

Clean Water 2020 Program

CONSENT DECREE QUARTERLY REPORT

July 1, 2022 – September 30, 2022



We Are Columbia

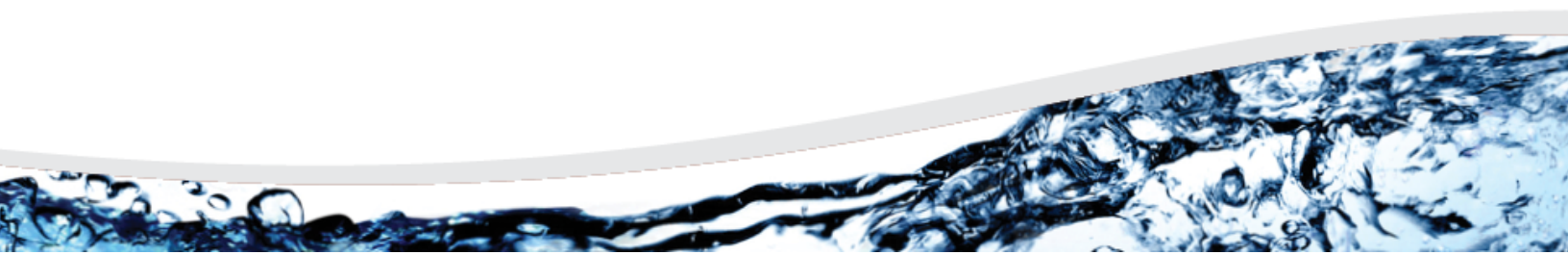


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Section 1 Introduction

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.

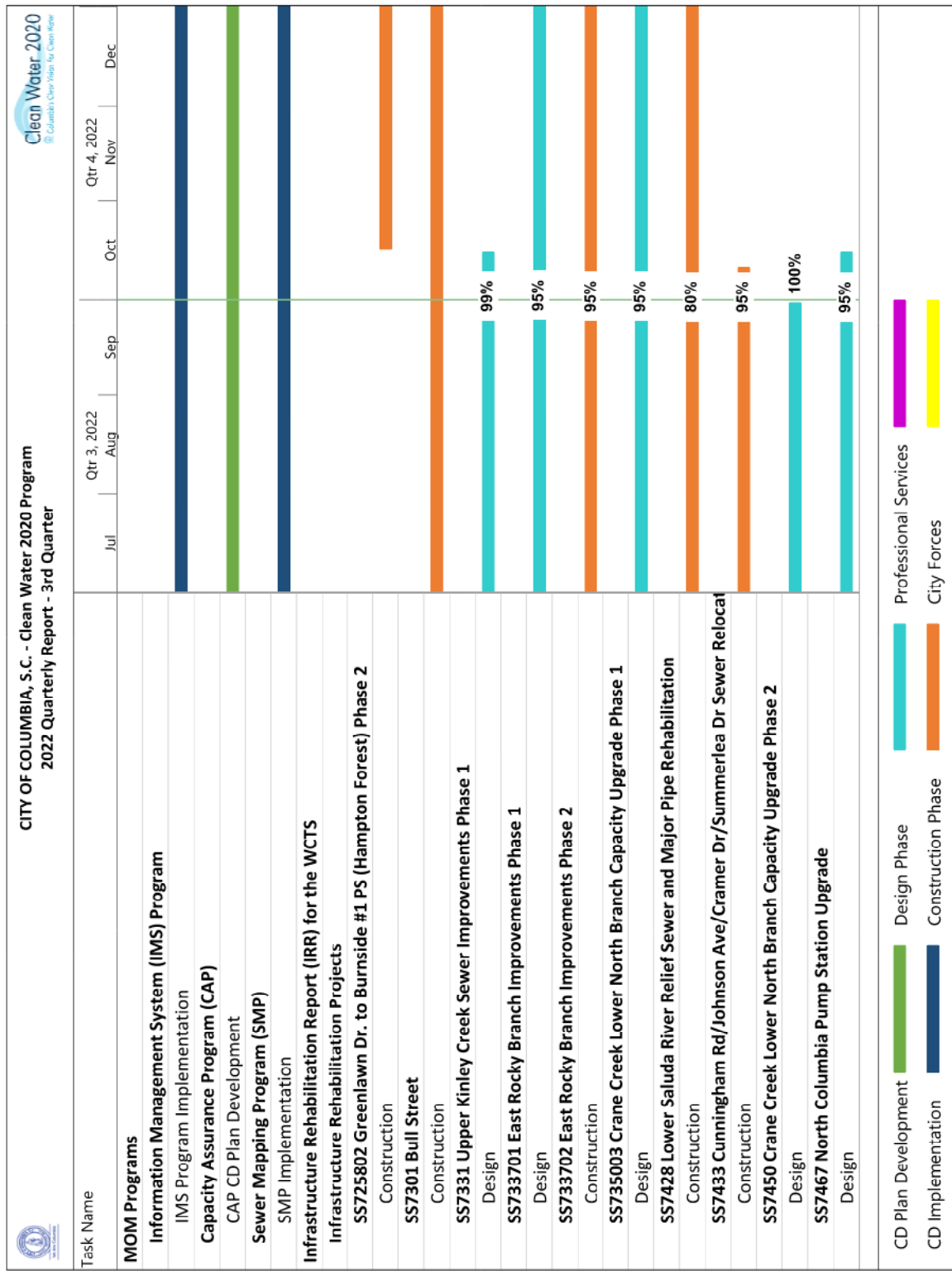
Section 3 – Additional Information Demonstrating Implementation of Consent Decree Requirements

