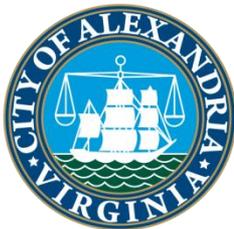


City of Alexandria, Virginia

# Combined Sewer System Long-Term Control Plan Update

City Council  
January 27, 2015

Transportation and Environmental Services  
Stormwater and Sanitary Infrastructure Division



**ECO-CITY**  **ALEXANDRIA**

# Overview

**Purpose:** To provide an update on the City's planning efforts related to the combined sewer system (not separate storm sewer system)

- Legal mandates requiring planning efforts
- Status of the planning effort
- Ongoing public outreach and civic engagement efforts
- Upcoming public meeting - goals and objectives

**Note:** The stormwater system and combined sewer system have two separate permits administered by the Virginia Department of Environmental Quality with different mandates

# Combined Sewer System

≈540 acres (6.4% of total City area)

## Four Combined Sewer Overflow Outfalls permitted by VDEQ

- Outfall 001 discharges into Oronoco Bay
- Outfall 002 discharges into Hunting Creek
- Outfall 003 discharges into Hooff's Run
- Outfall 004 discharges into Hooff's Run



# Hunting Creek Bacteria Total Maximum Daily Load (TMDL)

## Hunting Creek Bacteria TMDL:

- Significant reductions (80-99%) in combined sewer overflows
- Applicable to outfalls 002, 003, and 004
- Combined sewer system permit issued August 2013 required City to address TMDL through update to its Long Term Control Plan

## Other Regulatory Drivers:

- Outfall 001 will likely need to be addressed in the future
- MS4 permit and new state regulations will require substantial stormwater investment citywide

# August 2013 Permit

## **Near-term requirements (2013-2018)**

- Area Reduction Plan
- CSO outfall improvement projects
- Green infrastructure
- Minimum of \$2.5M programmed over 5 years

## **Long-range planning requirements (2018-2035)**

- City must submit an update to its Long Term Control Plan by August 23, 2016 for approval by VDEQ
- Schedule for implementation subject to VDEQ approval, but no later than 2035
- Long term costs = \$150 million to \$300 million

# Typical Combined Sewer Control Strategies

## **Storage (locations to be determined) with treatment at AlexRenew**

- Tunnels
- Underground tanks

## **Reduce stormwater runoff**

- Green infrastructure

## **Sewer separation**

## **Disinfection**

**Other options/combination of options will also be evaluated**

# Evaluation Criteria

## City's Evaluation Criteria

- Capital Cost
- CSO Reduction (volume)
- Effectiveness
- Disruption to the Community
- Implementation Effort
- Public Acceptance
- Expandability
- Net Environmental Benefit
- Potential Nutrient Credits for Chesapeake Bay TMDL
- Permitting Issues
- Required Ongoing Maintenance Cost

- \* **Assign Weighting**
- \* **Rank Alternatives based on Criteria**
- \* **Others...**



# Public Outreach

## **Prior Outreach:**

- Meetings with citizen/neighborhood associations
- AlexRenew Board
- Agenda Alexandria
- Environmental Policy Commission

## **Upcoming Outreach:**

- What's Next Alexandria Civic Engagement Principles will be applied
- January 28, 2015: Federation of Civic Associations
- February 2, 2015: Environmental Policy Commission
- February 5, 2015: Public Meeting (permit requirement)
  - Background information on CSOs and new permit requirements
  - Discussion of CSO control strategies and evaluation criteria
  - Receive public input and comment
- February 11, 2015: Old Town Civic Association

# Next Steps

## **Next Steps (Projected Timetable)\***

### **Spring 2015: Public Meeting**

- Present results of alternatives evaluation
- Present short list of alternatives for further study including feasibility of construction
- Receive public input and comment

### **Spring 2016: Public Hearing**

- Present recommended alternative and costs
- Receive public input and comment
- City Council adoption of Updated Long Term Control Plan

### **August 2016: Submit Updated Long Term Control Plan Documents to VDEQ**

*\*During this time period, briefings and worksessions with City Council and key stakeholders will be ongoing*

# Implementation

## **LTCP update due to VDEQ for approval August 2016**

- Must include schedule for implementation
- Schedule based on cost and complexity of recommended alternative(s)
  - Implementation likely to be done in phases and will be future permit requirement
  - Phases likely to coincide with 5-year permit cycles
  - All phases must be fully implemented/completed no later than 2035

**Current Total Estimated Cost Range: \$150 million to \$300 million**

# Questions/Comments

Thank you