JOHN COOPER MAYOR



DEPARTMENT OF WATER AND SEWERAGE SERVICES ENGINEERING DIVISION 1600 SECOND AVENUE NORTH

NASHVILLE, TENNESSEE 37208

April 28, 2022

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DOJ Case No. 90-5-1-1-09000 Re: Submittal of Quarterly Progress Report

Dear Colleagues,

In accordance with the provisions of the Consent Decree, Section XIX (Reporting Requirements), Subsection A, herewith we are transmitting the Quarterly Progress Report which covers the period from January 1 through March 31, 2022.

A copy of the report is concurrently being placed in the Public Document Repository (PDR).

Quarterly Report Submittal April 28, 2022 Page 2

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.

If you have any questions concerning this report, do not hesitate to contact me.

Sincerely,

Ron C. Taylor, P.A. Clean Water Nashville Overflow Abatement Program Director

cc: Mr. Scott A. Potter, P.E., Director, Metro Water Services Mr. David Tucker, Deputy Director, Metro Water Services Mr. Cyrus Q. Toosi, P.E., Assistant Director / Chief Engineer, Engineering Mr. Thomas G. Cross, Deputy Director, Metropolitan Department of Law **Clean Water Nashville Overflow Abatement Program** 

Metropolitan Government of Nashville and Davidson County Department of Water and Sewerage Services

# CONSENT DECREE QUARTERLY PROGRESS REPORT

#### January 1 through March 31, 2022

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering such information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

C. Taylor, P.E., Program Director

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### Appendix

Appendix A Schedule for Current and Upcoming Projects



### Introduction

On March 12, 2009, the Metropolitan Government of Nashville and Davidson County, Tennessee (Metro), entered into a Consent Decree with the United States and the State of Tennessee. To fulfill the reporting requirements defined in Section XIX.A. of the Consent Decree, Metro has prepared this *Quarterly Progress Report*, which includes the following information:

- 1. Information on sanitary sewer overflows (SSOs) and dry-weather combined sewer system overflows (CSOs) occurring during the reporting period
- 2. A description of the work conducted during the reporting period to comply with the requirements of the Consent Decree
- 3. The anticipated work for the upcoming quarter to comply with the requirements of the Consent Decree
- 4. Any additional information necessary to demonstrate that Metro is adequately implementing the work

Work, as defined in the Consent Decree, includes all activities that Metro is required to perform under the Consent Decree. For the purposes of this *Quarterly Progress Report*, however, the focus will remain on current and upcoming work related to the *Corrective Action Plan/Engineering Report* (CAP/ER), the *Long Term Control Plan* (LTCP), and additional activities to address SSOs and CSOs.

#### 1.1 Additional Programs

Several additional programs, listed below, were also required to be developed or implemented as part of the Consent Decree. Any modifications or updates to these programs will be identified in **Section 4** of this report.

- Spill and Overflow Response Plan (Section VII.C.2) Metro continues to operate under the current Spill and Overflow Response Plan (SORP). A review of the SORP will be conducted annually with any proposed changes submitted to the U.S. Environmental Protection Agency (EPA) for review and approval by June 1 each year.
- Inter-jurisdictional Agreement Program (Section VII.C.3) All required inter-jurisdictional agreements are in place, and Metro will continue to operate under these agreements, including monitoring peak flows received.
- *Capacity Assurance Plan* (Section VII.C.4) The Capacity Assurance Plan will continue to be applied as a tracking/approval tool for new development/flow in the sanitary sewer system.
- Pump Station Operation Plan for Power Outages (Section VII.C.5) All projects identified in the Pump Station Operation Plan for Power Outages were completed prior to the start of the reporting period.



- *Nine Minimum Controls Compliance Plan* (Section VII.D.1) All elements of the *Nine Minimum Controls Compliance Plan* (NMC) were completed in 2012.
- Supplemental Environmental Projects (Section VIII) The Supplemental Environmental Projects (SEPs) required in the Consent Decree were completed in 2010.

#### 1.2 Report Organization

This *Quarterly Progress Report* is organized as follows:

Section 1 – Introduction
Section 2 – Corrective Action Plan/Engineering Report
Section 3 – Long Term Control Plan
Section 4 – Additional Measures to Maintain Consent Decree Compliance
Section 5 – Quarterly SSO and Dry-Weather CSO Report



### Corrective Action Plan/Engineering Report

To address conditions causing overflows in their sanitary sewer system, Metro developed a CAP/ER that was submitted to EPA and the Tennessee Department of Environment and Conservation (TDEC) on September 11, 2011.

The CAP/ER development began with a characterization of Metro's sanitary sewer system through extensive monitoring and modeling to understand the existing system's limitations. The need for improvements to address both current and future sewer capacity needs was then assessed, and potential alternatives were evaluated to select efficient and cost effective solutions. These recommended projects, which include infrastructure rehabilitation, additional conveyance capacity, and storage of wet-weather flows, are presented in the CAP/ER.

Approval of the CAP/ER was granted by EPA on August 10, 2017, with TDEC copied on the approval. Since submittal of the CAP/ER in 2011, information from additional flow monitoring data collection, constructability reviews, and hydraulic analyses resulted in adjustments to several CAP/ER projects, as well as the identification of additional projects to remediate SSOs. A summary of those changes was presented to EPA and TDEC in the *Addendum to the CAP/ER*, dated September 27, 2017.

Through ongoing efforts to maintain the system, Metro identified several overflow locations outside of those identified in the CAP/ER that warrant additional field investigations and/or improvements. As requested by TDEC in a letter dated July 15, 2019, Metro prepared *Addendum #2 to the CAP/ER*, which was submitted on August 30, 2019. That Addendum describes those overflow locations, summarizes actions taken, and presents Metro's plan for identifying and addressing conditions causing those overflows.

On February 18, 2020, Metro met with representatives from EPA, TDEC, the U.S. Department of Justice, and the Tennessee Attorney General's office to discuss compliance with the Consent Decree. A follow-up conference call with all parties was held on April 4, 2020, with informal clarifications between parties continuing over the following months. On December 7, 2020, Metro received a letter from EPA formalizing those discussions. The letter, which was countersigned by Metro on December 8, 2020, expands the Consent Decree's list of sanitary sewer overflows to be addressed (Appendix A of the Consent Decree). Additionally, the letter required that Metro submit an update to the CAP/ER, identifying corrective actions that have been or will be taken to address those overflows.

On June 2, 2021, Metro submitted the *Update to the Corrective Action Plan / Engineering Report* (CAP/ER Update). On August 26, 2021, that document was approved by EPA in consultation with TDEC.

Ongoing CAP/ER projects are described in the following subsections, and a schedule illustrating current and upcoming work on CAP/ER projects is presented as Appendix A.



