapping Program (SMP) to EPA and SCDHEC within 60 days of the date of entry of the CD. The City received final approval of the SMP from EPA and SCDHEC on December 9, 2014.

Projects and significant activities completed during the current reporting period:

- The City continues to complete the electronic mapping of each Sewer Basin in accordance with the approved SMP implementation plan. Progress for each WCTS Minor Gravity Mapping basin is as follows:
  - West Columbia Basin – 100% complete (Mapping complete as of June 9, 2020)
  - Smith Branch Basin – 100% complete (Mapping complete as of June 9, 2021)
  - Saluda River Basin – 100% complete (Mapping complete as of June 9, 2021)
  - Rocky Branch Basin – 100% complete (Mapping complete as of June 9, 2021)
  - Mill Creek Basin – 64% complete
  - Gills Creek Basin – 90% complete
  - Crane Creek Basin – 98% complete
  - Broad River Basin – 75% complete

## 3.2 Infrastructure Rehabilitation Report (IRR) for the WCTS

In accordance with Section V.16 of the CD, the City shall submit an Infrastructure Rehabilitation Report (IRR) summarizing the results of the CSAP of the major components of the WCTS and a description of proposed rehabilitation projects. The IRR was submitted to EPA and SCDHEC on November 22, 2019. The City is awaiting EPA and SCDHEC review and approval of the IRR.

As rehabilitation projects are identified in the normal course of operations and maintenance, the City is proceeding with design and construction of those projects. Completion percentages of projects currently in progress are as follows:

- SS725802 Greenlawn Dr. to Burnside #1 PS (Hampton Forest) Phase 2 – Construction 5% Complete
- SS7301 Bull Street – Construction in Progress; a completion percentage cannot be provided due to a varying scope of work and timeline for this project.
- SS7331 Upper Kinley Creek Sewer Improvements Phase 1 – Design 100% Complete
- SS733701 East Rocky Branch Improvements Phase 1 – Design 95% Complete
- SS733702 East Rocky Branch Improvements Phase 2 – Construction 98% Complete
- SS735003 Crane Creek Lower North Branch Capacity Upgrade Phase 1 – Design 95% Complete
- SS7428 Lower Saluda River Relief Sewer and Major Pipe Rehabilitation – Construction 95% Complete
- SS7433 Cunningham Rd/Johnson Ave/Cramer Dr/Summerlea Dr Sewer Relocation – Construction 100% Complete
- SS7450 Crane Creek Lower North Branch Capacity Upgrade Phase 2 – Construction 0% Complete
- SS7467 North Columbia Pump Station Upgrade – Design 100% Complete, Construction 0% Complete
- SS7474 Upper North Branch Crane Creek Sewer Improvements Phase 1 – Design 95% Complete
- SS7502 Summerlea SS Flood Project – Construction 10% Complete
- SS753902 CIPP Major Pipe Rehabilitation – Design 95% Complete
- SS753903 Geopolymer Major Pipe Rehabilitation – Design 95% Complete
- SS753904 Pipe Bursting Major Pipe Rehabilitation – Design 90% Complete
- SS7555 Lower Crane Creek Relief Sewer Phase 2 – Design 30% Complete
- SS7560 Lower Crane Creek Equalization Storage – Design 85% Complete
- SS7562 Gills Creek Relief Sewer Phase 1 – Design 70% Complete
- SS7564 West Columbia Pump Station Improvements – Construction 0% Complete
- SS7565 Lower Kinley Creek Sewer Improvements – Design 95% Complete
- SS7568 Saluda River Force Main Extension Phase 1 – Design 95% Complete
- SS7568 Saluda River Force Main Extension Phase 2 – Design 30% Complete
- SS7589 Broad River Force Main Replacement and Gravity Sewer Capacity Improvements – Design 85% Complete

In accordance with Section V.16.c of the CD, the City shall submit a Supplemental Infrastructure Rehabilitation Report (SIRR) which shall update all portions of the IRR to reflect additional information developed by the City through completion of the CSAP of the minor components of the WCTS. The SIRR is to be submitted within six months after the City has assessed the remainder of the entire WCTS pursuant to the CSAP. The deadline for submittal of the SIRR to EPA and SCDHEC is November 23, 2022.

