



**Department of  
Public Works and  
Environmental  
Services**

**Wastewater  
Collection Division**

Septage Receiving Site  
Feasibility Study

Informational Meeting

February 18, 2016

**Hazen**

## FAIRFAX COUNTY WASTEWATER MANAGEMENT



*Quality of Water = Quality of Life*

## Meeting Agenda

1. Welcome - Hunter Mill District Supervisor Cathy Hudgins
2. Introduction of Wastewater Team and Consultant  
Matthew D. Kaiser, Public Information Officer, Department of Public Works and Environmental Services
3. Meeting Objectives  
Thomas J. Russell, P.E., Director, Wastewater Collection Division
4. Presentation on Septage Management Program  
Eric Lienhard, P.E., Senior Associate, Hazen and Sawyer  
Ellen Hall, P.E., Associate, Hazen and Sawyer
5. Comments and Questions
6. Next Steps



## Meeting Objectives

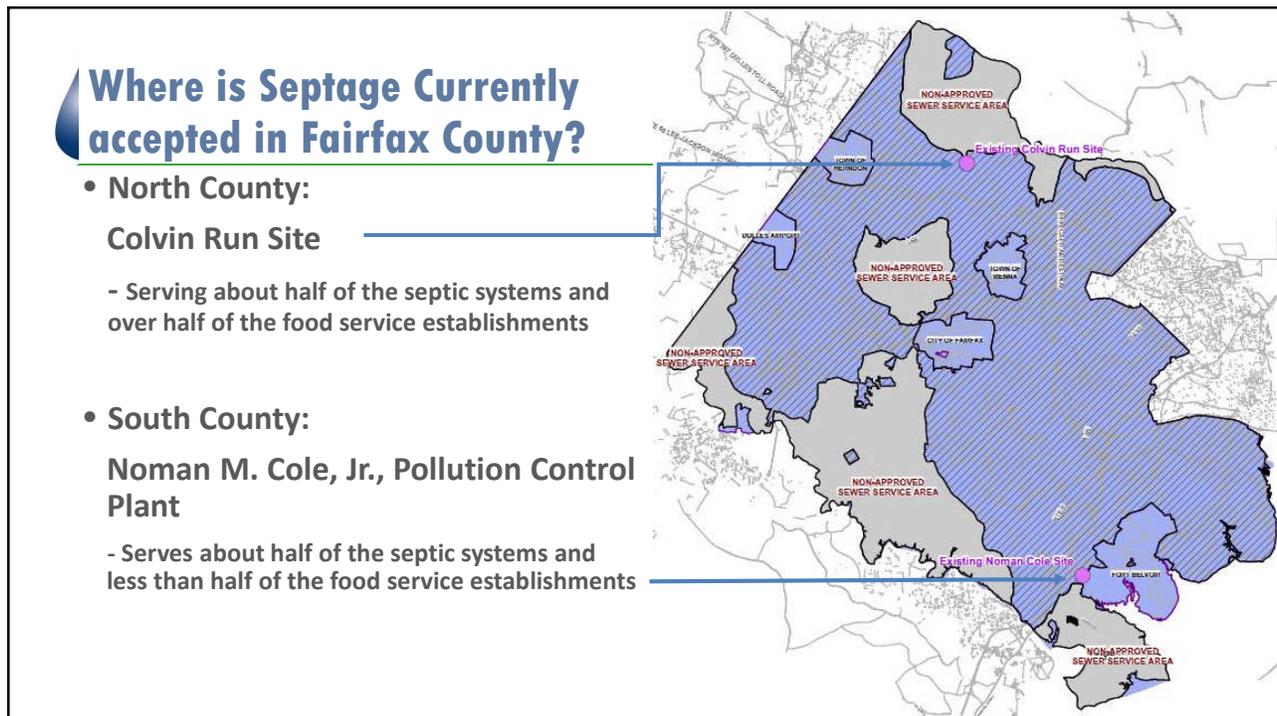
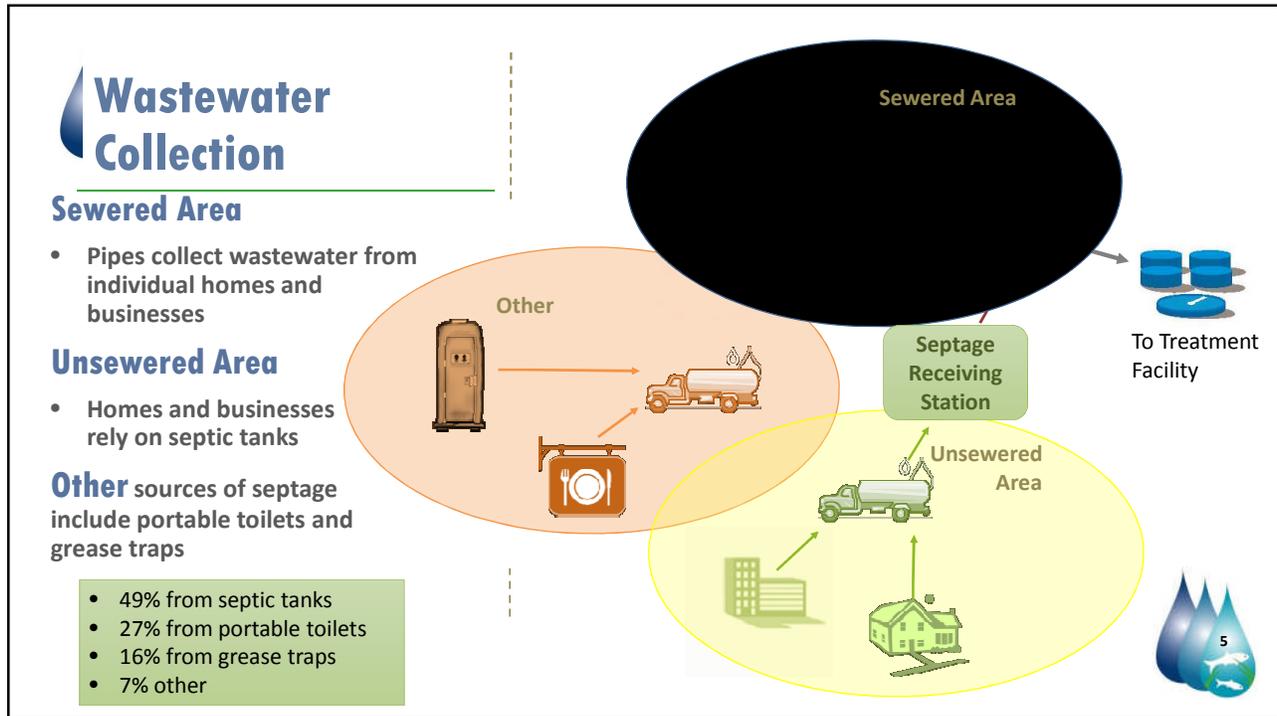
- Provide a general understanding of Fairfax County's Septage Management Program
- Describe the benefits of a replacement facility
- Obtain input regarding relocating the existing Colvin Run septage receiving site to the Park Authority's Area 6 Park Operations / Lake Fairfax Maintenance Facility



## Why did Fairfax County establish a Septage Receiving Program?

- Initiated in 1970s to serve all Fairfax County residents and businesses, including those in unsewered area
- Address concerns with uncontrolled/illegal discharges
- Required by state law
- About 21,000 customers in the County do not have access to public sewer and are served by individual household septic systems that require pump-out at least once every five years
- Approximately 3,200 food service establishments (e.g. restaurants, groceries, schools, daycares, etc.) require pump-outs of grease traps
- Portable toilet pump-outs as needed at parks, construction sites, and community events





