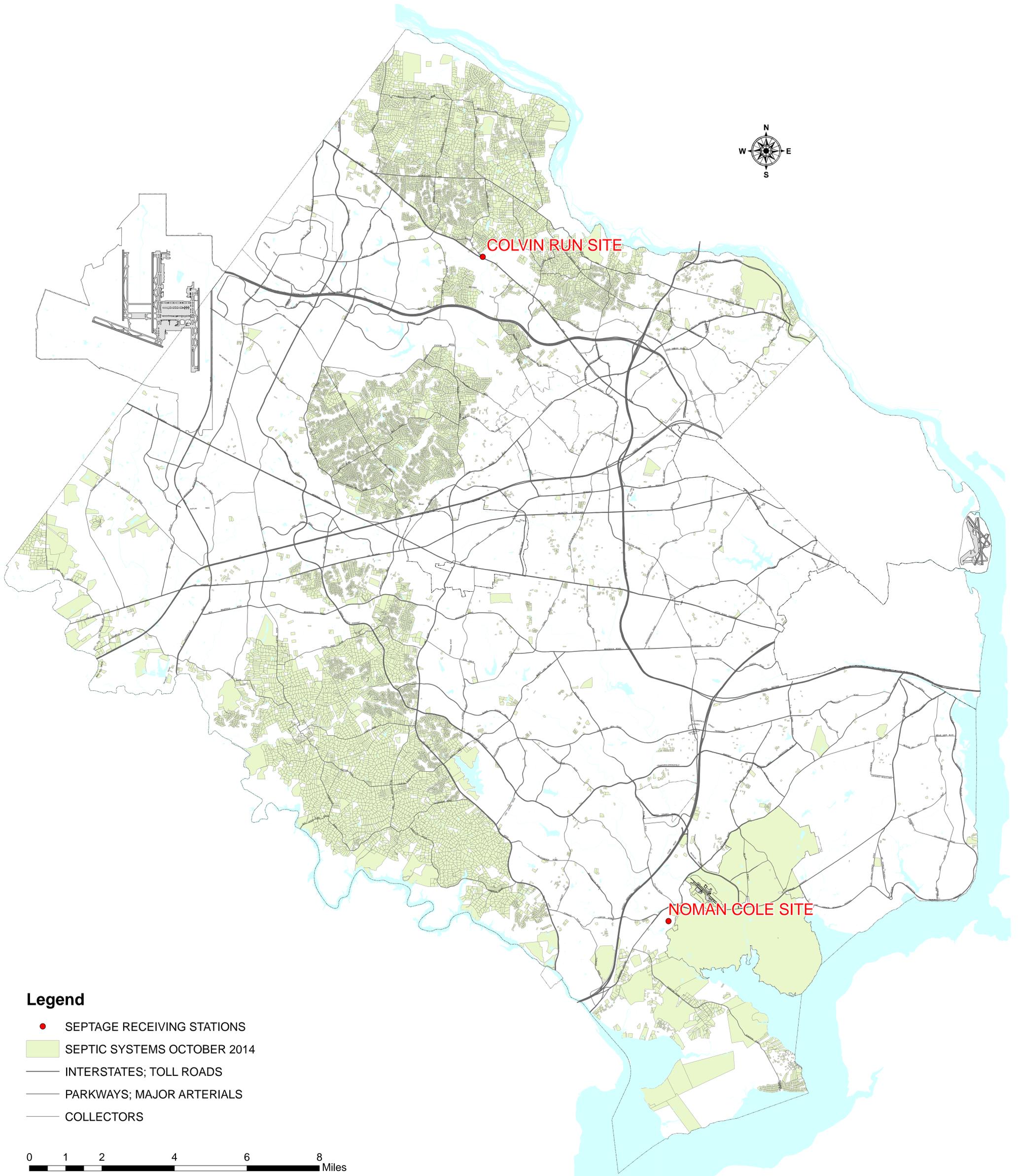


APPENDIX A – BACKGROUND INFORMATION



	Sewer Pipes		Septage Receiving Site Feasibility Study	 <small>Quality of Water - Quality of Life</small>		Parcels
	Existing Colvin Run Site				Petitioner Locations	
	Wastewater Pump Stations					

SEPTIC SYSTEMS BY PARCEL, 2014



APPENDIX B – HAULER SURVEY RESULTS

Septage Receiving Facility Survey

Fairfax County Department of Public Works and Environmental Services

Wastewater Collection Division



The Fairfax County Department of Public Works and Environmental Services is currently working with the consulting firm of Hazen and Sawyer to conduct a study of the County's septage receiving program. The purpose of this survey is to gather input on how potential changes to the program may affect your business. Please review and respond to the below questions and return the completed form to Ellen Hall at Hazen and Sawyer via mail, fax, or email by **March 27, 2015**. We will also be conducting follow-up telephone calls. Thank you very much for your time and assistance. Your input will help us to design a program that best meets the needs of your business and all County residents.

Reply to:

Hazen and Sawyer
c/o Ellen Hall
4035 Ridge Top Rd.
Fairfax, VA 22030
p. 703-218-2034
f. 703-218-2040
ehall@hazenandsawyer.com

Direct general inquiries to:

Jonathan Okafor or Tom Russell
Wastewater Collection Division
Fairfax County Department of Public Works and Environmental Services
6000 Freds Oak Road
Burke, VA 22015
p. 703-250-2700
Jonathan.Okafor@fairfaxcounty.gov
Thomas.Russell@fairfaxcounty.gov

1. What type of waste do you haul? (Check all that apply)

- | | | |
|--|---|---|
| <input type="checkbox"/> Domestic Septage | <input type="checkbox"/> Commerical Septage | <input type="checkbox"/> Grease Trap Waste |
| <input type="checkbox"/> Portable Toilet Waste | <input type="checkbox"/> Landfill Leachate | <input type="checkbox"/> Other: (Please specify)
_____ |

2. Which site(s) do you use now, and how many trucks do you use?

- | | | |
|-------------------------------------|------------------|---------------------------------------|
| <input type="checkbox"/> Colvin Run | No. Trucks _____ | Size of Largest Truck (gallons) _____ |
| <input type="checkbox"/> Noman Cole | No. Trucks _____ | Size of Largest Truck (gallons) _____ |