- The SIRR was submitted to EPA and SCDHEC on November 22, 2022.

As rehabilitation projects are identified in the normal course of operations and maintenance, the City is proceeding with design and construction of those projects. Completion percentages of projects currently in progress are as follows:

- SS6786 Annual Gravity Sewer Manhole Lining and Replacement – FY2022 Construction 25% Complete
- SS6966 Annual Rehab on Lines less than 15” – FY2021 Construction 100% Complete
- SS6966 Annual Rehab on Lines less than 15” – FY2023 Construction 0% Complete
- SS7363 Smith Branch 03 SSES – Construction 99% Complete
- SS7424 Sewer System Evaluation Study and Sewer Rehabilitation Implementation BR02 – Construction 15% Complete
- SS7425 SSES and Sewer Rehabilitation Implementation RB03 – Construction 99% Complete
- SS7432 Starlite PS Decommissioning and Basin Rehabilitation Related Works – Design 100% Complete, Construction 5% Complete
- SS7435 Wexford and Windsong Lift Stations Evaluation and Rehabilitation Project – Design 98% Complete
- SS7462 Investigation of Crockett Road, Atlas Road and Versch Lock Lift Stations – Design 85% Complete
- SS7463 SSES and Sewer Rehabilitation Implementation CC01 – Design 95% Complete
- SS7464 Sewer System Evaluation Study and Sewer Rehabilitation Implementation CC02 and CC04 – Design 95% Complete (Decrease in Design Completion % from Previous Reports due to Need to Redesign Portions of Project)
- SS7468 Three Rivers Force Main Replacement – Design 100% Complete
- SS7478 Rocky Branch 01 SSES Phase 2 – Design 95% Complete
- SS7479 Smith Branch 02 SSES Phase 2 – Design 95% Complete
- SS7487 Hickory Ridge Drive Sewer Rehab – Construction 5% Complete
- SS7497 Mill Creek PS Miscellaneous Improvements – Design 75% Complete (Decrease in Design Completion % from Previous Reports due to Need to Redesign Portions of Project)
- SS7535 Olympia Sanitary Sewer Relocation and Rehabilitation – Design 80% Complete
- SS7548 Shady Lane Force Main Replacement – Construction 50% Complete
- SS7549 Woodlands Force Main Replacement – Design 99% Complete
- SS7554 Harbison #4 Pump Station Improvements and Force Main Replacement – Design 30% Complete
- SS7583 SR02 and BR04 Engineer Led Find and Fix Rehabilitation – Construction 30% Complete

- SS7615 Broad River PS Miscellaneous Improvements – Design 15% Complete
- SS7626 Senate Street Gravity Sewer Completion Project – Construction 0% Complete

### 3.3 Sewer System Hydraulic Model

The Hydraulic Model Report was submitted to EPA and SCDHEC on August 21, 2020. The City is awaiting EPA and SCDHEC review and approval of the Hydraulic Model Report.

## Section 4 Quarterly SSO Report

In accordance with Section IX.39.a.(ii) of the CD, the City is to provide a list of all SSOs that occurred during the reporting period in a tabular format along with information on the date, time, location, source, duration, estimated volume, receiving water, cause, and actions taken to resolve the SSO.