## Site Feasibility Study

- Reviewed the existing septage receiving program and compared with best practices and operations of other area utilities
- Assessed community needs
  - Met with residents near existing site
  - Surveyed haulers
- Identified potential alternatives for replacement of Colvin Run site
  - Six sites were identified using a geographic analysis and evaluated using a screening matrix approach
    - Looked for intersection of a large pipe and major road, suitable land use



## Community Feedback on Colvin Run Site

### Key Issues with Existing Colvin Run Site

Limited queueing space – truck queue creates issues at intersection of access road and Colvin Run Road

Odor – from open pipe and spilled sewage at site, is a nuisance and a health hazard for pedestrians using access road

Noise – back-up beeping from trucks is a nuisance, especially at night

Flooding - Site is within the floodplain and has flooded in the past, creating a risk of contaminating the flood waters and a need to close the facility

Safety - park patrons are using the same access road as the septage trucks

Substandard design - Site is too small to provide an industry standard facility



## What Does an Industry Standard Septage Receiving Station Look Like?

- Location for controlled septage disposal
- Separate, gated entrance (no public access)
- Haulers registered
- Looped access road to provide queuing space and clear sight lines for truck drivers, limit back-up noise
- Monitoring and oversight
- Safety features for staff and drivers
- Process and odor control equipment housed in a building
- Spill containment and other stormwater management features to protect the environment



## Existing Colvin Run Site

- In operation since 1970s, outdated facility
- Access from Route 7 and adjacent to major sewer
- Access road is part of Cross County Trail
  - Safety concerns for park patrons
- Substandard design
- Subject to flooding



## What makes an effective Septage Receiving Station location?

- A place for hauled septage to be disposed of in a controlled manner that is environmentally responsible and protective of public health
  - Access to a large pipe that can accommodate flow and prevent backups
- Want a site close to the area where the waste is generated and accessible from a major road
  - Shorter trips to the receiving station mean:
    - Less truck traffic on the roads
    - Lower costs for residents
    - Reduced environmental impacts
    - Less chance of spills



## What makes a good Septage Receiving Station location (continued)?

- Outside floodplains and away from environmentally sensitive areas
- Separated from the public
- Sufficient area available for disposal to occur without causing interruptions or safety concerns



## Summary of Site Evaluation

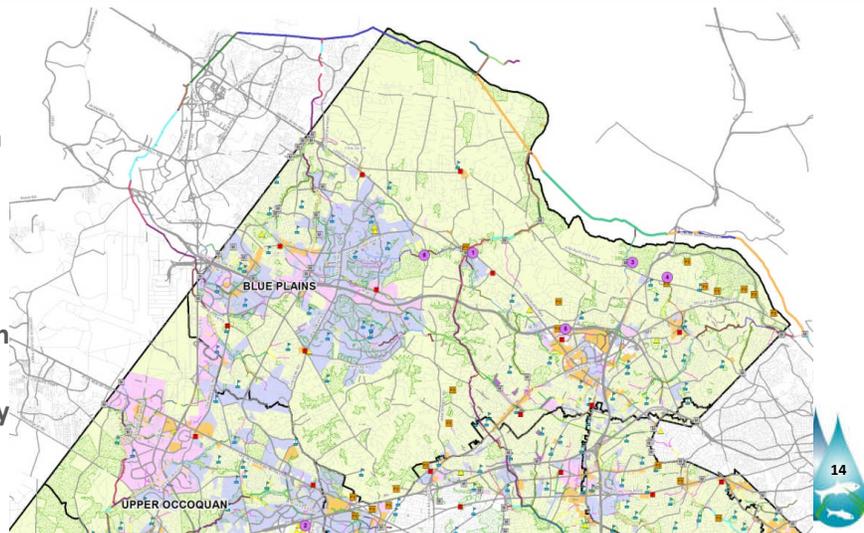
Criteria \ Site	1 Colvin Run	2 I-66 Transfer Station	3 Scotts Run Meter Vault	4 Dead Run Pump Station	5 Tyson's Pump Station	6 Area 6/Lake Fairfax
Major Pipe	●	●	●	●	●	●
Major Road	●	●	●	●	●	●
Outside Floodplain	●		●	●		●
Separation from Public Use	●		●	●		●
Available Footprint	●		●	●		●