#### 2.1 Completed CAP/ER Projects

The following projects, discussed in the CAP/ER, achieved substantial completion prior to the start of the reporting period:

- 28th Avenue Rehabilitation Area 1 Clifton Avenue
- Barker Road / Omohundro Equalization Storage Phase I
- Brick Church Pike Pipe Improvements
- Bonnafair Pump Station Repairs
- Cowan / Riverside Rehabilitation Area 1 Jones Avenue
- Cowan / Riverside Rehabilitation Area 2 Dickerson Pike
- Cowan / Riverside Rehabilitation Area 3 West Trinity Lane
- Cowan / Riverside Rehabilitation Area 4 Pages Branch
- Davidson and Brook Hollow Sewer Improvements
- Dodson Chapel Equalization Tank and Wastewater Pumping Station Expansion
- Dodson Chapel Pipe Improvements
- Dry Creek Wastewater Treatment Plant Optimization
- Ewing Creek / Brick Church Equalization Facility
- Farmingham Woods Gravity Sewer (Tulip Grove Road)
- Gibson Creek Rehabilitation Area 1 Dupont Avenue
- Hidden Acres Rehabilitation
- Highway 100 / Tyne Boulevard Trimble Rehabilitation
- Holiday Travel Park Gravity Conversion
- Joelton Rehabilitation
- Lakewood Water and Sewer Replacement Area 1
- Langford Farms Madison Heights Rehabilitation
- Loves Branch Rehabilitation
- Mill Creek 36-inch Trunk Sewer System Rehabilitation
- Mill Creek / Opryland Equalization Facility Phase II
- Neely's Bend Rehabilitation



- North Fork of Ewing Creek Manhole Repairs
- Rockwood Conveyance Improvements
- Shelby Park Rehabilitation Area 1 Virginia Avenue
- Shelby Park Rehabilitation Area 2 Norvel Avenue
- Shelby Park Rehabilitation Area 3 Greenland Avenue
- Shelby Park Rehabilitation Area 4 Brush Hill Road
- Shelby Park Rehabilitation Area 5 Cooper Lane
- Smith Springs Equalization Storage
- Smith Springs Rehabilitation Area 1 Priest Lake Meadows
- Smith Springs Rehabilitation Area 2 Castlegate
- South Oak Hill Manhole Repairs
- Vandiver Rehabilitation
- West Park Equalization Storage Phase I
- West Park Equalization Facility Phase II
- Westchester Drive Rehabilitation
- Whites Creek Wastewater Pumping Station Improvements
- Whites Creek Wastewater Treatment Plant (WWTP) Optimization and Disinfection

Note that the completed project list excludes activities that are not associated with a capital project.

#### 2.2 CAP/ER Projects under Construction

The following project began or continued construction during the reporting period:

Davidson Branch Pump Station and Equalization Facility

The Davidson Branch Pump Station and Equalization Facility project, referred to as the Davidson Branch Equalization Storage project in the CAP/ER, includes the relocation of an existing duty station and construction of a wastewater storage tank and wet-weather pumping station on a property adjacent to the existing Davidson Branch Pump Station. Design began on May 1, 2015. Advertisement for construction activities began on April 25, 2020, and bid proposals were received on June 11, 2020. The construction Notice-to-Proceed was issued on October 21, 2020, and construction activities will continue through the upcoming quarter.

Gibson Creek Equalization Facility

The Gibson Creek Equalization Facility project, as presented in the CAP/ER, consists of the design and construction of a 10-million-gallon wastewater storage tank and associated



wet-weather pumping station. Design began on September 12, 2016. Advertisement for construction began on March 23, 2021, and bid proposals were received on April 22, 2021. The construction Notice-to-Proceed was issued on August 9, 2021, and construction activities will continue through the upcoming quarter.

Joelton Pump Station Upgrades

Following completion of the Joelton Rehabilitation project, the Joelton Pump Station continued to experience wet-weather overflows. Due to the persisting overflow and to address anticipated growth in the area, the Joelton Pump Station Upgrades project was developed. This project consists of two components – improvements to the station and upsizing of the force main. Construction activities for the pump station began in November 2021 and are anticipated to continue through the upcoming quarter. Design activities are underway for the force main upgrade with construction activities anticipated to begin during the fourth quarter of 2022.

Lakewood Rehabilitation – Area 2 – Pitts Avenue

The Lakewood Rehabilitation – Area 2 – Pitts Avenue project is a sewer rehabilitation project planned for the area upstream of the Lakewood Pump Station. This project also includes rehabilitating the sewer upstream of the Gail Drive, Villas of Lakemeade #1, and Villas of Lakemeade #2 Pump Stations. The total area to be evaluated for rehabilitation includes approximately 54,000 linear feet of gravity sewer and 282 manholes. Design began on March 15, 2021, and was completed in November 2021. The resulting project consists of the rehabilitation of approximately 1,200 linear feet of gravity sewer, 25 manholes, and 85 service laterals within Metro's rights-of-way and easements, along with post-construction smoke testing of the entire project area. Advertisement for construction began on November 18, 2021, and construction quotations were received on December 16, 2021. The construction Notice-to-Proceed was issued on February 14, 2022, and construction activities will continue through the upcoming quarter.

Shelby Park Rehabilitation – Area 6 – Shelby Trunk

This rehabilitation project is the sixth in a series of rehabilitation projects to be constructed upstream of the Shelby Park Pump Station. The area evaluated for rehabilitation includes approximately 36,200 linear feet of gravity trunk sewer and 130 manholes. Design began on February 6, 2017. Permitting activities were completed in December 2017. The resulting construction project consists of the rehabilitation of approximately 20,500 linear feet of gravity sewer, associated manholes, and service laterals within Metro's rights-of-way and easements. Advertisement for construction began on September 28, 2020, and bid proposals were received on November 12, 2020. Award activities, including coordination for approvals required by the State Revolving Fund (SRF) loan, continued through early 2021. The construction Notice-to-Proceed was issued on July 6, 2021, and construction activities will continue through the upcoming quarter.

Smith Springs Rehabilitation – Area 3 – Harbour Town

The Smith Springs Rehabilitation – Area 3 – Harbour Town project is the third of multiple rehabilitation projects that will be constructed upstream of the Smith Springs Pump Station. The area evaluated for rehabilitation includes over 58,000 linear feet of gravity sewer. Design began on June 5, 2017, and is complete. The resulting project consists of the rehabilitation of



approximately 28,000 linear feet of gravity sewer, associated manholes, and service laterals within Metro's rights-of-way and easements. Advertisement for construction began on September 29, 2021, and construction quotations were received on October 28, 2021. The construction Notice-to-Proceed was issued on January 3, 2022, and construction activities will continue through the upcoming quarter.

#### 2.3 CAP/ER Projects under Design

The following projects, discussed in the CAP/ER, were under design or bidding during the reporting period:

• 28th Avenue Rehabilitation – Area 2 – Batavia Street

The 28th Avenue Rehabilitation – Area 2 – Batavia Street project is the second in a series of rehabilitation projects to be constructed in the 28th Avenue Rehabilitation project area. The area to be evaluated for rehabilitation includes approximately 49,500 linear feet of gravity sewer and 272 manholes. Design began on May 19, 2020, and is complete. The resulting project consists of the rehabilitation of approximately 42,600 linear feet of gravity sewer, associated manholes, and service laterals within Metro's rights-of-way and easements. Advertisement for construction began on March 29, 2022, and quotations will be received in the upcoming quarter.

Bandywood - Green Hills Rehabilitation

The Bandywood - Green Hills Rehabilitation project is a sewer rehabilitation project planned for the portion of the Green Hills area near Sugartree Creek. The area to be evaluated for rehabilitation includes approximately 59,000 linear feet of gravity sewer and 358 manholes. Design began on June 28, 2021, and was completed in January 2022. Advertisement for construction began on February 15, 2022, and quotations were received on March 18, 2022. Construction activities are anticipated to begin in the upcoming quarter.