3. In the future, do you expect your hauling activity in Fairfax County to increase, decrease, or remain the same?

- Significant increase Slight increase No change Decrease

4. How important is it to your business to have septage receiving in Fairfax County?

- Not important Somewhat important Very important

5. How important is it to your business to have septage receiving at or near the Colvin Run site?

- Not important Somewhat important Very important

6. How important is it to your business to have septage receiving at or near the Noman Cole site?

- Not important Somewhat important Very important

7. If no septage receiving were provided in Fairfax County, how much would this negatively impact your business?

- No impact Slight impact Some impact Significant impact

8. Where do you currently pick up the majority of your loads for disposal at Fairfax County facilities?

- Great Falls/Hunter Mill area Clifton area Gunston/Lorton area
 Loudoun County District of Columbia Other: (Please specify)
-

9. If no septage receiving were provided in Fairfax County, where would you discharge?

- Blue Plains (District of Columbia) Broad Run (Loudoun County) H.L. Mooney (Prince William County)
 UOSA (Centreville) Other: (Please specify) Unknown
-

10. If you currently use the Colvin Run site and it were to be permanently closed, how far would you be willing to travel to an alternate site?

-
- 2 miles 5 miles 10 miles 15 miles 20 miles or more

11. How would a fee per truckload comparable to fees charged by other jurisdictions affect your decision to discharge waste at Fairfax County sites?

-
- No impact Slight impact Some impact Significant impact

12. How much would a fee per truckload affect the costs to the homeowners and businesses that you work with?

-
- No impact Slight impact Some impact Significant impact

13. How familiar are you with Fairfax County regulations regarding procedures for septage disposal at Colvin Run and Noman Cole? (Chapter 67-1 of the Fairfax County Code)

-
- Not at all Somewhat Very

14. How much do reduced hours of operation at septage receiving facilities affect your decision for choosing which site to use?

-
- No impact Slight impact Some impact Significant impact

15. What time of day would you prefer to use a site? (Rank from 1 [most preferred] to 4 [least preferred]. Please provide only one ranking per period--do not repeat the same ranking for different periods).

-
- Morning (6 AM – 12 PM) Afternoon (12 PM – 6 PM) Evening (6 PM – 9 PM) Night (9 PM – 6 AM)

16. What characteristics/facilities make a site easy to use? (For example, easy access from a major road, washdown facilities, etc.)

[Add your comments here.]

17. What characteristics/facilities make a site hard to use? (For example, having to turn the truck around, long wait times, etc.)

[Add your comments here.]

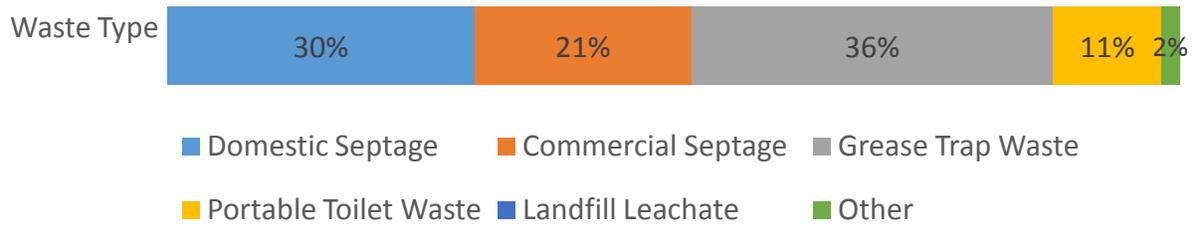
18. Additional Comments / Concerns:

[Add your comments here.]

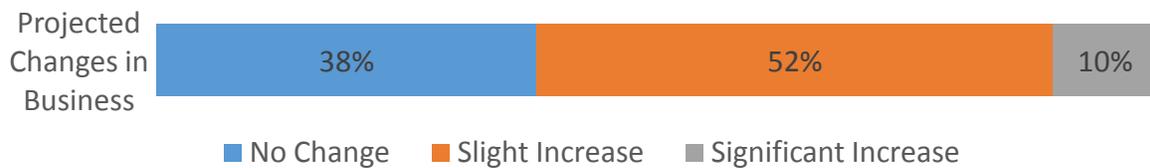
Thank you very much for taking the time to complete this survey. Your feedback is valued and very much appreciated!

Hauler Survey Results Summary

What type of waste do you haul?

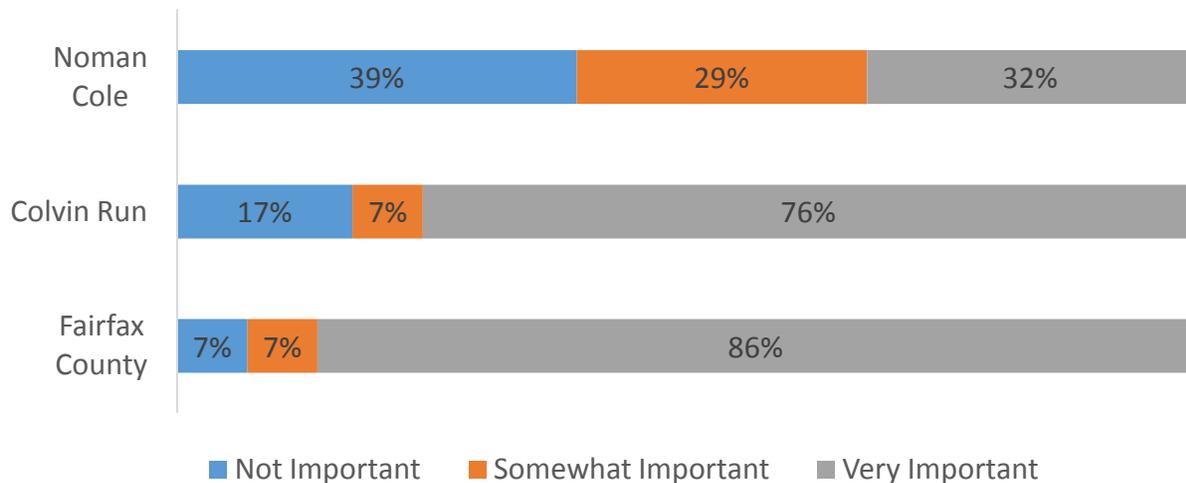


In the future, do you expect your hauling activity in Fairfax County to increase, decrease, or remain the same?

