RIVERRENEW IS AN INITIATIVE TO ACHIEVE CLEANER, HEALTHIER WATERWAYS IN ALEXANDRIA BY UPGRADING OUR CENTURY-OLD COMBINED SEWER SYSTEM. A NEW NETWORK OF TUNNELS WILL CONNECT TO THE EXISTING SEWER SYSTEM TO PREVENT MILLIONS OF GALLONS OF SEWAGE MIXED WITH RAINWATER FROM REACHING OUR RIVERS AND STREAMS. OUR SHARED GOAL IS TO CREATE A BRIGHTER FUTURE FOR OUR FAMILIES, BUSINESSSES, AND WATERWAYS.
# Table of Contents

List of Figures ......................................................................................................................... iii
List of Tables ........................................................................................................................... iii

Section 1 Introduction and Summary .................................................................................... 1-1
1.1 Introduction ......................................................................................................................... 1-1
1.2 Combined Sewer System – General .................................................................................. 1-1
1.3 Combined Sewer System – Facilities and Operation ....................................................... 1-3
1.4 VPDES Permit .................................................................................................................... 1-5
1.5 Nine Minimum Controls ..................................................................................................... 1-5

Section 2 Combined Sewer Overflow Characterization ....................................................... 2-1
2.1 General ............................................................................................................................... 2-1
2.2 Summary of 2018 Rainfall Data ........................................................................................ 2-1
2.3 Rainfall Data and Model Results for CSO Outfalls .......................................................... 2-2
2.4 Summary of Model Updates .............................................................................................. 2-3

Section 3 CSO Monitoring Program ..................................................................................... 3-1
3.1 General ............................................................................................................................... 3-1
3.2 Summary of CSO Sampling .............................................................................................. 3-1

Section 4 Operations and Regular Maintenance Programs .................................................. 4-1
4.1 Inspection and Maintenance of CSS ................................................................................ 4-1
4.2 Preventive Maintenance ................................................................................................... 4-1
4.3 Training ............................................................................................................................. 4-1
4.4 Allocation of Funds for Operation and Maintenance ....................................................... 4-1

Section 5 Maximize Use of Collection System for Storage ................................................... 5-2

Section 6 Control of Non-Domestic Discharges .................................................................. 6-1

Section 7 Maximize Flow to the Water Resource Recovery Facility ...................................... 7-1

Section 8 Dry Weather Overflows ....................................................................................... 8-1

Section 9 Control of Solid and Floatable Material in CSOs .................................................... 9-1

Section 10 Pollution Prevention ............................................................................................ 10-1
10.1 General ............................................................................................................................. 10-1

Section 11 Public Notification ............................................................................................... 11-1
11.1 CSO Warning Signs ......................................................................................................... 11-1

Section 12 Implementation of the Long Term Control Plan Update ...................................... 12-1
12.1 General ............................................................................................................................. 12-1
12.2 RiverRenew Projects ..................................................................................................... 12-1
12.3 Implementation Progress ................................................................................................. 12-1
12.4 Long Term Control Plan Update Public Notification and Participation ........................................... 12-2
12.5 Formation of a RiverRenew Stakeholder Advisory Group .......................................................... 12-3
Appendix A: 2018 Rainfall and Overflow Modeling Report .................................................................. A-1
Appendix B: Summary of Storm Events, CSO Events and Sampling Events for CSO 001 ...................... B-1
Appendix C: City of Alexandria Outfall and Diversion Structure Inspection Forms .......................... C-1
Appendix D: AlexRenew Outfall and Diversion Structure Inspection Forms .................................. D-1
Appendix E: Sewer Rehabilitation and Pollution Abatement 10-Year CIP ........................................ E-1
Appendix F: Staff Training Records .................................................................................................. F-1
Appendix G: Record of Street Sweeping ............................................................................................. G-1
Appendix H: Record of CSS Trunk Sewer Flushing ............................................................................. H-1
Appendix I: Record of Catch Basin Cleaning ...................................................................................... I-1
Appendix J: Leaf Collection Program ................................................................................................ J-1
Appendix K: Illicit Discharge Ordinance ............................................................................................. K-1
Appendix L: DWO Inspection Forms for Year 2018 ........................................................................... L-1
Appendix M: Public Notice .................................................................................................................. M-1
Appendix N: Public Meetings ............................................................................................................... N-1
List of Figures

Figure 1-1. CSS areas and CSO outfall locations ................................................................. 1-2
Figure 1-2. Outfall 001 Pendleton Street Regulator Location .................................................. 1-4
Figure 1-3. Outfall 002 Royal Street Regulator Location .......................................................... 1-4
Figure 1-4. Outfall 003 King and West Street and Outfall 004 Duke Street Regulator Locations .......... 1-5
Figure 11-1. Public Notice Sign at Pendleton Street Outfall ...................................................... 11-2
Figure 11-2. Public Notice Sign at Royal Street Outfall ............................................................ 11-3
Figure 11-3. Public Notice Sign at Duke Street and Hooffs Run Outfall ........................................ 11-4

List of Tables

Table 1-1. Length of Sewers in CSS Area .............................................................................. 1-1
Table 1-2. CSS and CSO Characteristics .............................................................................. 1-3
Table 1-3. Summary of Nine Minimum Control Activities ..................................................... 1-6
Table 2-1. Summary of 2018 Rainfall Events ........................................................................ 2-1
Table 2-2. 2018 Rainfall and Overflow Model Summary ......................................................... 2-2
Table 2-3. Average CSS Performance ..................................................................................... 2-3
Table 3-1. Summary of CSO Sampling .................................................................................... 3-1
Table 12-1. Implementation Progress and Milestones for RiverRenew as of November 1, 2018 .... 12-2
List of References

The documents listed below were used to develop the RiverRenew Preliminary Engineering Report and are referenced throughout the document. These references should be used to gain a deeper understanding of conclusions that are referenced in this report.

1. Combined Sewer System Long Term Control Plan Update, May 2018
2. Bacteria TMDLs for the Hunting Creek, Cameron Run, and Holmes Run Watershed, November 2010
3. Outfall Transfer Agreement Between the City of Alexandria, Virginia and the City of Alexandria Sanitation Authority Concerning Wet Weather Wastewater Storage and Conveyance Facilities, May 2018
4. City of Alexandria LTCPU Combined Sewer System Characterization, September 2014
5. City of Alexandria Wastewater Capacity and Wet Weather Management Evaluation, November 2010
6. Alexandria Renew Enterprises Wet Weather Management Evaluation Updated, April 2013 (Task Order 14)
## List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$M</td>
<td>dollars in millions</td>
</tr>
<tr>
<td>AACE</td>
<td>Association of Advancement of Cost Engineering</td>
</tr>
<tr>
<td>AADF</td>
<td>annual average daily flow</td>
</tr>
<tr>
<td>AASHTO</td>
<td>American Association of State Highway Transportation Officials</td>
</tr>
<tr>
<td>AC</td>
<td>acres</td>
</tr>
<tr>
<td>ACI</td>
<td>American Concrete International</td>
</tr>
<tr>
<td>ADF</td>
<td>average daily flow</td>
</tr>
<tr>
<td>AISC</td>
<td>American Institute of Steel Construction</td>
</tr>
<tr>
<td>AlexRenew</td>
<td>Alexandria Renew Enterprises</td>
</tr>
<tr>
<td>APE</td>
<td>area of potential effect</td>
</tr>
<tr>
<td>ARP</td>
<td>Area Reduction Plan</td>
</tr>
<tr>
<td>ARPA</td>
<td>Archaeological Resources Protection Act</td>
</tr>
<tr>
<td>ASA</td>
<td>Alexandria Sanitation Authority</td>
</tr>
<tr>
<td>ASCE</td>
<td>American Society of Civil Engineers</td>
</tr>
<tr>
<td>ASI</td>
<td>Applied Science Incorporated</td>
</tr>
<tr>
<td>AWTF</td>
<td>advanced wastewater treatment facility</td>
</tr>
<tr>
<td>BMP</td>
<td>best management practice</td>
</tr>
<tr>
<td>BOD</td>
<td>biochemical oxygen demand</td>
</tr>
<tr>
<td>BRB</td>
<td>biological reactor basin</td>
</tr>
<tr>
<td>CCTV</td>
<td>closed-circuit television</td>
</tr>
<tr>
<td>CEPT</td>
<td>chemically enhanced primary tanks</td>
</tr>
<tr>
<td>cfm</td>
<td>cubic feet per minute</td>
</tr>
<tr>
<td>cfu</td>
<td>colony forming units</td>
</tr>
<tr>
<td>Cl</td>
<td>Commonwealth Interceptor</td>
</tr>
<tr>
<td>City</td>
<td>City of Alexandria, VA</td>
</tr>
<tr>
<td>COG</td>
<td>Council of Governments</td>
</tr>
<tr>
<td>CSO</td>
<td>combined sewer overflow</td>
</tr>
<tr>
<td>CSO 001</td>
<td>Pendleton Street outfall</td>
</tr>
<tr>
<td>CSO 002</td>
<td>Royal Street outfall</td>
</tr>
<tr>
<td>CSO 003</td>
<td>Duke Street outfall</td>
</tr>
<tr>
<td>CSO 004</td>
<td>Hooffs Run outfall</td>
</tr>
<tr>
<td>CSS</td>
<td>combined sewer system</td>
</tr>
<tr>
<td>Ct</td>
<td>contact time</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>PEPS</td>
<td>primary effluent pump station</td>
</tr>
<tr>
<td>PER</td>
<td>Preliminary Engineering Report</td>
</tr>
<tr>
<td>PMT</td>
<td>pressure meter tests</td>
</tr>
<tr>
<td>POTW</td>
<td>publicly owned treatment works</td>
</tr>
<tr>
<td>PPP</td>
<td>Public Participation Plan</td>
</tr>
<tr>
<td>PPT</td>
<td>pre-cast post tension tanks</td>
</tr>
<tr>
<td>PST</td>
<td>primary settling tanks</td>
</tr>
<tr>
<td>PYTS</td>
<td>Potomac Yard Trunk Sewer</td>
</tr>
<tr>
<td>RCP</td>
<td>reinforced concrete pipe</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation and Recovery Act</td>
</tr>
<tr>
<td>ROW</td>
<td>right-of-way</td>
</tr>
<tr>
<td>RPA</td>
<td>resource protection area</td>
</tr>
<tr>
<td>RTC</td>
<td>real time control</td>
</tr>
<tr>
<td>SANDAG</td>
<td>San Diego Association of Governments</td>
</tr>
<tr>
<td>SCADA</td>
<td>supervisory control and data acquisition</td>
</tr>
<tr>
<td>SCAT</td>
<td>Virginia Sewage Collection and Treatment Regulations</td>
</tr>
<tr>
<td>SEM</td>
<td>sequential excavation method</td>
</tr>
<tr>
<td>SF</td>
<td>square foot</td>
</tr>
<tr>
<td>SIU</td>
<td>Significant Industrial Users</td>
</tr>
<tr>
<td>SOM</td>
<td>sewer overflow model</td>
</tr>
<tr>
<td>SSO</td>
<td>sanitary sewer overflow</td>
</tr>
<tr>
<td>SUP</td>
<td>Special Use Permit</td>
</tr>
<tr>
<td>SVOC</td>
<td>semi-volatile organic compounds</td>
</tr>
<tr>
<td>SWMIP</td>
<td>Stormwater Management Incentives Program</td>
</tr>
<tr>
<td>T&amp;ES</td>
<td>Department of Transportation and Environmental Services</td>
</tr>
<tr>
<td>TAB</td>
<td>tunnel access building</td>
</tr>
<tr>
<td>TAP</td>
<td>Transient Analysis Program</td>
</tr>
<tr>
<td>TAZ</td>
<td>traffic analysis zone</td>
</tr>
<tr>
<td>TBM</td>
<td>tunnel boring machine</td>
</tr>
<tr>
<td>TDH</td>
<td>total dynamic head</td>
</tr>
<tr>
<td>TDPH-DRO</td>
<td>total petroleum hydrocarbons-diesel range organics</td>
</tr>
<tr>
<td>TDPH-GRO</td>
<td>total petroleum hydrocarbons-gasoline range organics</td>
</tr>
<tr>
<td>TDPS</td>
<td>tunnel dewatering pump station</td>
</tr>
<tr>
<td>TMDL</td>
<td>total maximum daily Load</td>
</tr>
<tr>
<td>TP</td>
<td>total phosphorus</td>
</tr>
<tr>
<td>TR</td>
<td>treatment</td>
</tr>
</tbody>
</table>
Section 1 Introduction and Summary

1.1 Introduction

The City of Alexandria (City) is located along the west side of the Potomac River, approximately 8 miles south of Washington, DC. The City has a land area of approximately 9,800 acres and an estimated population of 151,300 as of 2018, according to the City’s Department of Planning and Zoning. The wastewater treatment facilities serve a population of more than 300,000 customers from the City as well as portions of Fairfax County. The jurisdictions each own and operate their respective wastewater collection systems.

Part I.F.8 of the Virginia Pollutant Discharge Elimination System (VPDES) Permit No. VA0087068 (Permit) requires Alexandria Renew Enterprises (AlexRenew) to submit an annual report on the combined sewer system (CSS) by March 31st of each year to the Virginia Department of Environmental Quality (VDEQ). This report is the twenty-fourth CSS Annual Report for the City of Alexandria’s CSS. Previous annual reports have been provided by the City but this is the first report to be submitted by AlexRenew as the owner of the CSS permit and outfalls. This annual report summarizes information for calendar year 2018.

1.2 Combined Sewer System – General

The City’s sewer system covers approximately 15.4 square miles of which 540 acres, or 6 percent, is served by the CSS. The City’s CSS is generally located in the Old Town area, east of U.S. Route 1 and comprises three separate areas and four permitted combined sewer overflow (CSO) outfalls as shown in Figure 1-1. The CSS areas are a combination of combined, sanitary, and storm sewer systems. The smaller sanitary and storm sewer pipe diameters range from 4 to 60 inches (in) connecting to larger combined sewers with pipe diameters ranging from 8 to 72 in. A breakdown of the sewer pipe lengths per CSS area is provided in Table 1-1.

<table>
<thead>
<tr>
<th>CSS Area</th>
<th>Combined Sewers (miles)</th>
<th>Sanitary Sewer (miles)</th>
<th>Storm Sewers (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pendleton (Outfall 001)</td>
<td>3.83</td>
<td>7.35</td>
<td>5.49</td>
</tr>
<tr>
<td>Royal (Outfall 002)</td>
<td>3.10</td>
<td>7.71</td>
<td>2.94</td>
</tr>
<tr>
<td>King and West (Outfalls 003 and 004)</td>
<td>3.02</td>
<td>3.11</td>
<td>1.40</td>
</tr>
</tbody>
</table>

Data Source: Combined Sewer System Characterization, City of Alexandria, 2014.
Figure 1-1. CSS areas and CSO outfall locations
1.3 Combined Sewer System – Facilities and Operation

Historically, the City has owned the CSS, including the CSO outfalls that discharge overflows under wet weather conditions to the waters of the Commonwealth of Virginia. As of May 1, 2018, ownership of the four CSO outfalls was transferred to AlexRenew per an agreement between the City and AlexRenew, known as the Outfall Transfer Agreement Between the City of Alexandria, Virginia and the City of Alexandria Sanitation Authority Concerning Wet Weather Wastewater Storage and Conveyance Facilities, May 2018 (Outfall Transfer Agreement). With the transfer of outfall ownership, AlexRenew also took over responsibility for the implementation of the Long Term Control Plan Update (LTCPU), approved by the VDEQ on June 29, 2018. AlexRenew now operates the CSS interceptors and outfalls under a permit issued by VDEQ while the City maintains CSS collection system. The City retained ownership of the combined sewer collection system.

AlexRenew also owns and operates a 54 MGD Water Resource Recovery Facility (WRRF) located in Alexandria, Virginia in accordance with Individual VPDES Permit No. VA0025160 and General Permit No VAN0010059. The WRRF serves a 51-square mile area which includes the City of Alexandria and portions of Fairfax County. The WRRF discharges effluent to Hunting Creek which is a tributary of the Potomac River. The wastewater flows generated by the City are treated by both AlexRenew’s WRRF and Arlington County’s Water Pollution Control Plant (WPCP). The Arlington County WPCP treats approximately 7.8 percent of the City’s sewer system while AlexRenew’s WRRF treats 92.2 percent of the City’s wastewater flows.

Under normal dry weather conditions and during most rainfall events, the combined sewer flow collected in the CSS is conveyed to AlexRenew’s WRRF. During periods of intense rainfall, the capacity of the CSS may be exceeded, and excess combined sewer flow is discharged directly to Hunting Creek, Hooffs Run, or Oronoco Bay through the City’s four permitted CSO outfall structures. Table 1-2 provides the characteristics of the dry and wet weather conveyance for each CSS area and CSO outfall regulated under the VPDES Permit. Detailed maps illustrating each outfall location are presented in Figure 1-2, Figure 1-3, and Figure 1-4.

<table>
<thead>
<tr>
<th>CSO Regulator &amp; Number</th>
<th>CSS Area</th>
<th>Area (ac)</th>
<th>Dry Weather Conveyance</th>
<th>Wet Weather Conveyance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pendleton Street</td>
<td>Pendleton</td>
<td>230</td>
<td>Potomac Interceptor to WRRF</td>
<td>Weir Overflow and Discharge to Oronoco Bay</td>
</tr>
<tr>
<td>Royal Street</td>
<td>Royal</td>
<td>194</td>
<td>Potomac Interceptor to WRRF</td>
<td>Weir Overflow and Discharge to Hunting Creek</td>
</tr>
<tr>
<td>King and West Street</td>
<td>King and West</td>
<td>120</td>
<td>Commonwealth Interceptor to WRRF</td>
<td>Weir Overflow and Discharge to Hooffs Run</td>
</tr>
</tbody>
</table>

Data Source: Combined Sewer System Characterization, City of Alexandria, 2014.
Figure 1-2. Outfall 001 Pendleton Street Regulator Location

Figure 1-3. Outfall 002 Royal Street Regulator Location


1.4 VPDES Permit

Previously, the City held the Permit issued by VDEQ on August 23, 2013. Pursuant to the execution of the Outfall Transfer Agreement between the City and AlexRenew, VDEQ issued the current VPDES Permit to AlexRenew effective September 1, 2018 and expiring on August 31, 2023.

1.5 Nine Minimum Controls

Activities for 2018 related to CSS operations and maintenance and the Nine Minimum Controls (NMCs) are as summarized below.
<table>
<thead>
<tr>
<th>Minimum Control</th>
<th>Description</th>
<th>Activity/Application</th>
</tr>
</thead>
</table>
| **Operation and Regular Maintenance of the CSS (performed and/or managed by City of Alexandria)** | Regular sewer flushing | • Sewer siphons flushed weekly to ensure hydraulic capacity is available  
• Trunk sewers in CSS inspected on monthly schedules and flushed as needed  
• Problem grease area flushing on monthly schedule  
• 34,212 linear feet of sewer flushed/cleaned in CSS |
| | Regular Program of TV Inspection | • Annual visual and CCTV inspection of CSS trunk sewers |
| | Regular annual catch basin cleaning program | • Removal of debris from catch basins  
• Critical areas cleaned weekly  
• Non-critical areas 2–3 times/year  
• Inlets and catch basins cleaned = 744 |
| **Maximize Use of Collection System for Storage** | Onsite Stormwater retention required in combined sewer area | • Required for new development by City code |
| **Control of Non-domestic Discharges** | Implement CSO controls to minimize impact of nondomestic discharges | • See Section 6 |
| **Maximize Flow to the Water Resource Recovery Facility** | Redevelopment Separation of CSS | • 700 N. Washington St. (Travelodge, retail and residential) completed construction. This project separated the sanitary sewer from the CSO area.  
• 530 First St. (Redevelopment of Giant ABC, retail and residential) completed construction. This project separated the sanitary sewer from the CSO area, and a green roof was provided. |
| | Future Redevelopment of CSS | • 800 N. Washington St. (5-story hotel) is currently under construction.  
• 600 block of N. Patrick Street (Ramsey Homes Redevelopment, 64 homes) is under construction.  
• 601 N. Henry St. (The Park Residence, 18 townhomes) is under construction.  
• 1611 King Street (King St. Hotel) is under construction. |
| **Dry Weather Overflows (DWOs)** | Diversion facilities inspected regularly & preventative maintenance | • Monthly flap gate and diversion chamber inspections |
| | AlexRenew maintains a 24 hour on-call response team for reported DWOs | • AlexRenew Maintenance Division provides 24-hour response team |
| **Control of Solid and Floatable Materials in CSOs** | Regular sewer flushing | • See Section 9 |
| | Hooded catch basins | • Using hooded catch basins in CSS area |
| | Regular leaf season pickup | • Total collection of 15,535 cubic yards of leaves (4,194 tons) Citywide |
| | Regular catch basin cleaning | • See Section 9 |
| | Regular litter clean-up program | • Regular schedule for public litter cans, litter collection |
| | Regular street sweeping program | • Regular schedule for street sweeping  
• Approximately 3,595 linear miles cleaned citywide |
<table>
<thead>
<tr>
<th>Minimum Control</th>
<th>Description</th>
<th>Activity/Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollution Prevention</td>
<td>Industrial Waste Reduction</td>
<td>• Encouraging industrial waste reduction through recycling and improved housekeeping</td>
</tr>
<tr>
<td></td>
<td>Street Cleaning and Litter Controls</td>
<td>• Regular street cleaning and litter collection</td>
</tr>
<tr>
<td></td>
<td>Hazardous Waste Recycling</td>
<td>• Regular schedule for household hazardous waste day</td>
</tr>
<tr>
<td></td>
<td>General Recycling and Solid Waste Control</td>
<td>• HHW and Electronics recycling site is opened two days a week for residents to drop off</td>
</tr>
<tr>
<td></td>
<td>Best Management Practices (BMPs) for Automotive Related Industries</td>
<td>• Program to promote BMP for automobile industries</td>
</tr>
<tr>
<td></td>
<td>Leaf Collection</td>
<td>• Manual for automobile related industries for BMPs on City’s website @ alex-andriava.gov/uploadedFiles/tes/info/Automotive_BMP_manual.pdf</td>
</tr>
<tr>
<td></td>
<td>Ordinances and Enforcement</td>
<td>• City Pollution Prevention Program</td>
</tr>
<tr>
<td></td>
<td>My City</td>
<td>• Internal reporting program includes “illicit discharges” as issue topic</td>
</tr>
<tr>
<td></td>
<td>EIU</td>
<td>• Dedicated Code Enforcement Staff comprises the Environmental Industrial Unit that proactively inspects facilities and enforces the Environmental Crimes Ordinance</td>
</tr>
<tr>
<td>Public Notification</td>
<td>CSO Public Notice</td>
<td>• Public notice signs posted at CSO locations. Installations verified in 2018 that all are intact. See Section 11.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Public information on CSS Collection System on City’s website @ <a href="https://www.alexandriava.gov/Sewers">https://www.alexandriava.gov/Sewers</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Public information on CSS Interceptors &amp; Outfalls on AlexRenew’s website @ <a href="https://alexrenew.com/helping-our-community/infrastructure-overview">https://alexrenew.com/helping-our-community/infrastructure-overview</a></td>
</tr>
<tr>
<td>Monitoring</td>
<td>Monitor pollutants at each outfall</td>
<td>• The City has implemented a monitoring program for the CSS in accordance with Parts I.C.9 and I.D of its previously held VPDES Permit</td>
</tr>
</tbody>
</table>
Section 2 Combined Sewer Overflow Characterization

2.1 General
AlexRenew utilizes XPSWMM to model hydrology and hydraulics of the combined sewer system network. Annual overflows from the CSS outfalls are estimated based on applying 15-min rainfall to the calibrated XPSWMM\(^1\) model. This section summarizes the 2018 rainfall from the Ronald Reagan Washington National Airport (DCA) provides the modeled estimated overflows for each outfall as well as the overall CSS.

2.2 Summary of 2018 Rainfall Data
Rainfall data from DCA for 2018 is summarized as follows:

<table>
<thead>
<tr>
<th>Table 2-1. Summary of 2018 Rainfall Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Storm Events</td>
</tr>
<tr>
<td>125</td>
</tr>
</tbody>
</table>

During 2018, the wettest year on record since 1871, a total of 125 storm events were measured. A storm event is defined as rainfall equal to or exceeding 0.01” and separated by at least six continuous dry hours (“dry hours” is defined here to be six continuous hours of no measured rainfall). The presence of a storm event however, does not necessarily mean the occurrence of a CSO. There was at least one measurable event every month during the calendar year.

\(^1\) XPSWMM is a commercially available software program that uses EPA’s Storm Water Management Model engine to estimate combined sewer overflows based on rainfall
2.3 Rainfall Data and Model Results for CSO Outfalls

Rainfall data and model results for 2018 are presented in Appendix A Tables A-1 through A-5 and summarized in Table 2-2. In the tables, multiple overflows that occurred during a single rainfall event have been characterized as a single overflow event.

Table 2-2. 2018 Rainfall and Overflow Model Summary

<table>
<thead>
<tr>
<th>Outfall</th>
<th>Description</th>
<th>Rainfall Data for Storms Resulting in Overflows</th>
<th>Estimated Annual Volume of Overflow (MG)</th>
<th>Average Duration of Overflow (Hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>Pendleton St.</td>
<td>49 Number of Overflows (Occurrences)</td>
<td>49.4 Rainfall Contributing to Overflow(^1) (inches)</td>
<td>111 Estimated Annual Volume of Overflow (MG)</td>
</tr>
<tr>
<td>002</td>
<td>Royal St.</td>
<td>46 Number of Overflows (Occurrences)</td>
<td>54.8 Rainfall Contributing to Overflow(^1) (inches)</td>
<td>89 Estimated Annual Volume of Overflow (MG)</td>
</tr>
<tr>
<td>003</td>
<td>Duke St.</td>
<td>72 Number of Overflows (Occurrences)</td>
<td>54.5 Rainfall Contributing to Overflow(^1) (inches)</td>
<td>108 Estimated Annual Volume of Overflow (MG)</td>
</tr>
<tr>
<td>004</td>
<td>Hooffs Run</td>
<td>51 Number of Overflows (Occurrences)</td>
<td>52.1 Rainfall Contributing to Overflow(^1) (inches)</td>
<td>20 Estimated Annual Volume of Overflow (MG)</td>
</tr>
</tbody>
</table>

\(^1\) For example, for a 1-inch storm, the first 0.15 inches of rain are conveyed to the WRRF. The rest of the rainfall cannot be conveyed to the plant and causes an overflow. Therefore, the amount of rain contributing to the overflow is 0.85 inches. This column represents the total amount of rainfall contributing to overflows for the entire year.

Figure 1-1 shows that both Outfalls 003 and 004 serve the same drainage area, with Outfall 003 being located upstream from Outfall 004. As a result, the majority of overflow volume associated with this drainage area (King and West) primarily occurs at Outfall 003. Consequently, Outfall 004 has a notably lower volume of overflow, as indicated in Table 2-2. The total estimated volume of overflow discharged from the CSS in 2018 was 328 MG.

Twenty-two years of modeled results (1997 through 2018) are summarized and presented in Table 2-3. Table 2-3 features annual data for the total recorded rainfall that caused CSOs to occur, the predicted average estimated overflow volume, and average cumulative overflow duration per event.
Table 2-3. Average CSS Performance

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Recorded Rainfall (inches)</th>
<th>Average Estimated Overflow Volume (MG)</th>
<th>Average Cumulative Duration (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>33.82</td>
<td>2.1</td>
<td>3.2</td>
</tr>
<tr>
<td>1998</td>
<td>35.94</td>
<td>2.1</td>
<td>3.4</td>
</tr>
<tr>
<td>1999</td>
<td>40.35</td>
<td>3.8</td>
<td>3.4</td>
</tr>
<tr>
<td>2000</td>
<td>38.59</td>
<td>2.3</td>
<td>2.7</td>
</tr>
<tr>
<td>2001</td>
<td>29.95</td>
<td>2.0</td>
<td>2.8</td>
</tr>
<tr>
<td>2002</td>
<td>33.17</td>
<td>2.0</td>
<td>3.2</td>
</tr>
<tr>
<td>2003</td>
<td>59.12</td>
<td>3.3</td>
<td>3.4</td>
</tr>
<tr>
<td>2004</td>
<td>42.36</td>
<td>3.8</td>
<td>3.6</td>
</tr>
<tr>
<td>2005</td>
<td>41.63</td>
<td>4.9</td>
<td>5.2</td>
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<td>2006</td>
<td>46.99</td>
<td>5.4</td>
<td>4.2</td>
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<tr>
<td>2007</td>
<td>32.94</td>
<td>2.7</td>
<td>5.0</td>
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<tr>
<td>2008</td>
<td>46.04</td>
<td>4.6</td>
<td>4.2</td>
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<tr>
<td>2009</td>
<td>45.34</td>
<td>2.1</td>
<td>3.4</td>
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<td>2010</td>
<td>39.69</td>
<td>3.2</td>
<td>6.8</td>
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<tr>
<td>2011</td>
<td>45.70</td>
<td>3.5</td>
<td>5.3</td>
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<tr>
<td>2012</td>
<td>32.06</td>
<td>2.8</td>
<td>3.5</td>
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<td>2013</td>
<td>44.30</td>
<td>3.2</td>
<td>4.3</td>
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<tr>
<td>2014</td>
<td>42.73</td>
<td>2.5</td>
<td>5.9</td>
</tr>
<tr>
<td>2015</td>
<td>44.16</td>
<td>3.8</td>
<td>2.9</td>
</tr>
<tr>
<td>2016</td>
<td>31.55</td>
<td>1.7</td>
<td>3.4</td>
</tr>
<tr>
<td>2017</td>
<td>35.65</td>
<td>3.2</td>
<td>4.8</td>
</tr>
<tr>
<td>2018</td>
<td>66.60</td>
<td>6.1</td>
<td>4.6</td>
</tr>
</tbody>
</table>

1 The sum of each CSO outfalls estimated overflow volumes in Table A-5.
2 The average cumulative duration is calculated by summing the average amount of time that overflows occurred at CSOs 001 through 004 and dividing it by 4.
3 CSS performance results from 1997 through 2017 were provided by the City of Alexandria. This previous climate period was not rerun using the 2018 calibrated XPSWMM model.

For 2018, based on averages from each outfall, an average total of approximately 6.1 million gallons (MG) was estimated to be discharged from the CSS during each overflow event. Each overflow event had an average cumulative duration of about 4.6 hours, based on the average duration for each outfall.

2.4 Summary of Model Updates

The XPSWMM model has been recalibrated against multiple years of flow meter data at each CSO outfall as well as many points throughout the CSS and also in the separate part of the sanitary sewer system. A breakdown of the 2018 model updates are as follows:

- In 2018, a previously uncalibrated area between the Outfall 003 and the Outfall 003 King and West Regulator was calibrated and the results are reflected in the data reported in this Annual Report.
that this calibration was performed during an abnormally wet period of 2018, the wettest year on record since 1871, from September through December and the area may be recalibrated during 2019.

- The model was updated with 15-minute rainfall data to more accurately simulate the peak flows generated in the CSS by intense storms.
Section 3 CSO Monitoring Program

3.1 General

VPDES Permit No. VA0087068 Part 1.C.9 requires monitoring of pollutants of concern at each CSO outfall to characterize CSO impacts and the efficacy of CSO controls. For Year 2018, sample collections were only performed at Outfall 001 (Pendleton Street Outfall). Samples collected from Outfall 001 during overflow events were analyzed for the parameters listed in Part I.A of the City’s previously held VPDES permit.

3.2 Summary of CSO Sampling

Sample collection and analyses were conducted at Outfall 001. Table 3-1 includes a summary of samples collected. The overflow samples are representative of the flow over the CSO weir during a storm event. Each collected sample was analyzed by Prince William County Service Authority H2O Quality Lab which is certified by the Commonwealth of Virginia and in accordance with the test methods as stated in the Permit. The CSO sampling results are provided in Appendix B.

Table 3-1. Summary of CSO Sampling

<table>
<thead>
<tr>
<th>Date of CSO Event</th>
<th>Total Recorded Rainfall (inches)</th>
<th>Start of CSO Event</th>
<th>Start of Sample Collection</th>
<th># of Samples Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>02/11/2018</td>
<td>2.11</td>
<td>6:15 AM</td>
<td>6:20 AM</td>
<td>2</td>
</tr>
<tr>
<td>04/16/2018</td>
<td>2.01</td>
<td>2:00 AM</td>
<td>2:03 AM</td>
<td>4</td>
</tr>
</tbody>
</table>
Section 4 Operations and Regular Maintenance Programs

AlexRenew and the City’s Department of Transportation and Environmental Services (T&ES) are responsible for proper operation and maintenance (O&M) of the CSS and for demonstrating compliance with the NMCs. Previous studies and assessments showed that the CSO discharges did not preclude attainment of existing water quality standards.

The City transferred CSO outfalls and associated control structures to AlexRenew via the Outfall Transfer Agreement between the City of Alexandria, Virginia and AlexRenew, dated May 1, 2018. The agreement includes specific provisions that define roles, responsibilities, and processes to implement and operate the facilities in RiverRenew. VDEQ approved the City’s Outfall Transfer on June 29, 2018.

4.1 Inspection and Maintenance of CSS

Inspection of all outfalls, tide gates, diversion and regulator structures within the CSS are required under Part I.C.b of the existing Permit. AlexRenew and the City have implemented guidelines for inspecting the various elements of the CSS, including the four permitted outfalls, tide gates at Royal Street (Outfall 002) and Hooffs Run (Outfall 004), and diversion structures at the Duke Street and Hooffs Run outfalls (Outfalls 003 & 004). Inspection and maintenance of diversion and regulator structures, and tide gates occur at least on a monthly basis, while dry weather outfall (DWO) inspections occur twice a month. In July 2012, the City developed a more comprehensive and uniform outfall inspection form in response to a June 2012 EPA inspection. The forms were developed so that consistent information was collected at all outfalls. The results of these inspections during 2018 are documented and the corresponding forms are included in Appendix C and D.

4.2 Preventive Maintenance

AlexRenew and the City continue to practice an extensive program of sewer system preventive maintenance. Focusing on preventive maintenance has helped AlexRenew and the City reduce the need for corrective and emergency maintenance. AlexRenew and the City’s current preventive maintenance program includes the following activities:

- Monthly problem area grease flushing
- Flushing of the sanitary sewers, storm sewers, and combined sewers in the CSS
- Internal sewer CCTV inspections
- Inlet and catch basin cleaning
- Sweeping and cleaning of the streets

The activities performed under the preventive maintenance program help maintain the hydraulic capacity of the CSS in addition to maximizing the storage capacity of the collection system. Included in the Appendices of this report are the O&M records documenting the individual preventive maintenance activities for the sewer system, including the area within the CSS.

4.3 Training

AlexRenew and the City conduct periodic training programs in work and safety procedures related to the operation and maintenance of the CSS. The staff training records can be found in Appendix F.

4.4 Allocation of Funds for Operation and Maintenance

AlexRenew and the Sewer Maintenance Section of T&ES is responsible for O&M of the CSS. Specific information regarding AlexRenew’s and the City’s current and ongoing activities for implementing proper operation and maintenance of the CSS are summarized below.
Section 5 Maximize Use of Collection System for Storage

Measures implemented by AlexRenew and the City to maximize storage within the CSS to retain wet weather flow are summarized as follows:

- CSO diversion structures are designed to permit filling of the trunk sewers to at least 3 times dry weather flow (DWF) before overflow occurs.
- Storm and sanitary sewers are flushed in a regular basis to remove accumulated sediments to maximize sewer capacity and diversion structure capacity. City maintenance records documenting sewer flushing and cleaning activities are included in Appendices H and I.
Section 6 Control of Non-Domestic Discharges

AlexRenew administers and implements an industrial pretreatment program under its VPDES Permit. In 2001, the City developed a revised ordinance for environmental offenses. The ordinance is included in Appendix K. Also included in Appendix K is the City ordinance dealing with requirements for discharging to the AlexRenew WRRF.

AlexRenew has reported there are no Significant Industrial Users (SIUs) or remediated dischargers within the CSS.
Section 7 Maximize Flow to the Water Resource Recovery Facility

The objective this minimum control, based on EPA’s Nine Minimum Control guidance, is to reduce the magnitude, frequency and duration of CSOs discharges by maximizing flows to the Publicly Owned Treatment Works (POTW). The POTW is the WRRF that is owned, operated, and maintained by AlexRenew and is regulated under a separate VPDES Permit. During wet weather conditions, the wastewater treated at the WRRF is increased to the maximum rate that can be handled to provide complete treatment. Normally, the WRRF increases treatment flow from a dry weather range of approximately 35 mgd to more than 100 mgd during wet weather events.

Various sewer separation projects have been implemented, covering multiple Permit cycles, which increase the flow directed to the WRRF. These projects are as follows:

- The Tanyard Ditch Relief Storm Sewer Project, completed in 2007, featured installing a new storm sewer within the CSS area and relocating the existing combined sewer. The drainage area associated with the new storm sewer was removed from the CSS as the new storm sewer discharges to the Potomac River. Approximately 11.5 acres in the Royal Street CSS Area were separated.

- Approximately 3 city blocks in the Pendleton Street CSS area were either partially separated (sanitary sewerage removed from the CSS area) or completely separated (storm and sanitary sewers no longer contribute to the CSS) as part of the Madden Homes/Chatham Square redevelopment project completed in 2007. The stormwater was diverted to existing stormwater outfalls. A sanitary sewer on Pendleton Street was constructed to receive separated wastewater flows and convey the flow to the Potomac Interceptor downstream of Outfall 001. A total of approximately 13 acres were separated.

- Two areas in the King and West Sewershed were redeveloped in the CSS area with sanitary flows redirected to the Potomac Yard Trunk Sewer, which connects directly to AlexRenew. The separation project was completed in 2008. Previously, these areas discharged to the combined sewer. The redeveloped areas include the following:
  - 1115 Cameron Street
  - 500 N. Henry Street

- The Wythe Street sewer separation project was completed in the summer of 2010 as part of a redevelopment project in the King and West combined sewer area. One thousand linear feet of pipe was installed using trenchless technology along Wythe Street between N. Fayette Street and N. Alfred Streets. The project resulted in 1.44 acres separated and removed from the combined sewer service area.

- In 2014, two projects associated with the Area Reduction Plan completed construction. The Harris Tee-ter development along Madison Street between N. Saint Asaph Street and N. Pitt Street separated and removed approximately 1.5 acres of sanitary sewage from the combined sewer service area. The James Bland Phase II development located in the Braddock East area separated and removed approximately 3.2 acres of sanitary flow from the combined sewer service area.

- In 2016, the Payne and Fayette Separation Projection was completed. This project consisted of five sites along Payne Street and Fayette Street that removed sanitary flows from the King and West area and directed them into the Potomac Yard Trunk Sewer. As a result of the project, 8.3 acres of sanitary sewer has been separated from the CSS Area.