Cleeces Ferry Rehabilitation – Area 1 – Summerly Drive

The Cleeces Ferry Rehabilitation – Area 1 – Summerly Drive project is the first of two rehabilitation projects to be constructed upstream of the Cleeces Ferry Pump Station. The area to be evaluated for rehabilitation includes approximately 53,100 linear feet of gravity sewer and 299 manholes. Design began on August 6, 2020, and is complete. The resulting project consists of the rehabilitation of approximately 49,000 linear feet of gravity sewer, associated manholes, and service laterals within Metro's rights-of-way and easements. Advertisement for construction is anticipated to occur in the upcoming quarter.

Hurricane Creek Pipe Improvements

The Hurricane Creek Pipe Improvements project, as presented in the CAP/ER, consisted of increasing the conveyance capacity of approximately 7,800 linear feet of gravity sewer to meet Metro's capacity assurance requirements. Following the analysis of additional flow monitoring conducted in the spring of 2015, the project's scope was revised to include the design of parallel and/or replacement gravity sewers for approximately 12,100 linear feet of existing gravity trunk sewer. Design began on July 12, 2016, and is complete. Permit and easement acquisition activities are also complete. Advertisement for construction began on January 25,



2022, and bids were received on March 11, 2022. Construction activities are anticipated to begin this summer.

Mill Creek – Collins Creek Rehabilitation

The Mill Creek – Collins Creek Rehabilitation project is a sewer rehabilitation project planned for the portion of the Antioch area near Interstate 24 and Bell Road. The area to be evaluated for rehabilitation includes approximately 69,000 linear feet of gravity sewer, including sewers up to 42 inches in diameter. Design began on November 2, 2021, and is anticipated to continue through the upcoming quarter.

Mill Creek Trunk Improvements and Equalization Facility

The Mill Creek Trunk Improvements and Equalization Facility project combines two projects presented in the CAP/ER, the Mill Creek Trunk Improvements project and the Mill Creek / Opryland Equalization Facility – Phase III project. Additional analysis of flow monitoring and condition assessment data of the upstream gravity system indicated that rehabilitation to reduce wet-weather flows may provide a viable option to reduce the extents of the trunk sewer improvements. The resulting project consists of conveyance capacity upgrades of over 2.5 miles of large diameter sewer, the addition of 60 million gallons of storage, construction of a supplemental drain line, and the addition of a wet-weather pump station with a 100 million gallons per day pumping capacity. Preliminary design began on February 1, 2021.

Additionally, Metro has procured a Construction Manager at Risk to provide pre-construction services during the design phase and function as the general contractor during the construction phase of this project. The Notice-to-Proceed for pre-construction services was issued on May 26, 2021.

As Metro stated in a letter to EPA and TDEC on March 31, 2022, new information has called into question whether the project as envisioned will meet the CAP/ER's performance requirements, and in March 2022, Metro paused design work on the Mill Creek Trunk Improvements and Equalization Facility project. As a result of those project performance concerns, Metro has immediately initiated an assessment of modifications to the existing project and identified additional project alternatives that will be analyzed to determine if they can meet the performance requirements for the CAP/ER. Based on the conclusions of the assessment and the consensus of key stakeholders, Metro will communicate the recommendation for moving forward to EPA and TDEC and identify the anticipated length for any potential delay in compliance.

Sevenmile Creek Rehabilitation – Area 1

The Sevenmile Creek Rehabilitation – Area 1 project is the first in a series of rehabilitation projects developed for the Mill Creek watershed and its tributaries. Although not originally included in the projects proposed in the CAP/ER, sewer rehabilitation in the Mill Creek watershed is being performed to reduce wet-weather flows, allowing for a reduced length of conveyance improvements for the Mill Creek Trunk Improvements and Equalization Facility project. The area evaluated for rehabilitation includes approximately 41,200 linear feet of gravity sewer. Design began on July 31, 2018, and is complete. The project consists of the rehabilitation of approximately 28,900 linear feet of gravity sewer, associated manholes, and service laterals within Metro's rights-of-way and easements. Advertisement for construction



began on December 29, 2021, and quotations were received on February 3, 2022. Construction Notice-to-Proceed was on April 4, 2022, and construction activities are anticipated to begin in the upcoming quarter.

#### 2.4 Upcoming CAP/ER Projects

The following projects, discussed in the CAP/ER, are anticipated to begin or continue procurement for design services during the upcoming quarter:

Rowan Cravath Rehabilitation

The Rowan Cravath Rehabilitation area, located in the northern portion of the Whites Creek WWTP service area, has experienced numerous rainfall-related overflows. The Rowan Cravath Rehabilitation project consists of the evaluation and rehabilitation, as necessary, of approximately 79,700 linear feet of existing gravity sewer, over 400 manholes, and service laterals within Metro's rights-of-way and easements. It also includes approximately 2,600 linear feet of sewer upsizing to increase wet-weather capacity. Design is anticipated to begin during the upcoming quarter.

Foster Avenue Rehabilitation

The Foster Avenue Rehabilitation project is a sewer rehabilitation project located near Nolensville Pike and Thompson Lane. The project consists of the evaluation and rehabilitation, as necessary, of approximately 57,100 linear feet of existing gravity sewer, over 350 manholes, and service laterals within Metro's rights-of-way and easements. Procurement of design services is anticipated to begin in the upcoming quarter.

Wallace Lane Rehabilitation

The Wallace Lane Rehabilitation project consists of the evaluation and rehabilitation, as necessary, of approximately 55,000 linear feet of existing gravity sewer, approximately 320 manholes, and service laterals within Metro's rights-of-way and easements. Procurement of design services is anticipated to begin late in the upcoming quarter.

In addition to the projects listed above, Metro continues to conduct planning activities for multiple Clean Water Nashville projects.



### Long Term Control Plan

To reduce the occurrence and impact of combined sewer overflows into the Cumberland River, Metro developed an update to the *Long Term Control Plan* (LTCP), that was submitted to EPA and TDEC on September 11, 2011.

The LTCP followed EPA's *Combined Sewer Overflow Control Policy* in implementing a rigorous process for identifying and evaluating alternatives to reduce combined sewer overflows. Consideration included financial and engineering analyses to develop recommended improvements in conjunction with four key objectives that were established early in the planning process:

- Improve the water quality of the Cumberland River by reducing impacts from combined sewer overflows
- Provide a level of CSO control that results in improvements in water quality that are consistent with the community's use of the Cumberland River
- Align investment in CSO controls to be commensurate with the contribution of CSOs to water quality relative to other sources
- Consider the impact of the overall program cost on the ratepayers in the current economic climate

These goals and objectives were developed based on feedback provided by representatives from Metro, local government, and the community through a public engagement campaign developed to solicit input from affected stakeholders.

On June 18, 2018, Metro presented to EPA and TDEC an *Addendum to the LTCP* which summarizes the updates and modifications to projects described in the LTCP since its submittal in 2011.

In a February 11, 2019, letter, EPA provided review comments to Metro on the LTCP and *Addendum to the LTCP*. Metro submitted a response letter dated March 6, 2019 with a proposed path forward.