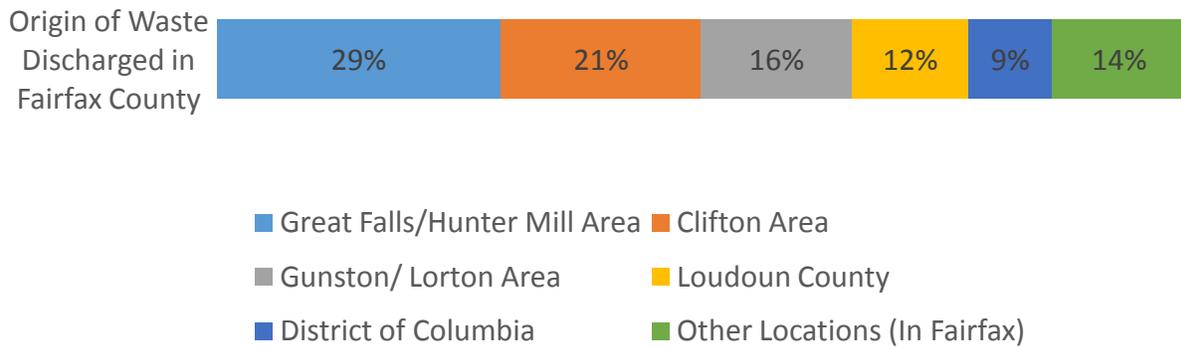


How important is it to your business to have septage receiving at the Noman Cole site, the Colvin Run site, and in Fairfax County in general?

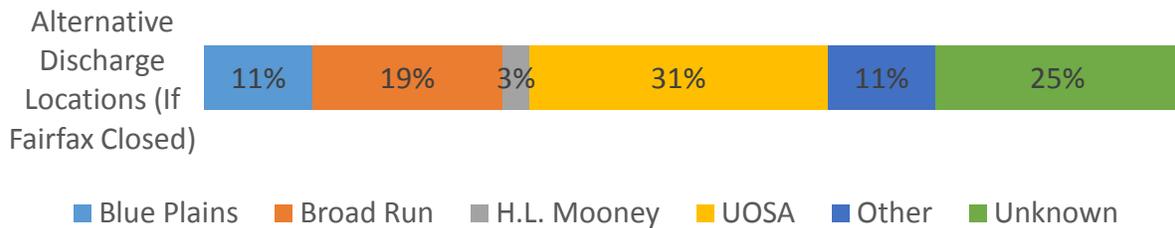
Importance of Having Septage Receiving in Fairfax County



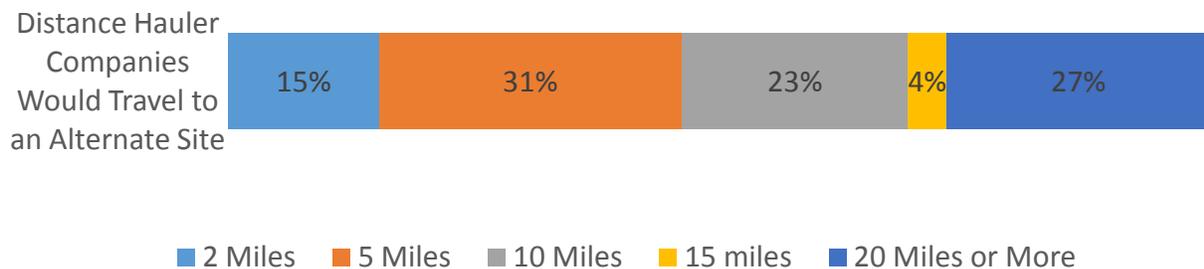
Where do you currently pick up the majority of your loads for disposal at Fairfax County facilities?



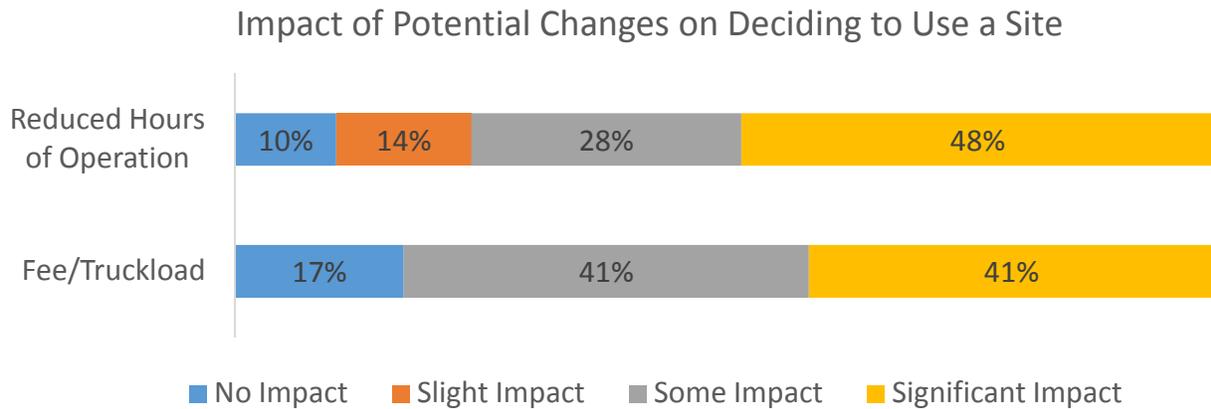
If no septage receiving were provided in Fairfax County, where would you discharge?



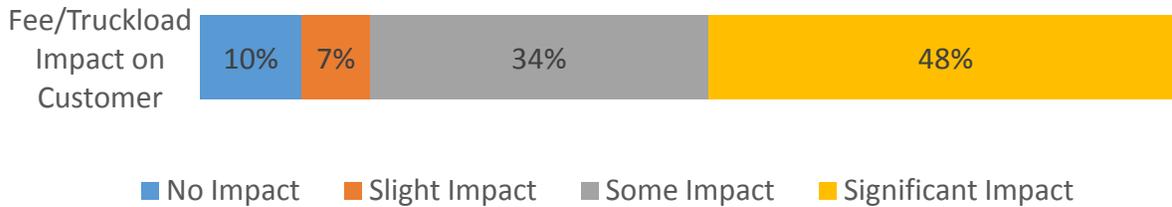
If you currently use the Colvin Run site and it were to be permanently closed, how far would you be willing to travel to an alternate site?