- In 2017, The Mill development project completed construction at 513 and 515 North Washington Street. The project featured renovation of an existing commercial building and construction of a new structure where a parking lot once occupied the space. As a result of the project, 0.51 acres of sanitary sewer has been separated from the CSS Area.
In 2018, the 700 N. Washington St and 530 First St redevelopment projects were completed. Both projects included sewer separation and the 530 First St project also included a green roof. The City continues to periodically identify specific areas that can be separated as future development opportunities arise.
Section 8 Dry Weather Overflows

In 2018, AlexRenew and the City conducted a dry weather overflow (DWO) inspection program to monitor dry weather overflows. In accordance with Part I.C.5 of the existing Permit, AlexRenew inspects each CSO outfall (Outfalls 001-004) at least twice per month and documents each occurrence as to the presence of DWO’s. The 2018 DWO inspection forms, for Outfalls 001-004, are located in Appendix L. In the year 2018, there were no reported instances of DWOs.
Section 9 Control of Solid and Floatable Material in CSOs

Measures implemented to control solid and floatable material in CSOs are summarized as follows:

- Regular street and catch basin cleaning
- Regular sewer flushing to prevent buildup of solids
- Regular leaf collection and litter removal
- Use of hooded (inverted outlets) catch basins to retain solids and floatables

The City follows a regular street sweeping schedule to remove trash and litter in the streets and alleys that may otherwise be washed into the CSS. The City sweeps all of the streets in the CSS area at least once per week. Some areas are cleaned on a daily basis, Monday through Friday. Copies of the forms documenting the City’s street sweeping activities are included along with the other activity reports in Appendix G.

Additionally, overflow screens are installed in the outfall tide gate chamber downstream of the Royal Street CSO regulator to prevent floatable materials from discharging into Hunting Creek. AlexRenew and the City also routinely perform sewer flushing, as well as inlet and catch basin cleaning within the CSS. Copies of these maintenance reports are also included in Appendix H and I, respectively.
Section 10 Pollution Prevention

10.1 General

Pollution prevention programs and currently ongoing activities performed by the City are summarized as follows:

- Leaf collection
- Hazardous waste recycling
- General single-stream recycling and solid waste control
- Street cleaning and litter control
- BMP manual for automotive related industries. All businesses that require a Special Use Permit (SUP) comply with this manual by placing appropriate conditions on their SUPs. A copy of the City’s BMP handbook can be downloaded at [http://alexandriava.gov/uploadedFiles/tes/info/Automotive_BMP_manual.pdf](http://alexandriava.gov/uploadedFiles/tes/info/Automotive_BMP_manual.pdf).
- Work release: T&ES uses work release crews under the general supervision of the Sheriff’s Office to perform general clean-up and related projects that benefit the community.
- Aggressive illicit discharge detection and elimination system program with dedicated Code Enforcement staff as the Environmental and Industrial Unit (EIU).
- “My City” internal reporting program includes “illicit discharges” as part of the issue topics.

A copy of information regarding the leaf collection program that is made available to all City residents is included in Appendix J.
Section 11 Public Notification

11.1 CSO Warning Signs

In 2018, new signage was created and posted at each of the CSO outfalls notifying residents of the hazards of swimming and waterborne illness. Signs were updated to include the AlexRenew logo and contact information. These signs were posted in both English and Spanish and follow standard regulation for size and color. Recent photographs taken of the CSO warning signs are provided on the following pages in Figure 11-1, Figure 11-2, and Figure 11-3.
Figure 11-1. Public Notice Sign at Pendleton Street Outfall
Figure 11-2. Public Notice Sign at Royal Street Outfall
Figure 11.3. Public Notice Sign at Duke Street and Hooffs Run Outfall
Section 12 Implementation of the Long Term Control Plan Update

12.1 General

On June 29, 2018, the DEQ approved the LTCPU, jointly prepared by AlexRenew and the City. The LTCPU recommended a solution to remediate Alexandria’s four existing combined sewer outfalls and featured a unified tunnel system coupled with upgrades to AlexRenew’s WRRF to capture and treat combined sewer discharges. Following approval of the LTCU, AlexRenew and the City executed an Outfall Transfer Agreement that transferred the existing combined sewer system outfall assets to AlexRenew, which was approved by City Council on June 26, 2018. The agreement assigned ownership of the four existing combined sewer system regulators and outfalls to AlexRenew. Additionally, the agreement made AlexRenew solely responsible for the regulatory compliance responsibilities associated with the outfalls, including the planning, design, and construction of the recommended LTCPU plan. On September 1, 2018, VDEQ recognized the transfer of the existing combined sewer system assets by issuing VPDES Permit VA0087068 to AlexRenew. A condition of the permit requires AlexRenew to report on the progress of the implementation of the recommended LTCPU plan by November 1st of each year.

12.2 RiverRenew Projects

While the LTCPU provided the conceptual framework to comply with the legislative requirements associated with the 2017 Virginia Law, it did not provide detailed project definition and procurement needs. Therefore, the first major task following the LTCPU approval was to succinctly define each project, establish methods and protocol for the procurement of each project, develop detailed schedules, and plan for the availability of sufficient space at AlexRenew’s constrained site to ensure completion by the 2025 legislative milestone. The process identified four major RiverRenew projects totaling approximately $400 million that include:

- Expansion of AlexRenew’s primary treatment capacity from 108 to 116 MGD;
- Relocation of facilities and decommissioning of AlexRenew’s former administrative building;
- Construction of a tunnel system and associated pumping systems; and
- Disinfection of wet weather flows.

12.3 Implementation Progress

On March 1, 2019, AlexRenew submitted a Preliminary Engineering Report (PER) to VDEQ for RiverRenew. The PER provides a thorough analysis of the proposed engineering alternatives for the RiverRenew projects with considerations for potential impacts to the community, regulatory and permitting requirements, existing conditions, operations and maintenance, procurement methodologies, cost, and schedule to meet the July 1, 2025 legislative mandate. It should be noted that due to the accelerated timeline required to comply with the schedule mandated by the 2017 Virginia Law, the PER is being developed concurrently with the RiverRenew Environmental Assessment (EA). The EA is required to comply with the National Environmental Policy Act of 1969 since portions of the program require permits and approvals from the National Park Service to potentially construct within property under their ownership.

The Virginia Administrative Code requires PERs to identify a “selective alternative.” In order to maintain the integrity of the EA process and the feedback received from the community, the PER did not identify a selected alternative, but recommends a technically preferred alternative based on engineering judgement, cost, and schedule. The EA will continue to further study the environmental and community impacts for all alternatives identified in the PER and will conclude with a decision document recommending a preferred alternative. Under no circumstances does the PER preempt the EA or its process.
A summary of progress made for each project in 2018 is summarized in Table 12-1.

<table>
<thead>
<tr>
<th>Project</th>
<th>2018 Progress and milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-116 MGD Expansion</td>
<td>• Evaluated alternatives for Primary Effluent Pump Station upgrades</td>
</tr>
<tr>
<td></td>
<td>• Identified replacement of impellers as the technically preferred alternative</td>
</tr>
<tr>
<td></td>
<td>• Issued contract documents for equipment pre-purchase</td>
</tr>
<tr>
<td>Building J Facilities Relocation and Decommissioning</td>
<td>• Identified the need to demolish Building J to accommodate tunnel construction</td>
</tr>
<tr>
<td></td>
<td>• Evaluated and identified a technically preferred alternative for the relocation of Building J facilities</td>
</tr>
<tr>
<td>Tunnel System</td>
<td>• Evaluated and identified technically preferred alternatives</td>
</tr>
<tr>
<td></td>
<td>• Developed over 60 design drawings in support of the PER</td>
</tr>
<tr>
<td></td>
<td>• Kicked-off the EA process through a series of public Listening Sessions to solicit community feedback</td>
</tr>
<tr>
<td></td>
<td>• Worked closely with the National Park Service to develop draft EA sections</td>
</tr>
<tr>
<td></td>
<td>• Coordinated with multiple third-party stakeholders to discuss easement and permit needs to install the tunnel system</td>
</tr>
<tr>
<td></td>
<td>• Conducted site investigations consisting of site survey, bathymetry, wetlands delineation, and aerial flyovers</td>
</tr>
<tr>
<td></td>
<td>• Drilled over one dozen borings to support the geotechnical subsurface exploration program</td>
</tr>
<tr>
<td></td>
<td>• Met with a variety of community groups to engage and discuss the program</td>
</tr>
<tr>
<td>Wet Weather Treatment Facility</td>
<td>• Evaluated alternatives for wet weather treatment at WRRF</td>
</tr>
<tr>
<td></td>
<td>• Conducted bench-scale testing to identify effective chemical doses</td>
</tr>
</tbody>
</table>

### 12.4 Long Term Control Plan Update Public Notification and Participation

The development of the LTCPU included a transparent public process that provided an opportunity for the community to engage, provide feedback, and weigh-in on the recommended plan. Monthly public meetings were held with an Ad-Hoc Combined Sewer System (CSS) Stakeholder Group, who represented the diverse commercial and residential interests of Alexandria. The CSS Stakeholder Group was instrumental in the development of the LTCPU and provided formal support of the plan prior to being disbanded in April 2018 after fully meeting their charge.

The Ad-Hoc CSS Stakeholder Group included 14 representatives from the following organizations:

- Oronoco/Rivergate/Tobacco Quay
- Park and Recreation Committee
- Old Town Civic Association (2)
- Chamber of Commerce
- At Large: Citywide (2)
- Alexandria Renew Enterprises
- At Large: Porto Vecchio/Bridgeyard
- Budget and Fiscal Affairs Advisory Commission
- Environmental Policy Commission
- North Old Town Independent Citizens Association
- Environmental Advocacy: Friends of Dyke Marsh
- Alexandria Archeological Commission
Once the LTCPU was approved in July 2018, scheduled announcements were sent to the following audiences:

- E-News to
  - Sarah Godfrey, COA Public Information Office, then
  - Craig Fifer, COA Director of Communications
- Email to Ad Hoc Stakeholders
- Post to RiverRenew Website
- Social Media Posts

The press release is included in Appendix M and additional information on RiverRenew’s public outreach efforts are included in Appendix N.

**12.5 Formation of a RiverRenew Stakeholder Advisory Group**

On October 23, 2018, Alexandria City Council passed a resolution for the establishment of the RiverRenew Stakeholder Advisory Group (SAG) to be an active and informed citizen group providing diverse perspectives throughout the various phases of RiverRenew’s implementation. The group is tasked with reviewing and monitoring program progress, serving as spokespeople for RiverRenew, receiving input from the public, and providing recommendations to mitigate community impacts. AlexRenew, with the support of the City of Alexandria, selected 13 SAG members interested in serving as part of the group. The first SAG meeting was held on February 27, 2019 and the group will continue monthly through mid-2020.
Appendix A: 2018 Rainfall and Overflow Modeling Report
Table A-1: CSO Outfall 001, Pendleton Street
2018 Rainfall and Overflow Model Summary

<table>
<thead>
<tr>
<th>Date of Overflow</th>
<th>Storm Total (in.)</th>
<th>Duration of Storm (hrs)</th>
<th>Maximum Storm Intensity (in/hr)</th>
<th>Volume of Overflow (MG)</th>
<th>Duration of Overflow (hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/4/2018</td>
<td>1.09</td>
<td>8.5</td>
<td>0.5</td>
<td>1.52</td>
<td>4.00</td>
</tr>
<tr>
<td>2/11/2018</td>
<td>2.11</td>
<td>32.0</td>
<td>0.5</td>
<td>1.94</td>
<td>4.50</td>
</tr>
<tr>
<td>2/17/2018</td>
<td>0.42</td>
<td>5.3</td>
<td>0.2</td>
<td>0.13</td>
<td>1.00</td>
</tr>
<tr>
<td>4/16/2018</td>
<td>2.02</td>
<td>27.0</td>
<td>2.1</td>
<td>5.90</td>
<td>2.75</td>
</tr>
<tr>
<td>4/24/2018</td>
<td>0.79</td>
<td>18.3</td>
<td>0.2</td>
<td>0.02</td>
<td>0.25</td>
</tr>
<tr>
<td>4/27/2018</td>
<td>0.72</td>
<td>5.5</td>
<td>0.3</td>
<td>0.66</td>
<td>2.00</td>
</tr>
<tr>
<td>5/12/2018</td>
<td>0.15</td>
<td>0.5</td>
<td>0.6</td>
<td>0.07</td>
<td>0.25</td>
</tr>
<tr>
<td>5/13/2018</td>
<td>0.36</td>
<td>6.0</td>
<td>0.4</td>
<td>0.07</td>
<td>0.25</td>
</tr>
<tr>
<td>5/13/2018</td>
<td>0.16</td>
<td>0.8</td>
<td>0.4</td>
<td>0.00</td>
<td>0.25</td>
</tr>
<tr>
<td>5/14/2018</td>
<td>1.49</td>
<td>2.8</td>
<td>3.4</td>
<td>4.83</td>
<td>1.25</td>
</tr>
<tr>
<td>5/15/2018</td>
<td>0.43</td>
<td>7.5</td>
<td>0.5</td>
<td>0.29</td>
<td>1.50</td>
</tr>
<tr>
<td>5/16/2018</td>
<td>0.80</td>
<td>11.0</td>
<td>1.2</td>
<td>0.88</td>
<td>0.75</td>
</tr>
<tr>
<td>5/19/2018</td>
<td>2.77</td>
<td>56.0</td>
<td>0.6</td>
<td>1.04</td>
<td>4.00</td>
</tr>
<tr>
<td>5/22/2018</td>
<td>1.22</td>
<td>6.3</td>
<td>2.4</td>
<td>3.58</td>
<td>1.50</td>
</tr>
<tr>
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Summary of Outfall 001

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Summary of Outfall 002

- Number of Occurrences: 46
- Volume (MG): 88.75
- Duration (hrs.): 133.75
- Total Rainfall Causing Overflow (in): 54.79
Table A-3: CSO Outfall 003, Duke Street
2018 Rainfall and Overflow Model Summary

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Summary of Outfall 003

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Summary of Outfall 004

Number of Occurrences: 51
Volume (MG): 20
Duration (hrs.): 179
Total Rainfall Causing Overflow (in): 52.11
### Summary of Modeled Results for Alexandria Combined Sewer Overflows 1997-2018

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<th>CSO 003 Duke Street</th>
<th>CSO 004 Hooffs Run</th>
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<td>Number of Occurrences</td>
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#### Notes:
- Prior to 2004, the Sewer Overflow Model (SCM) was used to estimate annual overflows. Beginning in 2004, the system was modeled using PCD/WMW RUNOFF, TRANSPORT, and EXTRAN.
- Note: The model was recalibrated in 2000 using ASA flows and Kings Wheel CSS area.
- Note: The model was recalibrated in 2009 using monitored flows at CSO-004 as well as survey data collected as part of a separate effort.
- Notes: The model was updated to VPSWMM for the 2010 annual report. Recallibration was performed on all 4 CSOs during the update
- Note: Recallibration was performed on all 4 CSOs using existing meter data.
- Note: Recallibration was performed on CSO 003 and CSO 004 as part of the flow metering efforts in 2015.
- Notes: Recallibration was performed on CSO 003 as part of the flow metering efforts in 2018.
Appendix B: Summary of Storm Events, CSO Events and Sampling Events for CSO 001
Appendix B-1: Summary of Storm Events and Sampling Events for Outfall 001

<table>
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<th>Date of CSO Event</th>
<th>Total Recorded Rainfall (inches)</th>
<th>Peak Intensity (in/hr)</th>
<th>Volume (mg)</th>
<th>Storm Duration</th>
<th>CSO Duration</th>
<th>Outfall Samples Taken?</th>
<th>No. of Samples Collected</th>
<th>Start (hrs)</th>
<th>End (hrs)</th>
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1. The volume of CSO overflow which occurred during the CSO event
2. Sample time reflects sample taken at first moments of flow observed in outfall pipe
## Appendix B-2: Outfall 001 Overflow Sampling Results

| Date       | Time | Time Step min | Total Time hr | Average Flow (mgd) | Temp Field °C | pH Field | Nitrite as in N mg/L | Nitrate/Nitrite mg/L | Ammonia as N mg/L | TP        | Chloride Lechat 10-117 07-1-B mg/L | TKN Lechat 10-117 09-2-D mg/L | E. Coli SM 9223 CFU/100 mL | Total Coliform SM9223 Colilert CFU/100 mL | EV Grease EPA 1646A mg/L | TSS SM 2540B mg/L | Zn SM3111 B-2011 µg/L | Copper SM3113 B-2004 µg/L | BOD5 SM 5310B-2011 mg/L | Fecal Col. SM 9221 E-C-2006 CFU/100 mL |
|------------|------|---------------|---------------|-------------------|---------------|----------|---------------------|---------------------|-------------------|----------|-------------------------------------|----------------------------------|----------------------------------|--------------------------------|------------------------|-------------------------|--------------------------|--------------------------|--------------------------|
| 2/11/2018  | 6:20 | 0             | 0             | 0.4               | 20.9          | 5.9      | 0.02                | 0.75                 | 0.27              | 0.28     | 22.2                                | 2.28                             | 1.15                              | 81600                         | 488400                 | 0.03                    | 0.42                    | 0.4                      | 22.7                    |
| 2/11/2018  | 6:50 | 30            | 0.5           | 0.4               | 28.3          | 6.3      | 0.04                | 1.48                 | 0.44              | 0.31     | 44.1                                | 4.4                              | 3.7                               | 89500                         | 276200                 | 0.02                    | 0.25                    | 0.41                    | 19.2                    |
| 4/16/2018  | 2:03 | 0             | 0             | 2.1               | 16.5          | 11.4     | 0.05                | 0.33                 | 0.46              | 1.48     | 25.4                                | 1.25                             | 6.85                              | 313000                        | 2419600                | 32.1                    | 180                     | 328                     | 62.5                    |
| 4/16/2018  | 2:33 | 30            | 0.5           | 2.1               | 16.7          | 1.15     | 0.02                | 0.42                 | 0.58              | 0.37     | 16100                               | 0.93                             | 1.3                               | 164000                        | 199000                 | 7                      | 150                     | 198                     | 41.9                    |
| 4/16/2018  | 3:00 | 60            | 1.0           | 2.1               | 16.7          | 3.84     | 0.03                | 0.33                 | 0.33              | 0.35     | 7.31                                | 7.31                             | 0.02                              | 27500                         | 860000                 | 7.9                      | 47                      | 198                     | 42.6                    |
| 4/16/2018  | 4:03 | 90            | 1.5           | 2.1               | 15.8          | 1.25     | 0.04                | 0.8                  | 0.77              | 0.43     | 23900                               | 2.22                             | 1.49                              | 87500                         | 199000                 | 5.10                    | 18                      | 78.2                    | 22.3                    |

Note
Sampling analytical testing conducted by Martel Laboratories, Inc
NA = Sample was unable to be tested due to issues during transport
Average Flow is calculated by dividing the volume of overflow by the duration of overflow.
Appendix C: City of Alexandria Outfall and Diversion Structure Inspection Forms
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By
1/16/18
Felipe

CONDITION OBSERVED
☑ Diversion Dam Structural Condition Normal
☑ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:
☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*
☑ Tide Gate Structural Condition Normal
☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:
☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:
☐ DWO Occurring - Describe:
☐ Additional Comments:

MAINTENANCE ACTIVITIES
☐ No Maintenance Required
☐ Yes – Describe:
☐ Cityworks Service Request #

MAINTENANCE COMPLETED
☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm.
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001  □ 002  □ 003  □ 004

Date of Inspection Performed By
1/19/8
Felipe Jr.
(Print & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☑ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*
☑ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☑ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☑ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☑ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By
2/14/2018 Felipe Jr. (Print or Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: ____________________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: ____________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) __________
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: ____________________________

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: ____________________________

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: ____________________________

☐ DWQ Occurring - Describe: ____________________________

☐ Additional Comments: ____________________________

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe: ____________________________

☐ Cityworks Service Request # ____________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS001 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services
CSS Diversion Structure and Tide Gate Inspection Log
CSS Outfall #  ☑️ 001 ☐ 002 ☐ 003 ☐ 004
Date of Inspection Performed By

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: _______________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: _______________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ________
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: _______________________

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: _______________________

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: _______________________

☐ DWO Occurring - Describe: _______________________
☐ Additional Comments: _______________________

MAINTENANCE ACTIVITIES
☐ No Maintenance Required
☐ Yes – Describe: _______________________

☐ Cityworks Service Request # _______________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm

☑️ Yes - Date Maintenance Performed: _______________________

Print & Sign Name: _______________________

[Signature]
City of Alexandria, Virginia
Transportation & Environmental Services
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # [ ] 001 [ ] 002 [ ] 003 [ ] 004

Date of Inspection
Performed By: [Signature]

CONDITION OBSERVED
☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES
☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED
☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #: ☐ 001 ☐ 002 ☐ 003 ☐ 004

Date of Inspection Performed By

3/26/2018

(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

☐ Intrusion Rate Within Manufacturer’s Specifications*

☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS001 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By
4/19/2018
Felipe Jr.

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

☐ Intrusion Rate Within Manufacturer’s Specifications*

☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☑ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☑ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSI 001 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection
4/18/18

Performed By

CONDITION OBSERVED
☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES
☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED
☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS OD is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # [☑ 001 □ 002 □ 003 □ 004]

Date of Inspection Performed By

5/10/18

Felipe
(Print & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

☐ Intrusion Rate Within Manufacturer's Specifications*

☐ Intrusion Rate Not Within Manufacturer's Specifications*

☑ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☑ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # ☐ 001 ☐ 002 ☐ 003 ☐ 004

Date of Inspection Performed By
5/21/18 Felipe

CONDITION OBSERVED
☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer's Specifications*
☐ Intrusion Rate Not Within Manufacturer's Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES
☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED
☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 201 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # ☐ 001 ☐ 002 ☐ 003 ☐ 004

Date of Inspection
Performed By

6/6/2018
Felipe Jp
(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: 

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: 

☐ Intrusion Observed – If So, Visually Estimated Intrusion Rate (Gal/Min) ____________
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: 

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: 

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: 

☐ DWO Occurring - Describe: 

☐ Additional Comments: 

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe: 

☐ Cityworks Service Request # ____________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ____________

*The maximum allowable intrusion rate for CSS 401 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services
CSS Diversion Structure and Tide Gate Inspection Log
CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By

Con D C 8-18
(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed – If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring – Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS001 is 32 gpm.
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection
1/16/18
Performed By
Felipe
(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ≤ 10 gpm
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes -- Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CS001 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By

□ 1/19/18
Felipe
(Print & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe:

☑ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) < 10 gpm

☐ Intrusion Rate Within Manufacturer's Specifications*

☐ Intrusion Rate Not Within Manufacturer's Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☑ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 10 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #: □ 001 □ 002 □ 003 □ 004

Date of Inspection
Performed By

Felipec 2/14/2018

(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: __________________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: __________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ≤ 10 gpm
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: __________________________

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: __________________________

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: __________________________

☐ DWO Occurring – Describe: __________________________

☐ Additional Comments: __________________________

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe: __________________________

☐ Cityworks Service Request # __________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: __________________________

*The maximum allowable Intrusion rate for CSS 001 is 33 gpm.
City of Alexandria, Virginia  
Transportation & Environmental Services  
CSS Diversion Structure and Tide Gate Inspection Log  
CSS Outfall # □ 001 □ 002 □ 003 □ 004  

Date of Inspection  
Performed By  

2/12/18  
Felipe Ig  

PRINT & SIGN NAME  

CONDITION OBSERVED  
☐ Diversion Dam Structural Condition Normal  
☐ Diversion Dam Structural Condition Other – Describe:  

☐ Diversion Dam Clean & Functioning Normal  
☐ Diversion Dam Debris Build-Up – Describe:  

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) < 10 gpm  
☐ Intrusion Rate Within Manufacturer’s Specifications*  
☐ Intrusion Rate Not Within Manufacturer’s Specifications*  
☐ Tide Gate Structural Condition Normal  
☐ Tide Gate Structural Condition Other – Describe:  

☐ Tide Gate Clean & Functioning Normal  
☐ Tide Gate Obstructed / Open – Describe:  

☐ CSO Signage in Good Condition  
☐ CSO Signage Condition Other – Describe:  

☐ DWO Occurring – Describe:  

☐ Additional Comments:  

MAINTENANCE ACTIVITIES  
☐ No Maintenance Required  
☐ Yes – Describe:  

☐ Cityworks Service Request #:  

MAINTENANCE COMPLETED  
☐ Yes - Date Maintenance Performed:  

*The maximum allowable intrusion rate for CSS 001 is 32 gpm.
City of Alexandria, Virginia
Transportation & Environmental Services
CSS Diversion Structure and Tide Gate Inspection Log
CSS Outfall #  □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By
3/6/18

CONDITION OBSERVED
☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) < 10 gpm
☐ Intrusion Rate Within Manufacturer's Specifications*
☐ Intrusion Rate Not Within Manufacturer's Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES
☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED
☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 12 gpm.
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # ☐ 001 ☐ 002 ☐ 003 ☐ 004

Date of Inspection
3/26/2018

Performed By
Felix T., Jr.

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe: __________________________

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe: __________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) less than 10 gpm

☐ Intrusion Rate Within Manufacturer’s Specifications*

☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe: __________________________

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe: __________________________

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe: __________________________

☐ DWO Occurring - Describe: __________________________

☐ Additional Comments: __________________________

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe: __________________________

☐ Cityworks Service Request # __________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: __________________________

*The maximum allowable intrusion rate for CSS 001 is 52 gpm.
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001  □ 002  □ 003  □ 004

Date of Inspection
4/9/2018

Performed By
Felipe  [Signature]

(Print & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal
☑ Diversion Dam Structural Condition Other – Describe:

☑ Diversion Dam Clean & Functioning Normal
☑ Diversion Dam Debris Build-Up – Describe:

☑ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) < 10 gpm

☑ Intrusion Rate Within Manufacturer’s Specifications*
☑ Intrusion Rate Not Within Manufacturer’s Specifications*

☑ Tide Gate Structural Condition Normal
☑ Tide Gate Structural Condition Other – Describe:

☑ Tide Gate Clean & Functioning Normal
☑ Tide Gate Obstructed / Open – Describe:

☑ CSO Signage in Good Condition
☑ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes – Date Maintenance Performed:

*The maximum allowable intrusion rate for CJS 001 is 33 gpm.
City of Alexandria, Virginia
Transportation & Environmental Services
CSS Diversion Structure and Tide Gate Inspection Log
CSS Outfall # □ 001 ☑ 002 □ 003 □ 004
Date of Inspection Performed By
□ 4/18/18 ❄ Felipe Jr. (Print & Sign Names)

CONDITION OBSERVED
☑ Diversion Dam Structural Condition Normal
□ Diversion Dam Structural Condition Other – Describe: __________________________________________________________

☑ Diversion Dam Clean & Functioning Normal
□ Diversion Dam Debris Build-Up – Describe: __________________________________________________________

□ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) __________________________
□ Intrusion Rate Within Manufacturer’s Specifications
□ Intrusion Rate Not Within Manufacturer’s Specifications
☑ Tide Gate Structural Condition Normal
□ Tide Gate Structural Condition Other – Describe: __________________________________________________________

☑ Tide Gate Clean & Functioning Normal
□ Tide Gate Obstructed / Open – Describe: __________________________________________________________

☑ CSO Signage in Good Condition
□ CSO Signage Condition Other – Describe: __________________________________________________________

□ DWO Occurring - Describe: __________________________________________________________

□ Additional Comments: __________________________________________________________

MAINTENANCE ACTIVITIES
☑ No Maintenance Required
□ Yes – Describe: __________________________________________________________

□ Cityworks Service Request # __________________________

MAINTENANCE COMPLETED
□ Yes - Date Maintenance Performed: __________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection:
S 1 0 1 8
Performed By:
Felipe (Print or Sign Name)

CONDITION OBSERVED
☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:
☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:
☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ≤ 1 0 gpm
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:
☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:
☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:
☐ DWQ Occurring - Describe:
☐ Additional Comments:

MAINTENANCE ACTIVITIES
☐ No Maintenance Required
☐ Yes – Describe:
☐ Cityworks Service Request #

MAINTENANCE COMPLETED
☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 12 gpm.
City of Alexandria, Virginia  
Transportation & Environmental Services  

CSS Diversion Structure and Tide Gate Inspection Log  

CSS Outfall # □ 001 □ 002 □ 003 □ 004  

Date of Inspection  
Performed By  

5/24/18  

CONDITION OBSERVED  

☐ Diversion Dam Structural Condition Normal  
☐ Diversion Dam Structural Condition Other – Describe:  

☐ Diversion Dam Clean & Functioning Normal  
☐ Diversion Dam Debris Build-Up – Describe:  

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)  
☐ Intrusion Rate Within Manufacturer’s Specifications*  
☐ Intrusion Rate Not Within Manufacturer’s Specifications*  
☐ Tide Gate Structural Condition Normal  
☐ Tide Gate Structural Condition Other – Describe:  

☐ Tide Gate Clean & Functioning Normal  
☐ Tide Gate Obstructed / Open – Describe:  

☐ CSO Signage in Good Condition  
☐ CSO Signage Condition Other – Describe:  

☐ DWO Occurring - Describe:  

☐ Additional Comments:  

MAINTENANCE ACTIVITIES  

☐ No Maintenance Required  
☐ Yes – Describe:  

☐ Cityworks Service Request #  

MAINTENANCE COMPLETED  

☐ Yes - Date Maintenance Performed:  

*The maximum allowable intrusion rate for CSS001 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # [ ] 001 [ ] 002 [ ] 003 [ ] 004

Date of Inspection
Performed By

6/6/2018

Felipe Ho

(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ____________ < 10 gpm

☐ Intrusion Rate Within Manufacturer’s Specifications*

☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS #001 is 10 gpm.
City of Alexandria, Virginia
Transportation & Environmental Services
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #: □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By

Condition Observed

☒ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☒ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed – If so, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer’s Specifications*
☒ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☒ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☒ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring – Describe:

☐ Additional Comments:

Maintenance Activities

☒ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

Maintenance Completed

☐ Yes – Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 201 is 35 gpm
City of Alexandria, Virginia
Transportation & Environmental Services
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection
1/16/18
Performed By
Felipe Ip (Print & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe: ____________________________

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe: ____________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ____________________________

☐ Intrusion Rate Within Manufacturer’s Specifications*

☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe: N/A

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe: N/A

☐ CSO Signage is Good Condition

☐ CSO Signage Condition Other – Describe: N/A

☐ DWO Occurring - Describe: ____________________________

☐ Additional Comments: ____________________________

MAINTENANCE ACTIVITIES

☑ No Maintenance Required

☐ Yes – Describe: ____________________________

☐ Cityworks Service Request # ____________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection
1/19/18
Performed By
Felipe, Jr.

CONDITION OBSERVED
☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) 
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: N/A

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: N/A

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: N/A

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES
☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED
☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 33 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #: □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By

2/14/2016
Felipe Espe

(CONDITION OBSERVED)

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: N/A

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: N/A

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: N/A

☐ DWO Occurring - Describe:

☐ Additional Comments:

(MAINTENANCE ACTIVITIES)

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

(MAINTENANCE COMPLETED)

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSO 201 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #  □ 001  □ 002  □ 003  □ 004

Date of Inspection
Performed By

2/21/2018
Filipe 24

(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe: ________________________________

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe: ______________________________________________________________________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) __________________________

☐ Intrusion Rate Within Manufacturer’s Specifications

☐ Intrusion Rate Not Within Manufacturer’s Specifications

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe: ______________________________________________________________________________________

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe: ______________________________________________________________________________________

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe: ______________________________________________________________________________________

☐ DWO Occurring - Describe: ______________________________________________________________________________________

☐ Additional Comments: ______________________________________________________________________________________

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes -- Describe: ______________________________________________________________________________________

☐ Cityworks Service Request # ______________________________________________________________________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ______________________________________________________________________________________

*The maximum allowable intrusion rate for CSS 001 is 33 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By
3/6/18

(M. Lee) (Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: ____________________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: ____________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) _________________________
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: N/A

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: N/A

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: N/A

☐ DWO Occurring - Describe: ____________________________

☐ Additional Comments: ____________________________

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe: __________________________________________

☐ Cityworks Service Request # ____________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS001 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #: □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By: 3/26/2018 [Signature]

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: N/A

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: N/A

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: N/A

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 33 gpm
Date of Inspection
Performed By

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: N/A

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: N/A

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: N/A

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 401 is 32 gpm.
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By
4/23/18
Felipe

CONDITION OBSERVED

☑️ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ______

☐ Intrusion Rate Within Manufacturer’s Specifications*

☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe: N/A

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe: N/A

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe: N/A

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☑️ No Maintenance Required

☐ Yes -- Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 401 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #  □ 001   □ 002   □ 003   □ 004

Date of Inspection Performed By: 5/10/18
Eldise Ford

CONDITION OBSERVED
☑ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer’s Specifications
☐ Intrusion Rate Not Within Manufacturer’s Specifications
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: N/A

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: N/A

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: N/A

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES
☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED
☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 301 is 33 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By
5/21/18 Felipe Jr.

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer’s Specifications
☐ Intrusion Rate Not Within Manufacturer’s Specifications
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: N/A

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: N/A

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: N/A

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS001 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #  □ 001  □ 002  □ 003  □ 004

Date of Inspection Performed By

[Signature]

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) _____________
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: N/A

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: N/A

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: N/A

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 33 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #: 001 002 003 004

Date of Inspection Performed By
6-8-18

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other - Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up - Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other - Describe: N/A

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open - Describe: N/A

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other - Describe: N/A

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes - Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable Intrusion rate for CSS 001 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection
Performed By

1/16/18
Felipe

(CONDITION OBSERVED)

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: N/A

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: N/A

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer's Specifications*
☐ Intrusion Rate Not Within Manufacturer's Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

(MAINTENANCE ACTIVITIES)

☑ No Maintenance Required
☐ Yes – Describe

☐ Cityworks Service Request #

(MAINTENANCE COMPLETED)

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By

1/19/18 Felpo [Signature]

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: N/A

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: N/A

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 201 is 33 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By: 2/14/18  
Felix, Jr.  
(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: N/A

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: N/A

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: debris under water kept gate open; created work order #147750 to have it clear

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☑ Yes -- Describe: flap gate stuck open, need to clean debris

☐ Cityworks Service Request # WO # 147750

MAINTENANCE COMPLETED

☑ Yes - Date Maintenance Performed: 2/1/18

*The maximum allowable intrusion rate for CSS001 is 37 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #: 004

Date of Inspection Performed By: 2/21/18

Felipe [Signature]

(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe: N/A

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe: N/A

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

☐ Intrusion Rate Within Manufacturer’s Specifications*

☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe: debris under water kept gate open; tested and removed sewer maintenance section

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe: flap gate stuck open, needs to be cleaned

☐ Cityworks Service Request #: WO # 147750

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: 2/21/18

*The maximum allowable intrusion rate for CSS001 is 33 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # ☐ 001 ☐ 002 ☐ 003 ☐ 004

Date of Inspection Performed By
3/6/18

(Mike Lee) (Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: N/A

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: N/A

☐ Intrusion Observed – If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring – Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe: 

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 401 is 15 gpm
City of Alexandria, Virginia  
Transportation & Environmental Services  
CSS Diversion Structure and Tide Gate Inspection Log  

CSS Outfall # □ 001 □ 002 □ 003 □ 004  

Date of Inspection Performed By:  
[3/26/2018]  
(Print & Sign Name)

<table>
<thead>
<tr>
<th>CONDITION OBSERVED</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Diversion Dam Structural Condition Normal</td>
<td></td>
</tr>
<tr>
<td>□ Diversion Dam Structural Condition Other – Describe: N/A</td>
<td></td>
</tr>
<tr>
<td>□ Diversion Dam Clean &amp; Functioning Normal</td>
<td></td>
</tr>
<tr>
<td>□ Diversion Dam Debris Build-Up – Describe: N/A</td>
<td></td>
</tr>
<tr>
<td>□ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)</td>
<td></td>
</tr>
<tr>
<td>□ Intrusion Rate Within Manufacturer’s Specifications*</td>
<td></td>
</tr>
<tr>
<td>□ Intrusion Rate Not Within Manufacturer’s Specifications*</td>
<td></td>
</tr>
<tr>
<td>□ Tide Gate Structural Condition Normal</td>
<td></td>
</tr>
<tr>
<td>□ Tide Gate Structural Condition Other – Describe:</td>
<td></td>
</tr>
<tr>
<td>□ Tide Gate Clean &amp; Functioning Normal</td>
<td></td>
</tr>
<tr>
<td>□ Tide Gate Obstructed / Open – Describe:</td>
<td></td>
</tr>
<tr>
<td>□ CSO Signage in Good Condition</td>
<td></td>
</tr>
<tr>
<td>□ CSO Signage Condition Other – Describe:</td>
<td></td>
</tr>
<tr>
<td>□ DWO Occurring - Describe:</td>
<td></td>
</tr>
<tr>
<td>□ Additional Comments:</td>
<td></td>
</tr>
</tbody>
</table>

**MAINTENANCE ACTIVITIES**  

□ No Maintenance Required  
□ Yes – Describe:  
□ Cityworks Service Request #  

**MAINTENANCE COMPLETED**  
□ Yes - Date Maintenance Performed:  

*The maximum allowable intrusion rate for CSS 401 is 13 gpm*
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By
4/9/2018
Felipe

CONDITION OBSERVED
☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: N/A

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: N/A

☐ Intrusion Observed – If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer's Specifications
☐ Intrusion Rate Not Within Manufacturer's Specifications
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage: Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES
☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED
☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 15 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By

4/18/18
Felipe

CONDITION OBSERVED

- Diversion Dam Structural Condition Normal
- Diversion Dam Structural Condition Other – Describe: N/A

- Diversion Dam Clean & Functioning Normal
- Diversion Dam Debris Build-Up – Describe: N/A

- Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

- Intrusion Rate Within Manufacturer’s Specifications*

- Intrusion Rate Not Within Manufacturer’s Specifications*

- Tide Gate Structural Condition Normal
- Tide Gate Structural Condition Other – Describe:

- Tide Gate Clean & Functioning Normal
- Tide Gate Obstructed / Open – Describe:

- CSO Signage in Good Condition
- CSO Signage Condition Other – Describe:

- DWO Occurring - Describe:

- Additional Comments:

MAINTENANCE ACTIVITIES

- No Maintenance Required
- Yes – Describe:

- Cityworks Service Request #

MAINTENANCE COMPLETED

- Yes - Date Maintenance Performed: 

*The maximum allowable intrusion rate for CSS 001 is 22 gpm.
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By

5/10/18

(Full Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: N/A

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: N/A

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer's Specifications*
☐ Intrusion Rate Not Within Manufacturer's Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☑ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes -- Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS001 is 33 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #: ☐ 001 ☐ 002 ☐ 003 ☑ 004

Date of Inspection Performed By
5/21/18

Condition Observed
☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: N/A

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: N/A

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

Maintenance Activities
☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

Maintenance Completed
☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS001 is 32 gpm

S:\city\PROJECTS\Combined Sewer System - CSWSS Femini 30DV\CSO Inspections Femini\CSS_Diversion_Structure_Inspection_OutFalls\Version 07.26.14.doc
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #: □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By
6/6/2018
Felipe Jr