Table 1 – SSO Report, 4th Quarter 2022

City of Columbia, SC Quarterly SSO Listing 4th Quarter 2022									
Date	Time	Location	Source	Date of Corrective Action	Time of Corrective Action	Estimated Volume (gallons)	Receiving Water (If any)	Cause	Actions Taken
10/3/2022	18:33	240 Rosebank Rd, Columbia, SC 29209	Cleanout	10/13/2022	12:00	7		Collapsed Line	Removed Blockage To Resume Normal Flow. Replaced Bad Section of Pipe and Installed a New City Cleanout.
10/4/2022	15:40	1821 Bassler St, Columbia, SC 29204	Cleanout	10/4/2022	16:30	6		Debris	Remove Blockage To Resume Normal Flow. S/L Root Cut To Remove Debris (Stick) And Replace Cleanout Cap/Hub.
10/10/2022	19:00	824 Old Oak Dr, Columbia, SC 29203	Cleanout	12/16/2022	12:00	30		Collapsed Line	Removed Blockage To Resume Normal Flow. Lined 105' of Pipe.
10/17/2022	16:30	1518 Maple St, Columbia, SC 29205	Cleanout	11/7/2022	12:00	54		Collapsed Line	Removed Blockage To Resume Normal Flow. Replaced Service Line.
10/18/2022	10:00	2501 Read St, Columbia, SC 29204	Cleanout	10/18/2022	10:15	100	Storm Drain	Equipment Failure	Ceased Washing Line.
10/20/2022	11:32	4305 Colonial Dr, Columbia, SC 29203	Manhole	10/25/2022	13:30	375	Storm Drain	Debris	Removed Blockage To Resume Normal Flow. Main Line Wash.
10/21/2022	16:30	4505 Ryan Ave, Columbia, SC 29203	Cleanout	10/23/2022	12:00	5		Collapsed Line	Removed Blockage To Resume Normal Flow. Service Line Repair.
10/24/2022	15:40	1109 Widgean Dr, Columbia, SC 29203	Manhole	TBD		320	Trib To Crane Creek	Roots	Removed Blockage To Resume Normal Flow. Turned Over To Contractor For Lining And Manhole Rehab.
10/24/2022	16:46	696 Amberley Rd, Columbia, SC 29203	Manhole	10/25/2022	10:30	939		Debris	Removed Blockage To Resume Normal Flow. Washed Main Line To Remove Blockage.
10/26/2022	07:30	2020 Bluff Rd, Columbia, SC 29201	Manhole	10/26/2022	08:15	3000	Storm Drain	Equipment Failure	Replaced Failing Bypass Pump.
11/2/2022	13:01	1550 Gadsden St, Columbia, SC 29201	Manhole	11/8/2022	06:00	14	Storm Drain	Debris	Removed Blockage To Resume Normal Flow. Removed Piece Of Pipe From Manhole And Manhole Cleaned.
11/10/2022	07:20	4440 Bluff Rd, Columbia, SC 29209	Manhole	11/10/2022	07:20	13		Pump Station Failure	Restarted The Pumps. Reset Each Pump.
11/14/2022	10:52	2400 Forest Dr, Columbia, SC 29204	Manhole	TBD		195	Storm Drain	Collapsed Line	Removed Blockage To Resume Normal Flow. Repair Will Be Done By Contractor.
11/18/2022	17:10	180 Stoneridge Dr, Columbia, SC 29210	Cleanout	11/18/2022	18:00	889	Storm Drain	Collapsed Line	Removed Blockage To Resume Normal Flow. Used Picote Machine to Properly Cut Tap.
11/20/2022	16:30	5193 Brogdon Dr, Columbia, SC 29209	Cleanout	11/21/2022	12:00	505	Storm Water Ditch	Collapsed Line	Service Line Repair. Service Line Repair.
11/21/2022	11:00	3408 Palmetto Ave, Columbia, SC 29203	Cleanout	12/23/2022	11:09	100	Storm Water Ditch	Collapsed Line	Removed Blockage To Resume Normal Flow. Line Added To PM Wash List.
11/28/2022	09:38	215 Shoreline Dr, Columbia, SC 29212	Manhole	1/3/2023	22:27	10		Roots	Removed Blockage To Resume Normal Flow. Main Line Repair and Tap Renewal.
11/29/2022	10:45	2040 Elmridge Rd, Columbia, SC 29209	Cleanout	12/1/2022	1/0/1900	85		Collapsed Line	Removed Blockage To Resume Normal Flow. Service Line Repair and New Cleanout Installed.
11/29/2022	18:34	343 Wycombe Rd, Columbia, SC 29212	Cleanout	11/30/2022	08:00	390	Storm Drain	Roots	Removed Blockage To Resume Normal Flow. Main Line Root Cut And Main Line CIPP (Kit) Point Repair.
12/8/2022	14:45	2612 Devine St, Columbia, SC 29205	Cleanout	TBD		28		Roots	Removed Blockage To Resume Normal Flow. Service Line CIPP (Liner) To Be Done.
12/12/2022	15:49	530 Main St, Columbia, SC 29201	Cleanout	TBD		74	Storm Drain	Roots	Removed Blockage To Resume Normal Flow. Main Line Point Repair To Be Done.
12/15/2022	17:59	107 Century Dr, Columbia, SC 29212	Cleanout	12/29/2022	12:00	176		Roots	Removed Blockage To Resume Normal Flow. Lined 54' of Pipe.