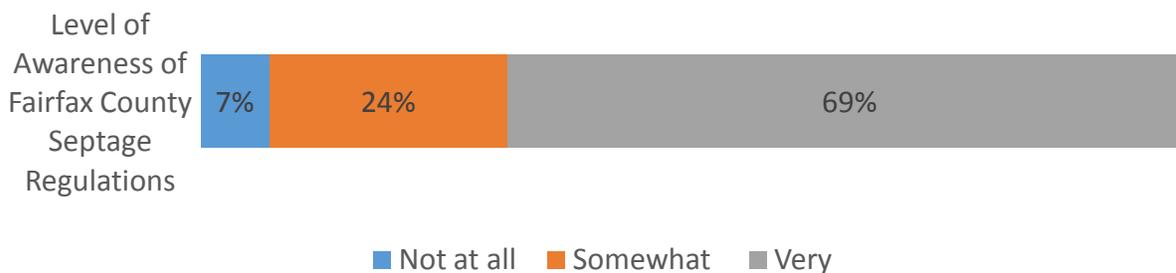
How would reduced hours of operation or a fee per truckload comparable to fees charged by other jurisdictions affect your decision to discharge waste at Fairfax County sites?



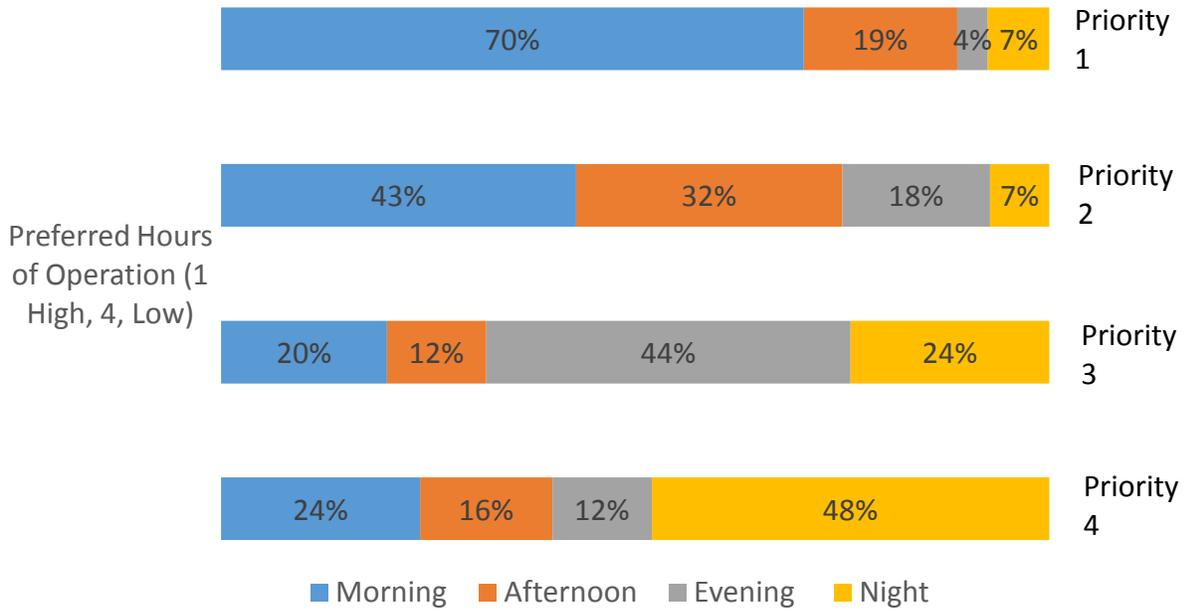
How much would a fee per truckload affect the costs to the homeowners and businesses that you work with?



How familiar are you with Fairfax County regulations regarding procedures for septage disposal at Colvin Run and Noman Cole? (Chapter 67-1 of the Fairfax County Code)



What time of day would you prefer to use a site? (Rank from 1 [most preferred] to 4 [least preferred]).



APPENDIX C – COMMUNITY OUTREACH MATERIALS



**Department of
Public Works and
Environmental
Services**

**Wastewater
Collection Division**

**Septage Receiving Program
Informational Meeting**

December 15, 2014

HAZEN AND SAWYER
Environmental Engineers & Scientists

**FAIRFAX COUNTY
WASTEWATER MANAGEMENT**



Quality of Water = Quality of Life

Meeting Objectives

- Provide a general understanding of what the septage receiving program is and why it is needed
- Describe the study scope developed in response to the petition received
- Obtain community input regarding the existing Colvin Run site



Meeting Agenda

1. Introductions
2. Fairfax County's Wastewater Collection System and Existing Septage Receiving Program
3. Scope of the Septage Receiving Study
4. Feedback on the existing Colvin Run Site
5. Next Steps



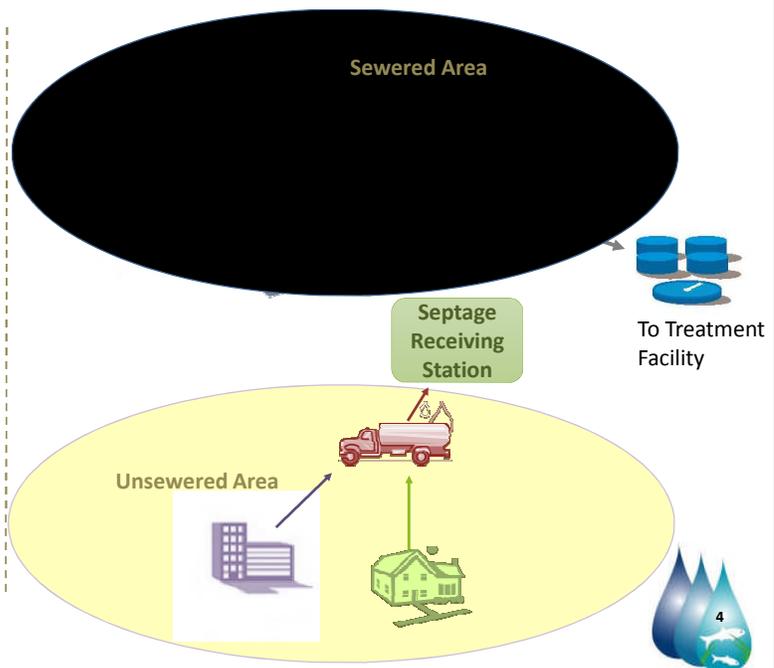
Wastewater Collection

Sewered Area

- Pipes collect wastewater from individual homes and businesses

Unsewered Area

- No pipes connecting individual homes and businesses to the system
- Relies on septic tanks
- Waste that collects in septic tanks must be pumped out and hauled to a septage receiving station at least once every five years
- Other sources of septage include portable toilets and restaurant grease traps



Existing Septage Receiving Program

Why did Fairfax County establish a septage receiving program?