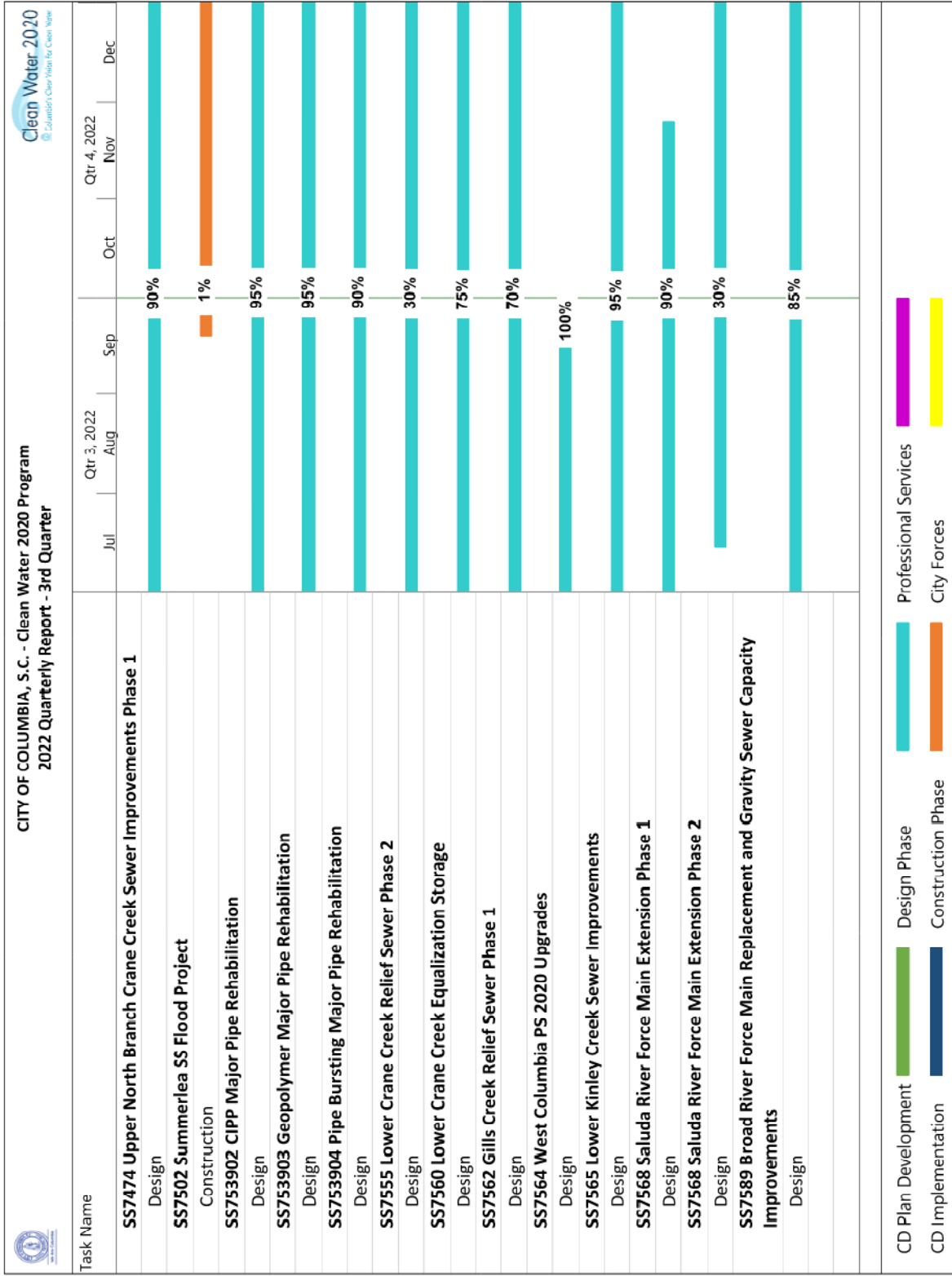
This section addresses the requirements of Section IX.39.a.(iv) of the Consent Decree and includes additional information that demonstrates that Columbia is implementing the remedial measures required in the CD. Information supplemental to that which is provided in Section 2 is provided in this section.