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: N/A

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: N/A

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate Within Manufacturer’s Specifications*
☐ Intrusion Rate Not Within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
City of Alexandria, Virginia
Transportation & Environmental Services

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection
Performed By

[Signature]

(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe: N/A

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe: N/A

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

☐ Intrusion Rate Not Within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS001 is 32 gpm.
Appendix D: AlexRenew Outfall and Diversion Structure Inspection Forms
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #  ☑ 004  ☐ 002  ☐ 003  ☐ 004

Date of Inspection Performed By: 7/12/18

(Print & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) __________

☐ Intrusion Rate within Manufacturer’s Specifications*

☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring – Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☑ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request # __________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: __________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log
CSS Outfall # ☐ 001 ☒ 002 ☐ 003 ☐ 004

Date of Inspection Performed By 7/2/16

(Print & Sign Name)

CONDITION OBSERVED

☒ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe: ________________________________

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe: ________________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ______________

☐ Intrusion Ratewithin Manufacturer’s Specifications*

☒ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe: ________________________________

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe: ________________________________

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe: ________________________________

☐ DWO Occurring - Describe: ________________________________

☐ Additional Comments: _______________________________________________________

MAINTENANCE ACTIVITIES

☒ No Maintenance Required

☐ Yes – Describe: ____________________________________________________________

☐ Cityworks Service Request # ________________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ________________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By: 7/12/16

(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #  □ 001  □ 002  □ 003  ☑ 004

Date of Inspection Performed By: 7/2/16

JOHN
(Print & Sign Name)

CONDITION OBSERVED

☐  Diversion Dam Structural Condition Normal
☐  Diversion Dam Structural Condition Other – Describe:

☐  Diversion Dam Clean & Functioning Normal
☐  Diversion Dam Debris Build-Up – Describe:

☐  Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) __________________

☐  Intrusion Rate within Manufacturer’s Specifications*
☐  Intrusion Rate Not within Manufacturer’s Specifications*

☑  Tide Gate Structural Condition Normal
☐  Tide Gate Structural Condition Other – Describe:

☐  Tide Gate Clean & Functioning Normal
☐  Tide Gate Obstructed / Open – Describe:

☐  CSO Signage in Good Condition
☐  CSO Signage Condition Other – Describe:

☐  DWO Occurring - Describe:

☐  Additional Comments:

MAINTENANCE ACTIVITIES

☐  No Maintenance Required
☐  Yes – Describe:

☐  Cityworks Service Request #

MAINTENANCE COMPLETED

☐  Yes - Date Maintenance Performed: ____________________

*The maximum allowable intrusion rate for CSS 001 is 33 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #    001    002    003    004

Date of Inspection Performed By 7/19/16

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: ____________________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe ____________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ____________________________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☑ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: ____________________________

☑ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: ____________________________

☑ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: ____________________________

☐ DWO Occurring - Describe: ____________________________

☐ Additional Comments: ____________________________

MAINTENANCE ACTIVITIES

☑ No Maintenance Required
☐ Yes – Describe: ____________________________

☐ Cityworks Service Request # ____________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log
CSS Outfall # □ 001  □ 002  □ 003  □ 004

Date of Inspection
Performed By

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: ________________________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe ________________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) _____________________

☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: ________________________________

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: ________________________________

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: ________________________________

☐ DWO Occurring - Describe: ________________________________

☐ Additional Comments: ________________________________

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe: ________________________________

☐ Cityworks Service Request # ________________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ________________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Date of Inspection Performed By 7/19/16

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ____________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ____________

*The maximum allowable intrusion rate for CSS 001 is 33 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By 7/19/18

[JOSH LEE]

(Hand & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:
   
☑ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe __________
   
☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) __________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☑ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: __________
   
☑ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: __________
   
☑ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: __________
   
☐ DWO Occurring – Describe: __________
   
☐ Additional Comments: __________

MAINTENANCE ACTIVITIES

☑ No Maintenance Required
☐ Yes – Describe: __________
   
☐ Cityworks Service Request # __________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: __________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By 7/26/16

PRINT & SIGN NAME

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☑ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☑ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☑ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☑ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log
CSS Outfall # □ 001  X 002  □ 003  □ 004

Date of Inspection Performed By 7/26/18

John Lee
(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: ___________________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: ___________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) _______
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: ___________________________

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: ___________________________

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: ___________________________

☐ DWO Occurring - Describe: ___________________________

☐ Additional Comments: ___________________________

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe: ___________________________

☐ Cityworks Service Request # ___________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ___________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #  □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By 7/26/16

[Signature]

(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) __________________

☐ Intrusion Rate within Manufacturer’s Specifications*

☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: __________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #  
☐ 001  ☐ 002  ☐ 003  ☑ 004

Date of Inspection Performed By: 7/26/16

(Print & Sign Name)

CONDITION OBSERVED

☒  Diversion Dam Structural Condition Normal
☐  Diversion Dam Structural Condition Other – Describe:

☒  Diversion Dam Clean & Functioning Normal
☐  Diversion Dam Debris Build-Up – Describe

☐  Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

☐  Intrusion Rate within Manufacturer’s Specifications*
☐  Intrusion Rate Not within Manufacturer’s Specifications*

☐  Tide Gate Structural Condition Normal
☒  Tide Gate Structural Condition Other – Describe:

☒  Tide Gate Clean & Functioning Normal
☐  Tide Gate Obstructed / Open – Describe:

☒  CSO Signage in Good Condition
☐  CSO Signage Condition Other – Describe:

☐  DWO Occurring - Describe:

☐  Additional Comments:

MAINTENANCE ACTIVITIES

☒  No Maintenance Required
☐  Yes – Describe:

☐  Cityworks Service Request #

MAINTENANCE COMPLETED

☐  Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #  001  002  003  004

Date of Inspection Performed By: 03/28/16

(John Lee) (Print & Sign Name)

**CONDITION OBSERVED**

- ✔️ Diversion Dam Structural Condition Normal
- □ Diversion Dam Structural Condition Other – Describe:

- ✔️ Diversion Dam Clean & Functioning Normal
- □ Diversion Dam Debris Build-Up – Describe:

- □ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) _______
- □ Intrusion Rate within Manufacturer’s Specifications*
- □ Intrusion Rate Not within Manufacturer’s Specifications*
- ✔️ Tide Gate Structural Condition Normal
- □ Tide Gate Structural Condition Other – Describe:

- ✔️ Tide Gate Clean & Functioning Normal
- □ Tide Gate Obstructed / Open – Describe:

- ✔️ CSO Signage in Good Condition
- □ CSO Signage Condition Other – Describe:

- □ DWO Occurring - Describe:

- □ Additional Comments:

**MAINTENANCE ACTIVITIES**

- ✔️ No Maintenance Required
- □ Yes – Describe:

- □ Cityworks Service Request #

**MAINTENANCE COMPLETED**

- □ Yes - Date Maintenance Performed: 

*The maximum allowable intrusion rate for CSS 001 is 72 gpm*
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By 6/2/18

(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring – Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSO 001 is 33 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 X 003 □ 004

Date of Inspection
Performed By 8/2/15

(Josh Lee) (Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By 8/9/16

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*

☑ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☑ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # 001 002 003 004

Date of Inspection Performed By 8/9/18

[Signature]
(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 33 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #: □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By: 8/9/18

(Print & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

☐ Intrusion Rate within Manufacturer’s Specifications*

☐ Intrusion Rate Not within Manufacturer’s Specifications*

☑ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☑ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By 8/9/16

(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: __________________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe __________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) __________________________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: __________________________

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: __________________________

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: __________________________

☐ DWO Occurring - Describe: __________________________

☐ Additional Comments: __________________________

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe: __________________________

☐ Cityworks Service Request # __________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: __________________________

*The maximum allowable intrusion rate for CS$ 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log
CSS Outfall #: □ 001 □ 002 □ 003 □ 004
Date of Inspection Performed By 6/9/18

JOSH LEE
(Print & Sign Name)

CONDITION OBSERVED
☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: __________________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: __________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ________________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: __________________________

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: __________________________

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: __________________________

☐ DWO Occurring - Describe: __________________________

☐ Additional Comments: __________________________

MAINTENANCE ACTIVITIES
☐ No Maintenance Required
☐ Yes – Describe: __________________________

☐ Cityworks Service Request # __________________________

MAINTENANCE COMPLETED
☐ Yes - Date Maintenance Performed: __________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By: 6/3/18

PRINT & SIGN NAME

CONDITION OBSERVED

☒ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: ____________________________

☒ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe ____________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) __________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☒ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: ____________________________

☒ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: ____________________________

☒ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: ____________________________

☐ DWO Occurring - Describe: ____________________________

☐ Additional Comments: ____________________________

MAINTENANCE ACTIVITIES

☒ No Maintenance Required
☐ Yes – Describe: ____________________________

☐ Cityworks Service Request # ____________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS #001 is 33 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By 6/23/19

Signed: [Signature]

Print & Sign Name

CONDITION OBSERVED
- [ ] Diversion Dam Structural Condition Normal
- [ ] Diversion Dam Structural Condition Other – Describe: ____________________________
- [ ] Diversion Dam Clean & Functioning Normal
- [ ] Diversion Dam Debris Build-Up – Describe: ____________________________
- [ ] Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ____________
- [ ] Intrusion Rate within Manufacturer’s Specifications*
- [ ] Intrusion Rate Not within Manufacturer’s Specifications*
- [ ] Tide Gate Structural Condition Normal
- [ ] Tide Gate Structural Condition Other – Describe: ____________________________
- [ ] Tide Gate Clean & Functioning Normal
- [ ] Tide Gate Obstructed / Open – Describe: ____________________________
- [ ] CSO Signage in Good Condition
- [ ] CSO Signage Condition Other – Describe: ____________________________
- [ ] DWO Occurring - Describe: ____________________________
- [ ] Additional Comments: ____________________________

MAINTENANCE ACTIVITIES
- [ ] No Maintenance Required
- [ ] Yes – Describe: ____________________________

Cityworks Service Request # ____________________________

MAINTENANCE COMPLETED
- [ ] Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS 001 is 33 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By 6/23/18

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

☐ Intrusion Rate within Manufacturer’s Specifications*

☐ Intrusion Rate Not within Manufacturer's Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 37 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) 
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By: 9/6/18

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate within Manufacturer's Specifications*
☐ Intrusion Rate Not within Manufacturer's Specifications*
☑ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☑ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☑ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By: 9/4/18

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES
☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED
☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #: □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By 9/6/16

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By: 6/6/18

PRINT & SIGN NAME)

CONDITION OBSERVED

[ ] Diversion Dam Structural Condition Normal

[ ] Diversion Dam Structural Condition Other – Describe: ________________________________________________

[ ] Diversion Dam Clean & Functioning Normal

[ ] Diversion Dam Debris Build-Up – Describe: __________________________________________________________

[ ] Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ____________________

[ ] Intrusion Rate within Manufacturer’s Specifications*

[ ] Intrusion Rate Not within Manufacturer’s Specifications*

[ ] Tide Gate Structural Condition Normal

[ ] Tide Gate Structural Condition Other – Describe: ________________________________________________

[ ] Tide Gate Clean & Functioning Normal

[ ] Tide Gate Obstructed / Open – Describe: __________________________________________________________

[ ] CSO Signage in Good Condition

[ ] CSO Signage Condition Other – Describe: __________________________________________________________

[ ] DWO Occurring - Describe: _____________________________________________________________________

[ ] Additional Comments: __________________________________________________________________________

MAINTENANCE ACTIVITIES

[ ] No Maintenance Required

[ ] Yes – Describe: _________________________________________________________________________________

[ ] Cityworks Service Request # __________________________

MAINTENANCE COMPLETED

[ ] Yes - Date Maintenance Performed: __________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #  [ ] 001  [ ] 002  [ ] 003  [ ] 004

Date of Inspection Performed By 8/29/18

(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe: ______________________________________

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe: ______________________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ______________________

☐ Intrusion Rate within Manufacturer’s Specifications*

☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe: ______________________________________

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe: ______________________________________

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe: ______________________________________

☐ DWO Occurring - Describe: ______________________________________

☐ Additional Comments: _______________________________________ 

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe: ______________________________________

☐ Cityworks Service Request # ____________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ____________________

*The maximum allowable intrusion rate for CSS #001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # 001

Date of Inspection Performed By: 6/29/19

(CONDITION OBSERVED)

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: [RED AND BLACK SPRAY PAINT ON SIGN, NEEDS TO BE REPLACED. PICTURE WAS TAKEN.]

☐ DWO Occurring - Describe:

☐ Additional Comments:

(MAINTENANCE ACTIVITIES)

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

(MAINTENANCE COMPLETED)

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises  
CSS Diversion Structure and Tide Gate Inspection Log  

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By 6/29/18

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe:

☐ Infiltration Observed - If So, Visually Estimated Infiltration Rate (Gal/Min)

☐ Infiltration Rate within Manufacturer's Specifications*

☐ Infiltration Rate Not within Manufacturer's Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable infiltration rate for CSS 001 is 33 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #: 001 002 003 004

Date of Inspection Performed By: 6/29/18

CONDITION OBSERVED

☒ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ____________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☒ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☒ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☒ No Maintenance Required
☐ Yes - Describe:

☐ Cityworks Service Request # ______________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By: 9/13/03

(Please & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) _________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*

☑ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☑ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request # ___________________

MAINTENANCE COMPLETED

□ Yes - Date Maintenance Performed: ____________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By 9/10/18

(Please print and sign name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe ____________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ____________________________

☐ Intrusion Rate within Manufacturer’s Specifications*

☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe: ____________________________

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe: ____________________________

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe: SIGN NEEDS TO BE CHANGED SIGN WILL BE REPLACE SOON

☐ DWO Occurring - Describe: ____________________________

☐ Additional Comments: ____________________________

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe: ____________________________

☐ Cityworks Service Request # ____________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By: 01/04/2023

CONDITON OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) _______

☐ Intrusion Rate within Manufacturer’s Specifications*

☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 004 is 32 ppm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By: 9/29/18

CONDITION OBSERVED
- Diversion Dam Structural Condition Normal
- Diversion Dam Structural Condition Other – Describe: ____________________________________________________________________________
- Diversion Dam Clean & Functioning Normal
- Diversion Dam Debris Build-Up – Describe ____________________________________________________________________________
- Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ____________________________________________________________________________
- Intrusion Rate within Manufacturer’s Specifications*
- Intrusion Rate Not within Manufacturer’s Specifications*
- Tide Gate Structural Condition Normal
- Tide Gate Structural Condition Other – Describe: ____________________________________________________________________________
- Tide Gate Clean & Functioning Normal
- Tide Gate Obstructed / Open – Describe: ____________________________________________________________________________
- CSO Signage in Good Condition
- CSO Signage Condition Other – Describe: ____________________________________________________________________________
- DWO Occurring - Describe: ____________________________________________________________________________
- Additional Comments: ____________________________________________________________________________

MAINTENANCE ACTIVITIES
- No Maintenance Required
- Yes – Describe: ____________________________________________________________________________

MAINTENANCE COMPLETED
- Yes - Date Maintenance Performed: ____________________________________________________________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By: 4/20/20

Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other - Describe: 

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up - Describe 

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) 
☐ Intrusion Rate within Manufacturer's Specifications*
☐ Intrusion Rate Not within Manufacturer's Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other - Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open - Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other - Describe:

☐ DWO Occurring - Describe: 

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes - Describe: 

☐ Cityworks Service Request # 

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: 

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By □ 10/06 □ (Print & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

☐ Intrusion Rate within Manufacturer’s Specifications*

☐ Intrusion Rate Not within Manufacturer’s Specifications*

☑ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☑ CSO Signage Condition Other – Describe: SIGNS ON THE WAY.

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☑ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # [ ] 001 [ ] 002 [X] 003 [ ] 004

Date of Inspection Performed By: [ ] 6/01/18

(Please print & sign name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If so, Visually Estimated Intrusion Rate (Gal/Min) ______

☐ Intrusion Rate within Manufacturer's Specifications*

☐ Intrusion Rate Not within Manufacturer's Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request # ____________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS 003 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☑ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By
10/19/96

PRINT & SIGN NAME

CONDITION OBSERVED
☐ □ Diversion Dam Structural Condition Normal
☐ □ Diversion Dam Structural Condition Other – Describe:

☐ □ Diversion Dam Clean & Functioning Normal
☐ □ Diversion Dam Debris Build-Up – Describe:

☐ □ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

☐ □ Intrusion Rate within Manufacturer's Specifications*
☐ □ Intrusion Rate Not within Manufacturer's Specifications*

☐ □ Tide Gate Structural Condition Normal
☐ □ Tide Gate Structural Condition Other – Describe:

☐ □ Tide Gate Clean & Functioning Normal
☐ □ Tide Gate Obstructed / Open – Describe:

☐ □ CSO Signage in Good Condition
☐ □ CSO Signage Condition Other – Describe:

☐ □ DWO Occurring - Describe:

☐ □ Additional Comments:

MAINTENANCE ACTIVITIES
☐ □ No Maintenance Required
☐ □ Yes – Describe:

☐ □ Cityworks Service Request # 

MAINTENANCE COMPLETED
☐ □ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By

10/18/18

(Print & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

☐ Intrusion Rate within Manufacturer’s Specifications*

☐ Intrusion Rate Not within Manufacturer’s Specifications*

☑ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☑ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☑ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log
CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By 10/19/18

(Print & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☑ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 12 gpm
CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: _____________________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: ________________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) _____________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: _____________________________

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: ________________________________

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: ________________________________

☐ DWO Occurring - Describe: _____________________________________________

☐ Additional Comments: __________________________________________________

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe: _______________________________________________________

☐ Cityworks Service Request # ________________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ____________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By 05/18

(Print & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: ____________________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe ____________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ____________________________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*

☑ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: ____________________________

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: ____________________________

☑ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: ____________________________

☐ DWO Occurring - Describe: ____________________________

☐ Additional Comments: ____________________________

MAINTENANCE ACTIVITIES

☑ No Maintenance Required
☐ Yes – Describe: ____________________________

☐ Cityworks Service Request # ____________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #  □ 001  □ 002  □ 003  □ 004

Date of Inspection Performed By 10/25/18

[Signature]

(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ______________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe: ______________________________

☐ Additional Comments: ______________________________

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request # ________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By: 10/2/18

(Name & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: ____________________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: ____________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ____________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: ____________________________

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: ____________________________

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: ____________________________

☐ DWO Occurring - Describe: ____________________________

☐ Additional Comments: ________________________________________________________________

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe: ____________________________

☐ Cityworks Service Request # ____________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By 10/25/18

(Initial & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe: ________________________________

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe: ________________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ______________

☐ Intrusion Rate within Manufacturer’s Specifications*

☐ Intrusion Rate Not within Manufacturer’s Specifications*

☑ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe: ________________________________

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe: ________________________________

☑ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe: ________________________________

☐ DWO Occurring - Describe: ________________________________

☐ Additional Comments: ________________________________

MAINTENANCE ACTIVITIES

☑ No Maintenance Required

☐ Yes – Describe: ________________________________

☐ Cityworks Service Request # ________________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ________________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises  
CSS Diversion Structure and Tide Gate Inspection Log  

CSS Outfall # ☑️ 001 ☐ 002 ☐ 003 ☐ 004  

Date of Inspection Performed By 11/1/18  
(Initial & Sign Name)

CONDITION OBSERVED

☑️ Diversion Dam Structural Condition Normal
☐  Diversion Dam Structural Condition Other – Describe: ____________________________

☐  Diversion Dam Clean & Functioning Normal
☐  Diversion Dam Debris Build-Up – Describe ____________________________

☐  Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) __________________
☐  Intrusion Rate within Manufacturer’s Specifications*
☐  Intrusion Rate Not within Manufacturer’s Specifications*

☑️ Tide Gate Structural Condition Normal
☐  Tide Gate Structural Condition Other – Describe: ____________________________

☐  Tide Gate Clean & Functioning Normal
☐  Tide Gate Obstructed / Open – Describe: ____________________________

☑️ CSO Signage in Good Condition
☐  CSO Signage Condition Other – Describe: ____________________________

☐  DWO Occurring - Describe: ____________________________

☐  Additional Comments: ____________________________

MAINTENANCE ACTIVITIES

☐  No Maintenance Required
☐  Yes – Describe: ____________________________

☐  Cityworks Service Request # ____________________________

MAINTENANCE COMPLETED

☐  Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #: ☐ 001 ☐ 002 ☐ 003 ☐ 004

Date of Inspection Performed By: 1/1/18

(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe: ____________________________

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe: ____________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) _________________

☐ Intrusion Rate within Manufacturer’s Specifications*

☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe: ____________________________

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe: ____________________________

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe: ____________________________

☐ DWO Occurring - Describe: ____________________________

☐ Additional Comments: ____________________________

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe: ____________________________

☐ Cityworks Service Request # ____________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #  □ 001  □ 002  □ 003  □ 004

Date of Inspection Performed By 11/1/18 [Signature]

(Print & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe: ________________________________

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe ________________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) __________________

☐ Intrusion Rate within Manufacturer’s Specifications*

☐ Intrusion Rate Not within Manufacturer’s Specifications*

☑ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe: ________________________________

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe: ________________________________

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe: ________________________________

☐ DWO Occurring – Describe: ________________________________

☐ Additional Comments: ________________________________

MAINTENANCE ACTIVITIES

☑ No Maintenance Required

☐ Yes – Describe: ________________________________

☐ Cityworks Service Request # ________________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ________________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By 11/1/18

(Print & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: ______________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: ______________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ______________________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*

☑ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: ______________________

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: ______________________

☑ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: ______________________

☐ DWO Occurring - Describe: ______________________

☐ Additional Comments: ______________________

MAINTENANCE ACTIVITIES

☑ No Maintenance Required
☐ Yes – Describe: ______________________

☐ Cityworks Service Request # ______________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ______________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
**CONDITION OBSERVED**

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<tr>
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<tr>
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<td>Tide Gate Clean &amp; Functioning Normal</td>
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**MAINTENANCE ACTIVITIES**

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<th>No Maintenance Required</th>
</tr>
</thead>
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<td>Yes – Describe: __________________________________</td>
</tr>
<tr>
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<td>Cityworks Service Request # ______________________</td>
</tr>
</tbody>
</table>

**MAINTENANCE COMPLETED**

|   | Yes - Date Maintenance Performed: ____________________ |

*The maximum allowable intrusion rate for CSS 001 is 32 gpm*
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By: 1/8/18

Condition Observed

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: ____________________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: ____________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) _______________________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: ____________________________

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: ____________________________

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: ____________________________

☐ DWO Occurring - Describe: ____________________________

☐ Additional Comments: ____________________________

Maintenance Activities

☐ No Maintenance Required
☐ Yes – Describe: ____________________________

☐ Cityworks Service Request # ____________________________

Maintenance Completed

☐ Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By 11/8/18

CONDION OBSERVED

☑ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe: 

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) _____________

☐ Intrusion Rate within Manufacturer’s Specifications*

☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☑ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request # ________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By: 11/8/16

(Print & Sign Name)

CONDITION OBSERVED

☒ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☒ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*

☒ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☒ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☒ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☒ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # [ ] 001  [ ] 002  [ ] 003  [ ] 004

Date of Inspection Performed By: 11/21/16

(Print & Sign Name)

CONDITION OBSERVED

☒ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other - Describe: ______________________________

☒ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up - Describe: ______________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) _________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*

☒ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other - Describe: ______________________________

☒ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open - Describe: ______________________________

☒ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: ______________________________

☐ DWO Occurring - Describe: _________________________________________________

☐ Additional Comments: ______________________________________________________

MAINTENANCE ACTIVITIES

☒ No Maintenance Required
☐ Yes – Describe: ___________________________________________________________

☐ Cityworks Service Request # ______________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ______________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log
CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By 1/23/18
(Print & Sign Name)

CONDITION OBSERVED
☒ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: ____________________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe ____________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ______________________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☒ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: ____________________________

☒ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: ____________________________

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: ____________________________

☐ DWO Occurring - Describe: ____________________________

☐ Additional Comments: ____________________________

MAINTENANCE ACTIVITIES
☒ No Maintenance Required
☐ Yes – Describe: ____________________________

☐ Cityworks Service Request # ____________________________

MAINTENANCE COMPLETED
☐ Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By 1/21/18

[Signature]

(condition)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By 1/21/16

Print & Sign Name

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☑ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☑ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☑ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 12 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By


(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

☐ Intrusion Rate within Manufacturer’s Specifications*

☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) __________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request # ________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By: 1/29/18

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: ________________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: ________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ________________________
☐ Intrusion Rate within Manufacturer's Specifications*
☐ Intrusion Rate Not within Manufacturer's Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: ________________________

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: ________________________

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: ________________________

☐ DWO Occurring - Describe: ________________________

☐ Additional Comments: ________________________

MAINTENANCE ACTIVITIES

☑ No Maintenance Required
☐ Yes – Describe: ________________________

☐ Cityworks Service Request #: ________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By: 1/09/08

(print & sign name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: ________________________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: ________________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ________________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: ________________________________

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: ________________________________

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: ________________________________

☐ DWO Occurring - Describe: ________________________________

☐ Additional Comments: ________________________________

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe: ________________________________

☐ Cityworks Service Request # ________________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ________________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By: 12/6/18

(Print & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☑ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ____________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By 12/6/18

(Please Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)

☐ Intrusion Rate within Manufacturer’s Specifications*

☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe:

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min)
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe:

☐ Cityworks Service Request #

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed:

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall #: □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By: 12/6/18

(Brain & Sign Name)

CONDITION OBSERVED

☑ Diversion Dam Structural Condition Normal
☑ Diversion Dam Clean & Functioning Normal
☒ Diversion Dam Structural Condition Other – Describe: ____________________________
☒ Diversion Dam Debris Build-Up – Describe ____________________________
☒ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ____________________________
☑ Intrusion Rate within Manufacturer’s Specifications*
☑ Intrusion Rate Not within Manufacturer’s Specifications*
☑ Tide Gate Structural Condition Normal
☑ Tide Gate Obstructed / Open – Describe: ____________________________
☑ Tide Gate Structural Condition Other – Describe: ____________________________
☑ Tide Gate Clean & Functioning Normal
☑ CSO Signage in Good Condition
☑ CSO Signage Condition Other – Describe: ____________________________
☑ DWO Occurring - Describe: ____________________________
☑ Additional Comments: ____________________________

MAINTENANCE ACTIVITIES

☑ No Maintenance Required
☑ Yes – Describe: ____________________________

☐ Cityworks Service Request # ____________________________

MAINTENANCE COMPLETED

☑ Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # 001  002  003  004

Date of Inspection Performed By 12/1/18 (Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: ____________________________

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe: ____________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ____________________________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*
☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe: ____________________________

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe: ____________________________

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe: ____________________________

☐ DWO Occurring - Describe: ____________________________

☐ Additional Comments: ____________________________

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe: __________________________________________

☐ Cityworks Service Request # ____________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: __________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

Date of Inspection Performed By 12/11/18

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal
☐ Diversion Dam Structural Condition Other – Describe: 

☐ Diversion Dam Clean & Functioning Normal
☐ Diversion Dam Debris Build-Up – Describe:

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) __________________________
☐ Intrusion Rate within Manufacturer’s Specifications*
☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal
☐ Tide Gate Structural Condition Other – Describe:

☐ Tide Gate Clean & Functioning Normal
☐ Tide Gate Obstructed / Open – Describe:

☐ CSO Signage in Good Condition
☐ CSO Signage Condition Other – Describe:

☐ DWO Occurring - Describe:

☐ Additional Comments:

MAINTENANCE ACTIVITIES

☐ No Maintenance Required
☐ Yes – Describe: __________________________

☐ Cityworks Service Request # ______________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: __________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises
CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # 001 002 003 004

Date of Inspection Performed By

(CONDITION OBSERVED)

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe: ____________________________

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe ____________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) ________________

☐ Intrusion Rate within Manufacturer’s Specifications*

☐ Intrusion Rate Not within Manufacturer’s Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe: ____________________________

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe: ____________________________

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe: ____________________________

☐ DWO Occurring - Describe: ____________________________

☐ Additional Comments: ____________________________

(MAINTENANCE ACTIVITIES)

☐ No Maintenance Required

☐ Yes – Describe: ____________________________

☐ Cityworks Service Request # ________________

(MAINTENANCE COMPLETED)

☐ Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
Alexandria Renew Enterprises

CSS Diversion Structure and Tide Gate Inspection Log

CSS Outfall # □ 001 □ 002 □ 003 □ 004

Date of Inspection Performed By

[Signature]

(Print & Sign Name)

CONDITION OBSERVED

☐ Diversion Dam Structural Condition Normal

☐ Diversion Dam Structural Condition Other – Describe: ____________________________

☐ Diversion Dam Clean & Functioning Normal

☐ Diversion Dam Debris Build-Up – Describe: ____________________________

☐ Intrusion Observed - If So, Visually Estimated Intrusion Rate (Gal/Min) _______________________

☐ Intrusion Rate within Manufacturer's Specifications*

☐ Intrusion Rate Not within Manufacturer's Specifications*

☐ Tide Gate Structural Condition Normal

☐ Tide Gate Structural Condition Other – Describe: ____________________________

☐ Tide Gate Clean & Functioning Normal

☐ Tide Gate Obstructed / Open – Describe: ____________________________

☐ CSO Signage in Good Condition

☐ CSO Signage Condition Other – Describe: ____________________________

☐ DWO Occurring - Describe: ____________________________

☐ Additional Comments: ____________________________

MAINTENANCE ACTIVITIES

☐ No Maintenance Required

☐ Yes – Describe: ____________________________

☐ Cityworks Service Request # ____________________________

MAINTENANCE COMPLETED

☐ Yes - Date Maintenance Performed: ____________________________

*The maximum allowable intrusion rate for CSS 001 is 32 gpm
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Appendix E: Sewer Rehabilitation and Pollution Abatement 10-Year CIP
SANITARY SEWERS
Sanitary Sewers
Approved FY 2019 – FY 2028 Capital Improvement Program
Summary of Projects

Note: Projects with $0 total funding are active capital projects funded in prior CIP's that do not require additional resources.

<table>
<thead>
<tr>
<th>Project Description</th>
<th>FY 2019</th>
<th>FY 2020</th>
<th>FY 2021</th>
<th>FY 2022</th>
<th>FY 2023</th>
<th>FY 2024</th>
<th>FY 2025</th>
<th>FY 2026</th>
<th>FY 2027</th>
<th>FY 2028</th>
</tr>
</thead>
<tbody>
<tr>
<td>AlexRenew Wastewater Treatment Plant Capacity</td>
<td>0</td>
<td>11,070,000</td>
<td>11,400,000</td>
<td>11,750,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>34,220,000</td>
</tr>
<tr>
<td>Citywide Sewerhed Infiltration &amp; Inflow</td>
<td>0</td>
<td>3,075,000</td>
<td>2,850,000</td>
<td>4,000,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9,920,000</td>
</tr>
<tr>
<td>Combined Sewer Assessment &amp; Rehabilitation</td>
<td>3,700,000</td>
<td>2,550,000</td>
<td>2,550,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8,800,000</td>
</tr>
<tr>
<td>Combined Sewer Outfall (001 - 004)</td>
<td>25,000,000</td>
<td>55,000,000</td>
<td>55,000,000</td>
<td>100,000,000</td>
<td>100,000,000</td>
<td>40,000,000</td>
<td>10,000,000</td>
<td>0</td>
<td>0</td>
<td>385,000,000</td>
</tr>
<tr>
<td>Combined Sewer Separation Projects</td>
<td>0</td>
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<td>300,000</td>
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<td>600,000</td>
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<tr>
<td>Combined Sewer System (CSS) Permit Compliance</td>
<td>300,000</td>
<td>300,000</td>
<td>300,000</td>
<td>300,000</td>
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<td>300,000</td>
<td>300,000</td>
<td>300,000</td>
<td>300,000</td>
<td>3,000,000</td>
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<tr>
<td>Four Mile Run Sanitary Sewer Repair</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Holmes Run Trunk Sewer</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Reconstructions &amp; Extensions of Sanitary Sewers</td>
<td>900,000</td>
<td>900,000</td>
<td>900,000</td>
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<td>900,000</td>
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</tr>
<tr>
<td>Sanitary Sewers Total</td>
<td>29,900,000</td>
<td>73,195,000</td>
<td>73,600,000</td>
<td>117,250,000</td>
<td>101,500,000</td>
<td>41,800,000</td>
<td>11,500,000</td>
<td>1,500,000</td>
<td>1,800,000</td>
<td>1,800,000</td>
</tr>
</tbody>
</table>

Sanitary Sewers Total: 453,845,000
## Sanitary Sewers Ten-Year Plan
### Approved FY 2019 – FY 2028 Capital, Operating and Debt Service

<table>
<thead>
<tr>
<th>Sanitary Sewer Rate</th>
<th>FY 2019</th>
<th>FY 2020</th>
<th>FY 2021</th>
<th>FY 2022</th>
<th>FY 2023</th>
<th>FY 2024</th>
<th>FY 2025</th>
<th>FY 2026</th>
<th>FY 2027</th>
<th>FY 2028</th>
<th>Total FY 19-28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanitary Sewer Rate ($ per 1,000 gallons)</td>
<td>$1.82</td>
<td>$2.28</td>
<td>$3.17</td>
<td>$4.44</td>
<td>$6.00</td>
<td>$7.11</td>
<td>$7.71</td>
<td>$7.63</td>
<td>$7.41</td>
<td>$7.26</td>
<td></td>
</tr>
<tr>
<td>Proposed Rate Increase</td>
<td>25.0%</td>
<td>39.5%</td>
<td>40.0%</td>
<td>35.0%</td>
<td>18.5%</td>
<td>8.5%</td>
<td>-1.0%</td>
<td>-3.0%</td>
<td>-2.0%</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>New Sanitary Sewer Rate</td>
<td>$2.28</td>
<td>$3.17</td>
<td>$4.44</td>
<td>$6.00</td>
<td>$7.11</td>
<td>$7.71</td>
<td>$7.63</td>
<td>$7.41</td>
<td>$7.26</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Revenues

<table>
<thead>
<tr>
<th>FY 2019</th>
<th>FY 2020</th>
<th>FY 2021</th>
<th>FY 2022</th>
<th>FY 2023</th>
<th>FY 2024</th>
<th>FY 2025</th>
<th>FY 2026</th>
<th>FY 2027</th>
<th>FY 2028</th>
<th>Total FY 19-28</th>
</tr>
</thead>
<tbody>
<tr>
<td>$22,138,600</td>
<td>$30,111,263</td>
<td>$35,949,461</td>
<td>$39,297,704</td>
<td>$39,196,512</td>
<td>$38,305,772</td>
<td>$37,821,204</td>
<td>$38,104,863</td>
<td>$37,594,461</td>
<td>$37,000,000</td>
<td></td>
</tr>
<tr>
<td>$30,111,263</td>
<td>$35,949,461</td>
<td>$39,297,704</td>
<td>$39,196,512</td>
<td>$38,305,772</td>
<td>$37,821,204</td>
<td>$38,104,863</td>
<td>$37,594,461</td>
<td>$37,000,000</td>
<td>$36,500,000</td>
<td></td>
</tr>
<tr>
<td>$35,949,461</td>
<td>$39,297,704</td>
<td>$39,196,512</td>
<td>$38,305,772</td>
<td>$37,821,204</td>
<td>$38,104,863</td>
<td>$37,594,461</td>
<td>$37,000,000</td>
<td>$36,500,000</td>
<td>$36,000,000</td>
<td></td>
</tr>
<tr>
<td>$39,297,704</td>
<td>$39,196,512</td>
<td>$38,305,772</td>
<td>$37,821,204</td>
<td>$38,104,863</td>
<td>$37,594,461</td>
<td>$37,000,000</td>
<td>$36,500,000</td>
<td>$36,000,000</td>
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</tr>
<tr>
<td>$39,196,512</td>
<td>$38,305,772</td>
<td>$37,821,204</td>
<td>$38,104,863</td>
<td>$37,594,461</td>
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### Subtotal, Operating Costs

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Sanitary Sewers Ten-Year Plan  
Approved FY 2019 – FY 2028 Capital, Operating and Debt Service  
(continued)

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*Project costs are split 50/50 between Sanitary Sewer GO Bonds and the Stormwater Utility Fund
**AlexRenew Wastewater Treatment Plant Capacity**

**Document Subsection:** Sanitary Sewers  
**Managing Department:** Department of Transportation and Environmental Services  
**Project Location:** 1500 Eisenhower Ave.  
**Reporting Area:** Southwest Quadrant  
**Primary Strategic Theme:** Theme 8: Environmental Sustainability  
**Estimate Useful Life:** 21 - 25 Years

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**PROJECT DESCRIPTION & JUSTIFICATION**

The City's Department of Planning and Zoning (P&Z) has developed growth forecasts for build-out conditions (post year 2040) as presented in the Sanitary Sewer Master Plan. Based on these forecasts, the City is projected to exceed its wastewater allocation at the Alexandria Renew Enterprises (AlexRenew) Water Resource Recovery Facility by approximately 4 million gallons per day (mgd) beginning sometime after 2040.

AlexRenew has indicated that their facility can be expanded/upgraded to treat this additional 4 mgd at a total capital cost of $34.2 million (increased for inflation). This cost is based on hydraulically expanding the plant at the same time as other anticipated upgrades are needed (as existing process equipment reaches the end of its useful life). Although the need for an additional 4 mgd is not anticipated until after 2040, it would be more cost-effective to perform the hydraulic expansion while other upgrades are occurring based on the timeline provided by AlexRenew.

The costs provided do not include any additional nutrient (phosphorous and nitrogen) loads associated with these flows, which the City will reach around 2040. Options for addressing these added nutrient loads have been identified in the Sanitary Sewer Master Plan and will continue to be evaluated. Funding for this project is not planned until FY 2020 – 2022. Recent discussions with AlexRenew have indicated that flows are increasing at their wastewater treatment facility at a lower rate than what was projected in the Sanitary Sewer Master Plan. However, development/redevelopment projections may need to be adjusted in flow models to account for changes in development densities in amendments to several small area plans. The City is continuing to work with AlexRenew to monitor the flows at the treatment facility.

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**EXTERNAL OR INTERNAL ADOPTED PLAN OR RECOMMENDATION**

Sanitary Sewer Master Plan

**ADDITIONAL OPERATING IMPACTS**

No additional operating impacts identified at this time.
PROJECT DESCRIPTION & JUSTIFICATION

Portions of the sanitary sewer system located in the City are aging, deteriorated and require maintenance. During wet weather, infiltration and inflow into the sanitary sewers can result in over-capacity conditions that cause overflows into the environment or customers’ basements. This CIP program provides for evaluation, remediation and rehabilitation of infiltration/inflow and deficient conditions for the sanitary sewer system across the entire city.

Rehabilitation of sanitary sewers and manholes in the Holmes Run Sewersheds, which impacts the Alexandria West, Landmark/Van Dorn West, and Seminary Hill/Strawberry Hill areas will be completed in FY 2018. Following completion of the rehabilitation projects, post-construction flow monitoring will be conducted beginning in FY 2018 through FY 2019 to assess the amount of infiltration and inflow removed as a result of the rehabilitation. In addition, this program will be phased into broader infrastructure issues related to infiltration and inflow across the entire sanitary sewer system to ensure dependable service in the future.