On February 18, 2020, Metro met with representatives from EPA, TDEC, the U.S. Department of Justice, and the Tennessee Attorney General's office to discuss the path forward for the LTCP approval, among other topics. A follow-up conference call with all parties was held on April 4, 2020, with informal clarifications between parties continuing over the following months. On July 24, 2020, Metro submitted the *Addendum #2 to the LTCP*, clarifying and updating the proposed CSO abatement projects.

On December 7, 2020, Metro received a letter from EPA providing partial conditional approval to the LTCP and addenda. The letter approves the proposed control measures at the Benedict & Crutcher, Boscobel, Driftwood, and Schrader CSOs and approves the Central Wastewater Treatment Plant Capacity and CSO Reduction project. The letter requires that Metro, within four years, submit a revised LTCP that describes the control measures designed to bring the Kerrigan and Washington CSOs into compliance with Tennessee's water quality standards at the time of submittal. (TDEC is



currently reviewing the existing water quality standards.) The letter was agreed to and countersigned by Metro on December 8, 2020.

Active LTCP projects are described in the following subsections, and a schedule illustrating current and upcoming work on LTCP projects is presented as Appendix A.

#### 3.1 Completed LTCP Projects

The following projects, discussed in the LTCP, were completed prior to the start of the reporting period:

- Apex Sewer Corrections
- Broadway Improvements
- Driftwood Equalization Basin Expansion
- Sludge Transfer Facility (as part of Central WWTP Capacity Improvements and CSO Reduction)
- Van Buren Improvements
- Washington CSO Facility Improvements

#### 3.2 LTCP Projects under Construction

The following LTCP project is anticipated to continue construction during the upcoming quarter:

Central WWTP Capacity Improvements and CSO Reduction

The Central WWTP Capacity Improvements and CSO Reduction project will reduce the overflow frequency and volume from the Kerrigan CSO by increasing both the wet-weather treatment capacity of the Central WWTP and the overall capacity of the Central Pumping Station. This project is the result of the *Central Wastewater Treatment Plant Optimization Study* which was completed in 2014. The study identified limiting factors in each of the Central WWTP's unit processes and confirmed that peak wet-weather secondary treatment capacity could be significantly increased through upgrades to the existing headworks, primary treatment, secondary aeration, final clarification systems, and other facilities without building new tankage.

Advertisement for design services for the Central WWTP Capacity Improvements and CSO Reduction project began in January 2015, and two design contracts were awarded in April 2015. Following contract negotiations and other Designer procurement activities, design activities for both contracts began on September 21, 2015. The *Central WWTP Optimization Basis of Design Report* was finalized in December 2016.

In mid-2017, Metro officially decided to design and construct a single headworks facility that will serve both combined and sanitary influents. This design was completed by Hazen and Sawyer. The majority of other work at the plant was designed by Brown and Caldwell. Each firm's Notice-to-Proceed for detailed design was issued on June 23, 2017. Design for the headworks reached 100 percent in June 2019; design activities for the balance of the plant improvements were completed in April 2020.



On March 23, 2017, Metro completed the procurement and contracting of a Construction Manager at Risk to provide pre-construction services during the design phase and to function as the general contractor during the construction phase of this project. Brasfield & Gorrie was selected as the Construction Manager at Risk.

The Notice-to-Proceed was issued for construction of the headworks package on July 27, 2020, and the Notice-to-Proceed for construction of the balance of plant package was issued on September 28, 2020. Construction activities for the headworks, balance of plant, and other minor construction packages are underway and will continue through the end of 2023. The Notice-to-Proceed for the 3<sup>rd</sup> Avenue Park North package was issued on June 1, 2021, and construction for that area will continue through mid-2022. Additional packages for site restoration and other improvements will be procured in the coming months.

Work on-site continues, including construction of the headworks facility, modifications to the chlorine contact/UV facility, conveyance piping installation, aeration tank modifications, intermediate pump station construction, and 3<sup>rd</sup> Avenue Park North improvements.

#### 3.3 LTCP Projects under Design

There are currently no LTCP projects under design.

#### 3.4 Upcoming LTCP Projects

The following projects, discussed in the LTCP, are anticipated to begin or continue procurement for design services during the upcoming quarter:

Benedict & Crutcher Sewer Separation

The Benedict & Crutcher Sewer Separation project was developed to eliminate the Benedict & Crutcher combined sewer overflow (CSO) by providing separate pipe systems for sanitary sewer flows and stormwater flows instead of the combined sewer system which conveys both flows in a single pipe network. Approximately 250 acres is targeted for sewer separation. Additional infrastructure improvements, such as water distribution system improvements, also will be constructed as part of this project. Design procurement activities are anticipated to begin during the upcoming quarter. Metro anticipates procurement of a single Designer to support this project along with the Boscobel and Schrader Sewer Separation projects.

Boscobel Sewer Separation

The Boscobel Sewer Separation project was developed to eliminate the Boscobel CSO by providing separate pipe systems for sanitary sewer flows and stormwater flows instead of the combined sewer system which conveys both flows in a single pipe network. Approximately 250 acres is targeted for sewer separation. Additional infrastructure improvements, such as water distribution system improvements, also will be constructed as part of this project. Design procurement activities are anticipated to begin during the upcoming quarter. Metro anticipates procurement of a single Designer to support this project along with the Benedict & Crutcher and Schrader Sewer Separation projects.



#### Schrader Sewer Separation

The Schrader Sewer Separation project was developed to eliminate the Schrader CSO by providing separate pipe systems for sanitary sewer flows and stormwater flows instead of the combined sewer system which conveys both flows in a single pipe network. Approximately 450 acres is targeted for sewer separation. Additional infrastructure improvements, such as water distribution system improvements, also will be constructed as part of this project. Design procurement activities are anticipated to begin during the upcoming quarter. Metro anticipates procurement of a single Designer to support this project along with the Benedict & Crutcher and Boscobel Sewer Separation projects.



## Additional Measures to Maintain Consent Decree Compliance

In addition to the CAP/ER and LTCP projects described in the previous sections, the measures described in the following subsections are related to Metro's ongoing Consent Decree compliance.

### 4.1 2017 Annual Rehabilitation – Dry Creek

The 2017 Annual Rehabilitation – Dry Creek project, which is located in the Dry Creek WWTP's service area, consisted of the evaluation of approximately 57,900 linear feet of gravity sewer, ranging in diameter from 8 to 30 inches. The resulting construction project consists of the rehabilitation of approximately 27,100 linear feet of gravity sewer, associated manholes, and service laterals within Metro's rights-of-way and easements. These sewers are located outside of CAP/ER rehabilitation areas and include many sewers classified as high priority for evaluation due to observations of infiltration. Design began on March 27, 2017, and was completed in September 2017. Advertisement for construction began on June 18, 2021, and quotations were received on July 15, 2021. The construction Notice-to-Proceed was issued on September 3, 2021, and construction activities will continue through the upcoming quarter.

#### 4.2 2017 Annual Rehabilitation – Shepherd Hills

The 2017 Annual Rehabilitation – Shepherd Hills project, which is located in the Dry Creek WWTP's service area, consisted of the evaluation of approximately 59,900 linear feet of gravity sewer, ranging in diameter from 8 to 30 inches. The resulting construction project consists of the rehabilitation of approximately 29,000 linear feet of gravity sewer, associated manholes, and service laterals within Metro's rights-of-way and easements. This project targets sewers located outside of CAP/ER rehabilitation areas and includes many sewers classified as high priority for evaluation due to observations of infiltration. Design began on May 30, 2017, and was completed in October 2017. Advertisement for construction began on August 5, 2021, and quotations were received on September 2, 2021. The construction Notice-to-Proceed was issued on October 18, 2021, and construction activities will continue through the upcoming quarter.