- Need to serve all Fairfax County residents and businesses, including those in unsewered areas
- About 21,000 customers in the County do not have access to public sewer and are served by individual household septic systems
- Address concerns with uncontrolled/illegal use of manholes

What is a septage receiving station?

- A place for hauled sewage to be disposed of in a safe and controlled manner
- Haulers must obtain a permit to use the site
- Conduct monitoring

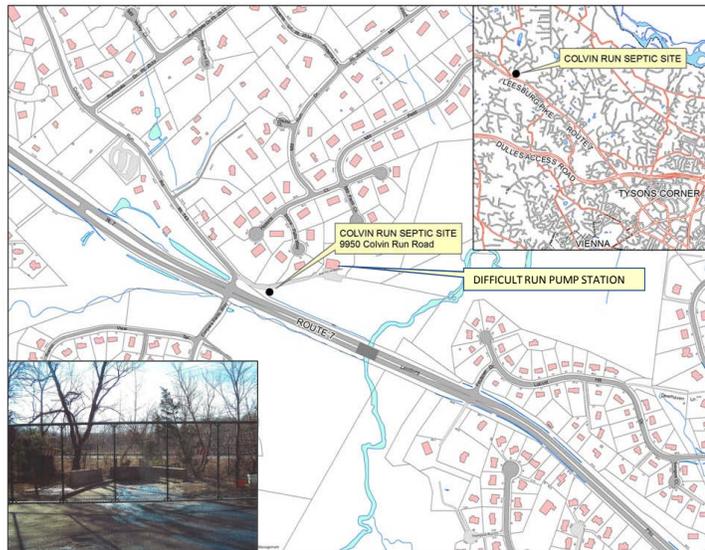
Why must a septage receiving station be near me?

- Want a site close to the area where the waste is generated
- Shorter trips to the receiving station means less truck traffic on the roads and less cost



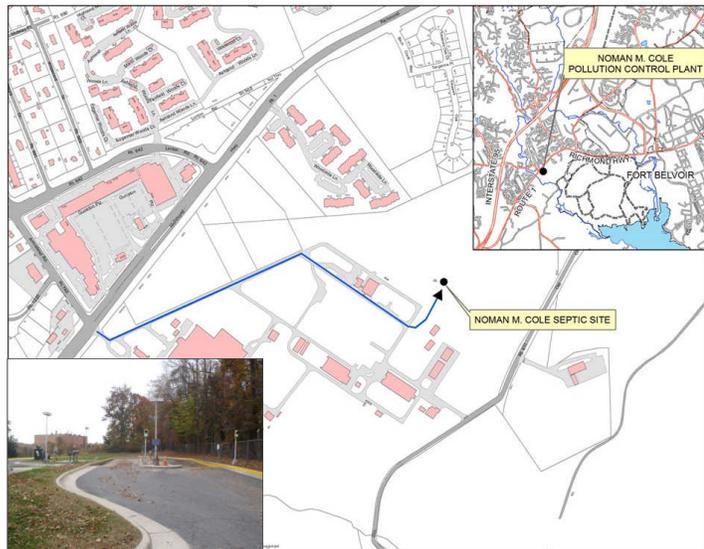
Existing Colvin Run Site

- In operation since late 1970s
- Adjacent to Difficult Run Pump Station and major sewers
- Easy access from Route 7, access controlled
- Receives 6,000 trucks per year or an average of 18 per day
- Convenient location to serve unsewered portion of Great Falls



Existing Noman Cole Site

- Located on treatment plant site
- In operation since early 1980s
- Easy access from Route 1, access controlled (gate guard)
- Receives 4,000 trucks per year or an average of 14 per day
- Convenient location to serve unsewered areas in Clifton and Lorton



Study Scope

1. Collect data on existing program
2. Meet with residents
3. Survey haulers
4. Survey neighboring municipalities regarding their programs
5. Conduct geographic analysis and site visits to identify potential site alternatives
6. Perform site screening, including cost/benefit analysis of existing and potential alternative sites
7. Consider fee structure
8. Select most feasible option for implementation



Community Input – Colvin Run Site

- Input Received to-date
- Screening Criteria
- Potential Improvements

Preliminary Site Screening Criteria

Ability to accommodate the largest truck used by current commercial haulers as well as a typical Class A RV
Ability to provide security, tracking, and pH monitoring
Access to sewer with sufficient capacity and flow
Cost (capital and operating)
Electrical and utility accessibility
Impacts on community (traffic, noise, appearance, etc.)
Impacts on haulers
Land use/zoning of adjacent area
Land use/zoning of site
Major road access
Parkland/historic resource impacts
Wetlands, Streams, and Floodplain impacts



Next Steps

- Survey haulers
- Study siting options
- Evaluate options
- Meet again in Spring 2015 to review evaluation with community
- Pump station improvements also coming in 2015

For Further Input: please contact Padam Sethi by January 15

Email: Padam.Sethi@fairfaxcounty.gov

Phone: 703-250-2700



APPENDIX D – COST ESTIMATES

PROJECT: Fairfax County Septage Receiving Facility - Site 1, Existing Colvin Run Site
 PROJECT NO. 32267-008
 DESCRIPTION: Draft Planning Cost Estimate
 PREPARED BY: JA Date: 6/3/2015
 REVIEWED BY: EH Date: 6/4/2015

HAZEN AND SAWYER
 Environmental Engineers & Scientists
 4035 Ridge Top Rd, Suite 400
 Fairfax, Virginia, 22030
 Tel: (703) 218-2034 • Fax: (703) 218-2040