Section 4 – Quarterly SSO Report

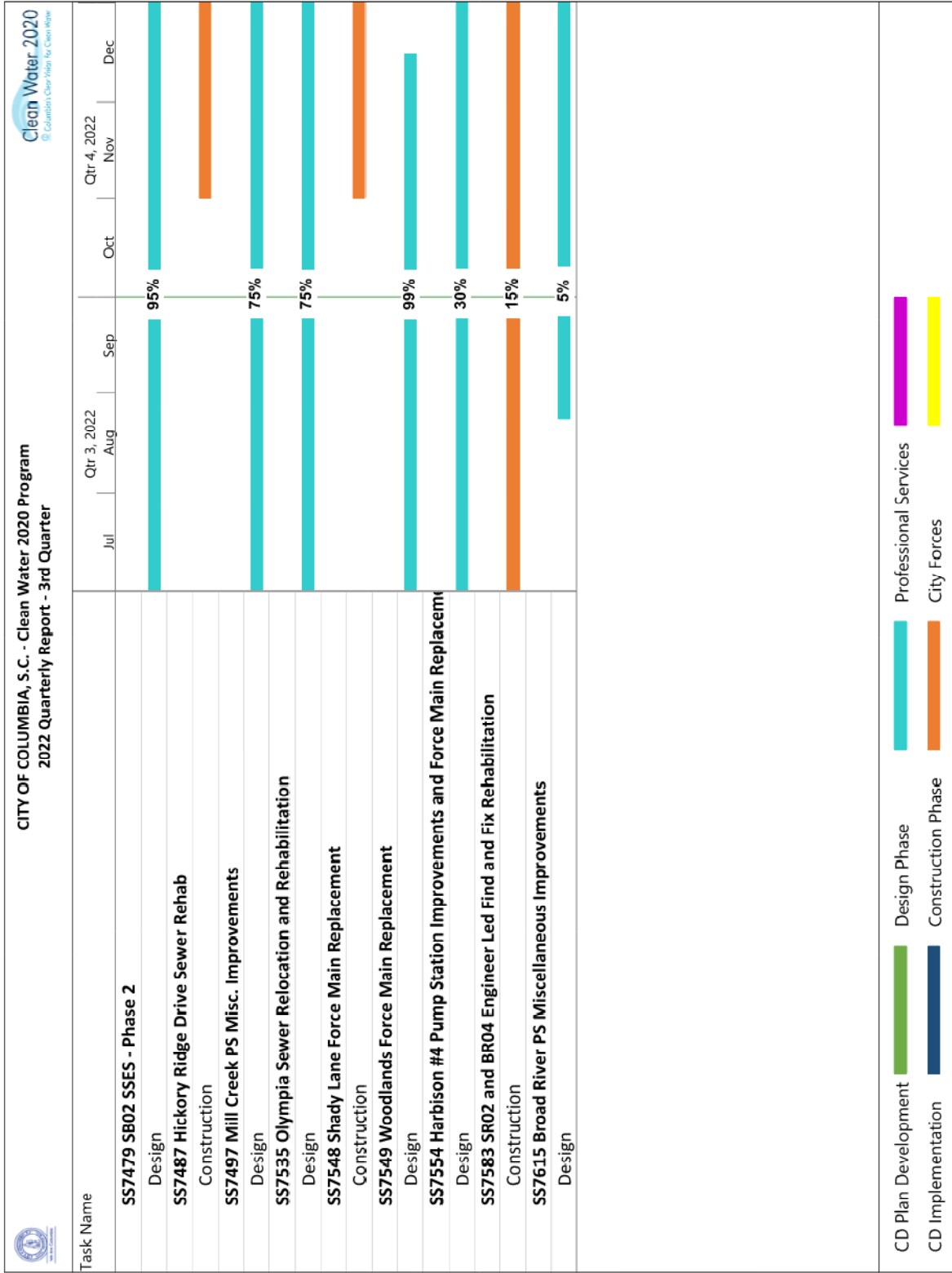
This section addresses the requirements of Section IX.39.a.(ii) of the Consent Decree and provides a tabular listing of sanitary sewer overflows (SSOs). The table includes the date, time, location, source, duration, estimated volume, receiving water (if any), cause, and actions taken to repair or otherwise 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 0% 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 99% Complete
- SS733701 East Rocky Branch Improvements Phase 1 – Design 95% Complete
- SS733702 East Rocky Branch Improvements Phase 2 – Construction 95% 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 80% Complete
- SS7433 Cunningham Rd/Johnson Ave/Cramer Dr/Summerlea Dr Sewer Relocation – Construction 95% Complete
- SS7450 Crane Creek Lower North Branch Capacity Upgrade Phase 2 – Design 100% Complete
- SS7467 North Columbia Pump Station Upgrade – Design 95% Complete
- SS7474 Upper North Branch Crane Creek Sewer Improvements Phase 1 – Design 90% Complete
- SS7502 Summerlea SS Flood Project – Construction 1% 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 75% Complete
- SS7562 Gills Creek Relief Sewer Phase 1 – Design 70% Complete
- SS7564 West Columbia Pump Station Improvements – Design 100% Complete
- SS7565 Lower Kinley Creek Sewer Improvements – Design 95% Complete
- SS7568 Saluda River Force Main Extension Phase 1 – Design 90% Complete
- SS7568 Saluda River Force Main Extension Phase 2 – Design 30% Complete (Phase 2 Portion of Work was Split Out of Overall Project Just Prior to 90% Design Completion)
- 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.

