

Board of Supervisors Presentation



GREEN RIDGE
RECYCLING AND DISPOSAL FACILITY

William Shewmake, LeClair Ryan

■ About County Waste of Virginia

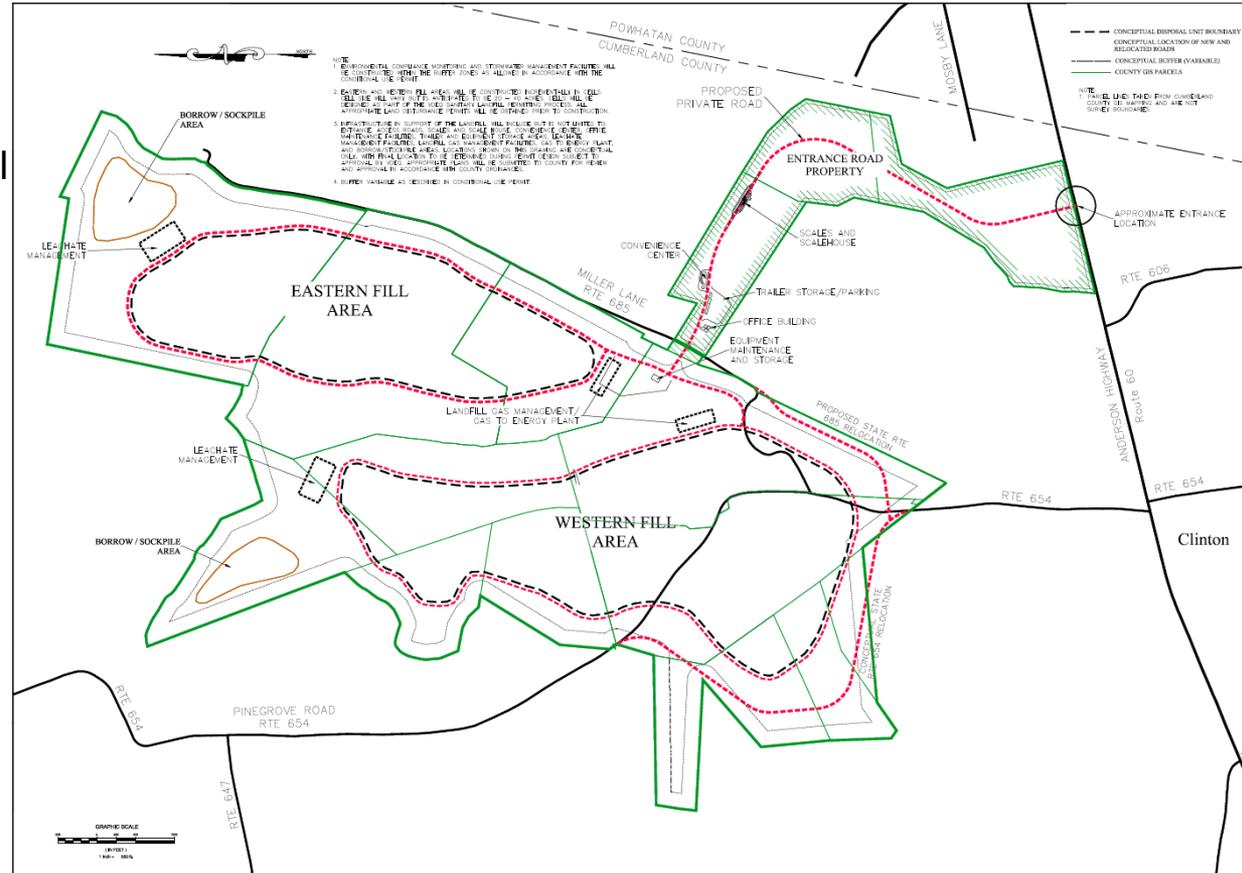
Largest waste collection company in Central Virginia with more than 300,000 customers

- **Scott Earl** – Chief Executive Officer
- **Jerry Cifor** – Senior Vice President
- **Jay Zook** – Vice President of Virginia Operations