The Park Authority's Area 6 Park Operations / Lake Fairfax Maintenance Facility was the highest ranked site in the evaluation



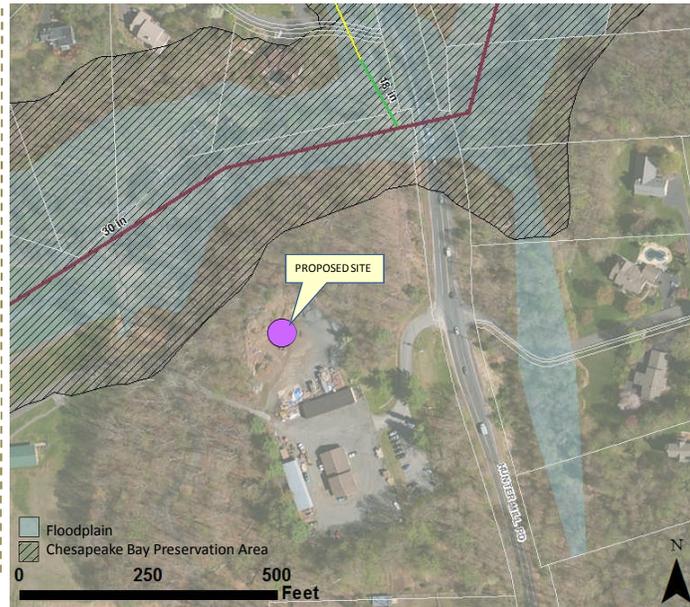
## Site Locations

1. Existing Colvin Run Site
2. I-66 Transfer Station
3. Scott's Run Meter Vault
4. Dead Run Pump Station
5. Tysons Pump Station
6. Area 6/Lake Fairfax Maintenance Facility



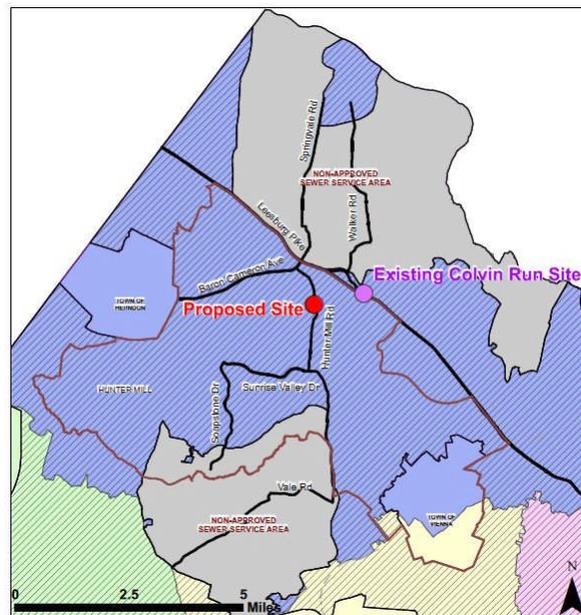
## Potential Site Relocation Option

- Access to large pipe (30-inch) and major road
- Outside the floodplain and Chesapeake Bay Preservation Area
- No public access
- Available footprint with existing vegetation that provides screening
- Opportunity to provide needed improvements to Maintenance Facility