City of Columbia, SC Quarterly SSO Listing 4th Quarter 2022									
Date	Time	Location	Source	Date of Corrective Action	Time of Corrective Action	Estimated Volume (gallons)	Receiving Water (If any)	Cause	Actions Taken
12/16/2022	16:30	1867 Cunningham Rd, Columbia, SC 29210	Manhole	12/21/2022	08:00	1373	Unnamed Trib To Broad River	Collapsed Line	Removed Blockage To Resume Normal Flow. Main Line Added To PM Wash List.
12/19/2022	16:45	430 Kettering Ct, Columbia, SC 29210	Manhole	TBD		605	Trib To Kinley Creek	Roots	Removed Blockage To Resume Normal Flow. Service Line Repair To Be Done.
12/19/2022	15:00	2336 Ramsgate Dr, Columbia, SC 29210	Cleanout	12/19/2022	15:30	160	Drainage Ditch	Equipment Failure	Ceased Washing Line.
12/20/2022	03:00	1200 Simmon Tree Ln, Columbia, SC 29201	PTF	12/20/2022	03:30	25		Treatment Plant	Cleaned Trough And Surrounding Area. Unclogged Trough Discharge Line.
12/22/2022	13:15	2240 Rolling Hills Rd, Columbia, SC 29210	Manhole	TBD		3000	Trib To Broad River	Roots	Removed Blockage To Resume Normal Flow. Main Line Root Cut And Kit To Cover Root Location To Be Installed.
12/26/2022	15:00	7645 Garners Ferry Rd, Columbia, SC 29209	Line Segment	12/27/2022	11:00	69888	Reeder Point Branch	Collapsed Line	Set Up Bypass. Main Line Repair.
12/27/2022	12:11	7651 Garners Ferry Rd, Columbia, SC 29209	Cleanout	12/28/2022	09:00	170		Debris	Removed Blockage To Resume Normal Flow. Main Line Wash.
12/29/2022	14:22	205 Braewick Rd, Columbia, SC 29212	Cleanout	12/30/2022	09:30	228		Roots	Removed Blockage To Resume Normal Flow. Main Line Root Cut.
12/19/2022	13:00	1319 Adger Rd, Columbia, SC 29205	Cleanout	12/20/2022	08:00	38		Collapsed Line	Removed Blockage To Resume Normal Flow. Service Line Repair.

As noted in Section IV.8.a of the CD, a Building Backup is defined as a release of wastewater into a building or onto private property that is caused by blockages, flow conditions, or other malfunctions in the WCTS.

Separate from the SSO listing provided in Table 1 above, the following table identifies building backups within the City’s system for the current reporting period.

**Table 2 – Building Backup Report, 4th Quarter 2022**

City of Columbia, SC Quarterly Building Backup Listing 4th Quarter 2022									
Date	Time	Location	Source	Date of Corrective Action	Time of Corrective Action	Estimated Volume (gallons)	Receiving Water (If any)	Cause	Actions Taken
10/21/2022	18:00	1803 Enoree Ave, Columbia, SC 29205	City	10/31/2022	08:00	808		Collapsed Line	Setup Bypass Pump. Service Line Tap.
11/22/2022	11:51	100 Tawny Branch Rd, Columbia, SC 29212	City	11/28/2022	08:00	92		Collapsed Line	Removed Blockage To Resume Normal Flow. Main Line Repair.
11/25/2022	13:00	2625 Marling Dr, Columbia, SC 29204	City	TBD		16		Roots	Removed Blockage To Resume Normal Flow. Service Line And Clean Out Repair To Be Done.