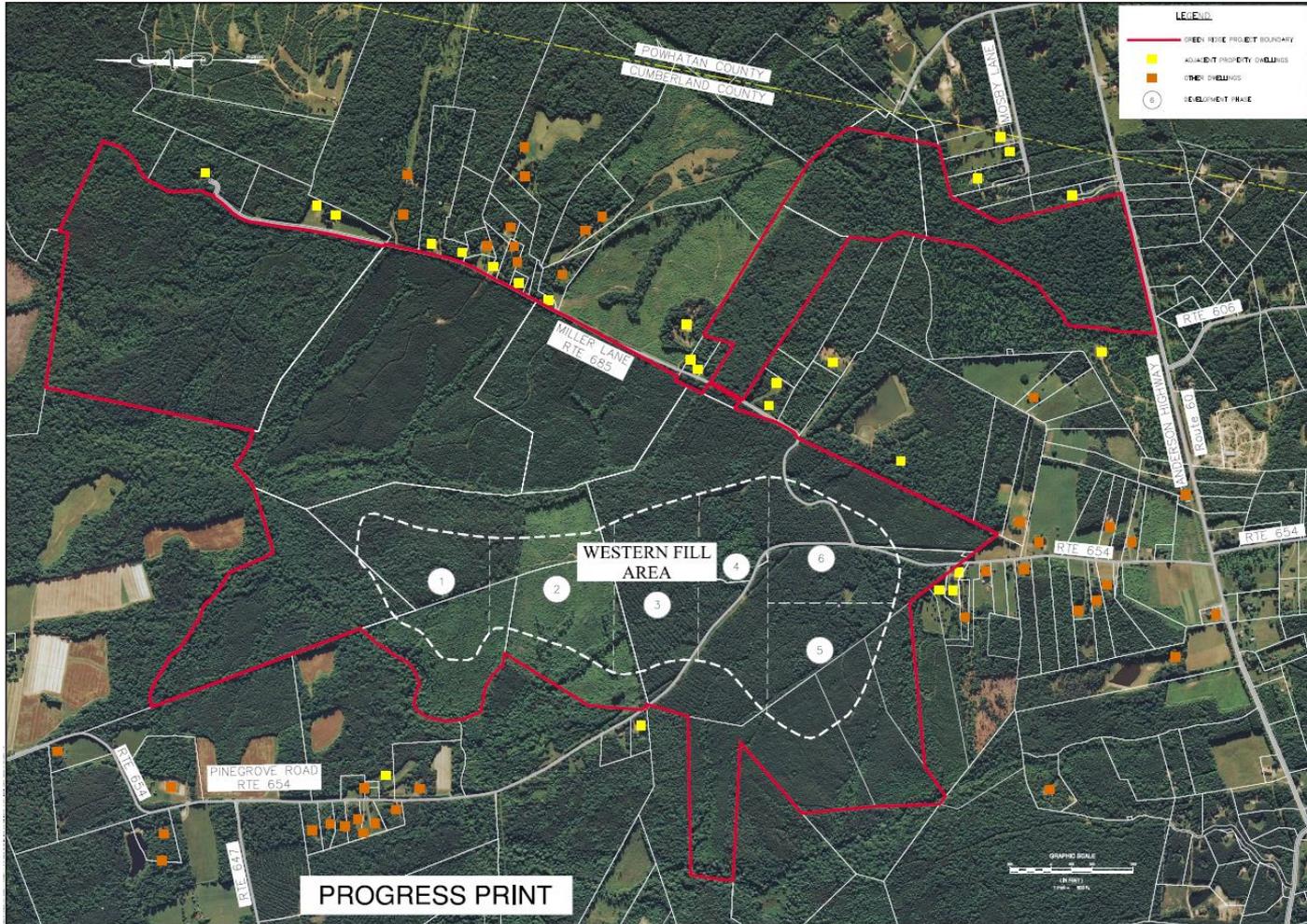


Green Ridge Project Overview

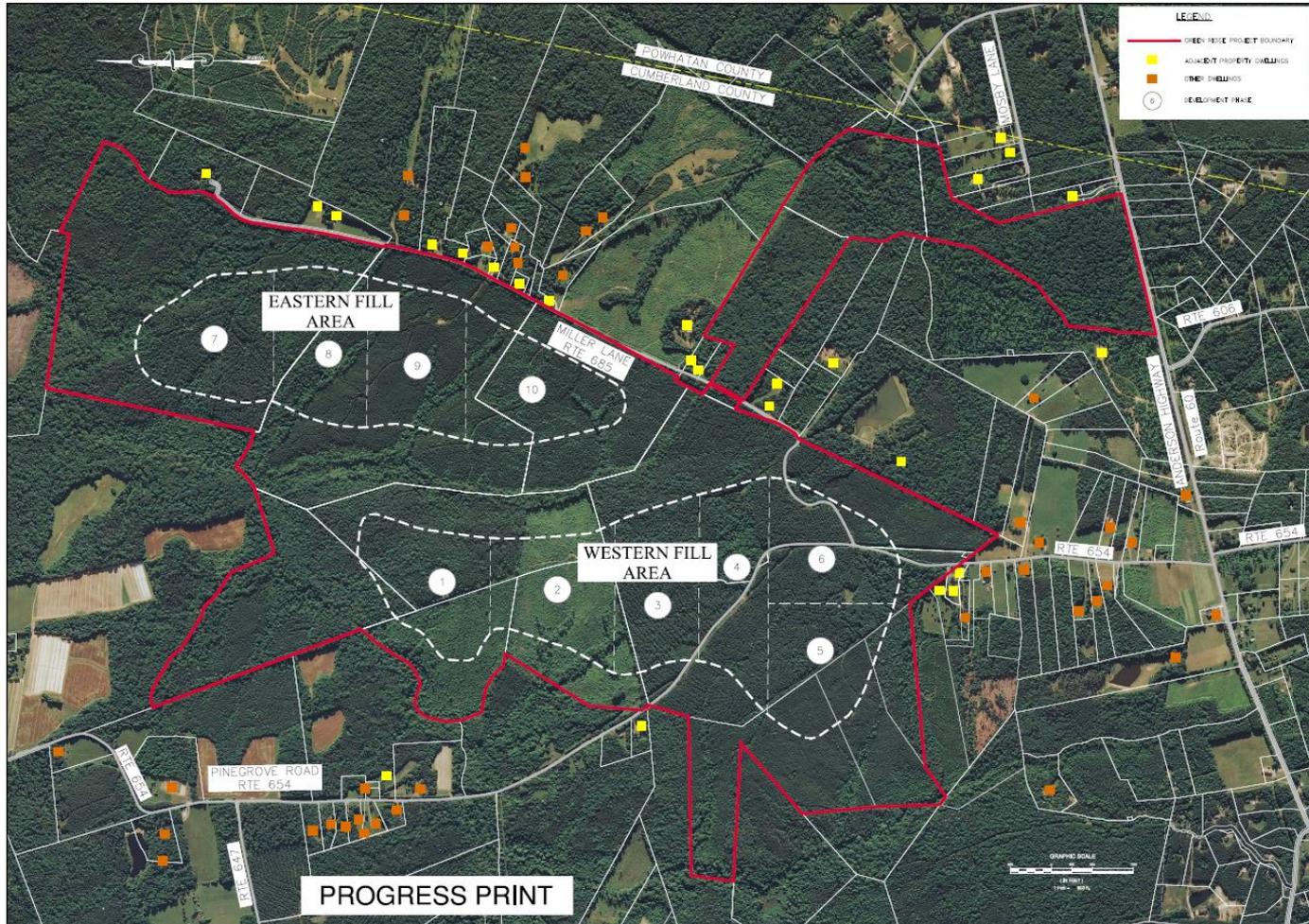
- Total site acreage – 1,200+ acres
- Two areas identified for disposal
 - Western – 300± acres
 - Eastern – 200± acres
- Entrance to facility from Route 60
- Entrance road approximately 1 mile long
- Approximately 3,500 to 5,000 tons per day
- Capacity sufficient for at least 35 years



