

*City of Alexandria, Virginia*

---

**MEMORANDUM**

MEMORANDUM TO INDUSTRY NO. 07-14

DATE: JUNE 20, 2014 [EFFECTIVE DATE JULY 1, 2014]

TO: DEVELOPERS, ARCHITECTS, ENGINEERS, AND SURVEYORS

FROM: WILLIAM SKRABAK, DEPUTY DIRECTOR, INFRASTRUCTURE AND ENVIRONMENTAL QUALITY, TRANSPORTATION AND ENVIRONMENTAL SERVICES *WS*

SUBJECT: DEVELOPMENT REQUIREMENTS FOR THE COMBINED SEWER SERVICE AREA

---

**DESCRIPTION OF THE COMBINED SEWER SYSTEM (CSS)**

The City of Alexandria (City) has a combined sewer system (CSS) comprising of about 38 miles of pipes serving an area of about 540 acres, which is primarily located east of the railroad corridor and centered in Old Town, Alexandria (Figure 1). The City's CSS of is divided into three separate CSS areas: King and West, Royal, and Pendleton as shown on the figure. During dry weather, municipal wastewater (sanitary sewage) collected from homes and business in these CSS areas is conveyed to the Alexandria Renew Enterprises (AlexRenew) Water Resource Recovery Facility (WRRF). However, during wet weather periods stormwater runoff is introduced to the pipe network and the capacity of the CSS may be exceeded. The excess flow, which is a combination of stormwater runoff and sanitary sewage, is discharged directly into Hunting Creek, Hooff's Run or Oronoco Bay; that eventually discharge to the Potomac River through the City's four permitted combined sewer outfalls. These outfalls are regulated under the City's Virginia Pollutant Discharge Elimination System (VPDES) Permit as point source discharges of combined sewer overflow (CSO) from the City's CSS: Pendleton Street CSO (Outfall 001), Royal Street CSO (Outfall 002), and King and West/Hooff's Run (Outfall 003 and Outfall 004).

## **PURPOSE**

A Total Maximum Daily Load (TMDL) has been established for the Hunting Creek watershed that includes Hooff's Run for *E. coli* bacteria, which is found in both sanitary sewage and stormwater runoff. The TMDL calls for sizable reductions in the volume of CSO discharged from CSO Outfalls 002, 003 and 004.

The purpose of this Memorandum to Industry is to present the City's CSS Management Policy related to development and redevelopment in the combined sewer area. This policy has been developed to minimize the environmental impacts of CSOs on the receiving waters and to comply with the City's VPDES permit effective August 23, 2013. This memo provides a path for developers to follow for projects located in the CSS area. The requirements related to development/redevelopment projects in the CSS are presented below.

## **EXCEPTIONS**

The following exceptions only apply to the CSS Management Policy stated in this Memorandum to Industry. All other requirements related to development/redevelopment shall be adhered to.

1. Single family residence not part of a larger redevelopment project.
2. Addition to an existing property that does not increase the amount of sanitary sewage generated.

## **CSS MANAGEMENT POLICY REQUIREMENTS**

The goal of the Combined Sewer System Management Policy is to minimize the impact of combined sewer discharges to the environment. All new development and/or redevelopment projects (not listed in Exceptions) shall be required to implement the Combined Sewer System Management Policy. All applicants will be required to provide onsite separation and implement Option A when connection to a fully separate sewer system is available. Options B and C will be available if separation is not available or

feasible as determined by the Director of Transportation and Environmental Services (T&ES). The requirements are as follows:

Option A (preferred option):

- All sanitary sewage and/or stormwater from the redevelopment site shall discharge to fully separated sewer systems (i.e. does not discharge to a combined sewer downstream) if such systems are available as determined by the Director of T&ES. If the developer is able to separate additional offsite areas (either upstream or downstream from the project site), then a credit will be applied to the sewer connection fees for the number of offsite units (or non-residential equivalent) separated as determined by the Director of T&ES). If this difference is greater than the sewer connection fee, then the sewer connection fee will be waived and no addition credit or payment will be provided by the City.

Option B (if Option A is not achievable):

- Retain 50 percent of the annual stormwater runoff generated from the development site onsite. A number of alternatives may be implemented to meet this requirement including installation of green roofs, permeable pavement, and/or bioretention. If soil conditions onsite renders this option technically infeasible, supporting documentation to the Director of T&ES must be provided.

Option C (if Option A or B is not achievable):

- Provide for offsite separation of sanitary and/or storm sewers to the satisfaction of the Director of T&ES. The number of units (or non-residential equivalent) separated must be at least the same as the proposed development. There may be multiple options for offsite sanitary sewer separation. City Staff will work with the developer (or developer's representative) to determine which option is most practicable; OR
- Pay a contribution in lieu of offsite separation:
  - Contribution = Stormwater Fee + Sanitary Fee
    - Stormwater Fee = \$200,000 x total parcel area in acres

- Sanitary Fee = \$1.50 x peak wastewater flow in gallons\*\*  
*\*\*Peak wastewater flow calculated using flow factors from the Sanitary Sewer Adequate Outfall Memo to Industry No. 06-14*

It should be noted that the contributions do not apply to areas served by separate sanitary or stormwater systems. For instance, if a redevelopment project is located in the CSS area where the sanitary sewage is connected to a combined sewer, but the stormwater has already been fully separated, then the applicant shall only be required to pay the sanitary fee.

**FOR ADDITIONAL INFORMATION**

If you have any questions about the CSS Management Policy, please contact Lalit Sharma, Division Chief, Stormwater and Sanitary Division, T&ES at 703-746-4065.

Attachments: Figure 1. Map of Combined Sewer System

# Map of Combined Sewer System

FIGURE 1