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 10% Complete
- SS6966 Annual Rehab on Lines less than 15” – FY2021 Construction 85% Complete
- SS7363 Smith Branch 03 SSES – Construction 95% Complete
- SS7424 Sewer System Evaluation Study and Sewer Rehabilitation Implementation BR02 – Construction 5% Complete
- SS7425 SSES and Sewer Rehabilitation Implementation RB03 – Construction 99% Complete
- SS7432 Starlite PS Decommissioning and Basin Rehabilitation Related Works – Design 95% Complete
- SS7435 Wexford and Windsong Lift Stations Evaluation and Rehabilitation Project – Design 95% Complete
- SS7462 Investigation of Crockett Road, Atlas Road and Versch Lock Lift Stations – Design 80% Complete
- SS7463 SSES and Sewer Rehabilitation Implementation CC01 – Design 95% Complete
- SS7464 Sewer System Evaluation Study and Sewer Rehabilitation Implementation CC02 and CC04 – Design 90% Complete (Decrease in Design Completion % from Previous Reports due to Need to Redesign Portions of Project)
- SS7468 Three Rivers Force Main Replacement – Design 95% 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 0% 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 75% Complete
- SS7548 Shady Lane Force Main Replacement – Construction 0% 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 15% Complete
- SS7615 Broad River PS Miscellaneous Improvements – Design 5% 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, 3rd Quarter 2022

City of Columbia, SC Quarterly SSO Listing 3rd Quarter 2022									
Date	Time	Location	Source	Date of Corrective Action	Time of Corrective Action	Estimated Volume (gallons)	Receiving Water (if any)	Cause	Actions Taken
7/1/2022	14:00	4440 Bluff Rd, Columbia, SC 29209	Pump Station, Manhole	OBSERVATION ONLY		2703		Wet Weather	Wet Weather; Observation Only. CIP Engineering Project Currently in Design Phase.
7/4/2022	09:19	100 Emerald Lake Rd, Columbia, SC 29209	Manhole	7/27/2022	21:00	2075	Storm Drain	Collapsed Line	Removed Blockage To Resume Normal Flow. Yearly PM Wash.
7/4/2022	19:20	900 Gracern Rd, Columbia, SC 29210	Manhole	OBSERVATION ONLY		1250	Storm Drain	Wet Weather	Wet Weather; Observation Only.
7/7/2022	15:40	106 Doctor Cir, Columbia, SC 29203	Cleanout	7/21/2022	12:00	150		Roots	Removed Blockage To Resume Normal Flow. Service Line Repair.
7/14/2022	14:10	1875 Bentley Dr, Columbia, SC 29210	Other	7/14/2022	14:10	6	Storm Drain	Equipment Failure	Stopped Contractor From Using Leaking Vac Truck. Made Contractor Use A Containment Device To Contain The Leak.
7/18/2022	17:45	943 W Confederate Ave, Columbia, SC 29201	Manhole	OBSERVATION ONLY		12	Storm Drain	Wet Weather	Wet Weather; Observation Only. Inflow Dish To Be Installed; Will Also Request Street Division To Clear Storm Drains.