■ Stage One of the Development (first 20 years)

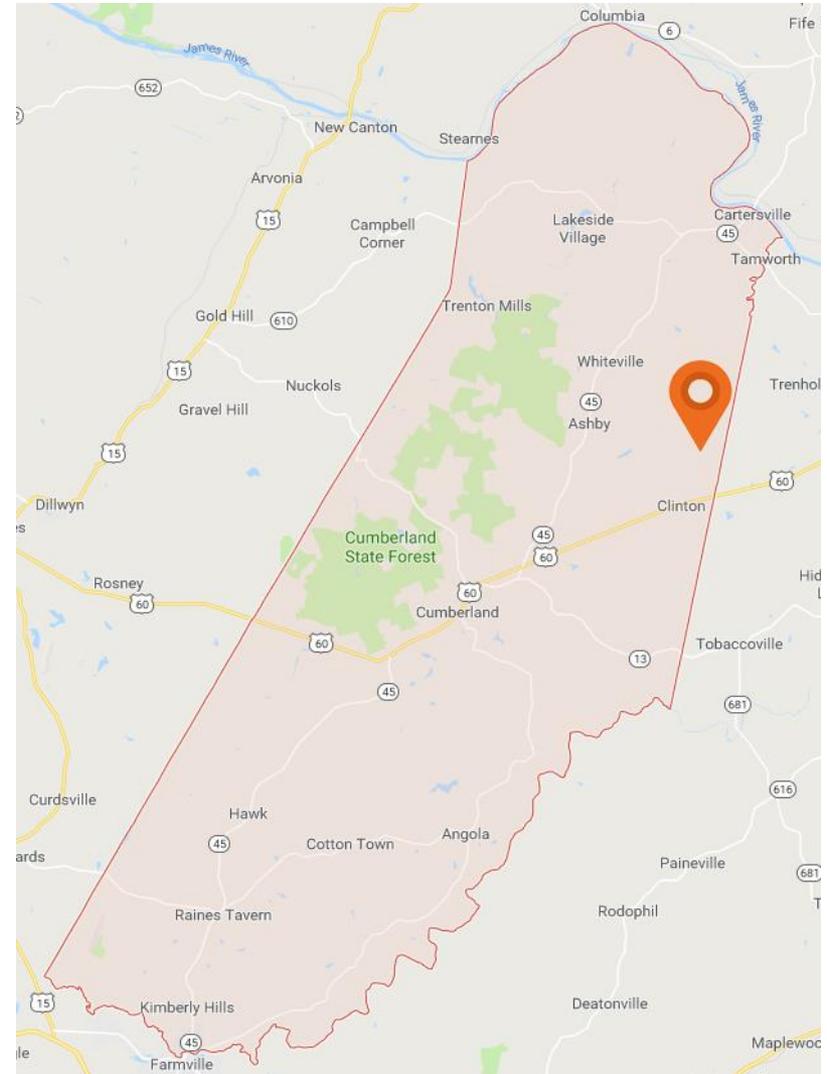


■ Stage Two of the Development (final ~15 years)



■ Facility Location

- Located on the far-Eastern edge of the County
- Most of the traffic will come from the East
- Minimized traffic impact on the neighboring community and the County as a whole