### 4.3 2020 Annual Rehabilitation – West Nashville

For the 2020 Annual Rehabilitation – West Nashville project, Metro is focusing on addressing observed sources of infiltration / inflow within the sewer system in the southwest quadrant of the Whites Creek WWTP service area (upstream of the West Park Pump Station). This project will not take a comprehensive rehabilitation approach where a project area is defined, all sewers within the boundary are evaluated for rehabilitation, and lining is the default for small diameters sewers. Instead, the project will focus on making repairs necessary to address observed sources of infiltration / inflow and major structural defects. It will also consider nearby sewers for inclusion in the project based on their condition, the likelihood of water migration to adjacent sewers, and the impact to customers. Design of the rehabilitation project began on January 14, 2021, and was completed in August 2021. Advertisement for construction is anticipated to occur in mid-2022.



#### 4.4 Howse Avenue Force Main Replacement

Following several breaks in 2019 and 2020 and replacement of a portion along/near Neely's Bend Road, Metro has elected to proactively replace approximately 3,200 feet of existing 16-inch diameter force main from the Gibson Creek Pump Station to Howse Avenue south of Neely's Bend Road. The project will also include the installation of a portion (500 linear feet) of new force main which is part of the Neely's Bend Pump Station Upgrades project. Design began on July 12, 2021, and was completed in December 2021. Required easements were acquired during the reporting period. Advertisement for construction is anticipated to begin during the upcoming quarter.

### 4.5 Annual Rehabilitation – Manhole Repairs

Continuing sewer rehabilitation work outside of CAP/ER project areas, the Annual Rehabilitation - Manhole Repairs project will focus on correcting observed sources of infiltration / inflow and structural defects identified in manholes as part of Clean Water Nashville's trunk walking. The initial areas for evaluation are manholes along and upstream of the West and Middle Forks of Browns Creek. Design is anticipated to begin in April 2022 and continue through the upcoming quarter.



## Quarterly SSO and Dry-Weather CSO Report

During the reporting period, Metro experienced 154 SSOs, as listed in **Table 5-1**.

No dry-weather CSOs occurred during the reporting period.



#### Table 5-1 Quarterly SSO Report

	Quarterly SSO Report												
				Janua	ry 1 through N	1arch 31, 20	022						
Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Overflow Volume (MG)	Overflow Cause	Location Manhole ID	Location	Unpermitted Discharge	Building Backup				
01-Jan-22	05-Jan-22	1.26	96.00	0.01	Rainfall	13112013	4417 Scenic Dr	Yes	No				
01-Jan-22	02-Jan-22	1.00	6.33	0.274	Rainfall	10210012	Davidson Branch SPS	Yes	No				
02-Jan-22	03-Jan-22	1.77	20.00	0.001	Rainfall	11907049	765 Old Glenrose	No	No				
02-Jan-22	03-Jan-22	1.77	20.00	0.001	Rainfall	11907147	0 Old Glenrose Ave	No	No				
02-Jan-22	03-Jan-22	1.21	5.00	0.2	Rainfall	09510050	501 Bismark Dr	Yes	No				
09-Jan-22	09-Jan-22	1.27	1.00	0.0001	Blockage	12915020	62 Vaughns Gap Rd	No	No				
09-Jan-22	10-Jan-22	1.20	26.00	0.001	Rainfall	11907049	765 Old Glenrose	No	No				
09-Jan-22	09-Jan-22	1.20	6.00	0.0001	Blockage	10402033	3102 Belwood St.	No	Yes				
09-Jan-22	10-Jan-22	1.20	26.00	0.001	Rainfall	11907147	0 Old Glenrose	No	No				
09-Jan-22	10-Jan-22	1.28	20.00	0.001	Rainfall	05911028	709 Rowan Dr	No	No				
09-Jan-22	11-Jan-22	1.27	41.00	0.005	Rainfall	13112013	4417 Scenic Dr	Yes	No				
09-Jan-22	10-Jan-22	1.50	9.42	0.546	Rainfall	13609002	Smith Springs SPS	Yes	No				
09-Jan-22	09-Jan-22	1.44	2.08	0.015	Rainfall	04312004	Vandiver SPS	Yes	No				
09-Jan-22	09-Jan-22	1.28	4.50	0.562	Rainfall	05205001	Gibson Creek SPS	Yes	No				
09-Jan-22	10-Jan-22	1.12	16.92	1.464	Rainfall	10210012	Davidson Branch SPS	Yes	No				
09-Jan-22	09-Jan-22	1.44	2.50	0.04	Rainfall	05315020	Lakewood SPS	Yes	No				
09-Jan-22	09-Jan-22	1.25	6.70	0.02	Rainfall	01416001	Joelton SPS	Yes	No				
09-Jan-22	09-Jan-22	1.28	6.20	0.5	Rainfall	06208003	Hidden Acres SPS	Yes	No				
09-Jan-22	09-Jan-22	1.38	8.90	0.03	Rainfall	09809050	Lakeshore SPS	Yes	No				
09-Jan-22	09-Jan-22	1.38	6.75	0.174	Rainfall	08410007	149 Barker Rd	Yes	No				
09-Jan-22	10-Jan-22	1.16	18.00	0.5	Rainfall	09510050	501 Bismark Dr	Yes	No				
10-Jan-22	11-Jan-22	0	4.00	0.00001	Blockage	07115085	1213 Joseph Ave	Yes	No				
11-Jan-22	11-Jan-22	0	3.00	0.00001	Blockage	17102038	521 Summit View Pl	No	No				
14-Jan-22	15-Jan-22	0.22	22.00	0.0001	Blockage	16212011	1211 Bell Rd	Yes	No				
16-Jan-22	16-Jan-22	0.96	12.92	0.502	Rainfall	10210012	Davidson Branch SPS	Yes	No				
19-Jan-22	20-Jan-22	1.15	14.75	0.916	Rainfall	10210012	Davidson Branch SPS	Yes	No				
19-Jan-22	19-Jan-22	1.30	5.40	0.1	Rainfall	05315020	Lakewood SPS	Yes	No				
19-Jan-22	20-Jan-22	1.22	8.75	0.2	Rainfall	07008061	Riverside SPS	Yes	No				
19-Jan-22	20-Jan-22	1.32	3.90	0.01	Rainfall	01416001	Joelton SPS	Yes	No				