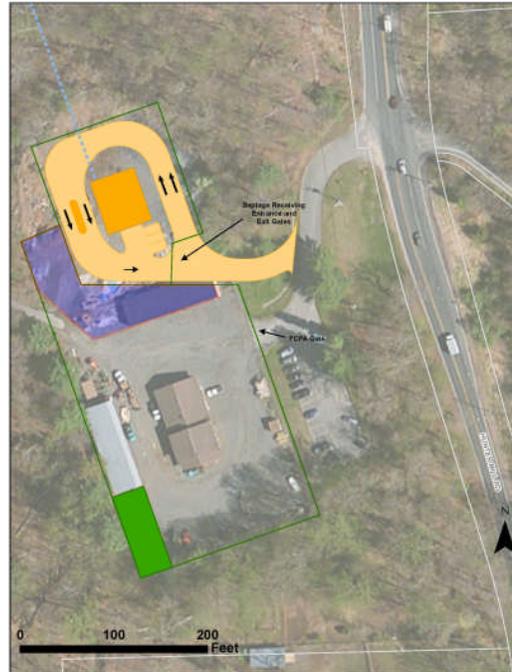
## Routes to Proposed Site

- Short distance from existing Colvin Run site (2.9 road miles)
- Readily accessible from septic system locations, parks, recreation fields, and Reston and Vienna food service establishments
- Haulers routinely use Hunter Mill Road now to access Colvin Run site and Hunter Mill/Oakton/Vienna areas



## Proposed Improvements

- **Industry standard septage facility**
  - Separate, gated entrance (no public access)
  - Sealed pipe connection with odor control
  - Safety and security features
  - Looped access road to reduce queuing
- **Coordinating with Park Authority to maintain operations**
- **Enhancements to screening and landscaping**



## Anticipated Site Usage

- 44 hauling companies with a total of 189 trucks are currently registered with the Fairfax County Health Department
- Usage data for Colvin Run shows an average of 22 trucks per day during the hours of 7 am to 5 pm, Mon-Fri
  - Traffic volume on Hunter Mill Road from 2006 Traffic Calming Study was 16,000-18,000 vehicles/day
- 75% of usage is between 10 am and 4 pm





Existing Maintenance Facility - view from Hunter Mill Road



## Green Infrastructure Considerations

- **Bioretention Facility** – incorporate landscape design features
- **Vegetated Swales** – dry swales and grass channels are options to provide both water quantity and quality control
- **Tree Filters** – for use along curbs



## Key Issues and How they will be Addressed at the Proposed Site

Key Issues with Existing Colvin Run Site	How Issue will be Addressed at Maintenance Facility Site
<u>Limited queuing space</u> – truck queue creates issues at intersection of access road and Colvin Run Road	Site is large enough for on-site queuing and dual discharge lanes
<u>Odor</u> – from open pipe and spilled sewage at site, is a nuisance and a health hazard for pedestrians using access road	New site will have odor control system, a sealed pipe connection, and improved washdown facilities, and will be separated from public uses
<u>Noise</u> – back-up beeping from trucks is a nuisance, especially at night	Site will be designed so that haulers don't need to back up, hours may be adjusted as needed, and distance to nearest residence will be increased by three times
<u>Flooding</u> - Site is within the floodplain and has flooded in the past, creating a risk of contaminating the flood waters and a need to close the facility	Site is outside the floodplain
<u>Safety</u> - park patrons are using the same access road as the septage trucks	Septage trucks will be separated from park patrons and employees
<u>Substandard design</u> - Site is too small to provide an industry standard facility	Site has sufficient area for an industry standard facility



## Community Input – Area 6/Lake Fairfax Site

- Feedback on proposed site
- Community involvement going forward



## Next Steps

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### Next Steps

- **Incorporate community input into preliminary design**

Comment period open through March 18, 2016

Please contact Jonathan Okafor

Email: [Jonathan.Okafor@fairfaxcounty.gov](mailto:Jonathan.Okafor@fairfaxcounty.gov)

Subject: Septage Receiving

Or Mail to:

Attn: Jonathan Okafor

Wastewater Collection Division

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Burke, VA 22015

- **Project web page will be available on County website**