7/19/2022	16:00	7119 Gavilan Ave, Columbia, SC 29203	Cleanout	8/1/2022	12:00	59		Debris	Removed Blockage To Resume Normal Flow. Service Line Wash To Remove Stick Stuck In Tap.
7/25/2022	12:43	1721 Shivers Rd, Columbia, SC 29210	Manhole	7/26/2022	08:00	18618	Storm Water Ditch	Debris	Removed Blockage To Resume Normal Flow. Main Line Wash To Remove Debris From Line 00332Mh_00360Mh.
7/25/2022	12:43	1721 Shivers Rd, Columbia, SC 29210	Manhole	8/2/2022	12:00	168		Debris	Removed Blockage To Resume Normal Flow. Used Tap Cutter To Cut Pvc Blockage Out Of Pipe 00360Mh_00359Mh.
8/1/2022	16:00	2109 Read St, Columbia, SC 29204	Cleanout	8/18/2022	15:30	9		Roots	Removed Blockage To Resume Normal Flow. Tap Repair.
8/9/2022	10:40	1051 Southern Dr, Columbia, SC 29201	Manhole	8/12/2022	09:45	51		Debris	Remove Blockage To Resume Normal Flow. Main Line Wash To Remove Debris From Line.
8/20/2022	22:23	2321 Chappelle St, Columbia, SC 29203	Manhole	8/26/2022	09:59	14	Storm Water Ditch	Debris	Main Line Wash To Remove Blockage To Resume Normal Flow. PM Wash To Prevent Debris Build Up.
8/24/2022	14:21	1821 Woodsboro Dr, Columbia, SC 29210	Cleanout, Manhole	8/27/2022	08:00	2395	Trib To Broad River	Roots	Removed Blockage To Resume Normal Flow. Main Line Repair.
8/25/2022	12:50	1826 Woodsboro, Dr, Columbia, SC 29210	Line Segment	8/27/2022	08:00	1800	Trib To Broad River	Collapsed Line	Set Up Bypass Pump To Stop Overflow. Main Line Repair.
8/25/2022	08:50	426 Pickens St, Columbia, SC 29201	Manhole	8/25/2022	09:30	1420	Storm Drain	Debris	Removed Blockage To Resume Normal Flow. Main Line Wash To Remove Debris.
8/26/2022	09:30	1850 Saint Michaels Rd, Columbia, SC 29210	Service Line	8/26/2022	10:00	13	Trib To Broad River	Collapsed Line	Service Line Repair.
8/29/2022	16:46	1401 Longcreek Dr, Columbia, SC 29210	Manhole	9/25/2022	12:00	3442	Spill Reached A Storm Drain	Debris	Remove Blockage To Resume Normal Flow. Manhole Repair.
9/8/2022	17:22	6169 Saint Andrews Rd, Columbia, SC 29212	Cleanout, Manhole	9/9/2022	08:00	14	Storm Drain	Grease	Removed Blockage To Resume Normal Flow. Vacuumed Heavy Grease From Manholes.
9/8/2022	14:58	1210 Gardendale Dr, Columbia, SC 29210	Manhole	TBD		16		Roots	Removed Blockage To Resume Normal Flow. Kit To Cover Roots To Be Installed.
9/12/2022	12:45	901 Colleton St, Columbia, SC 29203	Cleanout	9/12/2022	13:10	375	Storm Water Ditch	Debris	Removed Blockage To Resume Normal Flow. Washed Service Line To Remove Debris.
9/16/2022	17:30	7545 Garners Ferry Rd, Columbia, SC 29209	Cleanout	TBD		15		Collapsed Line	Removed Blockage To Resume Normal Flow. Service Line CIPP To Be Done.
9/19/2022	08:50	3808 Lester Dr, Columbia, SC 29203	Manhole	9/19/2022	12:00	700	Storm Ditch	Debris	Removed Blockage To Resume Normal Flow. Removed Debris From Manhole (08557Mh).