Completion of this project will help mitigate sanitary sewer overflows. Additionally, it will improve the City’s sanitary sewer infrastructure and extend the infrastructure’s useful life by reducing the potential of pipe collapse and other emergency repairs.

EXTERNAL OR INTERNAL ADOPTED PLAN OR RECOMMENDATION

Sanitary Sewer Master Plan

ADDITIONAL OPERATING IMPACTS

No additional operating impacts identified at this time.

Changes from Prior Year CIP

Planned funding for FY 2019 was eliminated; sufficient funding is available for the project’s current needs.
## COMBINED SEWER ASSESSMENT & REHABILITATION

**Document Subsection:** Sanitary Sewers  
**Managing Department:** Department of Transportation and Environmental Services  
**Project Location:** Old Town CSO Area  
**Reporting Area:** Old Town  
**Primary Strategic Theme:** Theme 8: Environmental Sustainability  
**Estimate Useful Life:** 30+ Years

### Combined Sewer Assessment & Rehabilitation

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<th>C</th>
<th>D</th>
<th>E</th>
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<th>J</th>
<th>K</th>
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| **Additional Operating Impact** | 0 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0

### Changes from Prior Year CIP

No changes from prior CIP.

### Project Description & Justification

This project provides for the condition assessment of sewers in the combined sewer service area in Old Town and remediation of structurally deficient sewers.

The City will perform condition assessments including cleaning and televising lines, assessing information to determine condition of lines, and determining if rehabilitation is needed. Structurally deficient sewers will be identified, and the results of the field work will be evaluated to develop remediation projects which are expected to include the relining of sewers and manhole repairs. Project funding totals $8.8 million.

In addition to the health and environmental benefits of this project, completion of this project will repair and renew the City’s sewer infrastructure, extend the infrastructure’s useful life, and reduce the number of pipe collapses and other emergency repairs.

### External or Internal Adopted Plan or Recommendation

N/A

### Additional Operating Impacts

No additional operating impacts identified at this time.
Project Description & Justification

As part of the FY 2018 Sanitary Sewer Ten-Year Plan, $370.2 million was added to the CIP to comply with legislation passed by the 2017 Virginia General Assembly which requires the City to accelerate its efforts to address combined sewer discharges from all four outfalls in the City. The bill mandates construction for each outfall be completed no later than July 1, 2025. Prior to this legislation, in December 2016, the City had submitted a Long Term Control Plan Update (LTCPU) to meet permit requirements for its combined sewer system (CSS) to the Virginia Department of Environmental Quality (VDEQ). VDEQ required an update due to new regulatory requirements related to the Hunting Creek Bacteria Total Maximum Daily Load (TMDL). The update required significant reductions in combined sewer discharges from three of the City’s four outfalls (CSO-002/003/004) to be implemented no later than 2035. The LTCPU also provided planning measures to address the fourth remaining outfall (CSO-001). The legislation passed by the General Assembly in 2017 supersedes the LTCPU submitted by the City by significantly accelerating the required completion time.

The funding in the Approved FY 2019 – FY 2028 CIP reflects preliminary project costs (in future dollars) and timing that would be necessary to meet the State requirement of completing construction on all four outfalls no later than July 1, 2025. The project cost will be refined as project planning continues.

The FY2019 Sanitary Sewer Plan is being updated in order to merge two projects together – Combined Sewer Outfall (001-004) and the Wet Weather Management Facility, as both address the City’s CSO and wet weather requirements. As the Wet Weather Management Facility is an individual component of the overall CSO program, it is proposed that funding from this project ($17.75 million from the FY2018-2027 CIP) be included with the Combined Sewer Outfall (001-004) project and that the Wet Weather Management Facility be removed from the CIP in FY2020.

The City is assuming both interjurisdictional contributions ($53.8 million) from Fairfax County and 20% State aid ($77 million). The cities of Richmond and Lynchburg received significant state aid to help offset a portion of their CSO project costs. Despite these offsetting funding sources, the City will still need to consider significant year-over-year double digit increases in the Sanitary Sewer Maintenance and Capital Investment fee to fund this project on the State mandated timeline. The adopted Commonwealth of Virginia biennial budget for FY 2019 through FY 2020 did not contain CSO funding for Alexandria. The City will seek the start of state CSO funding from the Governor and General Assembly in 2019.

(Continued on next page)
While this CIP reflects costs to address all four outfalls as a City financed and constructed project, the City is currently in the process of transferring the outfalls to AlexRenew to finance and construct the CSO mitigation projects. The CSO Outfall Transfer Agreement was completed and signed by City (aka the Alexandria Sanitation Authority which is a City created rate-payer funded public body which operates the City’s advanced waste water treatment plant) and AlexRenew on May 1, 2018. This agreement states that AlexRenew will own the CSO outfalls and will be responsible for the construction, financing and ownership of the infrastructure proposed in the Long Term Control Plan Update (LTCPU). The LTCPU was submitted to VDEQ on May 4, 2018 and was a joint submission between the City and AlexRenew. The outfall transfer between the City and AlexRenew was finalized at the June 23rd City Council Public Hearing. The City and AlexRenew received a letter from VDEQ stating that AlexRenew will become the responsible party for all CSO permit conditions and requirements effective July 1, 2018. It is anticipated that VDEQ will approve the LTCPU around this time. With the VDEQ approval, AlexRenew will take over the CSO mitigation project including largely funding, out of to-be-issued rate-payer funded revenue bonds, the $385 million needed for this CSO mitigation project.

As part of the FY 2020 CIP development, the City will update its Sanitary Sewer capital program to reflect this change in ownership of the outfalls, the related capital projects, and the revised funding plan. This will reduce the City’s future sanitary sewer CIP project dollar totals significantly.

<table>
<thead>
<tr>
<th>EXTERNAL OR INTERNAL ADOPTED PLAN OR RECOMMENDATION</th>
<th>ADDITIONAL OPERATING IMPACTS</th>
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<tr>
<td>Sanitary Sewer Master Plan; City's Long Term Control Plan Update for the Combined Sewer System</td>
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Combined Sewer Separation Projects

**DOCUMENT SUBSECTION:** Sanitary Sewers  
**MANAGING DEPARTMENT:** Department of Transportation and Environmental Services  
**PROJECT LOCATION:** Old Town CSO Area  
**REPORTING AREA:** Old Town/Old Town North/Braddock Metro  
**PRIMARY STRATEGIC THEME:** Theme 8: Environmental Sustainability  
**PROJECT CATEGORY:** 3  
**ESTIMATE USEFUL LIFE:** 30+ Years

**PROJECT DESCRIPTION & JUSTIFICATION**

This project provides funding for the City to proactively separate small areas of combined sewers. Areas of opportunity exist for separation of combined sewer systems where construction of additional sewers a few blocks away due to new development may result in completing the separation of a larger area. Opportunities may also arise in conjunction with redevelopment in the combined sewer area.

In 2011, City staff identified portions of the King and West combined sewershed where separation may be achieved by disconnecting sanitary sewers from the combined sewer system and reconnecting to the Potomac Yard Trunk Sewer, which was designed to accommodate separated sanitary flow from this area. This project (Payne and Fayette Sewer Separation Project) was completed in FY2017 and resulted in the separation of approximately 90 sanitary laterals from the combined sewer system (CSS), meeting one of the requirements of the City’s 2013-2018 CSS permit and decreasing the bacteria loading into Hooffs Run during rain events.

Additional funding was added to the FY 2018-2027 CIP for sewer separation. The City is currently in the process of identifying other areas of opportunity for sewer separation.

For the City to stay in compliance with future CSS permits, overflows from the Combined Sewer System need to be mitigated. This is primarily because of new regulatory requirements of the bacteria total Maximum Daily Load (TMDL) for Hunting Creek as well as new state legislation (see “Combined Sewer Outfall 001-004”). The CIP includes $385 million in planned funding to meet the new legislation. In the current CSS permit cycle (2013-2018), the City has been required to continue implementation of Nine Minimum Controls, along with other initiatives including implementation of the Area Reduction Plan, outfall improvements, green infrastructure, and select City-led sewer separation projects. The City will also need to continue extensive monitoring, sampling, inspections, and reporting.

**EXTERNAL OR INTERNAL ADOPTED PLAN OR RECOMMENDATION**

T&ES Strategic Plan 2012-2015: Key Result Area III: Meet or exceed state or federal requirements of City's separate storm sewer and combined sewer system permits and maintain compliance with these environmental permits; Consistent with Eco-City Charter (Water Resources) and with Eco-City Action Plan, Chapter 4, Goal 4: Eliminate the harmful impact of combined sewer systems in the long-term, and minimize them in the short-term; City's Long Term Control Plan Update for the Combined Sewer System

**ADDITIONAL OPERATING IMPACTS**

No additional operating impacts identified at this time.
COMBINED SEWER SYSTEM (CSS) PERMIT COMPLIANCE

DOCUMENT SUBSECTION: Sanitary Sewers
MANAGING DEPARTMENT: Department of Transportation and Environmental Services
PROJECT LOCATION: Old Town CSO Area
REPORTING AREA: Old Town
PRIMARY STRATEGIC THEME: Theme 8: Environmental Sustainability
ESTIMATE USEFUL LIFE: Varies

PROJECT CATEGORY: 1

No changes from prior CIP.

PROJECT DESCRIPTION & JUSTIFICATION

The City’s combined sewer system (sanitary and storm sewers) comprises approximately 540 acres located in the Old Town area. During certain wet weather events, flows in excess of the sewer pipes carrying capacity are discharged into receiving waterways via one of four combined sewer outfalls. These discharges are permitted by the Virginia Department of Environmental Quality (VDEQ). The Hunting Creek Bacteria Total Maximum Daily Load (TMDL) requires reductions in these discharges from 3 of the 4 permitted outfalls (002, 003, and 004). The Virginia General Assembly in 2017 mandated reductions in the fourth outfall (001).

Funding ensures compliance with Commonwealth and Federal statutes and permits, and will continue to improve the City’s combined sewer system. For the City to stay in compliance with future CSS permits, overflows from the Combined Sewer System need to be mitigated. This is primarily because of new regulatory requirements of the bacteria TMDL for Hunting Creek, along with the 2017 legislation. The CIP includes $385 million in planned funding to meet these mandates.

In the current CSS permit cycle (2013-2018), along with submitting the Long Term Control Plan Update (LTCPU) to VDEQ for review and approval, the City is required to continue implementation of Nine Minimum Controls, along with other initiatives including implementation of the Area Reduction Plan (sewer separation as a condition of redevelopment), outfall improvements, green infrastructure, and select City-led sewer separation projects. The City will also need to continue extensive monitoring, sampling, inspections, and reporting.

An application for permit renewal was filed in February 2018, and future funding needs for this project is contingent upon requirements of the new permit.

Approval and implementation of the LTCPU for the combined sewer system, along with other permit requirements, will enhance the ecological integrity of waterways by maintaining and improving storm water and sanitary infrastructure and stream system health to minimize environmental impacts.

EXTERNAL OR INTERNAL ADOPTED PLAN OR RECOMMENDATION

TES Strategic Plan: Key Result Area - Meet or exceed state federal requirements of the City’s MS4 and combined sewer permits; Eco-City Charter

ADDITIONAL OPERATING IMPACTS

No additional operating impacts identified at this time.

Combined Sewer System (CSS) Permit Compliance

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Four Mile Run Sanitary Sewer Repair

Expenditure Budget

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Financing Plan

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Additional Operating Impact

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Changes from Prior Year CIP

No changes from prior CIP.

Project Description & Justification

This project will fund the rehabilitation of the Four Mile Run sanitary sewer. During field inspections of the Four Mile Run Inflow and Infiltration project in FY 2001, surcharged manholes with significant solids were encountered along the 36-inch diameter trunk sewer upstream of the Four Mile Run pump station. Efforts to clean the trunk sewer were unsuccessful due to the heavy solids volume and compaction in the sewer. In FY 2008, a specialty contractor successfully removed the solids and an inspection and condition assessment was completed. Based on the condition assessment of the trunk sewer following the removal of the solids, rehabilitation is necessary.

Total project costs are estimated at $2.5 million, and include planning, design and engineering, construction management, and construction. The project is currently in the construction phase and will be closed out in FY 2019.

Completion of this project will improve the City’s sanitary sewer infrastructure and extend its useful life, reducing potential pipe collapse and other emergency repairs.

External or Internal Adopted Plan or Recommendation

Sanitary Sewer Master Plan

Additional Operating Impacts

No additional operating impacts identified at this time.
HOLMES RUN TRUNK SEWER

DOCUMENT SUBSECTION: Sanitary Sewers
PROJECT LOCATION: AlexRenew Plant to the City/Fairfax Border
MANAGING DEPARTMENT: Department of Transportation and Environmental Services
REPORTING AREA: Landmark/Van Dorn
PRIMARY STRATEGIC THEME: Theme 8: Environmental Sustainability
ESTIMATE USEFUL LIFE: 30+ Years

PROJECT CATEGORY: 3

CHANGES FROM PRIOR YEAR CIP
No changes from prior CIP.

PROJECT DESCRIPTION & JUSTIFICATION

This project provides for an increase in capacity in the Holmes Run Trunk Sewer line, which is owned and operated by Alexandria Renew Enterprises (AlexRenew). Both the City and Fairfax County send wastewater flows to this sewer and share in the capacity of this sewer. Increased capacity is required to support development occurring in the Eisenhower Valley, as well as future development and redevelopment in the West End. Engineering studies indicated that lining the existing sewer with specialized materials would address some capacity problems. In 2008, Phase I of this project included relining the western portion of the trunk sewer from I-395 to Cameron Run. Additional engineering and analysis has determined that pipe lining alone will not increase capacity issues specifically related to wet weather sufficiently in the Phase II – East Eisenhower section. A study has been completed that recommends the construction of a Wet Weather Management Facility to address wet weather capacity issues in the East Eisenhower area and to prevent basement back-ups and sanitary sewer overflows. This wet weather management strategy was later integrated into the City’s Long Term Control Plan Update for controlling combined sewer discharges from the two combined sewer outfalls located in Hooffs Run.

The City has completed discussions with AlexRenew and Fairfax County and developed a cost share agreement for proposed wet weather and combined sewer facilities. Engineering analysis between the City, Fairfax County, and AlexRenew was completed in FY 2017 which evaluated capacity issues in the Holmes Run Trunk Sewer upstream of I-395, which provided two recommendations for addressing the remaining capacity issues in this sewer, including (1) construction of a storage tank in the Dowden Terrace sewershed in Fairfax County and (2) enlargement of an existing parallel Fairfax County Holmes Run Sewer to divert flows from the AlexRenew Holmes Run Trunk Sewer.

A total of $9.0 million from the sanitary sewer fund has been budgeted in prior fiscal years for this project. Following the cost share agreement on the wet weather and combined sewer facilities that will address wet weather capacity issues in the Eisenhower Valley, it is anticipated that the City, County and AlexRenew will begin discussions regarding remaining capacity issues on the Holmes Run Trunk Sewer. Depending on the outcome of these discussions, additional funding may be required in future years for both design and construction.

Completion of this project will improve the City’s sanitary sewer infrastructure, which will help mitigate any potential sanitary sewer overflows during periods of wet weather. Additionally, the project will improve the City’s readiness for accommodating quality economic growth.

EXTERNAL OR INTERNAL ADOPTED PLAN OR RECOMMENDATION
Sanitary Sewer Master Plan

ADDITIONAL OPERATING IMPACTS
No additional operating impacts identified at this time.
**Reconstructions & Extensions of Sanitary Sewers**

**Document Subsection:** Sanitary Sewers  
**Managing Department:** Department of Transportation and Environmental Services  
**Project Location:** Citywide  
**Reporting Area:** Citywide  
**Primary Strategic Theme:** Theme 8: Environmental Sustainability  
**Estimate Useful Life:** 30+ Years

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**Changes from Prior Year CIP**

No changes from prior CIP.

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**Project Description & Justification**

This project provides for the construction of new sewer mains, the replacement and rehabilitation of old lines as needed, repairs to City streets disturbed by sewer line repairs, and reconstruction and funds for the City’s share of the cost of sewer extensions required for development.

Prior year balances along with annual funding in FY 2019 will be utilized to fund multiple projects in this request. Several projects are in early planning stages, while others are currently under design and construction. Obstacles to construction may include the moving of buried utility lines, such as power, water, and gas lines by the various utility owners that if not moved would interfere with the construction.

Projects currently under study/design and scheduled for construction in FY 2019 include:

- Beauregard Street Sanitary Sewer Construction (included with King & Beauregard street intersection improvement project)
- North Alfred Sewer Replacement
- Wheeler Avenue Sewer Replacement
- Royal Street Sewer Relocation Project
- Fillmore Street Sewer Replacement Project
- Rucker Place Sewer Replacement/Rehabilitation

Completion of these projects improves the City’s sanitary sewer infrastructure while reducing the frequency of unplanned repairs due to deferred maintenance.

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**Expenditure Budget & Financing**

| A (B + M) | B | C | D | E | F | G | H | I | J | K | L | M (LC) |
|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total    | 22,692,959 | 13,692,959 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 9,000,000 |
| Through 2018 | 13,692,959 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 9,000,000 |
| FY 2019   | 22,692,959 | 13,692,959 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 9,000,000 |
| FY 2020   | 13,692,959 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 9,000,000 |
| FY 2021   | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 9,000,000 |
| FY 2022   | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 9,000,000 |
| FY 2023   | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 9,000,000 |
| FY 2024   | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 9,000,000 |
| FY 2025   | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 9,000,000 |
| FY 2026   | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 9,000,000 |
| FY 2027   | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 9,000,000 |
| FY 2028   | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 900,000 | 9,000,000 |

**Total Financing Plan**

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- Sanitary Sewer Fund: 16,319,251, 12,019,251, 700,000, 400,000, 400,000, 400,000, 400,000, 400,000, 400,000, 400,000, 400,000, 400,000, 4,300,000
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**Additional Operating Impact**

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**External or Internal Adopted Plan or Recommendation**

Sanitary Sewer Master Plan

**Additional Operating Impacts**

No additional operating impacts identified at this time.
Appendix F: Staff Training Records
## Training Class Roster

### Facility: All
### Work Group: All  Worker Type: All  Supervisor Name: All
### Training Class Category: All  Class Name: All  Instructor 1: All
### Date Range: 1/1/2018 - 12/31/2018

### Report Totals

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### Training Class Roster

**Facility:** All  
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**Supervisor Name:** All  
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**Class Name:** All  
**Instructor 1:** All

**Date Range:** 1/1/2018 - 12/31/2018

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**Totals**  
- **Total Participants:** 184  
- **Total Completed:** 1,846  
- **Total Passed:** 1,828  
- **% Passed:** 99%  
- **% Total:** 1,828  
- **% Total:** 100%

**Date Report Generated:** 1/7/2019

**Page:** 164 of 170
# Training Class Roster

Facility: All  
Work Group: All  
Worker Type: All  
Supervisor Name: All  
Training Class Category: All  
Class Name: All  
Instructor 1: All  
Date Range: 1/1/2018 - 12/31/2018

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**Work Group:** All  
**Worker Type:** All  
**Supervisor Name:** All  
**Training Class Category:** All  
**Class Name:** All  
**Instructor 1:** All  
**Date Range:** 1/1/2018 - 12/31/2018

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## Training Class Roster

**Facility:** All  
**Work Group:** All  
**Worker Type:** All  
**Supervisor Name:** All  
**Training Class Category:** All  
**Class Name:** All  
**Instructor 1:** All  
**Date Range:** 1/1/2018 - 12/31/2018

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## Training Class Roster

Facility: All  
Work Group: All  
Worker Type: All  
Supervisor Name: All  
Training Class Category: All  
Class Name: All  
Instructor 1: All  
Date Range: 1/1/2018 - 12/31/2018

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**Total Instructor Hours**  

| 343.75 |
# AlexRenew Safety Training Completion Report
## Fiscal Year 2018

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**Totals** 310.06
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Appendix G: Record of Street Sweeping
January 1st 2018-December 31st 2018

- In 2018 we swept 3595 Lane miles throughout the City of Alexandria which includes the CSS Zones.

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# Sweeper Mileage

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**Sweeper Mileage**
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<td>9-24-18 to 9-30-18</td>
<td>218.16</td>
<td>220.43</td>
<td>67</td>
</tr>
<tr>
<td>10-1-18 to 10-7-18</td>
<td>220.83</td>
<td>221.70</td>
<td>87</td>
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<td>10-8-18 to 10-14-18</td>
<td>223.93</td>
<td>223.93</td>
<td>19</td>
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<td>10-15-18 to 10-21-18</td>
<td>224.74</td>
<td>224.74</td>
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Appendix H: Record of CSS Trunk Sewer Flushing
<table>
<thead>
<tr>
<th>SEWER LOCATION &amp; FOOTAGE</th>
<th>DATES CLEANED</th>
<th>TOTAL FOOTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prince St. &amp; Strand, Need no parking signs, 350', Page 75</td>
<td>2/2018, 5/2018, 8/2018</td>
<td>1,050</td>
</tr>
<tr>
<td>Union St &amp; Prince St. to Lee St., 300', Page 75</td>
<td>2/2018, 5/2018, 8/2018, 11/2018</td>
<td>1,200</td>
</tr>
<tr>
<td>Ramsey alley, Fairfax St to union St and Union St to river, 1,052', page 75</td>
<td>2/2018, 5/2018, 8/2018, 11/2018</td>
<td>4,208</td>
</tr>
<tr>
<td>200 Blk. Of N. Lee St. @ Cameron St. &amp; @ alley. 292'</td>
<td>2/2018, 5/2018, 8/2018, 11/2018</td>
<td>1,168</td>
</tr>
<tr>
<td>Thompson's alley, west side of Union St. coming from chart house Restaurant, 300', page 75</td>
<td>2/2018, 5/2018, 8/2018, 11/2018</td>
<td>1,200</td>
</tr>
<tr>
<td>St. Asaph St. @ Giant Food, 225', page 54</td>
<td>2/2018, 5/2018, 8/2018, 11/2018</td>
<td>900</td>
</tr>
<tr>
<td>Radisson Inn to Canal Center Plaza, 250'</td>
<td>2/2018, 5/2018, 8/2018</td>
<td>750</td>
</tr>
<tr>
<td>Montgomery to Radisson Inn, 650'</td>
<td>2/2018, 5/2018, 8/2018</td>
<td>1,950</td>
</tr>
<tr>
<td>St Asaph St. &amp; Montgomery @ Restaurant 86'</td>
<td>2/2018, 5/2018, 8/2018, 11/2018</td>
<td>344</td>
</tr>
<tr>
<td>Description</td>
<td>Dates</td>
<td>Total Width (ft)</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Second St. &amp; Royal St. West on second to Pitt St. 500'</td>
<td>2/2018, 5/2018, 8/2018</td>
<td>2,000</td>
</tr>
<tr>
<td>Third St &amp; N. Royal St. 100'-south on Royal St.</td>
<td>2/2018, 5/2018, 8/2018</td>
<td>300</td>
</tr>
<tr>
<td>Third St. &amp; N. Fairfax St. to Third &amp; Royal St. 308'</td>
<td>2/2018, 5/2018, 8/2018</td>
<td>924</td>
</tr>
<tr>
<td>Fairfax St. to Second St. through alley, 305'</td>
<td>2/2018, 5/2018, 8/2018</td>
<td>915</td>
</tr>
<tr>
<td>Fairfax St. to Third St. &amp; N. Fairfax St. 405'</td>
<td>2/2018, 5/2018, 8/2018</td>
<td>1,215</td>
</tr>
<tr>
<td>Fairfax St. &amp; Canal Center Plaza to N. Fairfax St. 300'</td>
<td>2/2018, 5/2018, 8/2018</td>
<td>900</td>
</tr>
<tr>
<td>S. St. Asaph St. from manhole on Wolfe St. to manhole @ 307 S. St. Asaph St.</td>
<td>2/2018, 5/2018, 8/2018</td>
<td>921</td>
</tr>
<tr>
<td>St Asaph St. alley behind Sutton place shopping center. 300'</td>
<td>2/2018, 5/2018, 8/2018</td>
<td>900</td>
</tr>
<tr>
<td>107 S. St Asaph St. Line in the alley beside Portners Restaurant. 125'</td>
<td>2/2018, 5/2018, 8/2018</td>
<td>375</td>
</tr>
<tr>
<td>500 Blk. S. Columbus St. @ Wilkes St. 360'</td>
<td>5/2018, 12/1/2018</td>
<td>720</td>
</tr>
<tr>
<td>Manhole in front of 207 S. Fayette St. through alley to King St. 250 '</td>
<td>2/2018, 5/2018, 8/2018</td>
<td>750</td>
</tr>
<tr>
<td>Diagonal Rd. lines coming from Joe Thiesman's, 700'</td>
<td>2/2018, 5/2018, 8/2018</td>
<td>2100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>34,212</strong></td>
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Appendix I: Record of Catch Basin Cleaning
<table>
<thead>
<tr>
<th>WorkOrderID</th>
<th>Description</th>
<th>Status</th>
<th>Actual Start</th>
<th>Actual Finish</th>
<th>Address</th>
<th>Entity Group</th>
<th>Category</th>
<th>Initiated By</th>
<th>Unattached</th>
<th>Total Assets</th>
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<tbody>
<tr>
<td>162913</td>
<td>Inspect - Drainage Inlet</td>
<td>OPEN</td>
<td>07/2/2018 07:30</td>
<td>09/28/2018 03:30</td>
<td></td>
<td>Storm</td>
<td>STORM</td>
<td>KNIGHTON, THOMAS</td>
<td>N</td>
<td>837</td>
</tr>
<tr>
<td>167294</td>
<td>Inspect - Drainage Inlet</td>
<td>CLOSED</td>
<td>11/7/2018 07:00</td>
<td>11/7/2018 08:30</td>
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<td>Storm</td>
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<tr>
<td>162934</td>
<td>Inspect - Drainage Inlet</td>
<td>COMPLETE</td>
<td>07/2/2018 07:30</td>
<td>09/28/2018 03:30</td>
<td></td>
<td>Storm</td>
<td>STORM</td>
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<td>36</td>
</tr>
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<td>162938</td>
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<td>09/28/2018 03:30</td>
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<td>Storm</td>
<td>STORM</td>
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<tr>
<td>163062</td>
<td>Inspect - Drainage Inlet</td>
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<td>07/2/2018 07:30</td>
<td>09/28/2018 03:30</td>
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<td>Storm</td>
<td>STORM</td>
<td>KNIGHTON, THOMAS</td>
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<tr>
<td>167351</td>
<td>Clean</td>
<td>CLOSED</td>
<td>02/9/2018 12:00</td>
<td>02/9/2018 12:00</td>
<td>500 PENDLETON ST</td>
<td>Sewer</td>
<td>COMBO</td>
<td>ENTWISLE, MELVIN B</td>
<td>N</td>
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<tr>
<td>169189</td>
<td>Clean</td>
<td>CLOSED</td>
<td>12/20/2018 12:00</td>
<td>12/20/2018 01:00</td>
<td></td>
<td>Sewer</td>
<td>COMBO</td>
<td>KNIGHTON, THOMAS</td>
<td>N</td>
<td>2</td>
</tr>
<tr>
<td>169254</td>
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<td>12/26/2018 08:30</td>
<td>12/26/2018 09:30</td>
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<td>Sewer</td>
<td>COMBO</td>
<td>KNIGHTON, THOMAS</td>
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<tr>
<td>164498</td>
<td>Clean</td>
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<td>10/15/2018 12:00</td>
<td>10/30/2018 12:00</td>
<td>CSO ROYAL</td>
<td>Sewer</td>
<td>SEWER</td>
<td>ENTWISLE, MELVIN B</td>
<td>N</td>
<td>87</td>
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<tr>
<td>161851</td>
<td>Clean</td>
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<td>02/9/2018 12:00</td>
<td>02/9/2018 12:00</td>
<td></td>
<td>Sewer</td>
<td>COMBO</td>
<td>KNIGHTON, THOMAS</td>
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<td>10/30/2018 12:00</td>
<td>CSO ROYAL</td>
<td>Storm</td>
<td>STORM</td>
<td>ENTWISLE, MELVIN B</td>
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<tr>
<td>166834</td>
<td>Clean</td>
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<td>10/31/2018 12:00</td>
<td>11/27/2018 12:00</td>
<td>CSO ROYAL</td>
<td>Storm</td>
<td>STORM</td>
<td>ENTWISLE, MELVIN B</td>
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<td>155</td>
</tr>
<tr>
<td>162103</td>
<td>Clean</td>
<td>CLOSED</td>
<td>09/12/2018 12:00</td>
<td>10/30/2018 12:00</td>
<td>CSO ROYAL</td>
<td>Sewer</td>
<td>COMBO</td>
<td>ENTWISLE, MELVIN B</td>
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<td>40</td>
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<tr>
<td>160643</td>
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<td>08/23/2018 12:00</td>
<td>08/31/2018 12:00</td>
<td>CSO ROYAL</td>
<td>Storm</td>
<td>STORM</td>
<td>ENTWISLE, MELVIN B</td>
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<td>169188</td>
<td>Clean - Drainage Inlet</td>
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<td>12/20/2018 10:00</td>
<td></td>
<td>Storm</td>
<td>STORM</td>
<td>KNIGHTON, THOMAS</td>
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<td>2</td>
</tr>
<tr>
<td>160276</td>
<td>Clean - Drainage Inlet</td>
<td>CLOSED</td>
<td>08/16/2018 09:00</td>
<td>08/16/2018 11:00</td>
<td>1335 CHETWORTH CT</td>
<td>Storm</td>
<td>STORM</td>
<td>KNIGHTON, THOMAS</td>
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<td>1</td>
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<tr>
<td>161440</td>
<td>Clean - Drainage Inlet</td>
<td>CLOSED</td>
<td>09/4/2018 12:00</td>
<td>09/11/2018 12:00</td>
<td>CSO ROYAL</td>
<td>Storm</td>
<td>STORM</td>
<td>ENTWISLE, MELVIN B</td>
<td>N</td>
<td>51</td>
</tr>
<tr>
<td>160552</td>
<td>Clean - Drainage Inlet</td>
<td>CLOSED</td>
<td>08/23/2018 12:00</td>
<td>08/28/2018 12:00</td>
<td>CSO ROYAL</td>
<td>Storm</td>
<td>STORM</td>
<td>ENTWISLE, MELVIN B</td>
<td>N</td>
<td>107</td>
</tr>
<tr>
<td>167375</td>
<td>Inspect</td>
<td>CLOSED</td>
<td>11/6/2018 12:00</td>
<td>11/6/2018 12:00</td>
<td>414 SECOND ST</td>
<td>Sewer</td>
<td>SEWER</td>
<td>ENTWISLE, MELVIN B</td>
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<tr>
<td>166482</td>
<td>Repair</td>
<td>CLOSED</td>
<td>10/25/2018 08:30</td>
<td>10/25/2018 10:00</td>
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<td>Sewer</td>
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<tr>
<td>162622</td>
<td>Repair</td>
<td>CLOSED</td>
<td>09/26/2018 07:00</td>
<td>09/26/2018 03:00</td>
<td>1000 N PAYNE ST</td>
<td>Storm</td>
<td>STORM</td>
<td>ENTWISLE, MELVIN B</td>
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<tr>
<td>156654</td>
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<td>CLOSED</td>
<td>05/31/2018 07:30</td>
<td>05/31/2018 11:30</td>
<td>326 WOLFE ST</td>
<td>Storm</td>
<td>STORM</td>
<td>KNIGHTON, THOMAS</td>
<td>N</td>
<td>1</td>
</tr>
</tbody>
</table>
Appendix J: Leaf Collection Program
From November through January, City crews operate leaf vacuum trucks and collect paper leaf bags

**Leaf Vacuuming**
Residents who receive City trash collection will receive three passes during leaf season. Crews will post signs listing the earliest dates of the second and third passes in your zone, but inclement weather may cause schedule delays. It will take crews several dates to complete vacuuming in one zone, so don’t be concerned if you do not see a truck on your street on the first date of collection. We encourage residents to visit alexandriava.gov/Leaf Collection or call 703.746.LEAF for the most up-to-date information about the second and third passes in each zone.

**How to prepare:**
- Rake leaves out the day before your collection date
- Rake leaves into piles at the street curb. This enables crews to move quickly and efficiently
- Remove stones, litter, branches, and other debris. These items can damage equipment and injure our workers
- Avoid placing leaves in front of storm drains or water meter covers
- Move parked cars from atop leaf piles
- Do not rake leaves into alleys or service roads. Neither loose leaves or bagged leaves are collected from alleys

### Leaf Vacuuming Schedule

#### Collection
- **ZONE 2**
  - November 5
- **ZONE 3**
  - November 9
- **ZONE 4**
  - November 16
- **ZONE 5** (OLD TOWN)
  - November 5
  - Section 5A
  - November 9
  - Section 5B
  - November 16
  - Section 5C
  - Section 5D

**Composting leaves**
Composting leaves takes advantage of nature’s recycling to make a valuable organic supplement. Visit alexandriava.gov/YardWaste to learn more about backyard composting and the City’s farmers’ market composting stations.

**WasteSmart**
Did you know the City is in the process of creating a strategic plan, called WasteSmart, to guide management of Alexandria’s solid waste? The Resource Recovery Division is building this framework, which will address challenges and set goals for Alexandria’s trash, recycling, and yard waste management services for the next 20 years. After months of public input, the plan is expected to be presented to City Council in November. To learn more about what the City is doing to keep waste management safe, efficient, effective, and environmentally sound, visit alexandriava.gov/WasteSmart.

**Environmental Action Plan**
The City is collaborating with the community and the Environmental Policy Commission (EPC) to update the Environmental Action Plan, Alexandria’s blueprint for sustainability. A draft of the first phase of the update, which focuses on short-term goals related to energy, climate change, green building, solid waste, and land use and open space, is currently available at alexandriava.gov/Eco-City. The second phase of the update process is underway. To learn more about the EAP, and how you can become involved in shaping Alexandria’s future environmental priorities, visit alexandriava.gov/Eco-City.

**Why Is Leaf Collection Starting in November?**
After evaluation of previous leaf collection seasons and the continuing trend of late leaf fall, the City has moved the start of leaf collection by one week, from the last week of October to the first week of November. This was done to help crews perform more efficient collection during the earliest and latest days of collection. Still, predicting leaf fall is not an exact science—residents are encouraged to supplement City leaf vacuuming and bag collection by placing leaves in compost piles and yard waste containers. Visit alexandriava.gov/YardWaste to learn more.
Leaf bags are collected curbside on your regular trash collection day. Leaf bag collection will run from November 5 through January 4.

How to Prepare

- Using biodegradable paper bags allows the City to recycle leaves into mulch. Leaves in plastic bags, including biodegradable plastic bags, will be thrown away as trash at the Covanta Energy-from-Waste plant.
- Remove dirt, stones, litter, and other debris from leaves before placing in bags.

Free City leaf bags are available on a first come, first serve basis, while supplies last. Limit 15 bags per resident, per visit. Bags will be available starting October 29 at the following locations:

- City Hall – Main Lobby
  301 KING STREET
  Monday – Friday, 7 a.m. – 8 p.m.

- City of Alexandria Field Office
  2900-B BUSINESS CENTER DRIVE
  Monday – Saturday, 8 a.m. – 5 p.m.

- Charles Barrett Recreation Center
  1115 MARTHA CUSTIS DRIVE
  Monday – Friday, 2 – 6 p.m.

- Chinquapin Recreation Center
  3210 KING STREET
  Monday – Thursday, 6 a.m. – 9 p.m.
  Friday, 6 a.m. – 6 p.m.
  Saturday and Sunday, 8 a.m. – 6 p.m.

- William Ramsay Recreation Center
  5650 SANGER AVENUE
  Monday – Friday, 9 a.m. – 9 p.m.
  Saturday, 9 a.m. – 11 p.m.
  Sunday, 1 p.m. – 5 p.m.

- Mount Vernon Recreation Center
  2701 COMMONWEALTH AVENUE
  Monday – Friday, 9 a.m. – 9 p.m.
  Saturday, 9 a.m. – 6 p.m.

FOR MORE INFORMATION

Visit alexandriava.gov/LeafCollection
or call the Leaf Collection Hotline at 703.746.LEAF (5323).

STAY IN THE KNOW!

Sign up for our eNews updates:
www.alexandriava.gov/eNews
www.alexandriava.gov/TES

Follow us on social media:
@TESAlexandriaVA @AlexandriaVATES @AlexandriaVATES
Appendix K: Illicit Discharge Ordinance
CHAPTER 6 - Water and Sewer

Cross References: Water supply in foodhandling establishments, Sec. 11-2-171 et seq.; drinking water in nursery schools, Sec. 12-3-44.

ARTICLE A - Water

Editorial Note: Ord. No. 4747, § 1, adopted Jan. 21, 2012, repealed § 5-6-1 and renumbered the remaining sections of Art. A as set out herein. The historical notation has been retained with the amended provisions for reference purposes. The former § 5-6-1 pertained to water use in emergencies and derived from § 40-1 of the 1963 Code.

DIVISION 1 - Stagnant Water

Sec. 5-6-1 - Stagnant water—owner to fill in place of collection.

(a) It shall be the duty of the owner of any lot or parcel of land located in the city which, because of the contour of the surface of the land, catches and holds rain and surface water, so that pools or ponds of stagnant water result, to fill in the lots, or parcels of land with earth to a grade as will prevent the collection of pools or ponds of stagnant water. In cases where the basin formed by the contour of the land in which the water collects is composed of two or more lots or parcels of land in separate ownership, the owners shall be responsible for the filling in of the portions of their respective lots or parcels of land as may be affected. At the request of any owner, the city engineer shall furnish the proper grade to which the fill should be made.

(b) The provisions of this section shall be applicable in all cases where stagnant water collects, whether the result of abandoned excavations, establishments of street grades or otherwise. (Code 1963, Sec. 40-2; Ord. No. 4747, § 1, 1-21-12)

Charter Reference: Power of city as to grounds subject to be covered by stagnant water, Sec. 2.04(m).

Cross Reference: Drainage of driveways of filling stations, Sec. 9-7-6.

Sec. 5-6-2 - Same—action by city when owner refuses to fill in.

(a) In the event that any owner shall fail or refuse to fill in any lot or parcel of land as provided in the preceding section, within 10 days of receipt of written notice from the city manager to do so, the notice to be sent by registered mail, the city manager may cause the lot or parcel of land to be filled in with earth to the proper grade, and the cost thereof shall be a charge against the owner and the amount thereof shall be certified by the city manager to the director of finance to be added to the current tax bill against the land, which shall constitute a lien thereon as a part of the current tax bill, and the charges shall bear interest at the rate of six percent commencing 30 days after completion of this work.