Description	Quantity	Units	Equipment/materials (2015)	Labor	Total Unit Cost	Total Cost	References/Comments
DIVISION 1							
Start-up and Testing	1	LS	\$5,243.27		\$5,243	\$5,243	
						Division #1 Subtotal =	\$5,243
DIVISION 2							
Demolition -Building	1111	CY	\$314.60		\$315		
Demolition Equipment	1	LS	\$18,246.60		\$18,247	\$18,247	
Demolition -Site work							
<i>Clear and Grub (moderate)</i>	1	LS	\$1,048.65		\$1,049	\$1,049	
<i>Remove Pavement (up to 4")</i>	200	SY	\$6.95		\$7	\$1,391	
Erosion and Sedimentation Control							
<i>Silt Fence</i>	1200	LF	\$4.64		\$5	\$5,562	
<i>Inlet Protection</i>	1	EA	\$185.40		\$185	\$185	
<i>E&S Maintenance</i>	1	LS	\$524.33		\$524	\$524	
Earthwork							
Excavation	311	CY	\$15.73		\$16	\$4,892	
Backfill	311	CY	\$10.49		\$10	\$3,261	
Aggregates							
Subgrade Preparation	14000	SF	\$3.15		\$3	\$44,044	
Stone Subbase	350	CY	\$31.46		\$31	\$11,011	
Steel H Piles	300	LF	\$78.65		\$79		
Pavement							
<i>Bituminous Top Course (2")</i>	1200	SY	\$15.45		\$15	\$18,540	
<i>Top Course (over 2") (Add 1")</i>	1200	SY	\$7.72		\$8	\$9,268	
<i>Curb and Gutter</i>	750	LF	\$52.43		\$52	\$39,325	
<i>Trench Drain</i>	750	LF	\$52.43		\$52	\$39,325	
Final Grading	1	LS	\$524.33		\$524	\$524	
Landscaping	1	LS	\$5,243.27		\$5,243	\$5,243	
<i>Fencing w/ Two Gates</i>	750	LF	\$48.98		\$49	\$36,737	
						Division #2 Subtotal =	\$239,127
DIVISION 3							
Cast-in-place concrete							
Concrete Truck Pad	111	CY			\$796	\$88,356.00	
Concrete Curb	60	LF			\$573	\$34,380.00	
Concrete Slab on Grade	100	CY			\$796	\$79,600.00	
Concrete Wet Wells	2	EA	\$524.33		\$2,028	\$4,055.24	
						Division #3 Subtotal =	\$206,391
DIVISION 4							
Masonry- Exterior Walls (Brick and Block)	2200	SF	\$41.95		\$42	\$92,282	
						Division #4 Subtotal =	\$92,282
DIVISION 5							

PROJECT: Fairfax County Septage Receiving Facility - Site 1, Existing Colvin Run Site
 PROJECT NO. 32267-008
 DESCRIPTION: Draft Planning Cost Estimate
 PREPARED BY: JA Date: 6/3/2015
 REVIEWED BY: EH Date: 6/4/2015

HAZEN AND SAWYER
 Environmental Engineers & Scientists
 4035 Ridge Top Rd, Suite 400
 Fairfax, Virginia, 22030
 Tel: (703) 218-2034 • Fax: (703) 218-2040

Description	Quantity	Units	Equipment/materials (2015)	Labor	Total Unit Cost	Total Cost	References/Comments
Grating	25	SF	\$41.95		\$42	\$1,049	
Aluminum Hatch	25	SF	\$52.43	\$1,100	\$1,152	\$28,811	
Miscellaneous Metals	1	LS	\$2,097.31		\$2,097	\$2,097	
Division #5 Subtotal =						\$31,957	
DIVISION 7							
Roofing	3000	SF	\$26.22		\$26	\$78,649	
Downspouts	10	LF	\$10.49		\$10	\$105	
Joint Fillers, Sealants, Caulking	1	LS	\$6,291.93		\$6,292	\$6,292	
Division #7 Subtotal =						\$85,046	
DIVISION 8							
Single Door and Frames	1	EA	\$6,291.93		\$6,292	\$6,292	
Division #8 Subtotal =						\$6,292	
DIVISION 9							
Painting	1	LS	\$10,000		\$10,000	\$10,000	
Division #9 Subtotal =						\$10,000	
DIVISION 10							
Signage	1	LS	\$262.16	\$75	\$337	\$337	
Fire Extinguisher	1	LS	\$209.73	\$60	\$270	\$270	
Division #10 Subtotal =						\$607	
DIVISION 11							
Muffin Monster - Sewage Grinder (JWCE Model 30005-008)	1	EA	\$38,800.23	\$5,550	\$44,350	\$44,350	
Lakeside Raptor Unit	1	EA	\$390,600	\$58,590	\$449,190	\$449,190	
Division #11 Subtotal =						\$493,540	
DIVISION 13							
Deep Bed Carbon System	1	EA	\$95,951.92	\$16,500	\$112,452	\$112,452	
Division #13 Subtotal =						\$112,452	
DIVISION 15							
24" Pipe Connection	75	LF			\$455	\$34,125	
HVAC	1	LS	\$100,000.00		\$100,000	\$100,000	
Division #15 Subtotal =						\$134,125	
DIVISION 16							
Electrical	1	LS	\$95,321.50		\$95,321	\$95,321	
Division #16 Subtotal =						\$95,321	
DIVISION 17							
Instrumentation	1	LS	\$63,547.66		\$63,548	\$63,548	
Division #17 Subtotal =						\$63,548	
Subtotal =						\$1,580,000	
Contingency	30%					\$474,000	
Subtotal =						\$2,050,000	

PROJECT: Fairfax County Septage Receiving Facility - Site 1, Existing Colvin Run Site

PROJECT NO. 32267-008

DESCRIPTION: Draft Planning Cost Estimate

PREPARED BY: JA Date: 6/3/2015

REVIEWED BY: EH Date: 6/4/2015

HAZEN AND SAWYER
Environmental Engineers & Scientists
4035 Ridge Top Rd, Suite 400
Fairfax, Virginia, 22030
Tel: (703) 218-2034 • Fax: (703) 218-2040

Description	Quantity	Units	Equipment/materials (2015)	Labor	Total Unit Cost	Total Cost	References/Comments
Contractor Overhead & Profit	15%					\$307,500	
General Requirements	5%					\$102,500	
Mobilization/Demobilization	5%					\$102,500	
Insurance/Bonds	3%					\$61,500	
					TOTAL =	\$2,620,000	

PROJECT: Fairfax County Septage Receiving Facility - Site 6, Lake Fairfax Maintenance Facility
 PROJECT NO. 32267-008
 DESCRIPTION: Draft Planning Cost Estimate
 PREPARED BY: JA Date: 6/3/2015
 REVIEWED BY: EH Date: 6/4/2015