					Quarterly SSC	-			
Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Janua Overflow Volume (MG)	Overflow Cause	larch 31, 20 Location Manhole ID	022 Location	Unpermitted Discharge	Building Backup
19-Jan-22	20-Jan-22	1.17	5.75	0.5	Rainfall	06208003	Hidden Acres SPS	Yes	No
19-Jan-22	19-Jan-22	1.29	0.90	0.01	Rainfall	09809050	Lakeshore SPS	Yes	No
19-Jan-22	20-Jan-22	1.28	5.17	0.103	Rainfall	08410007	149 Barker Rd	Yes	No
19-Jan-22	20-Jan-22	1.15	29.00	1	Rainfall	09510050	501 Bismark Dr	Yes	No
20-Jan-22	21-Jan-22	1.26	18.00	0.001	Rainfall	11907049	765 Old Glenrose	No	No
20-Jan-22	22-Jan-22	1.31	40.00	0.005	Rainfall	13112013	4417 Scenic Dr	Yes	No
21-Jan-22	21-Jan-22	0.04	2.00	0.00001	Blockage	15005002	429 Owendale Dr	No	No
21-Jan-22	22-Jan-22	0.01	2.00	0.00001	Blockage	11902063	98 Peachtree St	No	No
24-Jan-22	24-Jan-22	0	0.50	0.0001	Mechanical	09214021	350 28th Ave N	No	No
02-Feb-22	02-Feb-22	1.18	2.00	0.0001	Blockage	07007062	1001 Alice St	No	No
02-Feb-22	02-Feb-22	1.09	0.50	0.001	Blockage	17401028	6069 Rivendell Ct	Yes	No
02-Feb-22	03-Feb-22	2.58	25.00	0.00001	Blockage	07007048	1108 W Trinity Ln	No	No
02-Feb-22	02-Feb-22	1.41	0.33	0.003	Operator Error	03411009	Dry Creek SPS	Yes	No
02-Feb-22	03-Feb-22	2.31	2.75	0.102	Rainfall	10210012	Davidson Branch SPS	Yes	No
02-Feb-22	04-Feb-22	2.58	56.00	1.5	Rainfall	09510050	501 Bismark Dr	Yes	No
03-Feb-22	04-Feb-22	2.77	20.00	0.001	Rainfall	11907049	765 Old Glenrose Ave	No	No
03-Feb-22	04-Feb-22	2.77	20.00	0.001	Rainfall	11907147	0 Old Glenrose Ave	No	No
03-Feb-22	04-Feb-22	2.77	21.00	0.00001	Rainfall	06001013	3258 Brick Church Pk	No	No
03-Feb-22	04-Feb-22	2.77	20.00	0.00001	Rainfall	05915017	3812 Cravath Dr	No	No
03-Feb-22	04-Feb-22	2.77	23.00	0.00001	Rainfall	11909113	2803 Foster Ave	No	No
03-Feb-22	04-Feb-22	2.77	20.00	0.00001	Rainfall	05911036	3818 Cravath Dr	No	No
03-Feb-22	06-Feb-22	2.66	85.00	0.01	Rainfall	13112013	4417 Scenic Dr	Yes	No
03-Feb-22	03-Feb-22	3.09	1.17	0.008	Rainfall	04312004	Vandiver SPS	Yes	No
03-Feb-22	03-Feb-22	2.31	2.92	0.18	Rainfall	09105090	West Park SPS	Yes	No
03-Feb-22	03-Feb-22	2.79	3.50	0.167	Rainfall	05116016	Loves Branch SPS	Yes	No
03-Feb-22	03-Feb-22	2.79	6.25	0.683	Rainfall	05205001	Gibson Creek SPS	Yes	No
03-Feb-22	03-Feb-22	3.09	6.00	0.1	Rainfall	05315021	Lakewood SPS	Yes	No
03-Feb-22	04-Feb-22	2.77	8.33	0.081	Rainfall	09409003	Browns Creek SPS / Visco Dr	Yes	No
03-Feb-22	03-Feb-22	2.53	9.62	0.2	Rainfall	07008061	Riverside SPS	Yes	No
03-Feb-22	03-Feb-22	2.31	0.75	0.01	Rainfall	09015045	Sunliner SPS	Yes	No



					Quarterly SSC	-			
Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Janua Overflow Volume (MG)	ry 1 through N	Location Manhole ID	D22 Location	Unpermitted Discharge	Building Backup
03-Feb-22	04-Feb-22	2.54	6.17	0.196	Rainfall	09104025	28th Ave SPS/Centennial Blvd	Yes	No
03-Feb-22	03-Feb-22	3.01	12.77	0.05	Rainfall	01416001	Joelton SPS	Yes	No
03-Feb-22	03-Feb-22	2.79	5.63	0.5	Rainfall	06208003	Hidden Acres SPS	Yes	No
03-Feb-22	04-Feb-22	2.76	3.83	0.01	Rainfall	09809050	Lakeshore SPS	Yes	No
03-Feb-22	03-Feb-22	2.31	2.42	0.023	Rainfall	09011002	516 Basswood Ave	Yes	No
03-Feb-22	04-Feb-22	2.76	11.83	2.182	Rainfall	08410007	149 Barker Rd	Yes	No
03-Feb-22	03-Feb-22	2.82	2.83	0.103	Rainfall	07114041	Cowan St SPS	Yes	No
04-Feb-22	04-Feb-22	0.01	0.58	0.005	Rainfall	10210012	Davidson Branch SPS	Yes	No
05-Feb-22	05-Feb-22	0.01	1.00	0.0001	Blockage	14711085	500 Landmark Ct	Yes	No
08-Feb-22	08-Feb-22	0	5.00	0.0001	Blockage	16310055	5316 Mt View Rd	Yes	No
09-Feb-22	09-Feb-22	0	13.00	0.0001	Blockage	11808011	2621 Eugenia Ave	Yes	No
17-Feb-22	17-Feb-22	2.04	0.50	0.002	Other	09405015	CWWTP	No	No
17-Feb-22	17-Feb-22	1.58	1.00	0.00001	Blockage	14905030	2330 Una Antioch Pk	No	No
17-Feb-22	17-Feb-22	2.05	3.00	0.208	Rainfall	09105090	West Park SPS	Yes	No
17-Feb-22	17-Feb-22	2.20	2.17	0.024	Rainfall	05116016	Loves Branch SPS	Yes	No
17-Feb-22	18-Feb-22	2.05	13.67	0.542	Rainfall	10210012	Davidson Branch SPS	Yes	No
17-Feb-22	17-Feb-22	2.05	2.10	0.04	Rainfall	10203057	Cleeces Ferry SPS	Yes	No
17-Feb-22	17-Feb-22	2.02	7.30	0.2	Rainfall	07008061	Riverside SPS	Yes	No
17-Feb-22	17-Feb-22	1.89	5.73	0.02	Rainfall	01416001	Joelton SPS	Yes	No
17-Feb-22	17-Feb-22	2.20	2.00	0.25	Rainfall	06208003	Hidden Acres SPS	Yes	No
17-Feb-22	17-Feb-22	2.05	2.75	0.027	Rainfall	09011002	516 Basswood Ave	Yes	No
17-Feb-22	18-Feb-22	2.13	10.42	1.896	Rainfall	08410007	149 Barker Rd	Yes	No
17-Feb-22	18-Feb-22	2.10	18.00	0.5	Rainfall	09510050	501 Bismark Dr	Yes	No
18-Feb-22	18-Feb-22	2.26	13.00	0.00001	Rainfall	11907147	0 Old Glenrose Ave	No	No
18-Feb-22	18-Feb-22	2.26	14.00	0.001	Rainfall	11907049	765 Old Glenrose Ave	No	No
22-Feb-22	22-Feb-22	2.53	3.00	0.0001	Blockage	08114048	2349 Formosa St	No	No
22-Feb-22	25-Feb-22	3.14	69.00	1	Rainfall	05911027	709 Rowan Dr	No	No
22-Feb-22	23-Feb-22	3.14	14.00	0.0001	Rainfall	05911036	3818 Cravath Dr	No	No
22-Feb-22	23-Feb-22	3.14	14.00	0.0001	Rainfall	06001013	3258 Brick Church Pk	No	No
22-Feb-22	23-Feb-22	3.08	16.00	0.0001	Blockage	09110033	5822 Robertson Ave	No	No