(b) In addition to certifying the amount of the charges to the director of finance, the city manager may certify same to the city attorney for any appropriate action at law to recover that as may be deemed proper. (Code 1963, Sec. 40-3; Ord. No. 4747, § 1, 1-21-12)

Sec. 5-6-3 - Same—penalty for violation of two preceding sections.
Any violation of the provisions of the two preceding sections shall be subject to a fine of not less than $5 nor more than $100, and each day that any owner fails or refuses to comply after 10 days from receipt of the written notice from the city manager as provided in the preceding section, shall constitute a separate offense, but the notice shall not be prerequisite to liability for violation of the provisions of section 5-6-2 of this Code. (Code 1963, Sec. 40-4; Ord. No. 4747, § 1, 1-21-12)

DIVISION 2 - Water Supply Emergency

Sec. 5-6-4 - Purpose.

The purpose of this division is to provide for the necessary reduction and curtailment of water usage through voluntary and/or mandatory restrictions during a water shortage condition or water supply emergency affecting the city and its residents and businesses. (Ord. No. 4747, § 1, 1-21-12)

Sec. 5-6-5 - Definitions.

(a) Water shortage condition. A state wherein the Potomac River Basin is experiencing unusually dry weather, or a state wherein there exists the potential for a water supply emergency if water demands are not reduced.

(b) Water supply emergency. A condition wherein the present or expected future ability of the city to deliver adequate supplies of water to customers to enable normal levels of potable water usage is endangered due to an extended drought and/or disruption in the city's water supply system. (Ord. No. 4747, § 1, 1-21-12)

Sec. 5-6-6 - Declaration of water shortage condition.

(a) Whenever the city manager, or designated agent, determines that a water shortage condition exists, a water shortage condition may be declared by the city manager. The city manager, or designated agent, shall notify the general public that a water shortage condition has been declared and that more specific voluntary restrictions of water usage by residents and businesses are requested in order to help preserve the supply of potable water to the city.

(b) Upon the declaration of a water shortage condition, the city manager, or designated agent, may issue voluntary restrictions or recommend water conservation practices to help preserve the supply of potable water to the city. Such voluntary restrictions or conservation practices may include, but shall not be limited to, voluntary restriction of one or more of the following:

1. Watering of shrubbery, trees, lawns, grass, plants, or other vegetation, except plants of flowers grown by a duly licensed florist;
2. Washing of automobiles, trucks, trailers or other mobile equipment, except in a vehicle wash facility with an effective and efficient water recycling system;
3. Washing of streets, driveways, parking lots, service station aprons, the exterior of commercial or residential buildings, or any other outdoor surfaces unless such washing is required to eliminate a hazard;
4. Operation of any ornamental fountain or other structure making similar use of water;
5. Serving water to customers in restaurants, cafeterias, or any other establishment, unless specifically requested;
6. Filling of swimming and/or wading pools and use of water for outdoor recreation;
7. Use of water from fire hydrants, except for health and safety purposes;
8. Request water users to inspect all plumbing and repair leaks; and
(9) Suggestion of a maximum daily consumption goal for residents to strive and achieve.

(c) At any time after the declaration of a water shortage condition, if the city manager determines that such a condition no longer exists, then he or she may declare the rescission of the water shortage condition and the termination of all associated voluntary restrictions and recommended water conservation practices. (Ord. No. 4747, § 1, 1-21-12)

Sec. 5-6-7 - Declaration of water supply emergency.

(a) Whenever the city manager finds that a water supply emergency exists, or is reasonably likely to occur if water conservation measures are not taken, he or she may declare a water supply emergency restricting or prohibiting the use of water by residents and businesses for the duration of such emergency or for a period of time necessary to prevent the occurrence of a water supply emergency. Such a condition may be determined from information obtained by the city manager through the city's water supplier (Virginia American Water Company), information obtained from a recognized authority, or from other sources as determined appropriate and prudent by the city manager.

(b) Upon the declaration by the city manager of a water supply emergency he or she is authorized to promulgate and implement, in writing, mandatory water consumption restrictions or prohibitions necessary to preserve the ability of the city to provide adequate and acceptable levels of potable water to preserve the public health, safety and welfare. Water restrictions or prohibitions promulgated by the city manager may include, but shall not be limited to, restriction or prohibition of one or more of the following activities as provided in section 5-6-6(b).

(c) If, at any time after the city manager declares a water supply emergency and the city manager finds that a water supply emergency no longer exists, then the city manager may declare that the water supply emergency has ended. At any time during a water supply emergency, the city manager may, by written declaration, declare the rescission, in whole or in part, of any restrictions or prohibitions promulgated and implemented under section 5-6-7(b). Such declarations by the city manager shall be based upon a factual finding that the ability of the city to deliver acceptable quantities of potable water is no longer limited, or that the extent of the declared emergency is reduced and that the existing restrictions or prohibitions, or some part thereof, are no longer required to protect the public health, safety and welfare.

(d) The city manager, or designated agent, shall notify the general public, and the city council, when the city manager promulgates, or rescinds, mandatory restrictions or prohibitions authorized by this section or by any ordinance adopted hereafter. Such notification shall describe the mandatory restrictions and prohibitions promulgated or rescinded by the city manager, the effective date or dates thereof, and the penalties for noncompliance. Such a notice to the general public shall be published in a newspaper of general circulation within the city and posted in a public space in the city manager's office. Such notice shall be deemed due and proper notice to every customer supplied with water by the city. (Ord. No. 4747, § 1, 1-21-12)

Sec. 5-6-8 - Exemptions of essential uses for public health, safety and welfare.

The provisions of any declaration by the city manager of a water supply emergency, and any restrictions or prohibitions implemented by the city manager, shall not apply to any governmental, business, or industrial use which is deemed by the city manager to be essential to the preservation of the public health, safety and/or welfare. (Ord. No. 4747, § 1, 1-21-12)

Sec. 5-6-9 - Appeals.

Upon receipt of a written request by an individual customer of water supplied by the city, the city manager, for good cause shown, including evidence that the applicant is affected in a substantial manner not common to other persons or businesses generally, may permit less than full compliance with any of the water restrictions or prohibitions promulgated during a declared water supply emergency. No waiver shall be granted by the city manager unless he or she determines that the public health, safety and welfare will not be adversely affected by the waiver. (Ord. No. 4747, § 1, 1-21-12)
Sec. 5-6-10 - Penalties.

(a) Any person who violates or fails to comply with any of the mandatory provisions of this division may be charged with a Class Five civil violation and may be fined as provided in section 1-1-11(b)(5) of this Code.

(b) The imposition of a fine or penalty for violating any of the mandatory provisions of this division shall not excuse the violation or permit it to continue.

(c) The city manager, or designated agent, may seek suspension of water service to any violator of the mandatory provisions of this division by injunction, abatement or other appropriate legal remedy, if the city manager determines that such action is necessary to prevent any continued or future violation.

(Ord. No. 4747, § 1, 1-21-12)

Secs. 5-6-11 through 5-6-20 - reserved.

ARTICLE B - Sewage Disposal and Drains

DIVISION 1 - General Provision

State Law Reference: Authority of city to regulate sewer connections, Code of Va., Sec. 32-61; power of council to construct, etc., sewers and drains, Code of Va., Sec. 15.1-292.

Cross Reference: Power of city as to assessments for construction of sewers, culverts and drains, City Charter. Sec. 2.03, subsec. (e); power of city as to sewer pipes and connections, Charter. Sec. 2.04, subsec. (h); construction of sewers or drains in future subdivisions. Sec. 5-2-4 of this code; acceptance of streets, sewers or drains in future subdivisions. Sec. 5-2-5; constructing sewers or drains in existing subdivisions, Sec. 5-2-6.

Sec. 5-6-21 - Control of council.

All sewers, storm, water, sanitary or combined, except house connections from curb line to lot line, that have heretofore been or may hereafter be constructed by any person under any street, road, alley or park space or under any private court or alley, and which have been or may hereafter be connected into any sewer constructed by or belonging to the city, shall be under the jurisdiction and control of the city council so long as such sewer shall remain connected with any sewer constructed by or belonging to the city. (Code 1963, Sec. 28-1)

Sec. 5-6-22 - Installed by contract with council.

All sewers that may be constructed by any person in any street, road, alley or park space now open to the public use, any street, road, alley or park space duly dedicated for public use in any city easement or grant or in any area under city option or agreement shall be installed by or under contract with the city council, and shall be of the size and established at such grades and constructed according to such other specifications as may be prescribed by the director of transportation and environmental services; except, that service connections running from a city sewer main, trunk or lateral to any premises shall be installed by the owner as hereinafter provided. (Code 1963, Sec. 28-2)

Sec. 5-6-23 - Constructed so as to require separate and direct service for each house, building or parcel of property.
Any extension of the sewer system from sewers now built or hereafter built shall be constructed so that each house, building or separate parcel of property that connects with or is served by or through any part of the city sewer system shall be connected separately and directly with the city system, when and after the full amount required by section 5-6-25 has been paid into the city treasury, in accordance with provisions of section 5-6-31. (Code 1963, Sec. 28-3)

Sec. 5-6-24 - Duty of owner to connect; emptying into wells, tanks or open streams prohibited.

The owner of any dwelling or other building in which human beings live or congregate shall, whenever a trunk line or lateral line sewer is available, connect the dwelling or building with such trunk line or lateral line sewer, subject to the provisions of this article. It shall be unlawful for any person to empty any sewer or sewer system into any well, septic tank or open stream in the city, when a public trunk or lateral line sewer is available with which to connect. (Code 1963, Sec. 28-4)

Sec. 5-6-25 - Sewer taps; clearance for sewer or water systems.

(a) Sewer taps shall be at least two feet apart. Sewer taps into public manholes must be approved by the director of transportation and environmental services before the tap is made. Taps into public storm sewers shall be made as directed by the director of transportation and environmental services. Trenches and excavations shall be kept free from water to permit adequate inspection.

(b) All sewer taps and laterals in public streets, roads, pavements, alleys and utility rights-of-way must be free of jumps; and grades shall not exceed one-quarter inch per foot until they reach the property line or the limit of the public sewer easement unless approved in advance by the director of transportation and environmental services.

(c) Clearance required. A house sewer or water system shall be laid in such a manner that the system can be serviced and maintained without entering or disturbing adjacent property unless an easement has been recorded which is adequate for that purpose. (Ord. No. 4659, 5/15/10, Sec. 7)

Editor’s note—Prior to the reenactment of § 5-6-25 by Ord. No. 4659, Ord. No. 4257, § 3, adopted June 15, 2003, repealed § 5-6-25, which pertained to sewer connection permits and service fees; construction costs; constructing sewers by owners rather than city; additional connections. See the Code Comparative Table.

Sec. 5-6-25.1 - Sewer connection permits and service fees; construction costs; constructing sewers by owners rather than city; additional connections.

(a) Any person who is required, or who desires, to provide a connection for sewer service from his property, through any sewer constructed by or belonging to the city or any sewer serving the area annexed to the city in 1952, but belonging to a county, by direct connection at a city sewer main, trunk or lateral, shall, before starting to make such connection, apply to the director for a permit to make the connection, and the director shall issue a permit for the sewer connection when and after the person shall have paid to the department of finance the sum hereinafter provided.

(1) For each single family dwelling, townhouse dwelling, or townhouse type dwelling irrespective of classification for other purposes, or for each dwelling unit in a two-family dwelling, the amount of $8,404.

(2) For each multifamily dwelling, an amount equal to the product of the number of dwelling units in the multifamily dwelling, multiplied by $4,201. For all final site plans submitted on or after September 1, 2013, the amount shall be increased to 90 percent of the single family dwelling amount.

(3) For each hotel room, an amount equal to the product of the number of dwelling units in the hotel multiplied by $4,201. For all final site plans submitted on or after September 1, 2013, the amount shall be increased to 70 percent of the single family dwelling amount, and for all final site plans submitted
on or after July 1, 2014, the amount shall be increased to 90 percent of the single family dwelling amount.

(4) For each nonresidential property, an amount determined in accordance with the following fee schedule based on the size of each water meter which serves such nonresidential property:

<table>
<thead>
<tr>
<th>Meter Size (inches)</th>
<th>Max. Capacity (GPM)</th>
<th>¾&quot; Meter Equiv.</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>¾ or smaller</td>
<td>30</td>
<td>1.00</td>
<td>$8,404</td>
</tr>
<tr>
<td>1</td>
<td>50</td>
<td>1.67</td>
<td>$14,034</td>
</tr>
<tr>
<td>1½</td>
<td>100</td>
<td>3.33</td>
<td>$27,985</td>
</tr>
<tr>
<td>2</td>
<td>160</td>
<td>5.33</td>
<td>$44,793</td>
</tr>
<tr>
<td>3</td>
<td>320</td>
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<td>$90,425</td>
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<tr>
<td>4</td>
<td>500</td>
<td>16.67</td>
<td>$140,092</td>
</tr>
<tr>
<td>6</td>
<td>1000</td>
<td>33.33</td>
<td>$280,101</td>
</tr>
<tr>
<td>8</td>
<td>1600</td>
<td>53.33</td>
<td>$448,178</td>
</tr>
<tr>
<td>10</td>
<td>2300</td>
<td>76.67</td>
<td>$644,323</td>
</tr>
</tbody>
</table>

(5) For each mixed use property, where such property includes both residential and nonresidential uses, an amount equal to the sum of the fee determined for the residential portion of such property, in accordance with this section, plus the fee determined for the nonresidential portion of such property, in accordance with this section; provided, however, if the residential portion and nonresidential portion of such property are served by a single water meter, the fee shall be an amount determined by the director in his reasonable discretion.

(6) For connections that involve the removal of an existing structure with an existing tap, a credit for the existing tap shall be applied towards the total connection fee otherwise due in accordance with this section for final site plans submitted on or after September 1, 2013. The amount of the credit shall be estimated by the director and shall be based on the previous use. The credit shall only apply to properties removed or demolished not longer than three years prior to the submission of the final site plan for the new structure. The credit shall be equal to 50 percent of the current fee that would be applied to the structure or structures being removed. For mixed use properties, the credit will be based on the sum of the residential credit and nonresidential credit, in accordance with this section. If the previous use was served by a single water meter, the credit shall be an amount determined by the director in his reasonable discretion.
(7) For an existing property that changes its use, such as from non-residential to residential (or vice versa), increases the number of residential units or hotel rooms, or adds or increases the water meter size to account for the change in use, the amount shall be calculated as follows:

(i) If the same sewer connection (tap) is utilized, then the fee shall be based on the net increase in units (or usage) between the existing and proposed uses.

(ii) If a new sewer tap is required, then the fee shall be set in accordance with the fees for new construction set forth in this section, net of any credits due pursuant to section (6) above.

(8) In cases where a DSP/DSUP extension is filed after the connection fees have been established for a development project (following final plan submission), the connection fee rate shall be revised to reflect the current fee structure in effect at the time the extension is approved. For all final site plans submitted prior to April 1, 2013, one DSP/DSUP extension may be granted without revising the connection fee rate previously established at the time of the final site plan submission.

(9) Sections (1) through (4) reflect the fees for final site plans submitted before July 1, 2013. Beginning in fiscal year 2014 and going forward, the foregoing fees shall increase each year at the rate of inflation as determined by the annual CPI-U for the Washington-Baltimore-Northern Virginia, DC-MD-VA-WVA Combined Statistical Area and shall apply to all final plans filed submitted between July 1 of that year and June 30 of the subsequent year.

(b) Extension of service; credits for such extension.

(1) A person required or desiring to provide extension of sewer service to his property shall construct or have constructed such extension at his own expense. The person shall execute a satisfactory agreement with the city, as prescribed by the city manager, agreeing to construct such sewer or sewers in accordance with plans and specifications approved by the director and the person shall in addition furnish such guarantee of performance and maintenance to the city as the city manager may require. Such sewers shall become the property of the city upon completion and acceptance of the work.

(2) If, pursuant to a written requirement of the director, the person constructs such extension in a manner that exceeds the requirements to provide service to the property of such person, a credit shall be available to be applied to the fees otherwise due under this section, in an amount equal to the difference between the cost of such extension, constructed in accordance with the written requirement of the director, and the cost of such extension, constructed as originally proposed by the person, such amount to be determined by the director. The amount of the credit shall be estimated by the director prior to commencement of construction, and an interim fee shall be paid by the person in an amount equal to the fees otherwise due under this section minus the estimated credit; provided, the minimum interim fee shall be for each single family dwelling, townhouse dwelling or dwelling unit in a two-family dwelling residential unit, $100, for each dwelling unit in a multifamily dwelling, $100, and for each floor of a nonresidential property, $100 or $0.08 per square foot of floor space, whichever is greater.

(3) Upon satisfactory completion of the work, the actual amount of the credit shall be determined by the director based on certified bills submitted to and approved by him. The final fee to the person shall be an amount equal to the fees otherwise due under this section minus the amount of the actual credit; provided, the minimum final fee shall be for each single family dwelling, townhouse dwelling or dwelling unit in a two-family dwelling residential unit, $100, for each dwelling unit in a multifamily dwelling, $100, and for each floor of a nonresidential property, $100 or $0.08 per square foot of floor space, whichever is greater. Any difference between the interim fee and the final fee shall immediately be paid to or refunded by the department of finance.

(4) If the amount of the credit estimated under subsection (b)(2) above exceeds the amount of the fees otherwise due under this section without regard to the minimum fee calculated under subsection (b)(2) of this section, prior to the commencement of construction, the city shall agree to pay the person an amount equal to such excess or shall withdraw the written requirement of the director for construction of such extension in a manner that exceeds the requirements to provide service to the property of such person.

(c) Exclusions and exemptions.
(1) Notwithstanding anything to the contrary contained in this section, no fee shall be charged to connect a sewer system or sewage disposal system which serves exclusively a fire sprinkler system, installed pursuant to section 906.0 of the Virginia Uniform Statewide Building Code, as amended, a fire standpipe system, installed pursuant to section 915.0 of the Virginia Uniform Statewide Building Code, as amended, or a yard hydrant, installed pursuant to section 917.0 of the Virginia Uniform Statewide Building Code, as amended.

(2) Notwithstanding anything to the contrary contained in this section, no fee shall be charged to connect a sewer system or sewage disposal system which serves property owned by the Alexandria City Public Schools, the Alexandria Redevelopment and Housing Authority, or an entity in which the Alexandria Redevelopment and Housing Authority holds an ownership interest and the purpose of such entity is to develop property using federal low income tax housing credits.

(3) The fees established and imposed by this section shall not apply to a connection where (i) such connection is within the limits of a coordinated development district approved by city council, (ii) the main or trunk line to which such connection will be made extends from such coordinated development district directly to the publicly owned treatment works of the Alexandria Sanitation Authority, without connection at the time of its construction to any city sewer, unless such a connection is made pursuant to a written requirement of the director and exceeds the requirements to provide service to the coordinated development district, (iii) such main or trunk line was constructed totally at private expense, and (iv) the application for such connection is submitted within 22 years of the date of issuance of the first building permit subsequent to April 1, 2002, within such coordinated development district. Upon satisfaction of the foregoing criteria, a permit for the sewer connection shall be issued upon payment of a fee for each single family dwelling, townhouse dwelling or dwelling unit in a two-family dwelling residential unit, of $100, for each dwelling unit in a multifamily dwelling, of $100, and for each floor of a nonresidential property, of $100 or $0.08 per square foot of floor space, whichever is greater; provided, however, in the event construction of the improvements to be served by such permitted connection has not substantially commenced within 23 years of the date of issuance of the first building permit subsequent to April 1, 2002, within such coordinated development district, the permit for the sewer connection issued shall expire and thereafter the fees established and imposed generally by this section shall apply.

(d) If the city manager finds that construction of an extension by a person would constitute a hardship on such person, by reason of his inability to secure a satisfactory contract, or otherwise, the city manager may direct that the construction be done by or for the city; provided, however, that the cost to the city shall not exceed the fees paid by such person less for each single family dwelling, townhouse dwelling or dwelling unit in a two-family dwelling residential unit, $100, for each dwelling unit in a multifamily dwelling, $100, and for each floor of a nonresidential property, $100 or $0.08 per square foot of floor space, whichever is greater. Costs in excess of such fees shall be paid by the person prior to making any connection to such sewer.

(e) The total sum to be paid to the department of finance for sewer service at the city sewer main, trunk or lateral for any property in the city, the sewage of which will be transported from such property through sewers constructed previously by private parties into sewers constructed or belonging to the city, except for such sewers as may have been constructed by private parties under the control or supervision of the city or other public authority, shall be as provided generally in this section for each such property so connected.

(f) Any person desiring additional sewer service connection to any property shall make application to the director for permission to construct such connection and shall pay to the department of finance the sum as provided generally in this section for each additional connection prior to the issuance of the permit for the sewer connection.

(g) Nothing in this chapter shall be construed to prevent the city sanitation authority from making a service charge for collecting and treating sewage. (Ord. No. 4257, 6/15/02, Sec. 1; Ord. No. 4394, 5/2/05, Sec. 1; Ord. No. 4536, 5/5/08, Sec. 1; Ord. No. 4682, 10/16/10, Sec. 1; Ord. No. 4730, 6/25/11, Sec. 1; Ord. No. 4808, 5/18/13, Sec. 1)
Editor's note— It should be noted that § 2 of Ord. No. 4257 provides, "That the provisions of section 5-6-25.1 shall become effective on July 1, 2002, and shall apply to all applications for permits for sewer connections which may be filed after such date; provided, however, that: (a) With respect to any property for which a preliminary site plan was filed with the city and determined by the Director of Planning and Zoning to be complete prior to April 1, 2002, the applicable fee shall be determined in accordance with section 5-6-25, with the exception of any credit, which shall be determined not in accordance with subsection (e) of section 5-6-25, but in accordance with subsection (b) of section 5-6-25.1; provided, however, in the event construction of the improvements to be served by such permitted connection has not substantially commenced prior to April 1, 2004, the permit for the sewer connection issued shall expire and thereafter the fees established and imposed by section 5-6-25.1 shall apply, without any adjustment.

(b) With respect to any property for which a preliminary site plan is filed and determined by the Director of Planning and Zoning to be complete from April 1, 2002, until September 30, 2002, the fee shall be the product of the fee determined in accordance with section 5-6-25.1, multiplied by fifty percent (50%); provided, however, in the event construction of the improvements to be served by such permitted connection has not substantially commenced prior to April 1, 2004, the permit for the sewer connection issued shall expire and thereafter the fees established and imposed by section 5-6-25.1 shall apply, without any adjustment.

(c) With respect to any property for which a preliminary site plan is filed or determined by the Director of Planning and Zoning to be complete from and after October 1, 2002, the fee shall be as provided in section 5-6-25.1, without any adjustment." See the Code Comparative Table.

It should be noted that § 2 of Ord. No. 4536 provides that "this ordinance shall become effective on the date and at the time of final passage, and shall apply to all applications for permits for sewer connections which may be filed after such effective date; provided, however, that with respect to any property for which the first final site plan was filed with the city on or before April 1, 2008, the applicable fee shall be determined in accordance with Section 5-6-25.1 prior to amendment."

Sec. 5-6-26 - Sewer line maintenance charge imposed; provisions for collection; liens and cessation of water service for delinquent charges.

(a) There is hereby imposed, upon all parcels of real estate from which sewerage is discharged into lines maintained by the city, a sewer line maintenance charge of $1.40 per quarter or $1.25 for every 1,000 gallons of water supplied per quarter to such parcel by the Virginia-American Water Company, whichever is the greater sum; provided, that if the charge for water supplied to any parcel is billed on a monthly basis, the sewer line maintenance charge imposed on the parcel shall be $0.40 per month or $1.40 for every 1,000 gallons of water supplied per month to such parcel, whichever is greater; and provided, further, that for any parcel of real estate having more than one meter for the measurement of water consumption attributable to that parcel, one or more of which meters measures only water which will not be discharged into the sanitary sewer lines of the city, that parcel shall be charged as provided herein on the total water consumption attributable to that parcel after subtracting the amount of water not discharged into the sanitary sewer lines of the city.

(b) For the purpose of this article, bills shall be considered monthly bills if submitted 12 times per year for periods of approximately one month each and quarterly bills if submitted four times per year for periods of approximately three months each.
(c) The sewer line maintenance charge shall in every case be collected by the Alexandria sanitation authority or its designee from the owner, lessee or tenant of each parcel, or some or all of them, and remitted by the Alexandria sanitation authority or its designee to the city in such manner and on such terms as shall be agreed upon by the water company and the city council, consistent with the provisions of this section. In the event any such charges are unpaid 30 days after the date they are billed by the Alexandria sanitation authority or its designee as hereinabove provided, interest shall at that time begin to accrue thereon at the rate of one percent per month, and the owner, lessee or tenant, as the case may be, of the parcel of real estate on which the charge was imposed shall, until such charges shall be paid with interest to the date of payment, cease to dispose of sewage or industrial waste originating from or on such real estate by discharge thereof directly or indirectly into the sewer line maintained by the city, and is such owner, lessee or tenant shall not cease disposal within two months thereafter, the water company shall cease supplying water thereto unless the Director of the Alexandria Health Department shall certify that the shutting off of the water will endanger the health of the occupants of the premises or the health of others. Such charges and interest thereon shall constitute a lien against the property, ranking on a parity with liens for unpaid taxes. (Code 1963, Sec. 28-5.1; Ord. No. 3793, 5/3/95, Sec. 1; Ord. No. 4301, 5/17/03, Sec. 1; Ord. No. 4348, 5/3/04, Sec. 1; Ord. No. 4393, 5/2/05, Sec. 1; Ord. No. 4778, 11/17/12, Sec. 1; Ord. No. 5005, 5/14/16, Sec. 1)

Sec. 5-6-27 - Duty of director of transportation and environmental services to compute amounts due city.

In the event that any persons affected by any of the provisions of this article should fail, after 10 days' notice in writing from the city manager, to do that which may be required under the provisions of this article, it shall be the duty of the director of transportation and environmental services to compute the sewer service fee due to the council that may be applicable in each instance under the provisions of this article and certify same to the director of finance and the amount so certified shall be a lien against the real estate as a part of, and the same as, taxes duly assessed against the real estate by the city.

Sec. 5-6-28 - Unlawful to connect without permit and payment.

It shall be unlawful for any person to make any sewer service connection from any property, which abuts a public sewer to the public sewer system, either directly or indirectly, through any other sewer, without first having obtained a permit from the director of transportation and environmental services and paid into the city treasury the amount required by section 5-6-25 of this code for public sewer service. (Code 1963, Sec. 28-7)

Sec. 5-6-29 - Connection lines running from city sewer main, trunk or lateral to the premises.

(a) The owner of any property desiring sewer service shall be responsible for the construction and maintenance of connection lines running from the city sewer main, trunk or lateral to the premises. The connections shall be installed by a duly authorized and licensed master plumber and all work shall be in accordance with the provisions of the Uniform Statewide Building Code and the building code of the city.

(b) Connection lines shall be connected to the sewer main, trunk or lateral by means of cast-iron saddle approved by the director of the department of transportation and environmental services. No connection shall be less than four (4) inches inside diameter. Bedding for connections within a street, alley or other right of way shall conform to standards of the department of transportation and environmental services. It shall be unlawful for any person to make any connection with any public or city sewer main trunk or lateral without first notifying the city plumbing inspector.

(c) The owner of any property furnished sewer services shall be responsible for keeping the sewer lines between the premises and the city sewer main, trunk or lateral free and clean and in good repair, but it shall be unlawful for any person to break, dig up, or disturb any portion of any sidewalk, street, alley or right-of-way for sewer maintenance or repair without first notifying the city plumbing inspector.
(d) It shall also be the duty of any person disturbing, breaking or digging up any portion of any sidewalk, street, alley or right of way for sewer maintenance to furnish and maintain proper warnings and barricades.

(e) Notwithstanding the above provisions of this section, the city will continue to service and maintain those connection lines, running between the city sewer mains, trunks and laterals and the curb lines that were installed prior to July 1, 1955. (Code 1963, Sec. 28-8)

Sec. 5-6-30 - Property binding on certain old sewers.

Property binding on certain old public sewers constructed by the city on private property, and property binding on certain old sewers built on private property and used by the city with the consent of the property owners as public sewers, shall have the right to public sewer service without paying the amount into the city treasury required by section 5-6-25 or section 5-6-27 of this code, by the requirements of section 5-6-28 of this code relative to permit from and construction under the supervision of the director of transportation and environmental services of any property sewer service connections shall be compiled with by any person desiring to make any sewer service connection with the public sewers built on their property. (Code 1963, Sec. 28-9)

Sec. 5-6-31 - Obstructing, breaking or injuring sewers, catch basins or manholes; garbage, earth or trash.

It shall be unlawful for any person to obstruct, break or injure in any manner any public sewer, or to obstruct, break or injure in any manner any catch basin or manhole, or to place any garbage, earth, trash or any other material of any kind in any catch basin or manhole. (Code 1963, Sec. 28-10)

Sec. 5-6-32 - Draining rain water into public sanitary sewers—nuisance declared.

The connection of any roof, down spout, yard or walkway drain or any other drain, except for existing driveway or existing footer drains, carrying rain water into any house service sewer connected with any public sanitary sewer or any other sewer leading into a public sanitary sewer in the city is detrimental to the public health, safety and welfare and is hereby declared a public nuisance. (Code 1963, Sec. 28-10.1)

Sec. 5-6-33 - Same—prohibited; compliance with notice to disconnect.

(a) It shall be unlawful for any property owner to connect or cause to be connected any roof, down spout, yard or walkway drain or any other drain carrying rain water into any house service sewer connected with any public sanitary sewer, or any sewer leading into any public sanitary sewer in the city.

(b) Except when section 5-6-36 applies, it shall be unlawful for any property owner to fail, within 14 days from the receipt of the written notice prescribed for in section 5-6-35, to disconnect or cause to be disconnected any roof, down spout, yard or walkway drain or any other drain, except for an existing driveway drain or existing footer drain, carrying rain water into any house service sewer connected with any public sanitary sewer or any sewer leading into any public sanitary sewer in the city. (Code 1963, Sec. 28-11)

Sec. 5-6-34 - Same—penalty for violation of section 5-6-33.

Any person violating section 5-6-33 shall, upon conviction thereof, be punished by a fine not to exceed $25. (Code 1963, Sec. 28-11.1)

Sec. 5-6-35 - Same—disconnection by city; costs to constitute lien.

Whenever the property owner fails to disconnect or cause to be disconnected any rain water drainage connection, except for any existing driveway drain, or existing footer drain, with any public sanitary sewer or any other sewer leading into a public sanitary sewer in the city within 14 days from the receipt of written notice from the city manager to disconnect such rain water drainage connection, the city manager is hereby authorized to cause the connection to be disconnected. The cost for the disconnection by the city shall be computed thereafter, charged to the property owner, and a bill for the costs shall be prepared by the
department of finance and mailed to the owner at his last known post office address within a reasonable
time after the disconnection. In the event the city does not receive payment of the bill within 30 days after
mailing, a duplicate statement of the bill shall be forwarded to the director of finance, who shall see that the
costs are charged to the owner and collected in the same manner as city taxes. Every such cost shall
constitute a lien against the real estate from which such rain water connection was disconnected, the lien
to continue until actual payment of the cost shall have been made to the city. (Code 1963, Sec. 28-12)

Sec. 5-6-36 - Same—same; exceptions for connections existing on November 28, 1972, upon finding of
hardship.

Whenever the city manager finds that a disconnection would constitute a financial hardship to an
owner, the city manager shall direct that the disconnection be done by or for the city at the expense of the
city. This exception shall apply only to connections in existence in the city on November 28, 1972. (Code
1963, Sec. 28-12.1)

Sec. 5-6-37 - Air conditioning and refrigeration equipment discharging water—definition of "air
conditioning" and "refrigeration."

For the purpose and within the meaning of sections 5-6-38 and 5-6-39 of this code, the following
definitions shall apply:

(1) **Air conditioning.** The cooling or dehumidification, or both, of space used for human occupancy.

(2) **Refrigeration.** The artificial production of cold for the purpose of preservation of food products, process
work and maintenance of storage temperature. (Code 1963, Sec. 28-13)

Sec. 5-6-38 - Same—rate of water discharge.

It shall be unlawful for any person to discharge or allow to be discharged into the sanitary sewers of
the city or connections thereto, either directly or indirectly, water from any air-conditioning or refrigeration
equipment at a rate in excess of 10 gallons per hour per rated ton of air conditioning or refrigeration in the
aggregate. (Code 1963, Sec. 28-14)

Sec. 5-6-39 - Same—permit required for installation.

It shall be unlawful for any person to install or cause to be installed any air-conditioning or refrigeration
equipment which discharges, or is capable of discharging, water without first complying with the appropriate
provisions of title 8, chapter 1 of this code, relating to plumbing and gas fitting, and obtaining the permit
therein required. (Code 1963, Sec. 28-15)

Sec. 5-6-40 - Same—VPDES permit requirements.

(a) Notwithstanding any contrary provision of this code, it shall be unlawful for any person, after May 16,
1998 to:

(1) construct any new combined sewer, or any extension of a combined sewer, inside or outside of the
combined sewer service area of the city, provided that this subsubsection (1) shall not prohibit the
connection of new sanitary sewers constructed after May 16, 1998 to combined sewers within the
combined sewer service area, so long as the owner of the property to be served by the new sanitary
sewer demonstrates to the satisfaction of the director that the connection will not cause any combined
sewer overflows during dry weather flow conditions; or

(2) connect any new inflow source other than sewage disposal permitted under subsubsection (1),
including without limitation rain water drainage, sump pump discharge, or air conditioning or
refrigeration condensate discharge, into a sanitary sewer which is tributary to the combined sewer
system.

(b) A violation of this section shall constitute a class one civil violation. (Ord. No. 3998, 5/16/98, Sec. 1)
Secs. 5-6-41 through 5-6-50 - reserved.

DIVISION 2 - Sewage Disposal Systems

SUBDIVISION A

General

Cross References: Power of city with reference to sewage disposal system, see City Charter, Sec. 2.03, subsec. (u); toilets and basins in nursery schools, Title 12, Ch. 3; of this Code; toilet and lavatory facilities in foodhandling establishments, Title 11. Ch. 2.

Sec. 5-6-51 - Construction of terms.

The terms "install," "repair," "approved," and "standard," as used in this article shall be construed to mean in accordance with the specifications and standards established within this article. (Code 1963, Sec. 28-16)

Sec. 5-6-52 - Approved method of disposal of human excrement required.

It shall be unlawful for the owner of any house used as a human habitation or other place where human beings congregate or are employed in the city to use or occupy, or to rent or lease the same for the use of occupancy by any person, unless and until the house or building shall have been supplied or equipped with an approved method of disposal of human excrement of such construction as will comply with the requirements hereinafter designated. "An approved method of disposal of human excrement" shall be deemed to be either:

(1) a properly installed flush toilet connected to a public or approved private sewer;
(2) a flush toilet connected to an approved properly installed septic tank system; or
(3) a flush toilet connected to an approved sewage disposal plant, publicly or privately owned. (Code 1963, Sec. 28-17)

Sec. 5-6-53 - Approval of plans for sewer system, sewage disposal system and water system in new subdivision or housing developments.

It shall be unlawful for any person to start any new subdivision or housing development before furnishing, in triplicate, plans and specifications of the sewer system or sewage disposal system to be used, together with plans for the anticipated water system to be used in the structures. These plans and specifications must be approved by the director of public health or his agent before construction is started. (Code 1963, Sec. 28-18)

Sec. 5-6-54 - Compliance with article; injunction.

It shall be unlawful for any person to fail, neglect or refuse to comply with any provisions of this article. Any person violating any provision of this article may be enjoined from proceeding with the installation of or operation of any disposal system until the person shall comply with the provisions of this article. (Code 1963, Sec. 28-19)

Secs. 5-6-55 through 5-6-60 - reserved.

SUBDIVISION B

Septic Tank Systems
Sec. 5-6-61 - Permit for installation or repair.

(a) It shall be unlawful for any person to install or repair any septic tank system in the city except upon a permit as provided in this section.

(b) It shall be unlawful for any person to install or repair, have installed or repaired, allow to be installed or repaired or contract to install or repair a septic tank system for another person without first making application to the director of public health for a septic tank permit on application forms furnished by the director of public health. The application form shall contain clearly a description, location and dimensions of the land or lot on which the septic tank, distribution box and sewer piping are to be installed, the dimensions of the subsurface disposal field, the type of land, such as loam, sandy loam, clay, gravel, etc., the direction in which the land drains in relation to reservoirs, springs and wells, and be accompanied by a plat of the land when required, showing the location of dwelling house and all other buildings, and the plans and specifications of the whole septic tank system intended to be installed or repaired. Upon approval of such application, the director of public health shall issue a permit to the applicant for the installation of a septic tank system in accordance with the plans and specifications furnished. If the plans are not approved, but the size and location of the lot and type of soil are suitable for a septic tank system, properly planned, the director of public health shall clearly outline proper plans for the same and grant the permit only according to the plans so outlined by him. (Code 1963, Sec. 28-20)

Sec. 5-6-62 - Specifications.

(a) Generally. All septic tank systems installed or repaired in the city shall consist of sewer line from building to tank, septic tank, distribution box and drain tile disposal field. The sewer line shall be of cast-iron soil pipe, unless otherwise specified by the plumbing inspector. The entire system shall be built in accordance with the plans and specifications shown on the permit required.

(b) Excavations. All excavations and trenches shall be of sufficient dimensions to permit sewers, tanks and other structures of the size shown, specified to be properly placed therein, according to the plans and specifications as required by this regulation, and to permit the removal of any obstructing material within the disposal field.

(c) Re-excavations and the filling and refilling of trenches.

(1) Where unsuitable foundation is encountered at the depth of any excavation shown on the drawing or specified by the director of public health, further excavation and refilling the excavated spots with such foundation material as may be directed by film, is hereby required.

(2) A representative of the health department shall inspect septic tank construction after completion and before any part of the system shall be covered. Septic tank systems shall be back-filled immediately after inspection and approval by the director of public health and care shall be taken not to disturb the pipe, grades, joints or alignment by the backfilling, or otherwise.

(d) Pipes and jointing materials; size and types of house sewer.

(1) The house sewer for individual homes shall be constructed of four (4) inch or larger cast-iron pipe or equivalent.

(2) All house sewer pipes shall be laid complete with all jointing materials. All house sewer cast-iron pipe shall be jointed with lead and oakum or similar jointing material, and shall be approved by the plumbing inspector.

(3) All house sewer pipe shall be laid accurately and shall have a grade of not less than one-fourth (¼) of an inch to the foot, or as otherwise specified by the director of public health, and approximately 30 inches from the outside of the house there shall be a standard cast-iron cleanout tie with screw cover, and all right angle bends in the house sewer shall be made with long sweep soil pipe ells. Where septic tanks...
tanks are located more than 35 feet from the above cleanout, then additional cleanouts are to be provided.

(e) Location, design, liquid capacity and material required in septic tank disposal systems.

(1) Location and installation of the sewage disposal system and each part thereof shall be such that, with reasonable maintenance, it will function in a sanitary manner and will not create a nuisance nor endanger the safety of any domestic water supply. In determining a suitable location for the system consideration shall be given to the size and shape of the lot, slope of natural and finished grade, depth of ground water table, proximity to existing or future water supplies, and possible expansion of the system.

a. No part of the system shall be located so that it is nearer to any water supply than 50 feet, or so that surface drainage from its location may reach any domestic water supply.

b. The lot size shall be sufficient to permit proper location, installation and operation. The disposal field shall be located at least 10 feet from property line.

c. Installations in low swampy area or areas with a high water table or which may be subject to flooding are prohibited.