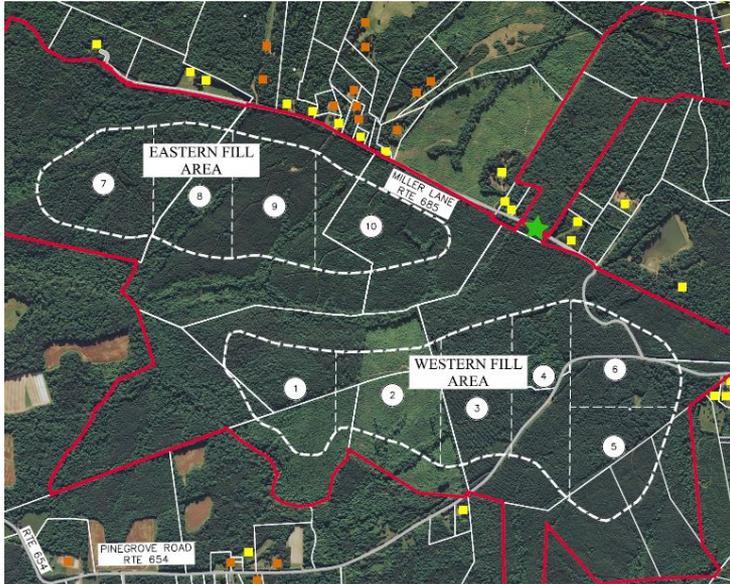
■ Adjacent Properties

- Buffers
- Well sampling
- Noise limits
- Lighting limits
- Odor limits



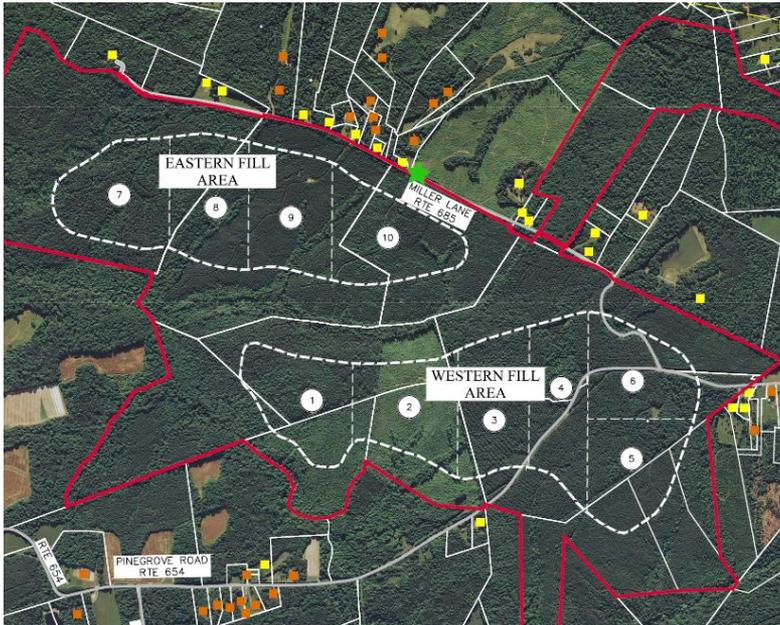
■ Buffers Around the Proposed Site

- Picture taken from where the proposed private road entrance will cross Miller Lane (See Green Star).



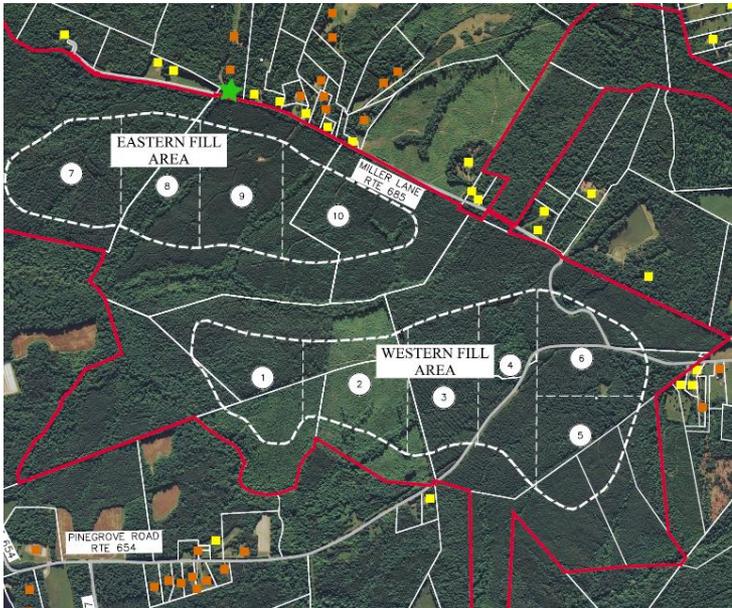
■ Buffers Around the Proposed Site

- Picture taken from Miller Lane, just south of the intersection with Alder Lane (See Green Star).



■ Buffers Around the Proposed Site

- Picture taken from Miller Lane, just north of the intersection with Alder Lane (See Green Star).