					Quarterly SSC	-			
Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Janua Overflow Volume (MG)	ry 1 through N	Location Manhole ID	022 Location	Unpermitted Discharge	Building Backup
22-Feb-22	26-Feb-22	4.60	99.00	0.6	Rainfall	11907049	765 Old Glenrose Ave	Yes	No
22-Feb-22	26-Feb-22	4.60	99.00	0.6	Rainfall	11907147	0 Old Glenrose Ave	No	No
22-Feb-22	25-Feb-22	4.60	72.00	0.0001	Rainfall	11909113	2803 Foster Ave	No	No
22-Feb-22	25-Feb-22	5.18	50.83	4.275	Rainfall	13609002	Smith Springs SPS	Yes	No
22-Feb-22	22-Feb-22	2.69	1.58	0.009	Rainfall	04312004	Vandiver SPS	Yes	No
22-Feb-22	22-Feb-22	2.58	4.17	0.202	Rainfall	09105090	West Park SPS	Yes	No
22-Feb-22	24-Feb-22	4.39	12.00	0.438	Rainfall	05116016	Loves Branch SPS	Yes	No
22-Feb-22	23-Feb-22	2.89	8.42	0.826	Rainfall	05205001	Gibson Creek SPS	Yes	No
22-Feb-22	26-Feb-22	4.69	21.50	1.023	Rainfall	10210012	Davidson Branch SPS	Yes	No
22-Feb-22	23-Feb-22	2.69	11.12	0.2	Rainfall	05312021	Lakewood SPS	Yes	No
22-Feb-22	22-Feb-22	2.58	2.67	0.05	Rainfall	10203057	Cleeces Ferry SPS	Yes	No
22-Feb-22	23-Feb-22	3.05	20.75	0.07	Rainfall	01416001	Joelton SPS	Yes	No
22-Feb-22	23-Feb-22	2.89	11.32	1	Rainfall	06208003	Hidden Acres SPS	Yes	No
22-Feb-22	23-Feb-22	3.05	12.75	0.05	Rainfall	09809050	Lakeshore SPS	Yes	No
22-Feb-22	23-Feb-22	2.57	6.25	0.03	Rainfall	15008009	Towne Village SPS	Yes	No
22-Feb-22	26-Feb-22	4.69	33.75	1.216	Rainfall	09011002	516 Basswood Ave	Yes	No
22-Feb-22	27-Feb-22	4.83	105.41	24.858	Rainfall	08410007	149 Barker Rd	Yes	No
22-Feb-22	28-Feb-22	4.85	149.00	11.832	Rainfall	07114041	Cowan St SPS	Yes	No
22-Feb-22	27-Feb-22	4.50	106.00	3	Rainfall	09510050	501 Bismark Dr	Yes	No
23-Feb-22	23-Feb-22	3.04	4.00	0.001	Blockage	08116064	1013 Scovel St	Yes	No
23-Feb-22	26-Feb-22	4.30	1.17	0.253	Rainfall	03411009	Dry Creek SPS	Yes	No
23-Feb-22	26-Feb-22	4.62	75.67	7.964	Rainfall	08601134	Dodson Chapel SPS	Yes	No
24-Feb-22	25-Feb-22	2.06	22.00	0.00001	Rainfall	05910048	748 Rowan Dr	No	No
24-Feb-22	25-Feb-22	2.06	22.00	0.001	Rainfall	05911027	701 Rowan Dr	No	No
24-Feb-22	25-Feb-22	2.20	21.00	0.001	Rainfall	14805058	307 Margo Ln	Yes	No
24-Feb-22	25-Feb-22	2.11	21.00	0.001	Rainfall	07309019	2409 Kimberly Dr	Yes	No
24-Feb-22	25-Feb-22	2.06	22.00	0.00001	Rainfall	06001013	3258 Brick Church Pk	No	No
24-Feb-22	24-Feb-22	2.12	1.00	0.00001	Blockage	10601046	506 Fesslers Ln	Yes	No
24-Feb-22	24-Feb-22	2.06	12.00	0.001	Rainfall	09704021	5971 Port Anadarko Trl	Yes	No
24-Feb-22	24-Feb-22	2.12	1.00	0.00001	Blockage	11909065	2701 Nolensville Pk	Yes	No



					Quarterly SSC	-			
				Janua Overflow	ry 1 through N	larch 31, 2	022		
Event Start Date	Event End Date	Rainfall (inches)	Duration (hours)	Volume (MG)	Overflow Cause	Location Manhole ID	Location	Unpermitted Discharge	Building Backup
24-Feb-22	25-Feb-22	2.48	23.00	0.0001	Rainfall	14404010	2212 Tyne Blvd	Yes	No
24-Feb-22	24-Feb-22	2.16	10.17	0.42	Rainfall	09608006	McCrory Creek SPS	Yes	No
24-Feb-22	25-Feb-22	2.11	21.92	3.531	Rainfall	09105090	West Park SPS	Yes	No
24-Feb-22	25-Feb-22	2.64	12.20	0.75	Rainfall	08514014	Cloverbottom SPS	Yes	No
24-Feb-22	24-Feb-22	2.10	13.75	0.25	Rainfall	05315021	Lakewood SPS	Yes	No
24-Feb-22	24-Feb-22	2.08	8.65	0.2	Rainfall	10203057	Cleeces Ferry SPS	Yes	No
24-Feb-22	24-Feb-22	2.20	3.33	0.108	Rainfall	09409003	Browns Creek SPS / Visco Dr	Yes	No
24-Feb-22	24-Feb-22	2.64	10.08	1	Rainfall	17609001	Hurricane Creek SPS	Yes	No
24-Feb-22	24-Feb-22	2.15	19.35	0.5	Rainfall	07008061	Riverside SPS	Yes	No
24-Feb-22	24-Feb-22	2.19	5.00	0.213	Rainfall	09104025	28th Ave SPS/Centennial Blvd	Yes	No
24-Feb-22	24-Feb-22	1.87	18.30	0.06	Rainfall	01416001	Joelton SPS	Yes	No
24-Feb-22	24-Feb-22	1.90	15.00	1.5	Rainfall	06208003	Hidden Acres SPS	Yes	No
24-Feb-22	25-Feb-22	2.19	17.00	0.34	Rainfall	07014003	Fairway Center SPS	Yes	No
24-Feb-22	24-Feb-22	2.64	7.23	0.1	Rainfall	16514001	Peppertree SPS	Yes	No
24-Feb-22	24-Feb-22	2.68	13.78	0.06	Rainfall	15008009	Towne Village SPS	Yes	No
24-Feb-22	25-Feb-22	2.21	35.81	1	Rainfall	05304012	Gail Dr SPS	Yes	No
26-Feb-22	26-Feb-22	0	0.83	0.11	Mechanical	09105090	West Park SPS	Yes	No
02-Mar-22	02-Mar-22	0	1.00	0.00001	Blockage	13413029	200 Paragon Mills Rd	No	No
02-Mar-22	02-Mar-22	0	2.00	0.00001	Blockage	13314009	411 Elysian Fields Rd	No	No
03-Mar-22	04-Mar-22	0	17.00	0.0001	Blockage	17201060	204 Sterling Oaks Pl	No	No
08-Mar-22	08-Mar-22	0.43	4.00	0.0001	Blockage	17201060	204 Sterling Oaks Pl	No	No
08-Mar-22	09-Mar-22	0.43	2.00	0.0001	Force Main	16002030	5202 Franklin Pk	Yes	No
09-Mar-22	09-Mar-22	0.27	4.00	0.00001	Blockage	14703008	4095 Nolensville Pk	Yes	No
10-Mar-22	10-Mar-22	0	1.00	0.00001	Blockage	09306301	121 4th Ave S	No	No
15-Mar-22	16-Mar-22	0.11	10.00	0.00001	Blockage	03116014	575 Hickory Hills Blvd	No	No
15-Mar-22	15-Mar-22	0	1.00	0.0001	Blockage	04309047	408 Delaware Ave	Yes	No
22-Mar-22	23-Mar-22	1.39	6.17	0.168	Rainfall	10210012	Davidson Branch SPS	Yes	No
23-Mar-22	23-Mar-22	1.38	2.50	0.01	Rainfall	01416001	Joelton SPS	Yes	No
23-Mar-22	23-Mar-22	1.67	17.00	0.5	Rainfall	09510050	501 Bismark Dr	Yes	No
25-Mar-22	25-Mar-22	0	2.00	0.00001	Blockage	09206096	2516 Booker St	No	No