(2) Type of system shall be determined on a basis of location permeability and ground water level.

a. The system shall be designed to receive all sanitary sewage from the dwelling.

b. Basement floors, footings or roof drainage shall not enter any part of the septic tank system.

(3) Design of the septic tank shall be rectangular in shape and the length shall not be less than twice nor more than three (3) times the width. The liquid depth shall be not less than four (4) feet and the freeboard or airspace shall not be less than one (1) foot.

(4) Liquid capacity of all septic tanks shall be based upon the number of bedrooms contemplated in the building served and shall conform to Table I, herein shown.

<table>
<thead>
<tr>
<th>Potential of Home No. of Bedrooms</th>
<th>Capacity of Septic Tanks Gallons</th>
<th>Minimum Dimensions of Septic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Capacity of Home No. of Bedrooms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gallons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 or less</td>
<td>720</td>
<td>7’0”</td>
</tr>
<tr>
<td>4</td>
<td>1000</td>
<td>8’0”</td>
</tr>
<tr>
<td>5</td>
<td>1250</td>
<td>9’0”</td>
</tr>
<tr>
<td>6</td>
<td>1480</td>
<td>9’6”</td>
</tr>
<tr>
<td>7</td>
<td>1720</td>
<td>10’0”</td>
</tr>
</tbody>
</table>
(5) Construction of the septic tank shall be such as to assure its being watertight and prevent the entrance of rain water or surface drainage.

a. The tank shall be constructed of sound and durable material not subject to excessive corrosion or decay.

b. Adequate access to each compartment of the tank for inspection and sludge removal, shall be provided by a manhole or removable cover.

1. Where the top of the tank is located more than 18 inches below the surface of the ground, manholes shall be built up to within 12 to 18 inches of the surface.

c. Inlet and outlet connections shall be submerged or baffled to assure the least possible disturbances in the tank.

1. The inlet pipe or baffle shall extend approximately six (6) inches above the water surface and the outlet shall extend approximately two (2) feet below and six (6) inches above the water surface.

2. Venting of the tank shall be provided through the inlet and main building stack and shall be approved by the plumbing inspector. The outlet shall be similarly vented to provide proper ventilation of the disposal field or seepage pits back into the septic tank and thence through the main building stack.

d. Septic tanks shall be poured-in-place concrete, or precast concrete, or brick wall, or cinder block wall, or properly coated metal.

1. Concrete septic tanks, poured in place, shall be poured with a standard concrete mixture of 1-2-3 or 1-24 mix. Where the excavation is subject to caving, or where the water table is objectionably high, outside forms and pumping will be required in order to assure a water-tight tank. The walls, top and bottom of the tank are to be not less than four (4) feet thick, as shown on plans; top and manhole cover to be reinforced with reinforcing steel, as shown on plans.

2. i. Precast concrete tanks shall be of a design and size as stated in specifications submitted in accordance with section 5-6-61 of this code, and made with a standard 1-2-3 mixture. The walls shall not be less than two and one-fourth (2¼) inches in thickness, reinforced with No. 9 steel placed as shown in specifications submitted in accordance with section 5-6-61 of this code.

ii. The precast tank may be made in two (2) sections or more with a horizontal half lap joint, cement grounded. The bottom or top and a portion of the side walls shall be poured monolithically.

3. Where metal septic tanks are used, they are to be of the same design and with the same fittings as required for concrete tanks, provided they are constructed of a material of sufficient thickness and properly coated to prevent rusting.

(f) Subsurface disposal field.

(1) Location of the disposal field should be in an unobstructed and unshaded area, and the distances given shall be the minimum which the disposal field can be located from the following:

a. Any water supply (except as noted below) ..... 50 feet

b. Streams ..... 25 feet

c. Dwellings ..... 10 feet

d. Large trees ..... 10 feet

e. Property lines ..... 10 feet

f. When existing wells are involved or exceptionally coarse soil formations are encountered, the 50 foot distance from any water supply shall be increased in accordance with the recommendations of the health department.

(2) Distribution box of sufficient size to accommodate the necessary field lateral lines shall be constructed at the head of each disposal field.

a. Each field lateral line shall be connected separately to the distribution box and shall not be subdivided.
b. The invert of all outlets shall be level and the inlet invert shall be at least one (1) inch above the outlets.

(3) Minimum seepage area (total flat bottom of trenches) of the disposal field shall be determined by one of the following methods:

a. Recommendation of the health department, based upon experience data, in which case requirements should be stated on a basis of square feet of absorptive area per bedroom rather than lineal feet of tile.

b. Results of actual percolation tests conducted on the site of proposed disposal field. The tests shall be made by the owner and under the direct supervision of the health department and in the following manner:

1. Number of test holes. When a septic tank disposal field is to be constructed for a single dwelling unit with two (2) bedrooms or less, a minimum of two (2) test holes shall be used. One (1) additional hole shall be provided for each additional bedroom to be served. When installations are planned for multiple units or buildings not used as dwellings at least one (1) test hole shall be provided for each 400 square feet of area of the proposed disposal field site.

2. Location of test holes. The test holes shall be located on the site selected for the disposal field in a manner to be representative of the area under consideration. Tests shall not be made in filled ground unless it has been compacted for several years. All necessary surface drainage shall be completed before any percolation tests are made.

3. Preparation of test holes. The holes shall be six (6) inches to 12 inches in size and may be either circular or square and shall be dug to the depth of the proposed disposal field trench. A fixed reference point shall be provided in each test hole to permit accurate measurements of water levels. A layer of sand or fine gravel one (1) to two (2) inches thick shall be placed in the bottom of each test hole before any water is placed in the hole. Earth shall be mounded around tops of holes to prevent entrance of surface water and suitable covers shall be placed over them when holes are left unattended.

4. Conducting tests. First place water in hole to depth of at least 12 inches and allow to seep away. Proceed with test by filling hole to a depth of six (6) inches and record time required for the water to seep away. Then compute the average time required for the water level to lower one (1) inch. If water does not disappear from hole within six (6) hours, no further observations are necessary.

5. Determination of absorptive area from results of percolation tests.

<table>
<thead>
<tr>
<th>Average Time in Minutes for Water Level to Lower One Inch</th>
<th>Effective Absorption Area (Area in bottom of disposal trench) In Square Feet Per Bedroom or Per 100 Gal. Per Day of Estimated Water Use.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 minutes or less</td>
<td>130</td>
</tr>
<tr>
<td>11-20 minutes</td>
<td>170</td>
</tr>
<tr>
<td>21-30 minutes</td>
<td>210</td>
</tr>
<tr>
<td>31-40 minutes</td>
<td>250</td>
</tr>
<tr>
<td>41-50 minutes</td>
<td>290</td>
</tr>
<tr>
<td>51-60 minutes</td>
<td>330</td>
</tr>
</tbody>
</table>
Minimum installation shall be for a two (2) bedroom house.

(4) Construction shall be in accordance with recommendations of the health department.

a. All trenches in a disposal field shall be the and length, and the following same width standards shall be required.
   1. Minimum number of lines per field, two (2).
   2. Maximum length of individual lines, 100 feet.
   3. Minimum bottom width of trench, 18 inches.
   4. Maximum depth of cover of tile lines, 24 inches.
   5. Preferred depth of cover of tile lines, 16 inches.
   6. Grade of tile lines, 2" to 4" per 100 ft.
   7. Spacing of trenches, at least six (6) feet apart.
   8. Minimum filter material under tile, six (6) inches.
   9. Minimum filter material over tile, two (2) inches.

b. Pipe used for the lines between the septic tank and distribution box, on all lines within 10 feet of dwelling, under paved areas and on all main laterals from distribution box in fields constructed on sloping ground, shall be bell and spigot type of vitrified clay or concrete with watertight joints. Pipe used under driveways or other areas subject to heavy loads shall be bell and spigot cast iron with leaded joints. The sections laid in the disposal field shall not be considered in determining the effective absorption area.

c. Field tile used in the disposal field shall be not less than four (4) inches in diameter and shall be laid with one-fourth (¼) of an inch open joints.
   1. All open joints shall be protected, on top, by strips of asphalt-treated building paper at least ten (10) inches long and three (3) to six (6) inches wide.
   2. All bends used in the disposal field shall have one (1) tight joint at each end of the bend.

d. Filter material shall be hard and durable, of crushed stone, gravel, slag, screened cinder or similar material having sufficient voids and shall be acceptable to the health department of the city. Such material may vary from one-fourth (¼) of an inch to three (3) inches size.

e. Grade boards, securely staked in the bottom of the trench, shall be provided for all lines except where bell and spigot pipe is used. The grade boards shall be one (1) inch by four (4) inches and nailed to stakes in center of the trench as shown on the plans, or grade stakes at intervals of not more than five (5) feet. The grade boards shall be given a grade of from two (2) inches to four (4) inches per 100 feet. (Code 1963, Sec. 28-21)

Sec. 5-6-63 - Inspection.

If, upon any inspection the director of public health or his authorized agent shall find any violation of this division or the provisions of the permit issued under it, he shall direct the person to whom the permit was issued by written notice to make the necessary corrections within such reasonable time as shall be specified therein. (Code 1963, Sec. 28-22)

Sec. 5-6-64 - Cleaning septic tanks; disposition of sludge.
(a) No person shall engage in the business of cleaning septic tanks unless and until the equipment to be used by such person in connection with the operation of such business complies with this section and has been inspected and approved in writing by the health department.

(b) The tank into which the septic tank sludge is pumped or delivered and carried shall be fully enclosed and watertight. All inlets and outlets to the tank shall be fully enclosed and provided with watertight valves. Suction and discharge hose shall be watertight and provision shall be made for carrying such hose in a manner that will prevent any leakage therefrom. All exposed surfaces shall be painted and maintained in a sanitary condition by frequent washings. The name and address of the person owning or operating the equipment shall be painted thereon in letters at least four (4) inches high.

(c) It shall be unlawful to dispose of the sludge and other material removed from septic tanks except by depositing it under the surface of the ground in such manner that it will not be exposed to the atmosphere or endanger the source of domestic water supplies, or by depositing it into a public sewerage system or sewage treatment plant, at such designated locations and under such conditions as may be promulgated by the owners or operators thereof. In any event the sludge or other material shall be carefully deposited and the surface of the ground, manholes, tanks, etc. into which the deposit is made, shall be maintained in a sanitary condition. Any covering of such surfaces with sludge or other, material shall be promptly and completely removed. (Code 1963, Sec. 28-23)

Secs. 5-6-65 through 5-6-70 - reserved.

DIVISION 3 - Discharges into Sewer Collection System and POTW

Editorial Note: Ord. No. 3504, § 1, adopted March 16, 1991, repealed Tit. 5, Ch. 6, Art. B, Div. 3, §§ 5-6-71—5-6-77, 5-6-80—5-6-83, 5-6-90—5-6-99, which pertained to discharges into the sewage disposal system and POTW and derived from Ord. No. 3334, § 2, adopted Oct. 15, 1988. Section 2 of said Ord. No. 3504 added new provisions designated as Tit. 5, Ch. 6, Art. B, Div. 3, §§ 5-6-71—5-6-78, 5-6-80—5-6-82, 5-6-90—5-6-104 to read as herein set out. See the Ordinance Comparative Table for a detailed analysis of inclusion of Ord. No. 3504. Subsequently, Ord. No. 3661, § 1, adopted Sept. 18, 1993, amended Div. 3, in its entirety, to read as herein set out. Subsequently, Ord. No. 4-35, § 1, adopted March 23, 1999, repealed Div. 3, in its entirety. See the Ordinance Comparative Table.

Secs. 5-6-71—5-6-100 - reserved.

DIVISION 3.1 - Discharges into POTW

Editorial Note: Ord. No. 4035, § 2, adopted March 23, 1999, added Div. 3.1, §§ 5-6-101—5-6-223, to read as herein set out. Subsequently, Ord. No. 4501, § 1, adopted October 13, 2007, amended Div. 3.1, in its entirety, to read as herein set out. See also the Ordinance Comparative Table.

SUBDIVISION A - General Provisions

Sec. 5-6-101 - Purpose and policy.
This division sets forth uniform requirements for users of the Alexandria Sanitation Authority's publicly owned treatment works ("POTW") and the sewer system which carries wastewater to the POTW, and enables the Sanitation Authority to comply with all applicable federal and state laws, including but not limited to the Clean Water Act (33 U.S.C. § 1251 et seq.) and the general pretreatment regulations promulgated by the United States Environmental Protection Agency (40 C.F.R. Part 403). The objectives of this division are:

(1) To prevent the introduction of pollutants into the POTW that will interfere with its operation;
(2) To prevent the introduction of pollutants into the POTW that will pass through the POTW inadequately treated into receiving waters or will otherwise be incompatible with the POTW;
(3) To protect the general public and POTW personnel who may be affected by wastewater and sludge;
(4) To provide for the imposition of fees for the equitable distribution of the costs of operation, maintenance and improvement of the POTW and of other activities of the Alexandria Sanitation Authority under this division; and
(5) To enable the Alexandria Sanitation Authority to comply with its National Pollutant Discharge Elimination System permit conditions, sludge use and disposal requirements, and all other federal and state laws which apply to the operation of the POTW.

This division shall apply to all users of the POTW. This division authorizes the authority to issue wastewater discharge permits, to engage in monitoring, compliance and enforcement activities, to establish administrative review procedures, to require user reporting, and to set fees which equitably distribute the costs of its activities under this division. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-102 - Definitions.

For the purposes of this division, the following words and phrases shall have the meanings given below, except in those instances when the context clearly indicates a different meaning.

(a) Act or "the Act". The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. Section 1251 et seq.
(b) Administrator. The Administrator of the United States Environmental Protection Agency or those acting on his behalf.
(c) Approval authority. The Director of the Virginia Department of Environmental Quality.
(d) Authority. The City of Alexandria, Virginia, Sanitation Authority.
(e) Authorized representative of the user. A duly authorized representative of the individual or entity identified in paragraphs (1), (2), (3) or (4) below, if such representative is responsible for the overall operation of the facility from which the discharge originates. The authorization must be submitted to the authority in writing and must name the representative and the position he occupies. Whenever such authorization is no longer accurate, a new authorization must be submitted to the authority at least two weeks prior to submission of any reports signed by the authorized representative. An authorized representative shall be:
(1) if the user is a corporation:
   (a) the president, secretary, treasurer or a vice-president of the corporation who is in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
   (b) the manager of one or more manufacturing, production or operation facilities provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty or making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; can ensure that the necessary systems are established or actions taken to gather complete and accurate information for control mechanism requirements; and where
authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

(2) if the user is a partnership, a general partner of the partnership;

(3) if the user is a sole proprietorship, the proprietor; or

(4) if the user is a federal, state or local governmental facility, a director or highest official appointed or designated to oversee the operation and performance of the activities of the government facility, or such person's designee.

The individuals described in subsubsections (1) through (4) above may designate another authorized representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the user, and the written authorization is submitted to the authority at least two weeks prior to any reports being signed by the new designee.

(f) *Best management practices* or *BMP* means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices or procedures of users to prevent or reduce the discharge of pollutants, listed in section 5-6-11, into the POTW. Such practices may include, but are not restricted to, notification plans of any accidental discharge, solvent and toxic organic management plans, operating procedures, practices to control batch discharges, sludge and waste disposals, spillage or leaks, or drainage from raw material storage, and practices for pollution prevention control.

(g) *City.* The City of Alexandria.

(h) *Control authority.* The City of Alexandria, Virginia, Sanitation Authority.

(i) *Conventional pollutants.* BOD, TSS, fecal coliform, oil and grease, and pH.

(j) *Daily maximum limit or daily maximum.* The maximum allowable discharge of pollutant during a calendar day. Where daily maximum limitations are expressed in units of mass, the daily discharge is the total mass discharged over the course of the day. Where daily maximum limitations are expressed in terms of concentration, the daily discharge is the arithmetic average measurement of the pollutant concentration derived from all measurements taken that day.

(k) *Director.* The director of the department of transportation and environmental services of the city.

(l) *Discharge or indirect discharge.* The introduction of pollutants or wastewater containing pollutants into the POTW.

(m) *Engineer.* The engineer-director of the authority or another employee of the authority who has been duly authorized to act on the engineer-director's behalf or duly delegated the engineer director's authority.

(n) *Improperly shredded garbage.* The wastes from the preparation, cooking, eating, handling, dispensing, sale or storage of food that have not been shredded to such a degree that all particles are less than a half an inch (1.27 centimeters) in any dimension and will be carried freely under the flow conditions normally prevailing in public sewers.

(o) *Instantaneous limit.* The maximum concentration of a pollutant allowed to be discharged at any time, determined from the analysis of any discrete or composited sample collected, independent of the industrial flow rate and the duration of the sampling event.

(p) *Interference.* A discharge which, alone or in conjunction with a discharge or discharges from other sources:

(1) inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, or the use or disposal of its sludge;

(2) is a cause of a violation of any requirement of the authority's NPDES permit, including an increase in the magnitude or duration of a violation; or
(3) prevents the use or disposal of sludge at the POTW from complying with any provisions of federal, state or local law, including but not limited to section 405 of the Clean Water Act, the Solid Waste Disposal Act ("SWDA") (42 U.S.C.3251 et seq.), including title II which is more commonly referred to as the Resource Conservation and Recovery Act ("RCRA") (42 U.S.C.6901 et seq.), state regulations contained in any state sludge management plan prepared pursuant to subtitle D of the SWDA, the Clean Air Act and the Marine Protection, Research and Sanctuaries Act (33 U.S.C.1420 et seq.).

(q) Medical waste. Isolation waste, infectious agents, human blood and blood products, pathological wastes, sharps, body parts, contaminated bedding, surgical waste, potentially contaminated laboratory waste or dialysis waste which have been generated in the diagnosis, treatment or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals, and any other medical wastes as specified in the Virginia Medical Waste Management Regulations, 9 VAC20-120. The term does not include any household waste identified in 40 C.F.R.261.4(b)(l).

(r) National categorical pretreatment standards or categorical standards. Any regulation containing pollutant discharge limits, promulgated by the United States Environmental Protection Agency pursuant to sections 307(b) and (c) of the Clean Water Act (33 U.S.C Section 1317), which apply to a specific category of users which appear in 40 C.F.R., Chapter I, Subchapter N, Parts 405 through 471. All such standards are included in this division as if fully set forth herein.

(s) National Pollutant Discharge Elimination System permit or NPDES permit. A permit issued pursuant to Section 402 of the Clean Water Act.

(t) New source.

(1) Any building, structure, facility or installation from which there is or may be a discharge, the construction of which commences after the publication in the Federal Register of proposed pretreatment standards under the Clean Water Act that would be applicable to the source if such standards were thereafter promulgated, provided that:

(i) the building, structure, facility or installation is constructed at a site where no other source of pollutant discharges is located; or

(ii) the building, structure, facility or installation totally replaces the process or production equipment that causes the discharge from an existing source; or

(iii) the production or wastewater generating processes of the building, structure, facility or installation are substantially independent of an existing source at the same site.

In determining whether this "substantially independent" criterion is met, factors such as the extent to which the new facility is integrated with the existing plant and is engaged in the same general type of activity as the existing source shall be considered.

(2) Construction at a site at which an existing source of pollutant discharges is located results in a modification of the existing source, rather than a new source, if the construction does not create a new building, structure, facility or installation meeting the criteria of subsubsection (1) above, but otherwise alters, replaces or adds to existing process or production equipment.

(3) Construction of a new source has commenced if the owner or operator has:

(i) begun, or caused to begin, as part of a continuous on-site construction program, any replacement, assembly or installation of facilities or equipment, or any significant site preparation work, including excavation work or clearing or removal of existing buildings or structures;

(ii) entered into binding contractual obligations for the purchase of facilities or equipment which are intended to be used in the operation of the new source within a reasonable time; provided, that options to purchase, contracts which may be terminated or modified without substantial loss, and contracts for feasibility, engineering or design studies shall not constitute a contractual obligation under this subsubsection.

(u) Noncontact cooling water. Water used solely for cooling purposes which does not come in contact with any other discharge until it is discharged into the collection system or the POTW, and which does not exceed the pretreatment standards.
(v) *Pass through.* Any discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit, including an increase in the magnitude or duration of a violation.

(w) *Permittee.* A holder of a wastewater discharge permit issued by the authority.

(x) *pH.* The logarithm of the reciprocal of the weight of hydrogen ions in grams per liter of solution.

(y) *Photographic processing facility.* A facility which processes images from silver sensitized films and papers, including, but not limited to commercial photographic and film processing facilities, in-house photographic processing facilities, mini-labs, printers, and x-ray and other medical, dental, industrial, institutional or diagnostic facilities which produce a silver rich solution.

(z) *Pollutant.* Any dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, medical wastes, chemical wastes, industrial wastes, biological materials, radioactive materials, rock, sand, municipal wastes, and agricultural wastes.

(aa) *POTW or publicly owned treatment works.* The wastewater treatment plant operated by the authority, along with the pump stations and sewers which deliver wastewater to the plant.

(bb) *Pretreatment.* The reduction of the amount of pollutants to a less harmful state, or the elimination of pollutant properties in wastewater, prior to or in lieu of the discharge of the pollutants into the POTW. This reduction or elimination may be obtained by physical, chemical or biological processes or other means; it may not be obtained by dilution of the concentration of the pollutants, unless allowed by an applicable pretreatment standard, or by other means which are prohibited by 40 C.F.R.403.6(d).

(cc) *Pretreatment requirements.* Any substantive or procedural requirement related to pretreatment imposed on a user, other than a pretreatment standard.

(dd) *Pretreatment standards or standards.* Federal, state or local standards which prohibit certain pollutants from appearing in discharges or which limit the quantity or concentration of certain pollutants which may appear in discharges, including national categorical pretreatment standards promulgated by the United States Environmental Protection Agency.

(ee) *Prohibited discharge.* Any discharge containing a pollutant which is prohibited from entering the POTW.

(ff) *Sewer connection permit.* A permit issued pursuant to section 5-6-25 of this article.

(gg) *Silver CMP.* The Code of Management Practice for Silver Dischargers, issued by the Silver Council and the Association of Metropolitan Sewage Agencies, dated September 1995, as amended from time to time, which provides recommendations on technology, equipment and management practices for controlling silver discharges from facilities that process photographic materials. (A copy of the Silver CMP shall be obtainable from the authority.)

(hh) *Silver recovery.* The process of removing silver from silver rich solutions.

(ii) *Silver rich solution.* A solution containing sufficient silver such that cost-effective silver recovery can be done either on-site or off-site. In photographic processing facilities, such solutions include, but are not limited to, fix and bleach-fix solutions, stabilizers, low replenished (low-flow) washes, and all functionally similar solutions, but do not include low silver solutions such as used developers, bleaches, stop baths, pre-bleaches, stabilizers following washes and wash waters.

(jj) *Slug discharge.* Any discharge which, because of the concentration of pollutants or the quantity of flow, could cause a violation of a standard for prohibited discharges.

(kk) *User.* Any person or entity which is the source of a discharge.

(ll) *User, industrial.* Any person or entity which is a non-residential source of a discharge.

(mm) *User, significant industrial:*
(1) **Categorical.** Any industrial user subject to the national categorical pretreatment standards in 40 C.F.R. 403.6 and 40 C.F.R. Parts 405 through 471; and

(2) **Noncategorical.** Any other industrial user that discharges an average of 25,000 or more gallons per day of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater), contributes a process waste stream which makes up five percent or more of the average dry weather hydraulic or organic capacity of the POTW’s treatment capacity, or is designated a significant industrial user in accordance with 40 C.F.R. section 403.8(f)(g), on the basis that the industrial user has a reasonable potential to adversely affect the POTW’s operation or to violate any national categorical pretreatment standard or requirement.

(3) The authority may determine that the industrial user subject to categorical pretreatment standards is a non-significant categorical industrial user rather than a significant industrial user on a finding that the industrial user never discharged more than 100 gallons per day (gpd) of total categorical wastewater (excluding sanitary, non-contact cooling and boiler blow-down wastewater, unless specifically included in the pretreatment standard) and the following conditions are met:

(a) The industrial user, prior to engineer's finding, has consistently complied with all applicable categorical pretreatment standards and requirements;

(b) The industrial user annually submits the certification statement required by 40 CFR 403.12(q), together with any additional information necessary to support the certification statement; and

(c) The industrial user never discharges any untreated concentrated wastewater.

(4) Upon a finding that a user meeting the criteria in (mm)(2) of this section has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the engineer may determine that the user should not be considered a significant user in accordance with procedures in 40 CFR 403.8(f)(6).

(nn) **Wastewater.** Liquid and water-carried wastes containing any pollutants whether treated or untreated, which are discharged from any source into a POTW. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-103 - Administration.

Except as otherwise expressly provided in this division, the director is authorized to administer and enforce the provisions of this division, and is further authorized to delegate all or part of his authority to the engineer, who is authorized to redelegate his authority to another employee of the authority who has been authorized to act on the engineer's behalf. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-104 - Promulgation of procedures.

The authority is hereby authorized to establish rules and promulgate procedures that it deems necessary to implement the provisions of this division, including but not limited to the development of a compliance schedule for industrial users, the installation of pretreatment technology required to meet applicable pretreatment standards and requirements and to meet the requirements imposed by accidental spill and slug control plans or best management practices. (Ord. No. 4501, 10/13/07, Sec. 1)

Secs. 5-6-105 through 5-6-110. - reserved.

**SUBDIVISION B - General User Requirements**

Sec. 5-6-111 - Prohibited discharges.

(a) No user shall discharge or cause to be discharged into or the POTW any of the following substances, materials, waters or wastes:
(1) any gasoline, benzene, naphtha, fuel oil or other flammable or explosive liquid, solid or gas, which creates a fire or explosion hazard in the collection system or POTW, including but not limited to waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit (60 degrees Celsius) using methods specified in 40 C.F.R. 261.21;

(2) any petroleum oil, non biodegradable cutting oil or products of mineral oil origin in amounts that will cause interference or pass through;

(3) any water or waste containing toxic or poisonous solids, liquids or gases in sufficient quantity, either singly or by interaction with other wastes, to injure or interfere with any sewage treatment process, to constitute a hazard to humans or animals, to create a public nuisance or to create any hazard in the receiving waters of the collection system or the POTW, including but not limited to cyanides, chromium, copper, zinc, silver, lead, nickel, arsenic, mercury, cadmium and phenols;

(4) any water or waste having a pH of less than 6.0 or more than 11.0 standard units or having any corrosive property capable of causing damage or hazard to structures, equipment or personnel of the city, the collection system or the POTW;

(5) any solid or viscous substance capable of causing obstruction to the flow in the collection system or the POTW or interference with the proper operation of the collection system or the POTW, including but not limited to improperly shredded garbage, ashes, cinders, sand, mud, straw, wood or paunch manure;

(6) any liquid or vapor having a temperature higher than 140 degrees Fahrenheit (60 degrees Celsius) or, at the point of intake to the POTW, having a temperature higher than 104 degrees Fahrenheit (40 degrees Celsius);

(7) any waters or wastes containing fats, wax, grease or oils of animal or vegetable origin in concentrations greater than 100 mg/l as an instantaneous maximum or containing substances which may solidify or become viscous at temperatures between 32 degrees Fahrenheit and 140 degrees Fahrenheit;

(8) any radioactive substance of such half-life or concentration as may exceed safe limits as established by federal or state regulations;

(9) any odor- or color-producing substance exceeding concentrations which may be established by the authority for the purpose of meeting NPDES permit conditions;

(10) any quantity of flow or concentration, or both, which constitutes a slug discharge, and any pollutant, including any conventional pollutant, released in a discharge at a flow rate or pollutant concentration, or both, which will cause interference with the POTW;

(11) any substance from a septic tank, a truck or a portable vessel or device without prior written permission from the authority;

(12) used motor oil in any amount;

(13) any product containing used or otherwise contaminated antifreeze (ethylene glycol);

(14) any medical waste, except as specifically authorized by the engineer in a wastewater discharge permit;

(15) any hazardous waste, as defined in the Resource Conservation and Recovery Act, which is not covered by the domestic sewage exemption contained in 40 C.F.R. 261.4(a)(1)(ii);

(16) any substance, material, water or waste which the engineer determines to be or to contain a pollutant which will pass through or cause interference with the operation or performance of the POTW or will contaminate the resulting sludge; and

(17) any silver rich solutions from a photographic processing facility, unless such silver rich solution is managed by the photographic processing facility in accordance with the Silver CMP, prior to its introduction into the POTW.

(b) No user shall make or cause to be made any of the following discharges:

(1) any discharge which causes interference;
(2) any discharge which constitutes a pass through; 
(3) any discharge without a permit required by this division; 
(4) any discharge which violates national categorical pretreatment standards; 
(5) any discharge which constitutes or results in a violation of any permit term or condition; 
(6) any discharge which violates local limit pretreatment standards established by the authority under section 5-6-113 and in accordance with 40 C.F.R. 403.5(c)(1); and 
(7) any discharge of groundwater, stormwater, surface water, artesian well water, roof runoff, subsurface drainage, swimming pool drainage, condensate, deionized water, noncontact cooling water and unpolluted wastewater into the collection system or the POTW without written approval of the authority, except for those circumstances covered by sections 5-6-32 through 5-6-39.

c) Dilution of waste streams to meet the requirements of this section is prohibited.

d) Substances, materials, waters or wastes prohibited by this section shall not be processed or stored in such a manner that they could be discharged into the collection system or the POTW. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-112 - National categorical pretreatment standards.

(a) Where a categorical pretreatment standard is expressed only in terms of the mass or the concentration of a pollutant in wastewater, the engineer may impose equivalent concentration or mass limits in accordance with 40 C.F.R. 403.6(c).

(b) Where wastewater subject to a categorical pretreatment standard is mixed with wastewater not regulated by the same standard, the engineer shall impose an alternate limit using the combined waste stream formula in 40 C.F.R. 403.6(e).

(c) A user may obtain from the engineer a variance from a categorical pretreatment standard if the user can prove, pursuant to the provisions in 40 C.F.R. 403.13, that the factors relating to its discharge are fundamentally different from the factors considered by the United States Environmental Protection Agency when developing the categorical standard.

(d) A user may obtain from the engineer a net gross adjustment to a categorical pretreatment standard in accordance with 40 C.F.R. 403.15. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-113 - Local limits.

(a) The authority may establish, by regulation, maximum mass or concentration discharge limits for any pollutant that threatens the public health, presents an endangerment to the environment, interferes with the operation of the POTW or causes the authority to be in violation of its NPDES permit or any state permit issued to regulate the treatment of wastewater or the treatment or application of sludge. Such limits shall be determined at the point where the user’s wastewater is discharged to the collection system, except where the engineer determines that a limit may be applied at the end of process. All concentrations for metallic substances are for total metals unless otherwise indicated. Compliance with all parameters may be determined from a single grab sample. In addition, the authority shall impose the validly adopted local discharge limits of any political subdivision for those users whose discharges are tributary to a publicly owned treatment works of the subdivision, where the limits are applicable in the city pursuant to an agreement between the authority and the political subdivision.

(b) The authority may establish, by regulation or in discharge permits, standards or requirements for discharges which are necessary to ensure user compliance with section 5-6-111; provided, that no such standard or requirement may be less stringent than applicable federal standards and requirements. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-114 - Dilution.
No user shall increase the use of process water, or in any way dilute a discharge, in order to achieve compliance with a discharge limit, unless expressly authorized by an applicable pretreatment standard or requirement. The engineer may impose discharge limits that are based on the mass of pollutants upon users which are using dilution to meet applicable pretreatment standards or requirements, or when the imposition of such limits is otherwise appropriate. (Ord. No. 4501, 10/13/07, Sec. 1)

Secs. 5-6-115 through 5-6-120. - reserved.

SUBDIVISION C - Pretreatment of Wastewater

Sec. 5-6-121 - Pretreatment facilities.

Users shall provide wastewater treatment as is necessary to comply with this division, and shall comply with all categorical pretreatment standards and local limits and with the prohibitions set out in section 5-6-11, within the time limitations specified by federal, state or local regulation or by the authority, whichever is more stringent. Any facilities necessary for compliance shall be provided, operated and maintained at the user's expense. Detailed plans describing such facilities and operating procedures shall be submitted to the authority for review, and must be approved by the authority before such facilities are constructed. The review of such plans and operating procedures shall in no way relieve the user from the responsibility of modifying any such facility to produce a discharge acceptable to the authority under the provisions of this division. The engineer may require a user to have a certified operator on staff to ensure proper operation and maintenance of the pretreatment facility. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-122 - Additional pretreatment measures.

(a) Whenever deemed necessary, the engineer may require users to restrict their discharge during peak flow periods, to discharge certain wastewater only into specific sewers, to relocate and/or consolidate points of discharge, to separate sewage waste streams from industrial waste streams, and to comply with such other conditions as are necessary to protect the POTW. In addition, the engineer shall determine the user's compliance with requirements of this division.

(b) The engineer may require any person discharging into the POTW to install and maintain on its property and at its expense, a suitable storage and flow-control facility to ensure equalization of flow. A wastewater discharge permit may be issued solely for flow equalization. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-123 - Grease, fat and oils removal systems.

(a) Grease, fat and oils removal systems shall be installed where the discharge of grease laden waste from food preparation or food processing, or from any other commercial establishment, into the POTW will cause an impediment or obstruction. A grease, fats and oils removal system, to be approved by the authority, shall consist of one or a combination of the following:

(1) passive technology which includes an approved in-ground grease trap and an approved grease interceptor; or

(2) active technology which includes a grease recovery device that has been approved by the authority and a solids transfer/grease recovery device that has been approved by the authority.

(b) Waste that does not contain fat, grease or oils and that otherwise does not require treatment shall not be discharged into a grease, fats and oils removal system. Wastewater from dishwasher machines and wastewater that exceeds 130 degrees Fahrenheit shall not be introduced into a grease removal system. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-124 - Passive system requirements.
(a) **Grease traps.** The size, type and location of each grease trap shall be approved by an official designated by the authority. Grease traps of pre-cast or poured in-place concrete shall be constructed of sound durable material, not be subjected to excessive corrosion or decay, and shall be water and gas tight.

(b) **Grease interceptor.** A grease interceptor shall be sized and engineered based upon the anticipated load and/or conditions of actual use. A grease interceptor shall receive grease laden waste discharge from major point sources. A floor drain shall not be considered a major point source.

(c) **Grease interceptor capacity.** A grease interceptor shall have the grease retention capacity for the flow rates indicated in Table 1 set forth below in subsection (d).

(d) **Rate of flow controls.** A grease interceptor shall be equipped to control the rate of flow as set forth in Table 1.

### TABLE 1

**Grease Interceptor Capacity, Sizing and Rating**

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(Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-125 - Active system requirements.

(a) **Grease recovery devices.** Grease recovery devices shall be permitted in lieu of grease interceptors or grease traps in accordance with the following requirements:

(1) **Location.** Grease recovery devices shall receive all grease laden waste discharge from the major point sources. A floor drain shall not be considered a major point source.

(2) **Sizing.** Grease recovery devices shall be sized based upon the anticipated load and/or conditions of actual use.
Sec. 5-6-126 - High risk facilities.

Any high risk facility that has had violations of a wastewater discharge permit, of federal, state or local laws, or of requirements of the authority shall incorporate a grease recovery device in combination with and preceding the grease trap. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-127 - Alternative methods.

(a) Technology and methods, other than those set forth in sections 5-6-123 through 5-6-125, may be permitted by the authority; provided, that the technology or method meets the minimum performance standards established by the authority.

(b) Biological or chemical treatment agents. Biological or chemical treatment agents for the separation, emulsification and/or removal of grease, fats and oils are prohibited, unless a written authorization has been obtained from the authority. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-128 - Discharges from photographic processing facilities

(a) It shall be unlawful to discharge or otherwise induce silver rich solutions from a photographic processing facility into the POTW, unless such silver rich solution is managed by the photographic processing facility in accordance with the silver CMP, prior to its introduction into the collection system or the POTW.

(b) The silver CMP is a fully enforceable element of the authority's industrial pretreatment program and constitutes a local limitation for silver that is discharged from photographic processing facilities.

(c) Within 90 days after the enactment of this division for existing photographic processing facilities, or within 90 days before the date upon which a new photographic processing facility commences the discharge of silver rich solution into the POTW, the photographic processing facility shall notify the authority that it discharges or intends to discharge silver rich solutions and shall confirm that these discharges shall thereafter be managed in accordance with the silver CMP. No photographic processing facility shall thereafter discharge waste, solutions or other substances that are not in accordance with the silver CMP.

(d) A photographic processing facility which has implemented the silver CMP for the control of silver discharges to the POTW shall submit an annual compliance certification to the authority by November 30 of each year. This compliance certification shall be completed by an authorized representative of the photographic processing facility and shall contain the following statement:

On behalf of [name and address of photographic processing facility], I certify that, except as specifically noted below, this facility, since the date of its last certification, has implemented and maintained the silver CMP for the control of silver discharges to the POTW, and that, as of the date of this certification, this facility is in compliance with the requirements of the silver CMP. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-129 - Best management practices.

Where reasonably appropriate and required by the engineer, an industrial user shall provide and implement best management practices. The authority, acting through the engineer, shall have the authority and responsibility to enter upon the property of any industrial user, at any reasonable time, for the purpose of investigating whether the user is following the required best management practices. Best management practices may be part of the industrial user permit issued to industrial users. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-130 - Accidental discharge and slug control plan.

(a) The Engineer shall evaluate whether each industrial user needs an accidental discharge and slug control plan. Where reasonably appropriate and required by the engineer, an industrial user shall
provide protection from spills, leaks and/or slug discharges of prohibited materials and other wastes regulated under this division. For the purpose of this section, a slug discharge is any discharge of a nonroutine, episodic nature, including but not limited to an accidental spill or a noncustomary batch discharge. If the authority determines that an industrial use shall implement an accidental discharge and slug control plan is needed, the plan shall contain, at a minimum, the following elements:

(1) a description of the user's discharge practices, including nonroutine batch discharges;

(2) a description of stored chemicals;

(3) procedures for immediately notifying the authority of a slug discharge, including any discharge that would be a violation of section 5-6-111, with procedures for follow-up written notification within five days of the discharge;

(4) if necessary, procedures to prevent adverse impacts from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and measures and equipment for emergency response.

(b) Facilities to prevent such spills, leaks or slug discharges shall be provided and maintained at the industrial user's expense. Detailed plans showing such facilities and the operating procedures to provide this protection shall be submitted to the engineer for review, and shall be approved by the engineer prior to facility construction. The authority, acting through the engineer, shall have the authority and responsibility to enter upon the property of an industrial user, at any reasonable time, for the purpose of investigating or testing any facility to assure that an accidental spill and slug control plan is at all times fully effective. Accidental spill and slug control plan requirements may be part of the industrial user permit issued to industrial users.