■ Buffers Around the Proposed Site



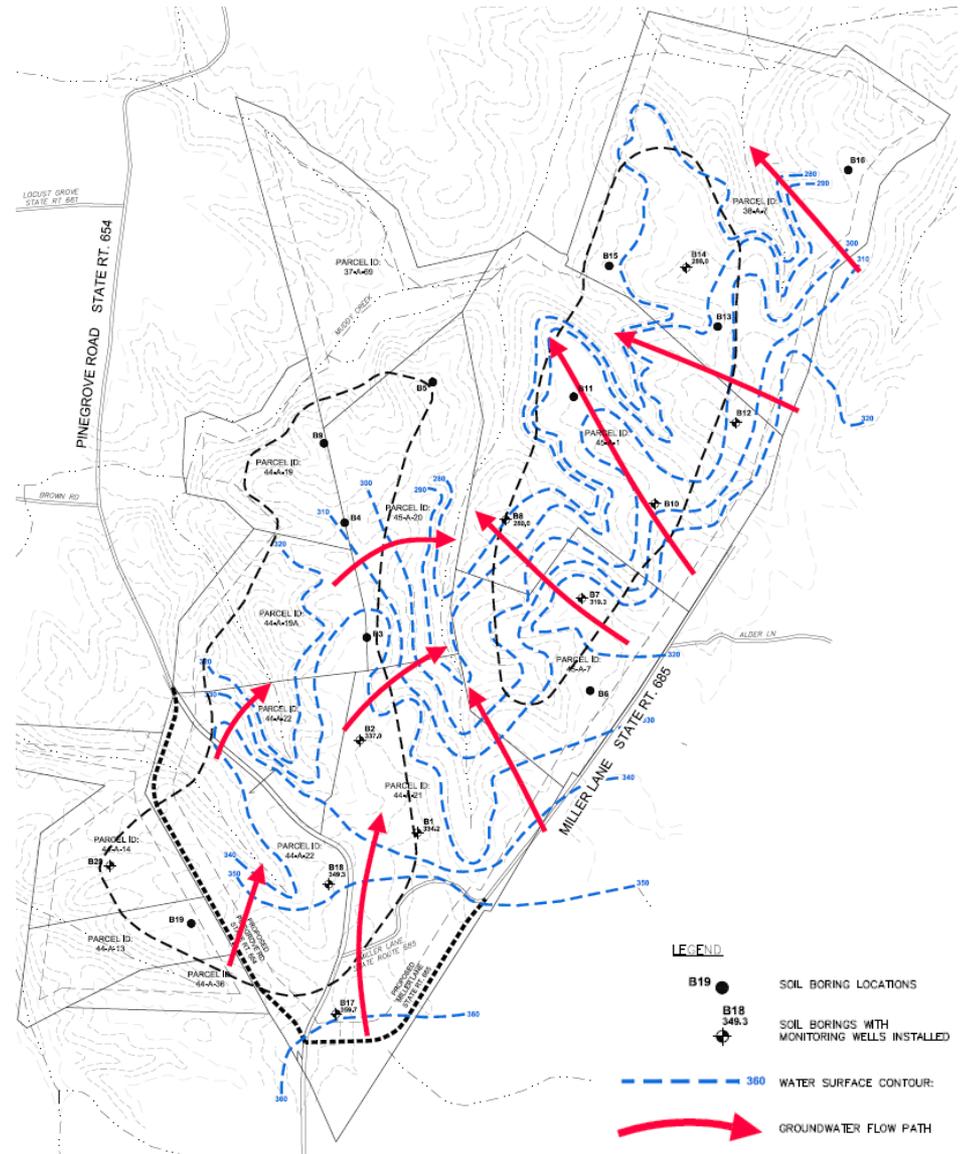
Current view from Rt. 60



View of capped landfill from Rt. 60

Groundwater Contours

- As this map shows, the direction of groundwater flow is generally towards the center of the facility, and away from any neighboring houses and wells.
- A significant number of additional observation wells will be installed to provide more detail on groundwater flow direction, and to provide points for monitoring groundwater quality, both within the site and around the site perimeter.



■ Odor Management Plan

- Methane gas collection
- Limiting waste type
- Daily mitigation (cover)
- Non-toxic neutralization agents, if necessary



■ Road Improvements

- Far-Eastern location within the County
- Working directly with VDOT to address any increased volume
- Paying for the costs of any road improvements that are deemed necessary by VDOT, including turning lanes
- Extended entrance with lighting



■ Traffic Analysis

- As you will see in the next slide, the increased traffic created by the proposed landfill will not create a decreased “level of service” for Route 60.
- “Level of service” or LOS is a measure used to relate the quality of motor vehicle traffic service. LOS is used to analyze roadways and intersections by categorizing traffic flow and assigning quality levels of traffic based on performance measure like vehicle speed, density and congestion.
- LOS standards range from “A” or essentially free flowing traffic to “F” or forced or breakdown flow.
- The LOS that currently exists on Route 60 is either a “B” (reasonably free flow) or a “C” (stable flow, at or near free flow) depending on the time of day.
- Following the development of the landfill, the “level of service” will continue to fall within the “B” or “C” range. This is evidenced by the chart on the following slide.

Traffic Analysis

Route 60 WEST of Site Access											
Scenario*	Traffic Volume				Truck Volume					Level of Service (volume / capacity ratio)	
	No Build	Build	Change	% Change	No Build Trucks	No Build Truck %	Trucks Added	Build Trucks	Build Truck %	No Build	Build
Daily Overall	6900	7392	492	7.1%	343	5.0%	366	709	9.6%	-	-
7-8 AM	508	548	40	7.9%	25	5.0%	24	49	8.9%	C (0.23)	C (0.24)
Noon-1 PM	347	379	32	9.2%	17	5.0%	24	41	10.8%	B (0.12)	B (0.13)
5-6 PM	585	625	40	6.8%	29	5.0%	24	53	8.5%	C (0.27)	C (0.28)
6-7 PM	467	493	26	5.6%	23	5.0%	18	41	8.3%	C (0.22)	C (0.23)
9-10 PM	181	195	14	7.7%	9	5.0%	12	21	10.8%	B (0.09)	B (0.10)

* Based on 2028 projected volumes

Route 60 EAST of Site Access											
Scenario*	Traffic Volume				Truck Volume					Level of Service (volume / capacity ratio)	
	No Build	Build	Change	% Change	No Build Trucks	No Build Truck %	Trucks Added	Build Trucks	Build Truck %	No Build	Build
Daily Overall	6900	7434	534	7.7%	343	5.0%	494	837	11.3%	-	-
7-8 AM	508	522	14	2.8%	25	5.0%	6	31	5.9%	C (0.23)	C (0.23)
Noon-1 PM	347	353	6	1.7%	17	5.0%	6	23	6.5%	B (0.12)	B (0.12)
5-6 PM	585	601	16	2.7%	29	5.0%	6	35	5.8%	C (0.27)	C (0.27)
6-7 PM	467	577	110	23.6%	23	5.0%	102	125	21.7%	C (0.22)	C (0.27)
9-10 PM	181	247	66	36.5%	9	5.0%	64	73	29.6%	B (0.09)	B (0.12)