HAZEN AND SAWYER
 Environmental Engineers & Scientists
 4035 Ridge Top Rd, Suite 400
 Fairfax, Virginia, 22030
 Tel: (703) 218-2034 • Fax: (703) 218-2040

Description	Quantity	Units	Equipment/materials (2015)	Labor	Total Unit Cost	Total Cost	References/Comments
DIVISION 1							
Start-up and Testing	1	LS	\$5,243.27		\$5,243	\$5,243	
						Division #1 Subtotal =	\$5,243
DIVISION 2							
Demolition -Building	1	LS	\$30,000.00		\$30,000	\$30,000	
Demolition -Site work							
<i>Clear and Grub (moderate)</i>	1	LS	\$1,048.65		\$1,049	\$1,049	
Erosion and Sedimentation Control							
<i>Silt Fence</i>	1200	LF	\$4.64		\$5	\$5,562	
<i>Inlet Protection</i>	1	EA	\$185.40		\$185	\$185	
<i>E&S Maintenance</i>	1	LS	\$524.33		\$524	\$524	
Earthwork							
Excavation	2900	CY	\$15.73		\$16	\$45,616	
Backfill	2900	CY	\$10.49		\$10	\$30,411	
Aggregates							
Subgrade Preparation	32800	SF	\$3.15		\$3	\$103,188	
Stone Subbase	815	CY	\$31.46		\$31	\$25,640	
Pavement							
<i>Bituminous Top Course (2")</i>	2700	SY	\$15.45		\$15	\$41,715	
<i>Top Course (over 2") (Add 1")</i>	2700	SY	\$7.72		\$8	\$20,853	
<i>Curb and Gutter</i>	1200	LF	\$52.43		\$52	\$62,919	
<i>Trench Drain</i>	1200	LF	\$52.43		\$52	\$62,919	
Final Grading	1	LS	\$524.33		\$524	\$524	
Landscaping	1	LS	\$5,243.27		\$5,243	\$5,243	
<i>Fencing w/ Two Gates</i>	600	LF	\$48.98		\$49	\$29,390	
						Division #2 Subtotal =	\$465,739
DIVISION 3							
Cast-in-place concrete							
Concrete Truck Pad	111	CY			\$796	\$88,356	
Concrete Curb	60	LF			\$573	\$34,380	
Concrete Slab on Grade	200	CY			\$796	\$159,200	
Concrete Wet Wells	2	EA	\$524.33		\$2,028	\$4,055.24	
						Division #3 Subtotal =	\$285,991
DIVISION 4							
Masonry- Exterior Walls (Brick and Block)	2200	SF	\$41.95		\$42	\$92,282	
Masonry- Exterior Walls (Wood)						\$40,000	
						Division #4 Subtotal =	\$132,282
DIVISION 5							
Grating	25	SF	\$41.95		\$42	\$1,049	
Aluminum Hatch	25	SF	\$52.43	\$1,100	\$1,152	\$28,811	
Miscellaneous Metals	1	LS	\$2,097.31		\$2,097	\$2,097	
						Division #5 Subtotal =	\$31,957
DIVISION 7							
Roofing	3000	SF	\$26.22		\$26	\$78,649	
Downspouts	26	LF	\$10.49		\$10	\$273	
Joint Fillers, Sealants, Caulking	1	LS	\$6,291.93		\$6,292	\$6,292	

PROJECT: Fairfax County Septage Receiving Facility - Site 6, Lake Fairfax Maintenance Facility
 PROJECT NO. 32267-008
 DESCRIPTION: Draft Planning Cost Estimate
 PREPARED BY: JA Date: 6/3/2015
 REVIEWED BY: EH Date: 6/4/2015

HAZEN AND SAWYER
 Environmental Engineers & Scientists
 4035 Ridge Top Rd, Suite 400
 Fairfax, Virginia, 22030
 Tel: (703) 218-2034 • Fax: (703) 218-2040

Description	Quantity	Units	Equipment/materials (2015)	Labor	Total Unit Cost	Total Cost	References/Comments
					Division #7 Subtotal =	\$85,214	
DIVISION 8							
Single Door and Frames	1	EA	\$6,291.93		\$6,292	\$6,292	
					Division #8 Subtotal =	\$6,292	
DIVISION 9							
Painting	1	LS	\$10,000		\$10,000	\$10,000	
					Division #9 Subtotal =	\$10,000	
DIVISION 10							
Signage	1	LS	\$262.16	\$75	\$337	\$337	
Fire Extinguisher	1	LS	\$209.73	\$60	\$270	\$270	
					Division #10 Subtotal =	\$607	
DIVISION 11							
Muffin Monster - Sewage Grinder (JWCE Model 30005-008)	1	EA	\$38,800.23	\$5,820	\$44,620	\$44,620	
Lakeside Raptor Unit	1	EA	\$390,600	\$58,590	\$449,190	\$449,190	
					Division #11 Subtotal =	\$493,810	
DIVISION 13							
Deep Bed Carbon System	1	EA	\$95,951.92	\$16,500	\$112,452	\$112,452	
					Division #13 Subtotal =	\$112,452	
DIVISION 15							
24" Pipe Connection	350	LF			\$455	\$159,250	
HVAC	1	LS	\$100,000.00		\$100,000	\$100,000	
					Division #15 Subtotal =	\$259,250	
DIVISION 16							
Electrical	1	LS	\$95,363.97		\$95,364	\$95,364	
					Division #16 Subtotal =	\$95,364	
DIVISION 17							
Instrumentation	1	LS	\$63,575.98		\$63,576	\$63,576	
					Division #17 Subtotal =	\$63,576	
					Subtotal =	\$2,050,000	
Contingency	30%					\$615,000	
					Subtotal =	\$2,670,000	
Contractor Overhead & Profit	15%					\$400,500	
General Requirements	5%					\$133,500	
Mobilization/Demobilization	5%					\$133,500	
Insurance/Bonds	3%					\$80,100	
					TOTAL =	\$3,420,000	

PROJECT: Fairfax County Septage Receiving Facility Improvements - Noman Cole Site
 PROJECT NO. 32267-008
 DESCRIPTION: Draft Planning Cost Estimate
 PREPARED BY: JA Date: 6/3/2015
 REVIEWED BY: EH Date: 6/4/2015