(c) Immediately following a leak or spill, the industrial user shall notify the engineer or other authority personnel by telephone of the fact of the leak or spill, the extent of the leak or spill, and the known causes. Within five days following the leak or spill, the user shall submit to the engineer a detailed written report describing the cause of the leak or spill and the measures to be taken by the user to prevent similar future occurrences. Such notification shall not relieve the user of any expense, loss, damage or other liability which may be incurred as a result of damage to the POTW or any other property or of injury to persons caused by the leak or spill. Any such notification shall not relieve the user of any liabilities, fines or other applicable penalties which may be imposed under this code or other applicable laws. (Ord. No. 4501, 10/13/07, Sec. 1)

Secs. 5-6-131 through 5-6-140 - reserved.

SUBDIVISION D - Wastewater Discharge Permits

Sec. 5-6-141 - Wastewater discharge permits required.

(a) No significant industrial user shall discharge wastewater into the POTW without first obtaining a wastewater discharge permit from the authority, except that a significant industrial user that has filed a timely application pursuant to section 5-6-142 may continue to discharge for the time period specified therein.

(b) The engineer may require other users to obtain wastewater discharge permits as may be necessary to carry out the purposes of this division.

(c) Any violation of the terms or conditions of a wastewater discharge permit shall be deemed a violation of this division.
(d) Receipt of a wastewater discharge permit does not relieve a permittee of its obligation to comply with all federal and state pretreatment standards and requirements and with all other requirements of federal, state and local law. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-142 - Wastewater discharge permit required for new connections.

Any user required to obtain a wastewater discharge permit which proposes to begin or recommence discharging into the POTW shall obtain such permit prior to beginning or recommencing such discharge. An application for a wastewater discharge permit shall be filed at least 90 days prior to the date upon which any discharge will begin or recommence. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-143 - Wastewater discharge permits application content.

(a) All users required to obtain a wastewater discharge permit shall submit a permit application. The engineer may require all users to submit, as part of an application, the following information:

(1) all information required by section 5-6-161 of this division;
(2) a description of the activities, facilities and plant processes on the premises of the user, including a list of all raw materials and chemicals stored at the facility which are, or could accidentally or intentionally be, discharged to the POTW;
(3) the number and type of employees, hours of operation, and proposed or actual hours of operation;
(4) each product produced by type, amount, process or processes, and rate of production;
(5) the type and amount of raw materials processed (average and maximum per day);
(6) site plans, floor plans, mechanical and plumbing plans, and details to show all sewers, floor drains and appurtenances by size, location and elevation, and all points of discharge;
(7) time and duration of discharge; and
(8) any other information as may be deemed necessary by the engineer to evaluate the application.

(b) Incomplete or inaccurate applications will not be processed and will be returned to the user. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-144 - Issuance of wastewater discharge permit.

The engineer will evaluate the application and any data and other information furnished by the user, and may require additional information. Within 60 days after receipt of a complete wastewater discharge permit application, the engineer will determine whether to issue a wastewater discharge permit. The engineer may deny any application for a wastewater discharge permit if he determines that the discharge will not comply with the requirements set forth in this division or in federal, state and local law. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-145 - Wastewater discharge permit content.

A wastewater discharge permit shall contain a provision that expressly subjects the permit to all provisions of this division and all other applicable federal, state and local laws, regulations and conditions, and any user charges and fees established by the authority and/or the city. A permit shall also contain, at a minimum, the following:

(1) the name and address of the owner or operator of the user (the permittee), and the issuance, effective and expiration dates of the permit;
(2) the most stringent applicable discharge limits, including those limits established by this division, limits contained in applicable national categorical pretreatment standards, and limits established by another political subdivision pursuant to agreements between the authority and the subdivision;
(3) the local pretreatment limits as set forth in section 5-6-113;
(4) the monitoring requirements imposed on all permittees, including but not limited to the pollutants to be monitored, the locations for taking samples, the methods of taking and analyzing samples, and the frequency of taking samples;

(5) the reporting requirements imposed on the permittee, including but not limited to the type and contents of each report and the date of submission for each report;

(6) a requirement that, in the event sampling indicates a violation of any permit condition, the permittee shall notify the authority of the violation within 24 hours of first becoming aware of it, and shall repeat the sampling and analysis and submit the results of the repeat analysis to the authority within 30 days of first becoming aware of the violation; provided, that the permittee shall not be required to resample if the authority or the permittee performs sampling at the facility covered by the permit at a frequency of at least once per month, or the authority or the permittee performs sampling at the facility between the time when the permittee performs its initial sampling and the time when the permittee receives the results of this sampling;

(7) standard conditions that are contained in all wastewater discharge permits;

(8) specific conditions that apply to the particular permittee, including but not limited to requirements to construct, maintain and operate certain pretreatment facilities, requirements to develop and implement compliance schedules, requirements to develop and implement best management practices, and requirements to develop and implement accidental spill and slug control plans;

(9) other conditions as may be reasonably necessary to regulate the permittee; and

(10) the circumstances in which the permit may be examined and modified by the authority. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-146 - Wastewater discharge permit duration.

A wastewater discharge permit shall be issued for a specified time period, not to exceed five years from the effective date of the permit. A wastewater discharge permit may be issued for a period less than five years at the discretion of the engineer. Each wastewater discharge permit shall indicate the specific date upon which it will expire. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-147 - Wastewater discharge permit modifications.

(a) Upon the promulgation of a national categorical pretreatment standard, the authority shall notify all users holding a wastewater discharge permit which may be subject to the new standard. If the new standard is more stringent than corresponding requirements in the permits of such users, the authority shall modify the permits to require compliance with the new standard within the time frame prescribed by the standard. Where a user which becomes subject to a new pretreatment standard does not hold a wastewater discharge permit, the user shall file a completed permit application form with the authority within 90 days after the promulgation of the new standard, unless a federal or state statute or regulation requires that the application be filed within a shorter period of time.

(b) A wastewater discharge permit is subject to modification by the engineer as limitations or requirements identified in this division are revised or upon just cause. An industrial user shall be informed of any permit modification at least 30 days prior to the effective date of the modification, unless federal or state law or regulation requires an earlier effective date. Any modification in a permit shall include a reasonable time schedule for compliance. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-148 - Wastewater discharge permit transfer.

A wastewater discharge permit shall be issued to a specific user, as the permittee, for a specific facility and a specific operation. A permit shall not be assigned, transferred or sold by a permittee to a new owner or operator of the permittee's facility or to another user, unless the assignment, transfer or sale has been approved by the engineer. A permit shall, in the case of a new or changed user operation, automatically expire unless the new or changed operation has been approved by the engineer. (Ord. No. 4501, 10/13/07, Sec. 1)
Sec. 5-6-149 - Wastewater discharge permit revocation.

If the director or the engineer determines that a user's violation of any discharge limitations or standards or other requirements imposed on it by this division, including a permit issued pursuant to this division, threatens the public health, presents an endangerment to the environment, interferes with the operation of the POTW or causes the authority to be in violation of its NPDES permit or any state permit issued to regulate the treatment of wastewater or the treatment or application of sludge, the authority may suspend wastewater treatment service, including collection and treatment services, to the user. In addition, the city and the authority may revoke any permit issued under this article when the city or the authority determines that the user's continued discharge into the POTW will be in violation of any federal, state or local law or regulation, or any requirement or procedure issued pursuant to any such law. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-150 - Permit reissuance.

A wastewater discharge permittee may apply for the reissuance of a wastewater discharge permit at least 90 days prior to the expiration of the existing permit. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-151 - Regulation of waste received from other political subdivisions.

No user shall discharge into the POTW any wastewater containing pollutant levels above the local limit pretreatment standards set by the authority in accordance with 40 C.F.R. 403.5(c)(1). The authority shall require compliance with validly adopted local limits of other political subdivisions for users whose discharges are tributary to the POTW of such political subdivisions and applicable pursuant to agreements between the authority and the political subdivision. The authority may impose maximum mass or concentration discharge limits in accordance with section 5-6-113. (Ord. No. 4501, 10/13/07, Sec. 1)

Secs. 5-6-152 through 5-6-160 - reserved.

SUBDIVISION E - Reporting Requirements

Sec. 5-6-161 - Baseline monitoring reports.

Within 180 days after the effective date of a new or revised categorical pretreatment standard, or 180 days after a final administrative decision regarding a category determination submission under 40 C.F.R. 403.6(a)(4), whichever is later, any existing industrial user subject to the standard or determination which is currently discharging to or scheduled to discharge to or the POTW shall submit to the authority a report which contains the information set forth in subsections (1) through (7) below. At least 90 days prior to discharging into the POTW, any new industrial user, and any user that becomes a categorical industrial user by virtue of the promulgation of the new or revised categorical pretreatment standard, shall submit to the authority a report which contains the information described in subsections (1) through (7) below; provided, that new users shall give estimates of the information requested in subsections (4) and (5). New users shall also be required to include in this report information on the method of pretreatment that the user intends to use to meet the new or revised pretreatment standard.

(1) **Identifying information.** The industrial user shall submit the name and address of the facility, including the name of the operator and owners.

(2) **Permits.** The industrial user shall submit a list of any environmental control permits held by or for the facility.

(3) **Description of operations.** The industrial user shall submit a brief description of the nature, average rate of production, and the standard industrial classification of each operation carried out by the user. This description should include a schematic process diagram which indicates points of discharge from the regulated processes to the POTW.
(4) **Flow measurement.** The industrial user shall submit information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from each of its regulated process streams and from all other streams as necessary to allow use of the combined waste stream formula of 40 C.F.R. 403.6(e). The authority may allow for verifiable estimates of these flows where considerations justified by cost or feasibility.

(5) **Measurement of pollutants.**

(i) The industrial user shall identify the pretreatment standards applicable to each of its regulated processes.

(ii) The industrial user shall conduct, and submit the results of, sampling and analyses that identify the nature and concentration, or mass where required by an applicable pretreatment standard or by the authority, of the regulated pollutants that are in the discharge from each of its regulated processes. Both daily maximum concentrations and applicable average concentrations, or mass where required, shall be reported for each regulated pollutant. All samples shall be representative of daily operations. All sampling and analyses shall be performed in accordance with the techniques prescribed in 40 C.F.R. Part 136 and any amendments thereto; provided, that, if 40 C.F.R. Part 136 does not contain sampling or analytical techniques for the pollutants in question, or where the administrator determines that the Part 136 sampling and analytical techniques are inappropriate for the pollutants in question, sampling and analytical procedures suggested by the authority or other parties and approved by the administrator may be used.

(iii) In conducting the sampling required by this subsection the industrial user shall take a minimum of one representative sample to compile the data necessary to comply with the requirements of this subsection.

(iv) In conducting the sampling required by this subsection, samples shall be taken immediately downstream from pretreatment facilities associated with the industrial user, if any, or immediately downstream from the user’s regulated processes if no pretreatment facility exists. If non-regulated wastewater is mixed with the user's regulated wastewater prior to treatment, the user shall measure the flows and concentrations necessary to allow use of the combined waste stream formula of 40 C.F.R. 403.6(e) in order to evaluate compliance with each applicable pretreatment standard. Where an alternate concentration or mass limit has been calculated in accordance with 40 C.F.R. 403.6(e), this alternate limit, along with supporting data, shall be submitted to the authority.

(v) In its baseline report, the industrial user shall state the time, date and exact place of the sampling it has conducted pursuant to this subsection and the methods it used to analyze the samples, and shall certify that such sampling and analysis is representative of normal work cycles and expected pollutant discharges to the collection system and the POTW.

(vi) The authority may allow the submission of a baseline report which provides a measurement of pollutants by utilizing only historical data, as long as the authority concludes that the data provide sufficient information for it to determine the need for industrial pretreatment measures.

(6) **Certification.** The industrial user shall submit a statement, executed by an authorized representative of the user, as defined in section 5-6-172 and certified by a qualified professional as required by 40 C.F.R. 403.12(b)(6), that it is meeting all applicable pretreatment standards and requirements on a consistent basis or, if not, that identifies the additional operation and maintenance measures and/or the additional pretreatment measures that are required in order for it to meet the standards and requirements.

(7) **Compliance schedule.** If additional operation and maintenance measures and/or additional pretreatment measures are required in order for an industrial user to meet any pretreatment standard, the user shall describe the shortest schedule by which it will provide and implement such additional measures. The completion date shown on such schedule shall not be later than the compliance date established for the applicable pretreatment standard.

(8) **Modifications of pretreatment standards.**

Page 34
(i) If, at the time an industrial user's baseline report is submitted, the user's categorical pretreatment standard has been modified by a removal allowance pursuant to 40 C.F.R. 403.7, by the combined waste stream formula pursuant to 40 C.F.R. 403.6(e), or by a fundamental different factors variance pursuant to 40 C.F.R. 403.13, the information required by subsections (6) and (7) shall pertain to the modified limits.

(ii) If, subsequent to the submission of an industrial user's baseline report, the user's categorical pretreatment standard is modified by a removal allowance pursuant to 40 C.F.R. 403.7, by the combined waste stream formula pursuant to 40 C.F.R. 403.6(e), or by a fundamentally different factors variance pursuant to 40 C.F.R. 403.13, the user shall submit to the authority all amendments to the information required by subsections (6) and (7) within 60 days after the modified limit is approved.

(9) Compliance schedule for meeting categorical pretreatment standards. The following conditions shall apply to the schedule required by this section.

(i) The schedule shall contain increments of progress in the form reported by the dates for the commencement and completion of major events leading to the construction and operation of additional operation and maintenance measures and/or additional pretreatment measures required for the industrial user to meet applicable pretreatment standards (e.g., hiring an engineer, completing preliminary plans, completing final plans, executing contract for major components, commencing construction, completing construction); provided, that in no event, shall an increment referred to in this subsection exceed nine months.

(ii) The industrial user shall commit that not later than 14 days following each date set forth in the schedule and the final date for compliance, it will submit a progress report to the authority which, at a minimum, states whether it has complied with the increment of progress to be met on such date and, if not, states the date on which it expects to comply with the increment of progress, the reasons for delay, and the steps being taken to adhere in the future to the compliance schedule; provided, that in no event shall more than nine months elapse between the submission of those reports to the authority. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-162 - Report on compliance with categorical pretreatment standard deadline.

Within 90 days following the date for final compliance with an applicable categorical pretreatment standard or, in the case of a new source, following commencement of the introduction of wastewater into the POTW, any industrial user subject to the pretreatment standard and its requirements shall submit to the authority a report containing the information described in section 5-6-161(4) through (6) of this section. For industrial users subject to equivalent mass or concentration limits established by the authority in accordance with the procedures in 40 C.F.R. 403.6(c), this report shall contain a reasonable measure of the user's long term production rate. For all other industrial users subject to categorical pretreatment standards expressed in terms of allowable pollutant discharge per unit of production, or other measure of operation, this report shall include the user's actual production during the appropriate sampling period. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-163 - Periodic compliance reports.

(a) All industrial users subject to pretreatment standard, after the compliance date of the standard or, in the case of a new source, after commencement of its discharge into the POTW, submit not less than two times per year, unless required more frequently in the pretreatment standard or by the authority or the approval authority, a report stating the nature and concentration in the user's effluent of the pollutants which are limited by each pretreatment standard applicable to the user. This report shall also include a record of measured or estimated average and maximum daily flows during the reporting period for the discharge reported in section 5-6-161(4), except that the authority may require a more detailed report of the flows. At the authority's discretion and in consideration of such factors as local high or low flow rates, holidays, budget cycles and similar factors, the authority may agree to alter the months during which the reports required by this subsection shall be submitted. In cases where the Pretreatment Standard required compliance with a Best Management Practice (BMP) or pollution
prevention alternative, the User must submit documentation required by the engineer or the pretreatment standard necessary to determine the compliance status of the user.

(b) Where the authority has imposed mass limitations on industrial users, as provided for by 40 C.F.R. 403.6(d), the report required by subsection (a) shall indicate the mass of pollutants regulated by the applicable pretreatment standards in the discharge from the industrial user.

(c) For industrial users subject to equivalent mass or concentration limits established by the authority in accordance with the procedures in 40 C.F.R. 403.6(c), the report required by subsection (a) shall contain a reasonable measure of the user's long-term production rate. For all other industrial users subject to categorical pretreatment standards expressed only in terms of allowable pollutant discharge per unit of production, or other measure of operation, the report required by subsection (a) shall include the user's actual average production rate for the reporting period.

(d) The user shall report all monitoring results collected at the prescribed monitoring point as specified in the wastewater permit. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-164 - Monitoring and analysis to demonstrate continued compliance.

(a) The reports required by sections 5-6-161 through 5-6-163 shall contain the results of the sampling and analysis of the discharge of the industrial user, including the flow and the nature and concentration, or production and mass where requested by the authority, of the pollutants contained in the discharge which are limited by an applicable pretreatment standard. This sampling and analysis may be performed by the authority in lieu of the user. Where the authority performs the required sampling and analysis, the user will not be required to submit the compliance certification required under 40 C.F.R. 403.12(b)(6) and 40 C.F.R. 403.12(d). In addition, where the authority itself collects the information required for a report, including flow data, the user shall not be required to submit the report.

(b) If sampling performed by an industrial user indicates a violation of any permit condition, the user shall notify the authority within 24 hours of becoming aware of the violation. The user shall also repeat the sampling and analysis, and shall submit the results of the repeat analysis to the authority within 30 days after becoming aware of the violation.

(c) The reports required by section 5-6-163 shall be based upon data obtained through appropriate sampling and analysis performed during the period covered by the report, and the data shall be representative of conditions occurring during the reporting period. The authority shall require monitoring as frequently as necessary to assess and assure compliance by industrial users with applicable pretreatment standards and requirements.

(d) All analyses conducted under this section shall be performed in accordance with the applicable procedures set forth in section 5-6-161. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-165 - Notice of potential problems, including slug loading.

(a) In the case of any discharge, including but not limited to accidental discharges, discharges of a nonroutine, episodic nature, noncustomary batch discharges or slug loads, that may cause potential problems for the POTW, the user shall immediately telephone and notify the authority of the discharge. This notification shall include the location of the discharge, the type of waste, the concentration and volume, if known, of the waste, and the corrective actions taken by the user.

(b) Within five days following such discharge, the user shall submit a detailed written report describing the causes of the discharge and the measures to be taken by the user to prevent similar future occurrences. The authority may waive this requirement. Such notification shall not relieve the user of any expense, loss or damage (including damage to property and injury to persons); nor shall such notification relieve the user of any fines, penalties or other liabilities which may be imposed pursuant to this code.

(c) A notice shall be permanently posted on the user's bulletin board or other prominent place advising employees who to call in the event of a discharge described in subsection (a). Employers shall ensure
that all employees who may cause such a discharge to occur are advised of the emergency notification procedure.

(d) Significant industrial users are required to notify the authority immediately of any changes at its facility affecting potential for a slug discharge. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-166 - Reports of changed discharge.

(a) Each user must notify the authority, in writing, of any planned significant changes to the user's operations or system which might alter the nature, quality or volume of its wastewater, at least 30 days prior to the change.

(b) The engineer may require the user to submit such information as may be deemed necessary to evaluate the changed condition, including the submission of a wastewater discharge permit application under section 5-6-141.

(c) The engineer may issue a wastewater discharge permit under section 5-6-141 et seq. or modify an existing wastewater discharge permit in response to changed conditions or anticipated changed conditions.

(d) For purposes of this section, significant changes include, but are not limited to, flow increases of 20 percent or greater, and the discharge of any previously unreported pollutants. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-167 - Reports from unpermitted users.

All users not required to obtain a wastewater discharge permit shall provide reports to the engineer as required by the engineer. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-168 - Notice of violation; repeat sampling and reporting.

In the event sampling indicates a violation of any permit condition, the permittee shall notify the authority of the violation within 24 hours of first becoming aware of it, and shall repeat the sampling and analysis and submit the results of the repeat analysis to the authority within 30 days of first becoming aware of the violation; provided, that the permittee shall not be required to resample if the authority or the permittee performs sampling at the facility covered by the permit at a frequency of at least once per month, or the authority or the permittee performs sampling at the facility between the time when the permittee performs its initial sampling and the time when the permittee receives the results of this sampling. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-169 - Notification of the discharge of hazardous waste.

(a) Any user who discharges hazardous waste shall notify the authority, the Environmental Protection Agency Regional Waste Management Division Director, and all Virginia Hazardous Waste Authorities, in writing, of any discharge into the collection system or the POTW of a substance which, if otherwise disposed of, would be a hazardous waste under 40 C.F.R. Part 261. Such notification must include the name of the hazardous waste as set forth in 40 C.F.R. Part 261, the Environmental Protection Agency hazardous waste number, and the type of discharge (continuous, batch or other).

(b) If the user discharges more than 100 kilograms of such waste per calendar month to the collection system or the POTW, the notification shall contain, to the extent such information is known and readily available to the user, an identification of hazardous constituents in the waste stream discharged during that calendar month, and an estimate of the mass of constituents in the waste stream expected to be discharged during the following 12 months. All notification must take place no later than 180 days after the discharge commences. Any notification under this subsection must be submitted once for each hazardous waste discharged. However, notifications of changed discharges must be submitted under section 5-6-166. The notification requirement in this section does not apply to pollutants already reported by users subject to categorical pretreatment standards under the self-monitoring requirements of sections 5-6-161 through 5-6-163.
(c) Dischargers are exempt from the requirements of subsection (a) during a calendar month in which they discharge no more than 15 kilograms of hazardous wastes, unless the wastes are acute hazardous wastes as specified in 40 C.F.R. 261.3(d) and 261.33(e). Discharge of more than 15 kilograms of non-acute wastes, as specified in 40 C.F.R. 261.30(d) and 261.33(e), requires a one-time notification. Subsequent months during which the user discharges more than 15 kilograms of the same non-acute wastes do not require additional notification.

(d) In the event that new regulations are promulgated under Section 3001 of RCRA identifying additional characteristics of hazardous waste or listing any additional substance as a hazardous waste, the user shall notify the engineer, the EPA Regional Waste Management Waste Division Director and the Virginia Hazardous Waste Authorities of the discharge of such substance within 90 days of the effective date of the regulations.

(e) In the case of any notification made under this section, the user shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

(f) This section does not create a right to discharge any substance not otherwise permitted to be discharged under a permit issued under this division or pursuant to applicable federal, state or local law. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-170 - Analytical requirements.

All pollutant analyses, including sampling techniques, to be submitted as part of a wastewater discharge permit application or report shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto, unless otherwise specified in an applicable categorical pretreatment standard. If 40 CFR Part 136 does not contain sampling or analytical techniques for the pollutant in question, or where the EPA determines that the Part 136 sampling and analytical techniques are inappropriate for the pollutant in question, sampling and analyses shall be performed by using validated analytical methods or any other applicable sampling and analytical procedures, including procedures suggested by the director or other parties approved by EPA. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-171 - Sample collection.

Samples collected to satisfy reporting requirements must be based on data obtained through appropriate sampling and analysis performed during the period covered by the report, based on data that is representative of conditions occurring during the reporting period.

(a) Except as indicated in section (b) and (c) below, the user must collect wastewater samples using 24-hour flow-proportional composite sampling techniques, unless time-proportional composite sampling or grab sampling is authorized by engineer. Where time-proportional composite sampling or grab sampling is authorized by the authority, the samples must be representative of the discharge. Using protocols (including appropriate preservation) specified in 40 CFR Part 136 and appropriate EPA guidance, multiple grab samples collected during a 24-hour period may be composited prior to the analysis as follows: for cyanide, total phenols, and sulfides the samples may be composited in the laboratory or in the field; for volatile organics, the samples may be composited in the laboratory. Composite samples for other parameters unaffected by the compositing procedures as documented in approved EPA methodologies may be authorized by engineer, as appropriate. In addition, grab samples may be required to show compliance with instantaneous limits.

(b) Samples for oil and grease, temperature, pH, cyanide, total phenols, sulfides, and volatile organic compounds must be obtained using grab collection techniques.

(c) For sampling required in support of baseline monitoring and 90-day compliance reports required in section 5-6-161 and 5-6-162 [40 CFR 403.12(b) and (d)], a minimum of four grab samples must be used for pH, cyanide, total phenols, oil and grease, sulfide and volatile organic compounds for facilities for which historical sampling data do not exist; for facilities for which historical sampling data are available, the director may authorize a lower minimum. For the reports required by paragraphs section 5-6-164 (40 CFR 403.12(e) and 403.12(h)), the industrial user is required to collect the number of grab
samples necessary to assess and assure compliance by with applicable pretreatment standards and
requirements. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-172 - Report submission.

All written reports which are required to be submitted to the authority or engineer will be deemed to
have been submitted on the date postmarked by the United States Postal Service. For any report which is
not deposited, postage prepaid, into a mail facility serviced by the United State Postal Service, the date of
the authority's or engineer's receipt of the report shall govern. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-173 - Recordkeeping requirements.

All records which the engineer requires to be maintained by an industrial user shall be made available
for copying by the administrator, the city, the approval authority and the control authority upon request,
including documents associated with required Best Management Practices. These records shall remain
available for a period of at least three years. This period shall be automatically extended for the duration of
any litigation involving the user or the authority, or where the user has been specifically notified of a longer
retention period by the authority or the engineer. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-174 - Application signatories and certification.

All reports, data, product and materials information, and other information required by the authority or
engineer to be maintained by users shall be submitted to the authority or engineer upon request. All reports
submitted to the authority or engineer shall be signed by a representative of the user, who is authorized to
make a certification on behalf of the user, and shall include the following certification:

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 the person or persons directly responsible for gathering the 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 a knowing violation. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-175 - Fraudulent and false statements.

All reports and certifications required by this division are subject to the provisions of 18 U.S.C. 1001,
relating to fraudulent and false statements and the provision of the Clean Air Act, 330 S.C. 1311 and 1314,
relating to false statements, representation or certifications in reports required by the Act. (Ord. No. 4501,
10/13/07, Sec. 1)

Sec. 5-6-176 - Information requests to users; generally.

The engineer may request that a user submit information on the nature and characteristics of its
wastewater. The user shall provide this information within 60 days of the request. The engineer is
authorized to prepare a form for this purpose and may periodically require users to update all information
which has been provided in accordance with this section. (Ord. No. 4501, 10/13/07, Sec. 1)

Secs. 5-6-177 through 5-6-180 - reserved.

SUBDIVISION F - Compliance Monitoring

Sec. 5-6-181 - Right of entry for inspection and sampling; compliance schedules.
(a) The approval authority, the director, the engineer and other authorized personnel of the city and the authority may inspect any user to ascertain whether the requirements of this division are being complied with. Occupants of premises where wastewater is created for discharging into, or is discharged into, the collection system or the POTW shall allow the approval authority, the director, the engineer and authorized personnel of the city and the authority access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records, or the performance of any duties imposed by this division. The approval authority, the authority and the city shall have the right to set up on the property of a user all equipment and devices necessary to conduct sampling inspections, compliance monitoring and/or metering operations. Where a user has security measures in force which require proper identification and clearance before entry onto its property, the user shall make necessary arrangements so that, upon presentation of suitable identification, the director, the engineer and other personnel from the city and authority, or the approval authority, shall be permitted to enter, without delay, for the purpose of performing an inspection or monitoring.

(b) The approval authority, the authority and the city may require that each industrial user develop a compliance schedule for the installation of technology required to meet applicable pretreatment standards and requirements.

(c) The engineer may require a user to install monitoring equipment. The user at its own expense shall maintain at all times the facility's sampling and monitoring equipment in a safe and proper operating condition. All equipment and devices used to measure wastewater flow and quality shall be calibrated at least every six months by a qualified technician to ensure their accuracy.

(d) Any temporary or permanent obstruction to safe and easy access to the facility to be inspected or where sampling is to be conducted shall be promptly removed by the user at the request of the engineer and shall not be replaced. The cost of clearing such access shall be borne by the user.

(e) Unreasonable delays in allowing the engineer access to the user's premises shall be a violation of this division. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-182 - Search warrants.

If the engineer has been refused access to a building, structure or any other part of a user's property or premises, and is able to demonstrate probable cause to believe that there may be a violation of this division, or that there is a need to inspect and/or sample as part of a routine division inspection and sampling program of the authority designed to verify compliance with this division or any permit or order issued hereunder, or to protect the overall public health, safety and welfare of the community, the engineer may seek the issuance of a search warrant from an appropriate court. (Ord. No. 4501, 10/13/07, Sec. 1)

Secs. 5-6-183 through 5-6-190 - reserved.

SUBDIVISION G - Administrative Enforcement Remedies

Sec. 5-6-191 - Notice of violation.

A notice of violation is a written notice to a user by the engineer that the engineer has determined that the user has violated a pretreatment standard or another requirement of this division. Upon receipt of a notice of violation, the user shall inform the engineer of the reasons for the violation and the actions it intends to take to correct the violation, and shall proceed to undertake those actions and correct the violation. A notice of violation shall be sent by the engineer by certified mail, return receipt requested. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-192 - Compliance meeting; compliance schedule.

(a) If, following the issuance of a notice under section 5-6-191, the user continues to violate provisions of this division, the engineer may issue a "Notice of Compliance Meeting" to the user which requires the
user to attend a compliance meeting. Similarly, the engineer may require a user to attend a compliance meeting, without having first issued a notice under section 5-6-191, where the user's violations of this division are of significant magnitude or duration.

(b) Attendance at the compliance meeting is mandatory for the user, and failure to attend may result in an order for a show cause hearing or the filing of an action by the authority seeking remedies that are provided by this division and applicable federal, state and local laws.

(c) At the compliance meeting, the engineer may establish such procedures, investigations and studies as are deemed necessary to determine the cause of such violations and the actions that are required to correct them.

(d) At the compliance meeting, the engineer also may establish a compliance schedule that defines the actions to be taken by the user to determine the cause of the violations, or the actions that are to be taken to correct the violations, and the dates by which the actions are to be taken. A compliance schedule may be issued alone or may be incorporated into the user's wastewater discharge permit, an administrative order or another document. Failure to comply with the terms of the compliance schedule shall constitute a separate violation of this division, and may result in an order for a show cause hearing or the institution of a judicial action under subdivision H. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-193 - Appearance before the authority.

(a) If a user fails to comply with the terms of a compliance schedule, or otherwise violates the provisions of this division, the engineer may issue a written “Appearance Before the Authority” notice that requires the user to attend a regular or special meeting of the authority to enable the authority to review and investigate the failure, as well as the user's noncompliance which gave rise to the compliance schedule.

(b) A notice issued by the engineer under subsection (a) is separate from, and may be issued independently of an administrative order issued under section 5-6-194 or an order to show cause issued under section 5-6-195. An appearance before the authority under this section is not a condition precedent for other enforcement action by the engineer or authority.

(c) Failure of a user to appear before the authority as required by a notice issued under subsection (a) shall constitute a separate violation of this division, and may result in the institution of other administrative remedies under this subdivision or the institution of judicial actions under subdivision H. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-194 - Administrative order.

(a) The authority may issue an administrative order to a user which has failed to comply with one or more of the terms of a compliance schedule issued under section 5-6-192. The order shall require that the user come into compliance with the compliance schedule within a specified period of time.

(b) In conjunction with the issuance of any administrative order, the authority may assess a charge against the user equal to the actual costs incurred by the authority in the course of investigating the user, determining its violations, and issuing the order.

(c) Failure of a user to comply with an administrative order issued under subsection (a) shall constitute a separate violation of this division, and may result in the institution of other administrative remedies under this subdivision or the institution of judicial actions under subdivision H. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-195 - Order to show cause; show cause hearing.

(a) Notwithstanding any other provision in this subdivision, the authority may issue an order to any user which causes or allows an unauthorized discharge or otherwise violates this division that requires the user to show cause at a hearing before the authority why the authority should not revoke the user's
permit or take other enforcement action against it. The order shall specify the date, time and place of
the hearing.

(b) The order shall describe the user's noncompliance with its permit or with this division, shall state the
action that the authority proposes the user to undertake to remedy its noncompliance, and shall direct
the user to show cause before the authority why such action should not be taken.

(c) The authority shall cause the order to show cause to be mailed to the user by certified mail, return
receipt requested.

(d) Following the show cause hearing, the authority may take such action as it deems appropriate,
including but not limited to revocation of the user's permit, issuance of a written order that discharges
be ceased immediately or after a specified period of time, and the initiation of one or more judicial
actions under subdivision H. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-196 - Termination of service; revocation of permits.

(a) Notwithstanding any other provision in this subdivision, if the engineer determines that a user's
violation of any discharge limitations or standards or other requirements imposed on it by this division,
or by a permit issued pursuant to this division, endangers the public health, presents an endangerment
to the environment, interferes with the operation of the POTW or causes the authority to be in violation
of its NPDES permit or any state permit issued to regulate the treatment of wastewater or the treatment
or application of sludge, then the authority may, after providing notice to the user and an opportunity
to rebut the engineer's determination, suspend wastewater treatment service, including collection and
treatment services, to the user.

(b) Notwithstanding any other provision in this subdivision, if the authority determines that a user's
continued discharge into the collection system and the POTW will violate this division, federal, state
or local law, or regulations and requirements issue pursuant to such law, then the authority, after
providing notice to the user and an opportunity to rebut its determination, may revoke any permits
issued to the user under the provisions of this article. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-197 - Emergency suspensions.

(a) The engineer may immediately suspend a user's authorization to discharge into the POTW, after notice
to the user, whenever such suspension is necessary to stop an actual or threatened discharge which
reasonably appears to present or cause an imminent or substantial endangerment to the health or
welfare of any person.

(b) The engineer may immediately suspend a user's authorization to discharge into the POTW, after notice
to the user and an opportunity to respond, if the user's discharge threatens to interfere with the
operation of the POTW, or presents, or may present a non-imminent substantial endangerment to the
environment.

(c) Any user notified of a suspension of its authorization to discharge shall immediately stop or eliminate
its discharging. In the event of a user's failure to immediately comply with a suspension order, the
engineer may take such steps and measures as deemed necessary, including immediate severance
of the sewer connection, to prevent or minimize damage to the POTW or its receiving stream, or
endangerment to any individuals. Except where a notice of termination under section 5-6-196 has
been instituted against the user, the engineer may allow the user to recommence its discharge when
the user has demonstrated, to the satisfaction of the engineer, that the grounds for the suspension
order have been eliminated.

(d) A user that is responsible, in whole or in part, for a discharge that presents imminent danger shall
submit a detailed written statement, describing the causes of the harmful contribution and the
measures taken to prevent any future occurrence to the engineer, prior to the date of any show cause
or other hearing under this subdivision. (Ord. No. 4501, 10/13/07, Sec. 1)

Secs. 5-6-198 through 5-6-200 - reserved.
SUBDIVISION H - Judicial Enforcement Remedies

Sec. 5-6-201 - Criminal penalties.

(a) The owner and the operator of any user which has violated any provision of this division, of a wastewater discharge permit, or of an order issued under this division, or any other pretreatment standard or requirement shall, upon conviction thereof, be punished by a fine of not more than $1,000 per day for each violation or be imprisoned for up to 60 days for each violation, or both. Where a monthly or other long-term average discharge limit has been violated, each day during the applicable monthly or other long-term period shall constitute a separate violation. Also, violations of different provisions of this division, of a discharge permit, or of an order, and violations of different requirements of a pretreatment standard, shall constitute separate violations.

(b) In addition to the criminal penalty provided in subsection (a), the city and the authority may commence an action against the owner and the operator in the Circuit Court of City of Alexandria for appropriate legal or equitable relief, including but not limited to injunctive under section 5-6-203 and monetary damages. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-202 - Civil penalties.

(a) The owner and the operator of any user which has violated any provision of this division, of a wastewater discharge permit, or of an order issued hereunder, or any other pretreatment standard or requirement shall, in lieu of any criminal penalty, be liable for a civil penalty of up to $1,000 for each violation. An action seeking civil penalties may be filed by the city or the authority in the Circuit Court for the City of Alexandria. Where a monthly or other long-term average discharge limit has been violated, each day during the applicable monthly or other long-term period shall constitute a separate violation. Also, violations of different provisions of this division, of a discharge permit, or of an order, and violations of different requirements of a pretreatment standard, shall constitute separate violations.

(b) In determining the amount of the civil penalty to be assessed, the court shall take into account all relevant circumstances, including but not limited to the extent of harm caused by the violation, the magnitude and duration of the violation, the economic benefit gained by the user through its violation, the corrective actions taken by the user, the compliance history of the user, and any other factor as justice may require.

(c) In addition to the civil penalty provided in subsection (a), the city and the authority may commence an action against the owner and the operator in the Circuit Court of City of Alexandria for appropriate legal or equitable relief, including but not limited to injunctive under section 5-6-203 and monetary damages.

(d) The filing of a suit for civil penalties shall not be a prerequisite for taking or initiating any other enforcement action against a user; nor shall it be a bar against an action for injunctive relief under section 5-6-203. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-203 - Injunctive relief.

When the director or the engineer determines that a user has violated, or continues to violate, any provision of this division, of a wastewater discharge permit, or of an order issued pursuant to this division, or any pretreatment standard or requirement, the city or the authority may petition the Circuit Court for the City of Alexandria for issuance of a temporary or permanent injunction, as appropriate, which restrains the owner and operator of the user, or compels the owner and operator to come into compliance with the provisions of this division, the user's wastewater discharge permit, the order issued to the user, or the other pretreatment standards or requirements, as the case may be, which the user has violated. The city and the authority may also seek appropriate legal and/or equitable relief, including a requirement for the user to conduct environmental remediation. A request for injunctive relief shall not be a bar against, or a prerequisite for, the taking of any other enforcement action against a user. (Ord. No. 4501, 10/13/07, Sec. 1)
Sec. 5-6-204 - Remedies not exclusive.

The remedies provided for in this division are not exclusive. The city and the authority, and their authorized personnel, may take any other available enforcement actions against a noncompliant user. (Ord. No. 4501, 10/13/07, Sec. 1)

Secs. 5-6-205—5-6-210 - reserved.

SUBDIVISION I - Fees and Charges

Sec. 5-6-211 - Fees and charges; meters.

(a) An industrial user seeking a wastewater discharge permit shall pay an application fee of $100 before its application will be processed.

(b) The holder of a wastewater discharge permit shall pay a fee to the authority to offset the authority's costs in administering the wastewater discharge permit system. The fee shall be $500 for each year of the term of the permit. The fee shall be paid in full prior to the issuance of the permit. A fee of $100 shall be assessed for any revisions to a discharge permit.

(c) Each industrial user shall pay the chemical and biological monitoring costs actually incurred by the authority as required by the user's permit. Payment of these costs shall be made within 30 days of written notice by the authority.

(d) Sewer use charges may be established by city council by resolution. Such charges shall be assessed against users and shall be based on wastewater volume and strength, as determined by metering, sampling and laboratory analysis of user discharges into the POTW. For purposes of this subsection:

(i) The volume of wastewater discharged by a user into the POTW shall be based on the metered water consumption of the user, as shown in records maintained by Virginia American Water Company (“VAWC”). However, if a user which purchases water from VAWC considers that significant quantities of that water are not being discharged into the POTW, the user may request that the billings be based upon metered wastewater quantities. If the user's request is approved by the authority, the user may then provide and maintain, at its own expense, a meter acceptable to the authority for measurement of the quantities of wastewater discharged. The meter shall be accessible for inspection by the authority at all times and shall be maintained to produce an accurate record of the true quantities of wastewater discharged.