* Based on 2028 projected volumes

■ Proposed Conditions

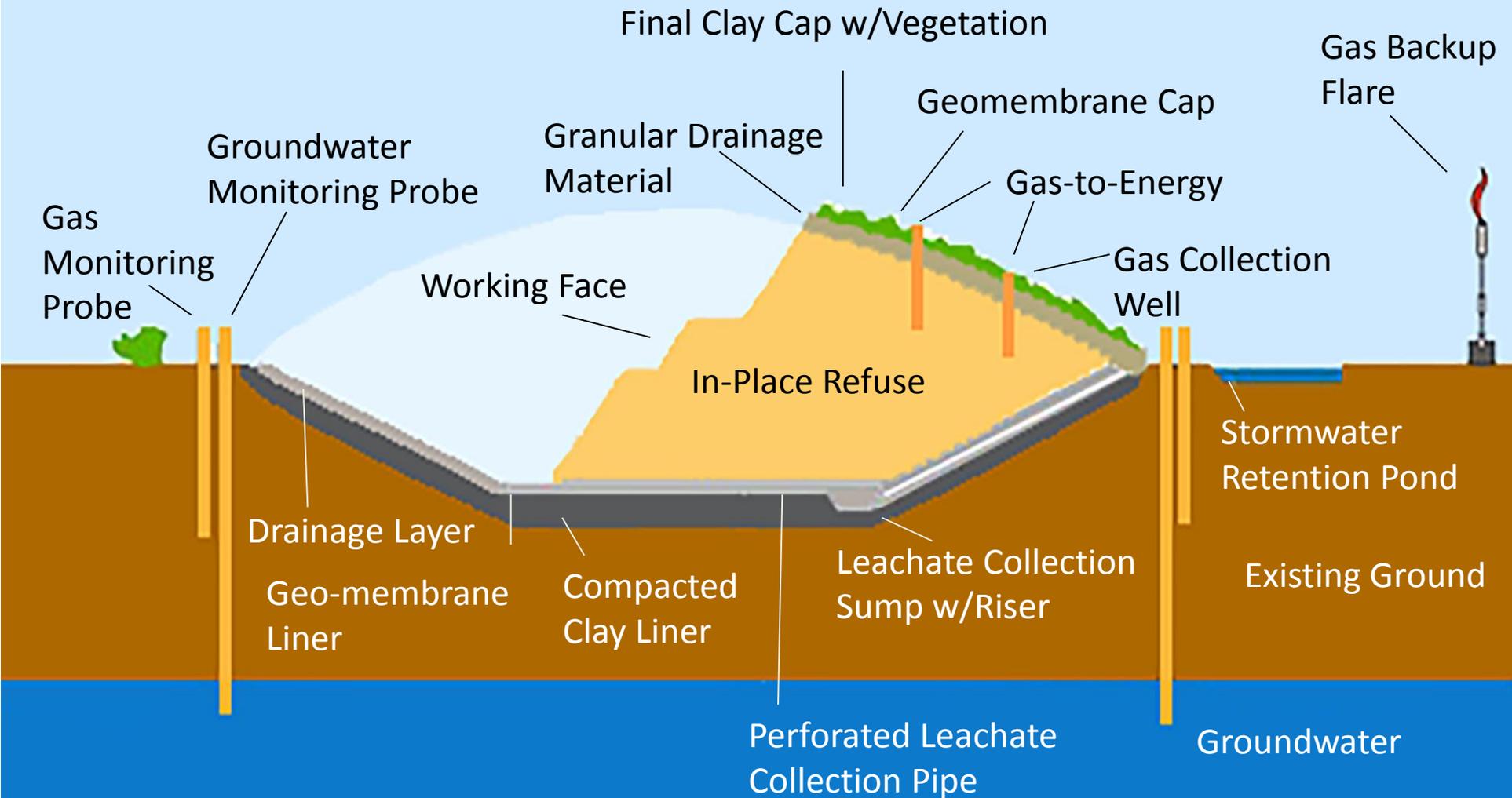
- Green Ridge **WILL NOT** accept any hazardous waste, wastewater sludge or processed sheet rock.
- Green Ridge will have an inspection program for each truck to verify that all incoming waste is acceptable in content and origin.
- Green Ridge will have **NOT LESS THAN** 200 feet of perimeter buffers, adjacent to any property with a dwelling, with the exception of the entrance road.
- Green Ridge operations within the facility **WILL NOT** exceed 67 decibels at the property line to the nearest residence, comparable to the sound of a household dishwasher.
- Green Ridge lighting **WILL NOT** exceed .5 foot candles (maximum illumination) at the property lines.
- Green Ridge will reimburse the County for a full-time, independent Landfill Monitor, and the County will have the ability to inspect the facility at any time during operating hours.