City of Columbia, SC Quarterly SSO Listing 3rd Quarter 2022									
Date	Time	Location	Source	Date of Corrective Action	Time of Corrective Action	Estimated Volume (gallons)	Receiving Water (if any)	Cause	Actions Taken
9/21/2022	10:00	3700 Bush River Rd, Columbia, SC 29210	Manhole	9/26/2022	15:00	644	Storm Water Ditch	Debris	Removed Blockage To Resume Normal Flow. Washed Main Line To Remove Debris.
9/21/2022	19:15	921 Marlboro St, Columbia, SC 29201	Manhole	TBD		4744	Storm Drain	Roots	Bypass Pump Set Up. Main Line Will Be Sent To A Contractor To Be Lined.
9/22/2022	12:17	6530 Davidson St, Columbia, SC 29209	Manhole	TBD		1078	Storm Drain	Roots	Removed Blockage To Resume Normal Flow. Corrective Action TBD Based on Ownership of Line.
9/24/2022	20:00	3616 Anwood Dr, Columbia, SC 29209	Cleanout	10/4/2022	13:00	150		Debris	Removed Blockage To Resume Normal Flow. Washed Main Line To Remove Broken Pipe.
9/27/2022	08:48	1300 Johnson Ave, Columbia, SC 29203	Other	9/30/2022	15:00	297	Storm Drain	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.

No building backups were identified within the City’s system for the current reporting period.