HAZEN AND SAWYER
 Environmental Engineers & Scientists
 4035 Ridge Top Rd, Suite 400
 Fairfax, Virginia, 22030
 Tel: (703) 218-2034 • Fax: (703) 218-2040

Description	Quantity	Units	Equipment/materials (2C)	Labor	Total Unit Cost	Total Cost	References/Comments
DIVISION 1							
Start-up and Testing	1	LS	\$5,243.27		\$5,000	\$5,000	
						Division #1 Subtotal =	\$5,000
DIVISION 2							
Demolition Equipment	1	LS	\$18,246.60		\$17,400	\$17,400	
Demolition -Site work							
<i>Clear and Grub (moderate)</i>	1	LS	\$1,048.65		\$1,000	\$1,000	
Erosion and Sedimentation Control							
<i>Silt Fence</i>	1200	LF	\$4.64		\$4	\$5,304	
<i>Inlet Protection</i>	1	EA	\$185.40		\$177	\$177	
<i>E&S Maintenance</i>	1	LS	\$524.33		\$500	\$500	
Aggregates							
Subgrade Preparation	20000	SF	\$3.15		\$3	\$60,000	
Stone Subbase	370	CY	\$31.46		\$30	\$11,100	
Pavement							
<i>Bituminous Top Course (2")</i>	2222	SY	\$15.45		\$15	\$32,737	
<i>Top Course (over 2") (Add 1")</i>	2222	SY	\$7.72		\$7	\$16,365	
<i>Curb and Gutter</i>	750	LF	\$52.43		\$50	\$37,500	
<i>Trench Drain</i>	750	LF	\$52.43		\$50	\$37,500	
Final Grading	1	LS	\$524.33		\$500	\$500	
Landscaping	1	LS	\$5,243.27		\$5,000	\$5,000	
<i>Fencing w/ Two Gates</i>	600	LF	\$48.98		\$47	\$28,026	
						Division #2 Subtotal =	\$253,109
DIVISION 13							
Deep Bed Carbon System	1	EA	\$95,951.92	\$17,300	\$113,252	\$113,252	
						Division #14 Subtotal =	\$113,252
DIVISION 16							
Lighting	1	EA	\$10,000.00	\$2,500	\$7,500	\$7,500	
Miscellaneous Elec	1	EA	\$5,000.00	\$3,750	\$11,250	\$11,250	
						Division #16 Subtotal =	\$18,750
DIVISION 17							
Instrumentation	1	LS	\$50,000.00		\$50,000	\$50,000	
						Division #17 Subtotal =	\$50,000
						Subtotal =	\$440,000
Contingency	30%					\$132,000	
						Subtotal =	\$570,000
Contractor Overhead & Profit	15%					\$85,500	
General Requirements	5%					\$28,500	
Mobilization/Demobilization	5%					\$28,500	
Insurance/Bonds	3%					\$17,100	
						TOTAL =	\$730,000

APPENDIX E – RATE DEVELOPMENT

Fairfax County Wastewater Management Proposed Septage Receiving Rates, FY17-FY21

Annual real discount rate 3%

	Base Year-FY16	FY17	FY18	FY19	FY20	FY21
Revenues						
Sales of Service	258,839.60	262,847.17	267,841.76	272,052.89	280,214.48	288,620.91
Total Revenues	258,839.60	262,847.17	267,841.76	272,052.89	280,214.48	288,620.91
Expenses						
<i>Fixed Expenses</i>						
<i>Labor</i>						
Elec, Mech, Instrum, Bld & Grounds	41,685.90	42,936.48	44,224.57	45,551.31	46,917.85	48,325.38
Administrative	27,350.00	28,170.50	29,015.62	29,886.08	30,782.67	31,706.15
<i>Materials, Equipment, and Other</i>						
Electricity	2,000.00	2,060.00	2,121.80	2,185.45	2,251.02	2,318.55
Mileage	2,272.40	2,340.57	2,410.79	2,483.11	2,557.61	2,634.33
Minor Capital	5,000.00	5,150.00	5,304.50	5,463.64	5,627.54	5,796.37
Minor Equipment	1,000.00	1,030.00	1,060.90	1,092.73	1,125.51	1,159.27
Minor Contractual	400.00	412.00	424.36	437.09	450.20	463.71
Misc. Materials	608.51	626.77	645.57	664.94	684.88	705.43
Postal Services	100.00	103.00	106.09	109.27	112.55	115.93
Solids Removal and Disposal	30,000.00	30,900.00	31,827.00	32,781.81	33,765.26	34,778.22
Testing & Lab	1,000.00	1,030.00	1,060.90	1,092.73	1,125.51	1,159.27
<i>Variable Expenses</i>						
Sewer Use Charge						
Truck Size	Number of Trucks in Bin	Median Size for Bin (gallons)				
1 to 49 gal	8	10	28.20	28.32	28.62	28.75
50 to 899	37	600	7,824.39	7,859.69	7,942.05	7,977.35
900 to 2999	90	2000	63,441.00	63,727.20	64,395.00	64,681.20
3000 or more	54	4000	76,129.20	76,472.64	77,274.00	77,617.44
Total No. Active Trucks	189					
Total Fixed Expenses	111,416.81	114,759.31	118,202.09	121,748.16	125,400.60	129,162.62
Total Fixed and Variable Expenses	258,839.60	262,847.17	267,841.76	272,052.89	280,214.48	288,620.91
Net of Revenues and Expenses	-	-	-	-	-	-
Annual Fee per Truck						
Truck Size						
1 to 49 gal		593	611	629	648	667
50 to 899		801	820	840	860	886
900 to 2999		1,294	1,315	1,341	1,363	1,404
3000 or more		1,999	2,023	2,056	2,082	2,144
Example Annual Bill						
Truck Size	No. Trucks					
1 to 49 gal	0	4,094.69	4,158.24	4,237.37	4,304.15	4,433.28
50 to 899	1					
900 to 2999	1					
3000 or more	1					
Comparison with Other Local Utilities						
Cost for one 2,000 gallon truck making 53 trips per year						
Fairfax County		2,004.41				
DC Water		14,640.00				
Loudoun Water		4,602.00				
PWCSA		2,245.00				
UOSA		2,120.00				
WSSC		8,735.00				