■ Regulatory Framework

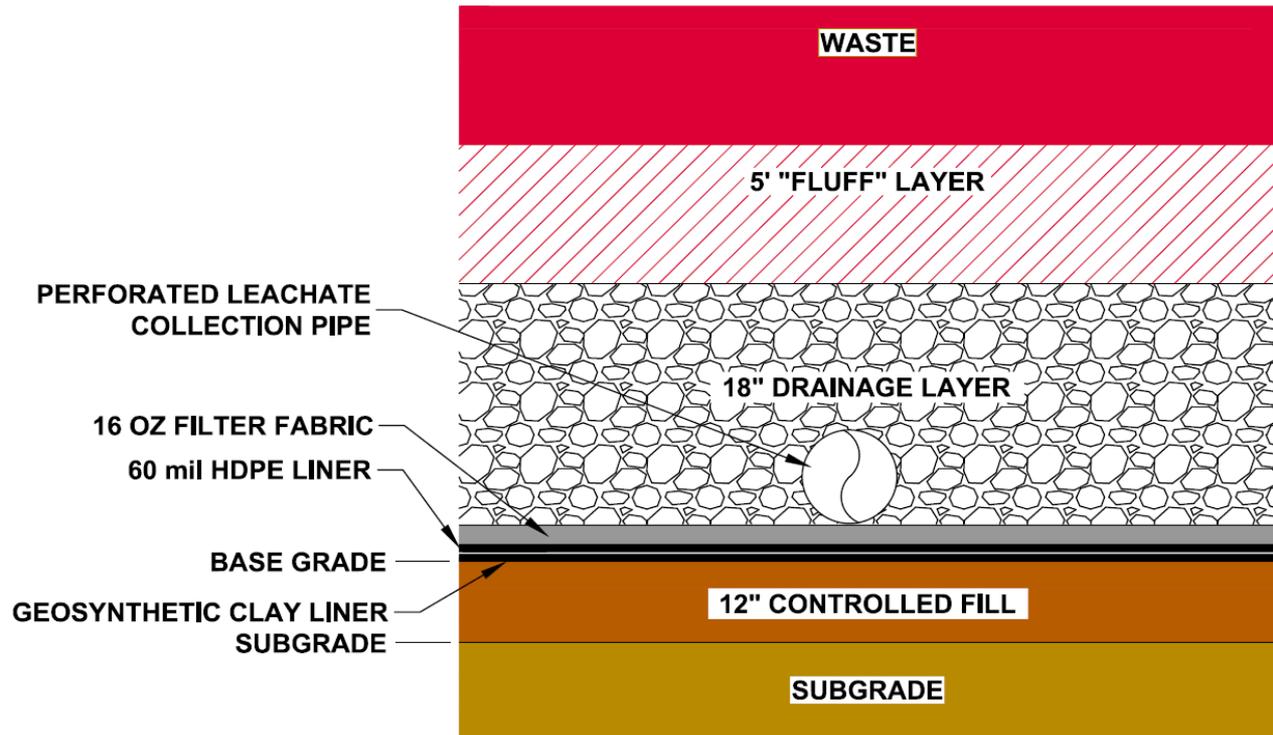
- EPA Subtitle D (40 CFR Parts 257 and 258)
- Virginia Waste Management Act (Title 10.1, Chapter 14)
- VSWMR (9 VAC 20-81)
- Groundwater and Gas Management Regulations (9 VAC 20-81)
- Air Permitting (9 VAC-5-80)
- Greenhouse Gas Reporting
- Submission Instructions by DEQ staff
- Guidance documents by DEQ staff
- Financial Assurance (9 VAC 20-20-70)
- Permit action fees and annual fees (9 VAC 20-90)
- Planning Regulations (9 VAC 20-130)
- Operator Training (Title 10.1-1408.2)
- Storm Water Regulations (9 VAC 25-870)
- Erosion Control Regulations (4 VAC 25-840)