(ii) Whenever a user obtains any part of its water supply from sources other than VAWC, the user shall provide and maintain wastewater meters which will produce an accurate record of the true quantities of wastewater discharged into the POTW. However, in lieu of a wastewater meter, a user may utilize a water meter on its input water line if approved by the authority, in which case the readings from that meter shall be used to calculate the volume of wastewater flow that is to be used in computing charges.

(iii) No user may utilize an internal water meter to meter a portion of its total water use that either is or is not ultimately tributary to the sewer system as an alternative to a wastewater meter.

(e) All costs of meter installation, calibration and maintenance shall be borne by the user. The type of meter used by a user shall be acceptable to the authority. Meters shall be accessible at all times for inspection by the authority.

(f) In addition to the fees and charges established by or pursuant to this section, city council may, by resolution, establish and adjust other fees and charges to recover the costs that are incurred in the administration of this division.

(g) Fees and charges established pursuant to this section shall not preclude any other fees or charges established pursuant to or under other sections of this code. (Ord. No. 4501, 10/13/07, Sec. 1)
Sec. 5-6-212 - Attorneys' fees and costs; referrals.

(a) The city and the authority may recover reasonable attorneys' fees, court costs and other expenses associated with an enforcement activity that is taken under this division, including sampling and monitoring expenses.

(b) The engineer will refer any suspicious circumstances which may require an investigation to the city attorney. All criminal investigations will be referred to the commonwealth's attorney. (Ord. No. 4501, 10/13/07, Sec. 1)

Secs. 5-6-213 through 5-6-220 - reserved.

SUBDIVISION J - Miscellaneous Provisions

Sec. 5-6-221 - Confidential information.

Information and data on a user obtained from reports, surveys, wastewater discharge permit applications, wastewater discharge permits and monitoring programs, and from the authority's inspection and sampling activities, shall be available to the public without restriction, unless the user specifically requests, and is able to demonstrate to the satisfaction of the authority, that the release of such information would divulge information, processes, or methods of production entitled to protection as trade secrets under applicable law. Any such request for confidentiality must be asserted at the time the user submits the information or data. When requested and demonstrated by the user furnishing a report that such information should be held confidential, the portion of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public, but shall be made available immediately, upon the request of governmental agencies for uses related to the NPDES program or pretreatment program, and enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics and other "effluent data" as defined by 40 C.F.R. 2.302 will not be recognized as confidential information and will be available to the public without restriction. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-222 - Annual notice of significant noncompliance.

The engineer shall publish at least annually, in a newspaper of general circulation that provides meaningful public notice within the jurisdictions served by the authority, a list of the industrial users which, during the previous 12 months, were in significant noncompliance with applicable pretreatment standards and requirements imposed by this division. A user shall, for purposes of this section, be in significant noncompliance for any of the following reasons:

(1) chronic violations of wastewater discharge limits, defined as those in which 66 percent or more of all the measurements taken during a six-month period exceed, by any magnitude, a numeric pretreatment standard or requirement, including instantaneous limits, as defined by section 5-6-102;

(2) technical review criteria ("TRC") violations, defined here as those in which 33 percent or more of all the measurements for each pollutant parameter taken during a six-month period equal or exceed the product of the numeric pretreatment standard or requirement, including instantaneous limits, as defined in section 5-6-102; multiplied by the applicable TRC (1.4 for conventional pollutants and 1.2 for all other pollutants, except pH);

(3) any other violation of a pretreatment standard or requirement as term average, that the authority determines has caused, alone or in combination with other discharges, interference or pass through, including endangering the health of the general public or authority personnel;

(4) any discharge of one or more pollutants that has caused imminent danger to human health, welfare or the environment or has resulted in the authority's exercise of its emergency authority under 40 C.F.R. 403.8(f)(1)(vi)(B) to halt or prevent such discharge;
(5) failure to meet, within 90 days after the scheduled date, a compliance milestone, contained in a wastewater discharge permit or an enforcement order, for starting construction or attaining final compliance;

(6) failure to provide, within 45 days after its due date, any report required by this ordinance, such as a baseline monitoring report, a 90-day compliance report, a periodic self-monitoring report, or a report on compliance with a compliance schedule;

(7) failure to report noncompliance in a timely and accurate manner; and

(8) any violation or group of violations, which may include a violation of Best Management Practices, of this division that the authority determines has or will adversely affect the operation or implementation of the local pretreatment program. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-223 - Severability.

In the case of an inconsistency or conflict between a provision in this division and a provision set out elsewhere in this code, the provision of this division shall control. (Ord. No. 4501, 10/13/07, Sec. 1)

Sec. 5-6-224 - Method of storm and subsoil water disposal.

(a) Buildings shall have drainage provision for conveying storm water from roofs, paved areas and areaway drains, subsoil water, condensate, cooling water, etc., on the premise to a public storm sewer; except that where a public storm sewer is not available, an approved method of disposal shall be provided to the satisfaction of the director of transportation and environmental services. The director of transportation and environmental services may permit alternative means of disposal if the director deems the proposed alternative method to provide an environmental benefit to the city and the director determines that no nuisance will be created on any adjacent property or within the public right-of-way. Alternative methods of disposal may include, but are not limited to, onsite surface discharge, onsite infiltration and onsite detention in the form of a rain barrel or cistern. The director may require additional supporting information such as geotechnical or other engineering analyses. Direct discharge of roof drains within the public right-of-way may be permitted at the director's discretion. Direct discharge of ground water to gutters in the public right-of-way may be permitted at the director's discretion when a public storm sewer is not available.

(b) Availability.

(1) For a one- and two-family dwelling, a public storm sewer shall be deemed available when such sewer is within 100 feet of the premises on which the dwelling is located, measured along a street, and a connection may be made lawfully thereto.

(2) For any other buildings, a public storm sewer shall be deemed available when such sewer is within 500 feet of the premises on which the building is located, measured along a street, and a connection may be made lawfully thereto.

(c) Area drains are prohibited from entering septic tanks or public or private sewer systems unless specifically approved in writing by the director of transportation and environmental services.

(d) Prior to the issuance of any building permit for any proposed improvement to real property involving (1) the construction of a new home (2) construction of an addition to an existing home where either (A) the addition exceeds the area of the existing building footprint by 100 percent or more; or (B) the construction of the addition results in less than 50 percent of the existing first floor exterior walls, in their entirety, remaining; (3) changes to the existing grade elevation of one foot or greater; (4) changes to existing drainage patterns; or (5) land disturbance of 2,500 square feet or greater, a grading and drainage plan prepared by a professional engineer or land surveyor licensed by the Commonwealth of Virginia shall be submitted for review and approval by the director of transportation and environmental services or deputy director/city engineer. Such plan shall demonstrate that post-development drainage will have no greater impact on adjacent or down-stream property than pre-development conditions. The requirements for such plans, including without limitation form, content, methods of calculation, and procedures for review and approval, shall be established by regulations
promulgated by the director of transportation and environmental services. A plan review fee in the amount of $500 shall accompany such plan, except that in instances where the proposed improvement is already subject to the erosion and sediment control requirements set forth in section 5-4-1 et seq. of this code, and a fee has already been paid pursuant to those requirements, no additional fee shall be required. No building permit for improvements subject to this subsection shall be issued until after the grading and drainage plan has been approved. When a grading and drainage plan is required pursuant to subsections (d)(2), (3) or (4) hereof, the requirement may be waived by the director of transportation and environmental services or his designee when such a waiver is requested by the property owner and such request is accompanied by sufficient information to demonstrate to the satisfaction of the director or deputy director/city engineer, in his or her reasonable engineering discretion, that no adverse drainage impacts to abutting or adjacent property will occur as a result of the proposed construction. The director shall promulgate rules and regulations for the application, consideration, grant or denial of such waiver requests, including without limitation rules and regulations specifying the minimum information required for applications, and reasonable criteria and standards for the consideration of such requests. The decision on such requests shall be in writing, and shall state the grounds thereof. The decision to grant or deny a waiver request is committee to the discretion of the director or deputy director/city engineer, and shall not be subject to judicial review.

(e) Grading plans will be considered valid for a term of 36 months from the date of approval. A request to extend the validity of a grading plan must be submitted in writing to the director of transportation and environmental services a minimum of 60 days prior to expiration with a $100 fee. The director will determine if additional modifications or a new grading plan submission is required.

(f) Any change to an approved grading plan requires that an amended grading plan be filed and that the amended grading plan be reviewed and approved, pursuant to the provisions of this section 5-6-224(d). The director of transportation and environmental services may allow minor modifications without an amended grading plan. (Ord. No. 4659, 5/15/10, Sec. 8; Ord. No. 4800, 4/13/13, Sec. 1)

Sec. 5-6-225 - Violations and penalties.

(a) A violation of any section or provision of this article shall be a civil violation that shall be enforced through the levying of a civil penalty, pursuant to section 1-1-11 of this code, of $100 for a person's first violation and of $150 for each subsequent violation of the same section or provision. Each day during which a violation exists shall constitute a separate violation. However, a series of violations arising from the same operative set of facts shall not give rise to the levying of a civil penalty more frequently than once in any 10-day period, and shall not result in civil penalties exceeding a total of $3,000.

(b) In addition to the foregoing penalties, in the event that any person obtains a building permit based on representations that exempt the proposed construction from the grading and drainage plan requirements of section 5-6-224, and those representations prove to be incorrect, the director of transportation and environmental services or his designee may issue a written order stopping all work at the site until such time as a grading and drainage plan has been submitted for review and approved pursuant to section 5-6-224.

(c) A violation of any section or provision of this article may, in addition to and notwithstanding the penalty provided for in subsection (a) or (b), be restrained, prohibited or enjoined by appropriate proceedings in a court of competent jurisdiction. (Ord. No. 4659, 5/15/10, Sec. 8)
Appendix L: DWO Inspection Forms for Year 2018
## FORM D

City of Alexandria, Virginia  
Transportation & Environmental Services

CSO Outfall Dry Weather Overflow Inspection Log

Outfall No. 001 at Pendleton St.

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<th>Inspection Date</th>
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<th>DWO Occurrence</th>
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<th>Yes/No Describe Conditions Causing DWO</th>
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**SCHEDULE:**

Inspect each outfall twice a month to ensure that no dry weather flows are occurring.
# CSO Outfall Dry Weather Overflow Inspection Log

**Outfall No. 002 at Royal St.**

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**Note:**
Inspect each outfall twice a month to ensure that no dry weather flows are occurring.
FORM D

City of Alexandria, Virginia
Transportation & Environmental Services

CSO Outfall Dry Weather Overflow Inspection Log

Outfall No. 003 at King St./West St.

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</tr>
<tr>
<td>5/21/18</td>
<td>FIP/hs</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6/6/18</td>
<td>FIP/hs</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6/8/18</td>
<td>FIP/ML</td>
<td>N</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EDULE:

Inspect each outfall twice a month to ensure that no dry weather flows are occurring.
### CSO Outfall Dry Weather Overflow Inspection Log

**Outfall No. 004 at Jamieson Ave / Hooft's Run**

<table>
<thead>
<tr>
<th>Inspection Date</th>
<th>Person Involved</th>
<th>DWC Occurrence (Y/N)</th>
<th>If Yes, describe conditions causing overflow (Y/N)</th>
<th>If Yes, describe action taken to remedy overflow (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/6/18</td>
<td>FIP/MS</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1/9/18</td>
<td>FIP/MS</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/14/18</td>
<td>FIP/WG</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/20/18</td>
<td>FIP/MS</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/6/18</td>
<td>ML/MS</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/21/18</td>
<td>FIP/MS</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/19/18</td>
<td>FIP/MS</td>
<td>N</td>
<td></td>
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<tr>
<td>4/18/18</td>
<td>FIP/MS</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/10/18</td>
<td>FIP/MS</td>
<td>N</td>
<td></td>
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</tr>
<tr>
<td>5/21/18</td>
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<td>6/16/18</td>
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</tr>
<tr>
<td>6/18/18</td>
<td>FIP/ML</td>
<td>N</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:**

Inspect each outfall twice a month to ensure that no dry weather flows are occurring.
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Appendix M: Public Notice
Local Action, Global Impact

SATURDAY • APRIL 28, 2018
LENNY HARRIS MEMORIAL FIELDS AT BRADDOCK PARK*
1005 MT. VERNON AVENUE • 10AM — 2PM

*Rain Site: George Washington Middle School, 1005 Mt. Vernon Avenue*

UPCYCLING SHOWCASE • EXHIBITS • DEMONSTRATIONS • FOOD • FUN

alexandriava.gov/EarthDay • Events Hotline: 703.746.5592

use #EarthDayALX

Poster Sponsored By: American Advertising Distributors of Northern Virginia
Check Out Our Exhibitors!


City of Alexandria Exhibits:
Alexandria Beautification Commission * Alexandria Health Department/Alexandria Medical Reserve Corps (MRC) * Environmental Policy Commission * General Services: Office of Energy Management * Planning and Zoning * Recreation, Parks, and Cultural Activities: Jerome "Buddie" Ford Nature Center; Mobile Art Lab; Natural Resources Division; Park Maintenance Division; Park Planning, Design, Capital Development and Marina Division; and Recreational Programs Division * Transportation and Environmental Services: Eco-City Alexandria; Eco-City Clean Waterways; GoAlex; Public Works Services Division; Resource Recovery Division; Office of Recycling; and, Transportation Planning Division

Alexandria Earth Day 2018

10:00 a.m.
Welcome and Opening Remarks
The Native and Creative Trio from GW Middle School
CPS Poet Laureate – Yahney-Marie Bostick Sangaré
Exhibits
Over 60 Exhibits will be open from 10 am to 2 pm
Tent Talks
Every 20 minutes from 10 am to noon, on topics ranging from Alexandria’s Recycling program, Alexandria’s Environmental Action Plan, Healthy Kids, and Promoting Biodiversity to Renewable Energy and Saving Alexandria’s Bees

10:30 a.m. - 11:30 a.m.
Upcycling Showcase
This Trashin’ Fashion show features clothing and accessories made by “upcycling” used materials to new uses instead of recycling or dumping them.

12:00 p.m. - 12:15 p.m.
Remarks by Mayor Allison Silberberg
Reading of the Earth Day Proclamation

12:15 p.m. - 12:45 p.m.
Awards Ceremony
Earth Day Artist
Tree City USA Award
Ellen Pickering Environmental Excellence Award
Upcycling Showcase Winners

12:45 p.m. - 1 p.m.
Tree Planting Ceremony
Arbor Day & Pickering Award Tree Plantings

1 p.m. - 2 p.m.
Live music by the Chromatics

Our Food Vendors
Borinquen Lunch Box
Meggrolls

Alexandria Earth Day is a zero-waste event.
Please sort your waste into the recycling and composting bins.
Alexandria’s Combined Sewer System (CSS)

Combined Sewer Overflow Control: Improved Water Quality for a Sustainable Alexandria

Option B+: Unified Tunnel with Dual Use Facilities

Timeline & Costs
- Planning and design is currently underway with construction scheduled to begin in 2020
- Construction scheduled for completion in 2025
- Total Cost of Project = $350 - $550 million
- Sewer rates will be increased over time to fund the program

Option B+ Performance
- Reduces the number of overflow by 99 percent
- Less than 4 overflows per year on average
- Provide 96% capture of combined sewer flows to AlexRenew’s Water Resources Recover Facility for treatment
- Significant reductions in bacteria discharged into City waterways
- Exceeds regulatory requirements

Implementation Schedule
- City will transfer permit and outfall-related assets to AlexRenew
- AlexRenew will lead the implementation of the LTPCU, with support from the City

Partnering means leveraging our mutual experience and abilities

For more information visit:
AlexWetWeatherProgram.com or
AlexandriaVA.gov/CleanWaterways

What is a Combined Sewer System (CSS)?

Combined Sewer Overflows (CSOs)
Alexandria Takes a Major Step to RemEDIATE its Sewer System

to Promote Healthier Waterways

Alexandria’s largest infrastructure project to date targets a century-old sewer system issue

ALEXANDRIA, Virginia, July 2, 2018 — A joint plan prepared by Alexandria Renew Enterprises (AlexRenew) and the City of Alexandria outlining an approach to remediate a portion of Alexandria’s sewer system built in the late 1800s has been accepted by the Virginia Department of Environmental Quality (DEQ). The plan outlines the construction of infrastructure improvements to remediate four outfalls in Alexandria that currently discharge a mixture of rainwater and sewage into Alexandria’s rivers and streams during rain events. DEQ has issued a letter stating that the plan is compliant with the Virginia General Assembly legislation passed in April 2017 requiring that discharges from the four outfalls be remediated by July 1, 2025. The acceptance of the plan marks a major milestone in complying with the legislation.

The plan’s infrastructure includes construction of a deep tunnel system, approximately 2 miles long, and new sewer infrastructure to connect the tunnels to the existing sewer system. The plan also includes upgrades to AlexRenew’s Water Resource Recovery Facility to pump and treat wastewater collected in the tunnels. Once completed, the new tunnel system will connect to the existing outfalls to prevent millions of gallons of sewage mixed with rainwater from reaching our rivers and streams. Instead of polluting our waterways, the sewage and rainwater mixture will be captured by the tunnel system and conveyed to AlexRenew’s Water Resource Recovery Facility to be transformed into clean water and returned to the Potomac River. When the plan is complete, it is estimated to reduce the occurrence of discharges from approximately 60 to less than 4 times per year, on average. The significant reduction in the frequency and volume of these discharges will achieve cleaner, healthier waterways by reducing the amount of bacteria, trash, and other pollutants that currently impact Hooffs Run, Hunting Creek, and the Potomac River.
AlexRenew, in a partnership with the City of Alexandria, will lead the planning, design, and implementation of the plan to remediate the outfalls by 2025. AlexRenew has served Alexandria and portions of Fairfax county for over 60 years, conveying and transforming our community’s used and dirty water into clean and safe for use again and again. AlexRenew’s Water Resource Recovery Facility is a vital component to the plan since all flows captured by the new infrastructure will be delivered to the Facility for treatment. In order to accommodate the additional flows during rain events, AlexRenew will make significant upgrades to its existing debris and bacteria removal treatment processes. Additionally, in an effort to minimize impacts to the community, the plan proposes that the AlexRenew Facility serve as the main construction point for the proposed tunnel system. AlexRenew’s expertise in implementing large-scale treatment projects and its close partnership with the City of Alexandria will ensure that the plan is implemented by 2025.

AlexRenew will be conducting an extensive outreach program to ensure that the community and regulatory stakeholders are kept informed as the design for the tunnel system kicks off and is developed. Keep up to date with progress at alexwetweatherprogram.com and look for a new brand supporting this investment in healthier waterways for Alexandria soon!

###

**About AlexRenew**

Led by a five-member citizen board, Alexandria Renew Enterprises (AlexRenew) is a special-purpose wastewater authority serving over 300,000 people in the City of Alexandria and parts of Fairfax county. AlexRenew treats an average of 35 million gallons of wastewater per day at their Water Resource Recovery Facility, located in Alexandria, VA’s southwest quadrant.
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Appendix N: Public Meetings
# Combined Sewer System (CSS) Long Term Control Plan Update (LTCP-U)

## List of Presentations/Outreach

<table>
<thead>
<tr>
<th>#</th>
<th>Date</th>
<th>Presentation Title</th>
<th>Audience</th>
<th>Agenda</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8/5/2013</td>
<td>Proposed Combined Sewer System Permit</td>
<td>Public Meeting (through EPC)</td>
<td>Informational meeting to present details of draft permit and how to comment on the permit formally</td>
</tr>
<tr>
<td>2</td>
<td>10/30/2013</td>
<td>Combined Sewer System Permit and Long-Term Control Plan Update</td>
<td>Federation of Civic Associations</td>
<td>Description of CSS, permit history, Hunting Creek TMDL, permit requirements (long-range and near-term), public outreach and participation</td>
</tr>
<tr>
<td>3</td>
<td>11/13/2013</td>
<td>Combined Sewer System Permit and Long-Term Control Plan Update</td>
<td>Old Town Civic Association</td>
<td>Description of CSS, permit history, Hunting Creek TMDL, permit requirements (long-range and near-term), public outreach and participation</td>
</tr>
<tr>
<td>4</td>
<td>11/14/2013</td>
<td>Combined Sewer System Permit and Long-Term Control Plan Update</td>
<td>West Old Town Citizens Association</td>
<td>Description of CSS, permit history, Hunting Creek TMDL, permit requirements (long-range and near-term), public outreach and participation</td>
</tr>
<tr>
<td>5</td>
<td>1/28/2014</td>
<td>Joint Work Session with Alexandria Renew Enterprises – Sanitary Sewer and CSO Issues</td>
<td>City Council Work Session</td>
<td>Infiltration and inflow (I/I) sewer rehabilitation update, EPA inspection and combined sewer system permit reissuance, Long Term Control Plan Update (LTCP-U)</td>
</tr>
<tr>
<td>6</td>
<td>5/19/2014</td>
<td>Combined Sewer System and Long Term Control Plan Update (LTCP-U)</td>
<td>Environmental Policy Commission</td>
<td>CSS in the news, CSS overview and permit history, near-term permit requirements, LTCP-U overview and approach, public outreach plan</td>
</tr>
<tr>
<td>7</td>
<td>9/18/2014</td>
<td>Combined Sewer System Permit and Long-Term Control Plan Update</td>
<td>Porto Vecchio</td>
<td>Description of CSS, permit history, Hunting Creek TMDL, permit requirements (long-range and near-term), public outreach and participation</td>
</tr>
<tr>
<td>8</td>
<td>10/21/2014</td>
<td>Combined Sewer System Permit and Long-Term Control Plan Update</td>
<td>AlexRenew Board</td>
<td>Description of CSS and permit, Hunting Creek TMDL, LTCPU: goals, planning timeline, coordination with AlexRenew, CSO control strategies, regulatory pathways</td>
</tr>
<tr>
<td>9</td>
<td>10/27/2014</td>
<td>Combined Sewer System Permit and Long-Term Control Plan Update</td>
<td>Agenda Alexandria</td>
<td>Types of sewer systems, stormwater changes, CSS overview, Hunting Creek TMDL, LTCPU: goals, public participation, planning timeline, CSO control strategies, evaluation criteria, implementation</td>
</tr>
<tr>
<td>10</td>
<td>1/27/2015</td>
<td>Combined Sewer System Long-Term Control Plan Update</td>
<td>City Council Legislative Session</td>
<td>Update on City’s planning efforts including legal mandate, project status (overview of CSO control strategies and evaluation criteria) ongoing outreach, goals and objectives of LTCP-U Phase I Public Meeting</td>
</tr>
</tbody>
</table>
### Combined Sewer System (CSS) Long Term Control Plan Update (LTCPU)

#### List of Presentations/Outreach

<table>
<thead>
<tr>
<th>#</th>
<th>Date</th>
<th>Presentation Title</th>
<th>Audience</th>
<th>Agenda</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>1/28/2015</td>
<td>Combined Sewer System Permit and Long-Term Control Plan Update</td>
<td>Federation of Civic Associations</td>
<td>LTCPU Phase I Outreach – CSS overview, new regulations, progress on long-range planning efforts, implementation and financing, Feb 5 Phase I meeting</td>
</tr>
<tr>
<td>12</td>
<td>2/2/2015</td>
<td>Combined Sewer System Permit and Long-Term Control Plan Update</td>
<td>Environmental Policy Commission</td>
<td>LTCPU Phase I Outreach – CSS overview, new regulations, progress on long-range planning efforts, implementation and financing, Feb 5 Phase I meeting</td>
</tr>
<tr>
<td>13</td>
<td>2/5/2015</td>
<td>Combined Sewer System Permit and Long-Term Control Plan Update</td>
<td>LTCPU Phase I Public Meeting</td>
<td>LTCPU Phase I Public Meeting – CSS overview, new regulations, investing in infrastructure (CSO technologies and evaluation criteria), next steps, public participation and input</td>
</tr>
<tr>
<td>14</td>
<td>2/11/2015</td>
<td>Combined Sewer System Permit and Long-Term Control Plan Update</td>
<td>Old Town Civic Association</td>
<td>LTCPU Phase I Outreach – CSS overview, new regulations, investing in infrastructure (CSO technologies and evaluation criteria), next steps, public participation and input</td>
</tr>
<tr>
<td>15</td>
<td>3/18/2015</td>
<td>Combined Sewer System Permit and Long-Term Control Plan Update</td>
<td>NorthEast Citizens’ Association</td>
<td>LTCPU Phase I Outreach – CSS overview, new regulations, investing in infrastructure (CSO technologies and evaluation criteria), next steps</td>
</tr>
<tr>
<td>16</td>
<td>5/18/2015</td>
<td>Combined Sewer System Long Term Control Plan Update</td>
<td>Environmental Policy Commission</td>
<td>LTCPU Phase II Outreach – CSS mandate, LTCPU planning process, LTCPU control strategy rankings (shortlist presentation), discussion and input (green), next steps, upcoming outreach (Council work session and Phase II public meeting)</td>
</tr>
<tr>
<td>17</td>
<td>5/19/2015</td>
<td>Combined Sewer System Long Term Control Plan Update</td>
<td>Waterfront Commission</td>
<td>Overview of CSS, new regulatory requirements, LTCPU overview, upcoming outreach (Council work session and June 18 Phase II meeting)</td>
</tr>
<tr>
<td>18</td>
<td>5/26/2015</td>
<td>Combined Sewer System Long Term Control Plan Update</td>
<td>City Council Work Session</td>
<td>CSS mandate, LTCPU planning process, project status (evaluation criteria, combined sewer control strategy rankings), recommended short list of strategies, next steps (LTCPU, collaboration with partners, public outreach)</td>
</tr>
<tr>
<td>19</td>
<td>6/11/2015</td>
<td>Combined Sewer System Long Term Control Plan Update</td>
<td>West Old Town Citizens Association</td>
<td>LTCPU Phase II Outreach – Background (CSS overview and regulatory drivers), CSO control strategies, evaluation process, ranking and shortlist, next steps, June 18 Phase II meeting</td>
</tr>
<tr>
<td>20</td>
<td>6/18/2015</td>
<td>Combined Sewer System Long Term Control Plan Update</td>
<td>LTCPU Phase II Public Meeting</td>
<td>LTCPU Phase II Public Meeting – Background (CSS overview and regulatory drivers), CSO control strategies, evaluation process, ranking and shortlist, next steps, public participation and input</td>
</tr>
</tbody>
</table>
## Combined Sewer System (CSS) Long Term Control Plan Update (LTCPU)
### List of Presentations/Outreach

<table>
<thead>
<tr>
<th>#</th>
<th>Date</th>
<th>Presentation Title</th>
<th>Audience</th>
<th>Agenda</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>10/7/2015</td>
<td>CSS Stakeholder Group Meeting #1</td>
<td>CSS Stakeholder Group</td>
<td>LTCPU – Purpose and Goals, City’s Combined Sewer System (CSS), Investing in Infrastructure (CSO Strategies, Evaluation Process, CSO Strategies Ranking and Shortlist)</td>
</tr>
<tr>
<td>22</td>
<td>11/2/2015</td>
<td>CSS Stakeholder Group Meeting #2</td>
<td>CSS Stakeholder Group</td>
<td>LTCPU – CSO Control Strategies Ranking and Shortlist, Group Consensus Process and Questions for Today, Green Infrastructure Overview and Strategy</td>
</tr>
<tr>
<td>23</td>
<td>1/7/2016</td>
<td>CSS Stakeholder Group Meeting #3</td>
<td>CSS Stakeholder Group</td>
<td>LTCPU – Infrastructure Sizing Analysis, Green Infrastructure Strategy</td>
</tr>
<tr>
<td>24</td>
<td>2/4/2016</td>
<td>CSS Stakeholder Group Meeting #4</td>
<td>CSS Stakeholder Group</td>
<td>LTCPU – Infrastructure Sizing Recommendation, Tunnel Alignments and Tank Sites, Green Infrastructure Strategy Recommendation</td>
</tr>
<tr>
<td>25</td>
<td>3/3/2016</td>
<td>CSS Stakeholder Group Meeting #5</td>
<td>CSS Stakeholder Group</td>
<td>LTCPU – Tunnel Alignments and Tank Sites Recap and Recommendation, CSO-002 Storage Tanks, CSO-001</td>
</tr>
<tr>
<td>26</td>
<td>3/8/2016</td>
<td>Combined Sewer System Long Term Control Plan Update</td>
<td>City Council Work Session</td>
<td>Outreach and Stakeholder Group, Primary Strategy, Preliminary Sizing Recommendation, Green Infrastructure, Preliminary Costs and Next Steps</td>
</tr>
<tr>
<td>29</td>
<td>4/7/2016</td>
<td>CSS Stakeholder Group Meeting #6</td>
<td>CSS Stakeholder Group</td>
<td>LTCPU – Long Term Control Plan Framework, Schedule and Implementation Plan, Cost and Cost Impact, Discussion</td>
</tr>
<tr>
<td>30</td>
<td>4/11/2016</td>
<td>Combined Sewer System and Long Term Control Plan Update</td>
<td>NOTICe Board Meeting</td>
<td>LTCPU – Overall Strategy, Siting and Sizing, Green Infrastructure, CSO-001, Cost and Schedule</td>
</tr>
</tbody>
</table>
## Combined Sewer System (CSS) Long Term Control Plan Update (LTCPU)

### List of Presentations/Outreach

<table>
<thead>
<tr>
<th>#</th>
<th>Date</th>
<th>Presentation Title</th>
<th>Audience</th>
<th>Agenda</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>4/19/2016</td>
<td>Combined Sewer System and Long Term Control Plan Update</td>
<td>AlexRenew Board</td>
<td>LTCPU – Process, Regulatory Requirements, Framework, Input</td>
</tr>
<tr>
<td>37</td>
<td>5/10/2016</td>
<td>Combined Sewer System Long Term Control Plan Update</td>
<td>City Council Work Session</td>
<td>Summary of LTCPU and request to set the public hearing</td>
</tr>
<tr>
<td>38</td>
<td>5/14/2016</td>
<td>Combined Sewer System Long Term Control Plan Update</td>
<td>City Council Public Hearing</td>
<td>Summary of the LTCPU, public hearing, authorization to send draft report to VDEQ</td>
</tr>
<tr>
<td>33</td>
<td>11/8/2016</td>
<td>N/A – memo to Council</td>
<td>City Council Legislative Session</td>
<td>Provided Council with alternative strategy for CSO-001 to incorporate into final LTCPU document</td>
</tr>
<tr>
<td>34</td>
<td>5/30/2017</td>
<td>Long Term Control Plan Update and Impacts of Recent Combined Sewer Legislation</td>
<td>Public Meeting</td>
<td>Recap of CSO System, LTCPU submitted to VDEQ, impacts of recent legislation, next steps</td>
</tr>
<tr>
<td>35</td>
<td>10/12/2017</td>
<td>2017-2018 CSS Stakeholder Group Meeting #1</td>
<td>CSS Stakeholder Group</td>
<td>Purpose and goals, City-AlexRenew partnership, CSS overview, 2016 LTCPU, 2017 state legislation, CSO control strategies, public comment</td>
</tr>
<tr>
<td>36</td>
<td>11/20/2017</td>
<td>2017-2018 CSS Stakeholder Group Meeting #2</td>
<td>CSS Stakeholder Group</td>
<td>CSO program options, evaluation criteria, green infrastructure recap and discussion, public comment</td>
</tr>
<tr>
<td>37</td>
<td>1/10/2018</td>
<td>2017-2018 CSS Stakeholder Group Meeting #3</td>
<td>CSS Stakeholder Group</td>
<td>Purpose and Goals, Evaluation Criteria and Survey Results, CSO Program Options, Summary of CSO Performance, Green Infrastructure</td>
</tr>
<tr>
<td>38</td>
<td>1/29/2018</td>
<td>LTCPU Presentation to Nethergate Homeowners Association</td>
<td>Nethergate Homeowners Association</td>
<td>CSS Description, 2016 LTCPU and 2017 Legislation, City-AREnew Partnership, CSO Program Goals and Options, Summary of CSO Performance, Next Steps and Schedule, Rate Impact Discussion</td>
</tr>
</tbody>
</table>
## Combined Sewer System (CSS) Long Term Control Plan Update (LTCPU)
### List of Presentations/Outreach

<table>
<thead>
<tr>
<th>#</th>
<th>Date</th>
<th>Presentation Title</th>
<th>Audience</th>
<th>Agenda</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>2/22/2018</td>
<td>2017-2018 CSS Stakeholder Group Meeting #5</td>
<td>CSS Stakeholder Group</td>
<td>Purpose and Goals, Green Infrastructure Update, Evaluation Summary and Recommended Option, Stakeholder Recommendation and Process</td>
</tr>
<tr>
<td>41</td>
<td>3/19/2018</td>
<td>2017-2018 CSS Stakeholder Group Meeting #6</td>
<td>CSS Stakeholder Group</td>
<td>Purpose and Goals, Stakeholder Feedback, Option B Enhancement, Rate Analysis, Outfall Transfer Initiative, Stakeholder Recommendation Memo</td>
</tr>
</tbody>
</table>
Community Meetings

Following the approval of the LTCPU, community outreach efforts continued with a focus on civic and homeowner’s associations to provide an overview of the recommended plan. In September 2018, a series of four public Community Listening Sessions were conducted to update the community on the proposed tunnel routes and facility locations. The sessions were focused on obtaining the community’s input on the proposed alternatives to support the EA scoping process, and to help optimize the design to minimize impacts while achieving the program’s objectives. Nearly 200 community members attended the sessions and follow-up meetings and approximately 150 comments were received on the proposed alternatives. A summary of the dates, locations, and number of attendees at each listening session is provided in the table below.

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Outfall</th>
<th>Est. No. of Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/17</td>
<td>United Way</td>
<td>001</td>
<td>20</td>
</tr>
<tr>
<td>9/20</td>
<td>Residence Inn</td>
<td>003/4</td>
<td>30</td>
</tr>
<tr>
<td>9/24</td>
<td>St. Mary School</td>
<td>002</td>
<td>25</td>
</tr>
<tr>
<td>9/25</td>
<td>AlexRenew</td>
<td>All</td>
<td>40</td>
</tr>
<tr>
<td>10/10</td>
<td>Old Town Civic</td>
<td>All</td>
<td>65</td>
</tr>
<tr>
<td>10/21</td>
<td>Meet in the Street</td>
<td>002</td>
<td>50</td>
</tr>
</tbody>
</table>

Groups represented:

- City Council
- AlexRenew Board of Directors
- LTCPU Stakeholder Advisory Group
- National Park Service
- VDEQ
- Office of State Senator Adam Ebbin
- Office of State Delegate Mark Levine
- Virginia American Water
- Potomac Riverkeeper Network
- Old Town Civic Association
- Ford’s Landing
- St. Mary School
- Bike and Pedestrian Advisory Committee
RiverRenew Community Meetings, Presentations, and Press

Additionally, presentations were made to the following civic and homeowners’ associations:

<table>
<thead>
<tr>
<th>Date</th>
<th>Civic and Homeowner's Associations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/29/2018</td>
<td>Nethergate HOA</td>
</tr>
<tr>
<td>4/9/2018</td>
<td>Alexandria House/Rivergate HOA</td>
</tr>
<tr>
<td>6/14/2018</td>
<td>Founders Park Community Association</td>
</tr>
<tr>
<td>10/10/2018</td>
<td>Old Town Civic Association</td>
</tr>
<tr>
<td>10/14/2018</td>
<td>Historic Alex Resources Commission</td>
</tr>
<tr>
<td>10/24/2018</td>
<td>Old Dominion Boat Club</td>
</tr>
<tr>
<td>10/25/2018</td>
<td>West End Business Association</td>
</tr>
<tr>
<td>11/7/2018</td>
<td>Old Town Village</td>
</tr>
<tr>
<td>11/20/2018</td>
<td>Waterfront Commission</td>
</tr>
<tr>
<td>12/12/2018</td>
<td>Del Ray Civic Association</td>
</tr>
</tbody>
</table>

Local Press Coverage

Local press spread the word about passage of the LTCPU in July and the Listening Sessions in September. Media included news reports on radio, TV, online, in print, and even nationally in USA Today. Reach was calculated to over 46 million potential impressions. A summary of the press coverage over 2018 is provided in the tables below.

<table>
<thead>
<tr>
<th>Date</th>
<th>News Headline</th>
<th>Outlet Name</th>
<th>Unique Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/4/2018</td>
<td>Alexandria sewage tunnel plan approved</td>
<td>WTOP-FM Online</td>
<td>3,502,259</td>
</tr>
<tr>
<td>7/2/2018</td>
<td>Virginia regulators approve Alexandria sewer repair plan</td>
<td>Washington Post Online</td>
<td>43,925,810</td>
</tr>
<tr>
<td>7/1/2018</td>
<td>40 Under 40: Alexandria Chamber Celebrates City’s Emerging Business Leaders</td>
<td>Connection Newspapers—Online</td>
<td>152,240</td>
</tr>
<tr>
<td>6/30/2018</td>
<td>40 Under 40: Alexandria Chamber Celebrates City’s Emerging Business Leaders</td>
<td>Alexandria Gazette Packet</td>
<td>N/A</td>
</tr>
<tr>
<td>6/27/2018</td>
<td>Opinion: Commentary: Partnering for a Cleaner Potomac</td>
<td>Connection Newspapers—Online</td>
<td>152,240</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>47,650,397</td>
</tr>
</tbody>
</table>
## Summary of Additional Press Coverage

<table>
<thead>
<tr>
<th>Outlet Name</th>
<th>News Headline</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAMU 88.5</td>
<td>“After Decades of Polluting Potomac, Alexandria Plans New Sewage Tunnel”</td>
</tr>
<tr>
<td>AlexRenew</td>
<td>“Alexandria’s Combined Sewer System Remediation Plan Gets a New Name”</td>
</tr>
<tr>
<td>Alexandria Times</td>
<td>“AlexRenew names outfalls remediation effort, plans community meetings”</td>
</tr>
<tr>
<td>LocalDVM.com</td>
<td>“AlexRenew promotes clean waterways”</td>
</tr>
<tr>
<td>The Washington Post</td>
<td>“Virginia regulators approve Alexandria sewer repair plan”</td>
</tr>
<tr>
<td>AlexandriaNews.org</td>
<td>“Alexandria takes a major step to remediate its sewer system to promote healthier waterways”</td>
</tr>
<tr>
<td>WTOP News</td>
<td>“Alexandria sewage tunnel plan approved”</td>
</tr>
<tr>
<td>Alexandria Times</td>
<td>“DEQ signs off on city’s outfalls remediation plan”</td>
</tr>
<tr>
<td>USA Today</td>
<td>“Wet Weather Program Featured in State-By-State News”</td>
</tr>
</tbody>
</table>
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