	Quarterly SSO Report January 1 through March 31, 2022														
Event Start Date	Location Volume Overflow Cause Location														
26-Mar-22	27-Mar-22	0	7.00	0.00001	Blockage	14703008	4095B Nolensville Pk	Yes	No						
27-Mar-22	29-Mar-22	0	46.00	0.0001	Blockage	05415044	541 Robards Cir	No	No						
30-Mar-22	30-Mar-22	1.01	2.00	0.0001	Blockage	16310055	5316 Mt View Rd	Yes	No						
30-Mar-22	30-Mar-22	0.89	5.00	0.0001	Blockage	07101037	2223 Whites Creek Pk	No	No						
30-Mar-22	31-Mar-22	1.14	0.75	0.038	Rainfall	10210012	Davidson Branch SPS	Yes	No						



Appendix A

Schedule for Current and Upcoming Projects



e: The construction activity is ough substantial completion.				erflow A								
		2022 Q	uarterly	Progress	Керо	rt - 1st C	luarter					
/ Name.	Q2	2021 Q3	Q4	Q1	Q2	2022 Q3	Q4	Q1	Q2	2023 Q3	Q4	2024 Q1
8th Avenue Rehabilitation - Area 2 - Batavia Street	Q2	4.5	Q4	QI	ųź	43	Q4		Q2	Q3	Q4	QI
Design	m											
Easement Acquisition	-	2 2 2	1 1 1				2 2 2	2 2 2				
Permitting												
Bid & Award			1 1 1			Bid & Award	-					
Construction										Construction		
nnual Rehabilitation - Manhole Repairs							2 2 2					
Design						Design	-					
Easement Acquisition							nent Acquisition	-				
Permitting		8 8 8	1				itting					
Bid & Award								& Award				
Construction	-	8										Cons
nnual Rehabilitation FY2017 - Dry Creek		-					: : :		: : :			
Design							1					
Permitting	-						1		1			
Easement Acquisition												
Bid & Award			id & Award				-					
Construction							Construction					
nnual Rehabilitation FY2017 - Shepherd Hills												
Easement Acquisition												
									·			
Design Permitting	-						* *					
Bid & Award	-		Bid & Awar	d								
Construction	-						Construction					
nnual Rehabilitation FY2020 - West Nashville		-						-				
Design		Des	ign									
Easement Acquisition	_		Acquisition				-					
	-	Permitting										
Permitting Bid & Award	-		2				Bid & Award					
Construction		- 									Construction	
andywood - Green Hills Rehabilitation												
		2 2	1	Design			-	8				
Design			-	Easement Acquisition	n		- - 					
Easement Acquisition	_			Permitting	•							
Permitting Bid & Award	-				Bid	& Award	2 2 2	- 				
Construction										Constructio	'n	
							-					
enedict & Crutcher Sewer Separation												
Design Easement Acquisition		2 2 2	1 1 1				-	-	-			
							* *					
Permitting Bid & Award												
	-	- 8 8					1					
Construction		5 8 8					1 1 1	1 1 1	1 1 1	1		
oscobel Sewer Separation		8 8 8							1			
Design	-						-		1	1		
Easement Acquisition												
Permitting	_											
Bid & Award	1						1	1	1			

te: The construction activity is ough substantial completion.		Nasr	iville Ov	verflow	Abatem	ent Prog	gram					
ough substantial completion.					ss Repoi							
y Name.		2021	-		-	022	-		20	23		203
· · ·	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q
Construction												
entral WWTP - Balance of Plant			1	2 2 2		1	2 2 2					
Design											:	
Permitting		Permitting		1			8					
Easement Acquisition	-	Easement A	quisition									
Subcontractor Bid & Award	_		1	1			2 2 2					
Construction			1	1	1	8	-	1			Co	nstructio
entral WWTP - Headworks												
Design				1				2 2 2				
Permitting				8								
Easement Acquisition			1 1 1	2 1 2			1 1 1	1			1	
Subcontractor Bid & Award												
Construction									· · · · · · · · · · · · · · · · · · ·		Construction	
leeces Ferry Rehabilitation - Area 1 - Summerly Dr.												
Design	Design		1				1					
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Permitting				1			8 8 8	8 8 8				
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Davidson Branch Pump Station and Equalization Facility												
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Foster Avenue Rehabilitation (GL01)							-					
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Gibson Creek Equalization Facility												
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Design			Permitting									
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Easement Acquisition			Lasement Acquis	i i i i i i i i i i i i i i i i i i i	i.	1	1	1	1		1	1

ote: The construction activity is rough substantial completion.		N	ashvil	le Ov	erflow /	Abateme	ent Prog	ram					
							t - 1st Q						
ity Name.		2021					022				2023		2024
ity name.	Q2	Q3	3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
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Joelton Pump Station Upgrades					8				2 2 2	8		-	
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Construction					1					, Co	nstruction	**************************************	
Lakewood Rehabilitation - Area 2 – Pitts Avenue					t 1 1				2 2	2 2		1	
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Mill Creek - Collins Creek Rehabilitation													
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Mill Creek Trunk Improvements and Equalization Facility					1					1	1 1 1		
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Sevenmile Creek Rehabilitation - Area 1										- 			
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Shelby Park Rehabilitation - Area 6 - Shelby Trunk		1	1			1				1			
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Note: The construction activity is through substantial completion.				erflow A Progres		-						
Activity Name.	1	2021				)22				23		2024
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
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Smith Springs Rehabilitation - Area 3 - Harbour Town						1 1 1	2 2 2 2	2 2 2 2	2 2 2 2			
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Wallace Lane Rehabilitation			1				*		T		1	
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