Typical Landfill



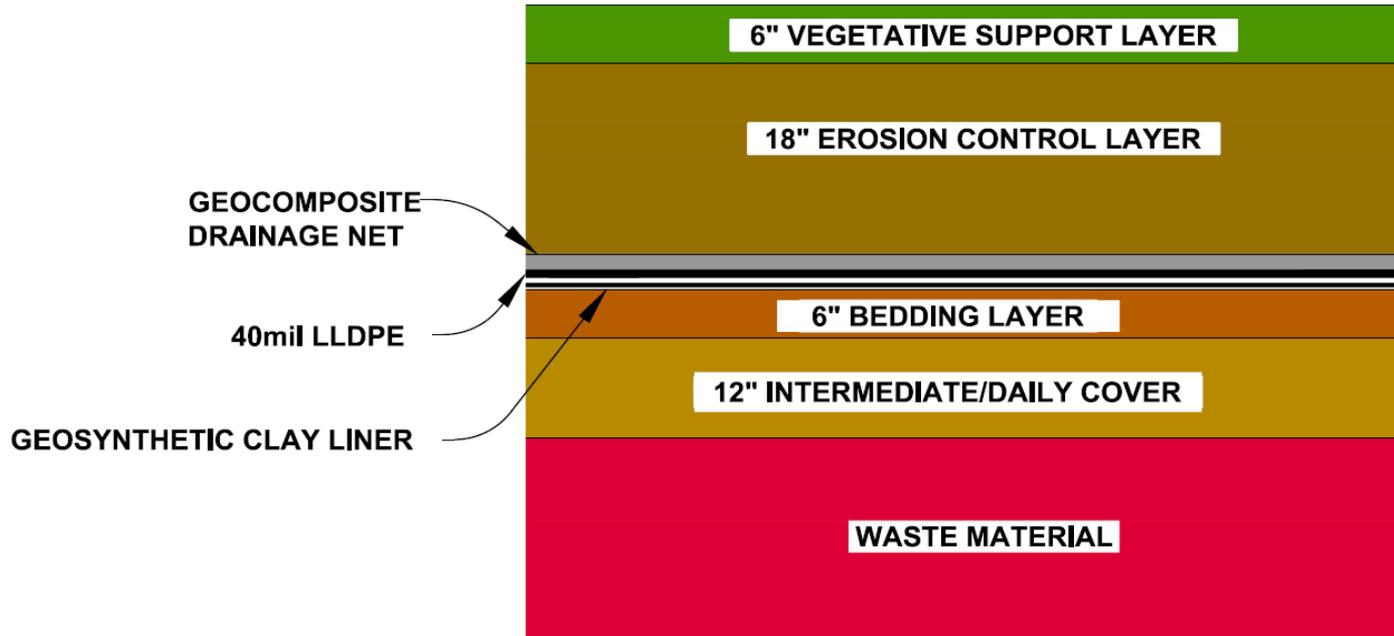
■ Landfill Liner Cross Section



TYPICAL LINER DETAIL

NOT TO SCALE

■ Landfill Cap Cross Section



TYPICAL CAP DETAIL

NOT TO SCALE

■ Closure and Post-Closure Responsibilities

- Closure is:
 - Cap system
 - Gas collection system
 - Monitoring systems
 - Financial Assurance
- Post-Closure care period = 30 years
- Post-Closure uses



■ Project Benefits

Green Ridge will pay Cumberland County **\$1.3 to \$2.7 million each year** through a host fee to operate their facility. The annual host fees that are collected will **likely result in a 10% to 20% local revenue increase** for Cumberland County, providing the county with **long-term financial stability** and the **ability to invest** the money as they deem necessary.

Host Fee
Payments
to the
County

Tax
Revenue

Other
Payments
to the
County

Job
Creation

Other
Benefits

■ Estimated 10% - 20% Increase in Local Revenue

GENERAL FUND REVENUE

Item #	Description	Department Request	County Administrator Proposed	Adopted
1101	Real Estate Taxes	\$5,630,000	\$5,850,000	\$5,850,000
1102	Real/Personal Public Service	\$850,000	\$860,000	\$860,000
1103	Personal Property Taxes	\$1,845,500	\$1,994,500	\$1,994,500
1104	Machinery & Tools	\$140,000	\$200,000	\$200,000
1106	Penalties & Interest	\$247,000	\$247,000	\$247,000
1201	Local Sales & Use Taxes	\$425,000	\$500,000	\$500,000
1202	Consumer Utility Taxes	\$173,000	\$173,000	\$173,000
1203	Business License Taxes	\$106,000	\$111,000	\$111,000
1204	Franchise License Taxes	\$15,000	\$15,000	\$15,000
1205	Motor Vehicle License Taxes	\$230,000	\$230,000	\$230,000
1207	Taxes on Recordation & Wills	\$59,700	\$68,600	\$68,600
1301	Animal License	\$8,000	\$8,000	\$8,000
1303	Permits & Other Licenses	\$46,600	\$76,600	\$76,600
1401	Court Fines & Forfeitures	\$120,000	\$150,000	\$150,000
1501	Revenue from Use of Money	\$40,000	\$40,000	\$40,000
1502	Revenue from Use of Property	\$7,000	\$15,000	\$15,000
1601	Court Costs	\$46,860	\$47,060	\$47,060
1602	Commonwealth's Attorney Fees	\$800	\$800	\$800
1603	Charges for Law Enforcement	\$0	\$0	\$0
1604	Charges for Fire and Rescue Service		\$200,000	\$200,000
1606	Charges for Other Protection	\$0	\$0	\$0
1608	Charges for Sanitation Removal	\$1,000	\$0	\$0
1612 & 1613	Charges for Parks & Recreation	\$16,000	\$16,000	\$16,000
	Charges for Planning / Community Development	\$2,500	\$2,500	\$2,500
1616	Development	\$2,500	\$2,500	\$2,500
1899	Miscellaneous	\$1,141,900	\$1,675,900	\$1,704,901
1901	Recovered Costs	\$0	\$0	\$0
2308	DMV License Agent	\$19,000	\$19,000	\$19,000
4104	Proceeds from Use of Credit	\$0	\$0	\$0
4105	Transfers	\$0	\$0	\$0
2101	Services Charges	\$40,000	\$40,000	\$40,000
2201	Non-Categorical Aid	\$1,280,535	\$1,304,535	\$1,304,535
2301-2307	Shared Expenses (State Revenue)	\$1,136,023	\$1,136,023	\$1,136,023
2404	State Grant Funds	\$52,000	\$52,000	\$52,000
3301	Federal Grant Funds	\$20,000	\$23,000	\$23,000
	TOTAL	\$13,699,418	\$15,055,518	\$15,084,519

- The revenue generated from the Host Fees alone could amount to \$2.7 million per year, which is almost half of the amount that the County collects through Real Estate Taxes annually.
- The revenue from this project would become the third highest revenue stream for the County, behind only Real Estate and Personal Property taxes.

■ Project Benefits Breakdown

Annual Benefits:	Amount:
Host Fees*	\$1.3M - \$2.7M
Machinery, Equipment and Tools Tax Revenue	~\$52,000 - ~\$67,000
Environmental Science Education Program Fund*	\$25,000
Recreational Programs Fund*	\$25,000
TOTAL:	\$1.4 M - \$2.8 M (per year)

***To increase with inflation**

Other Benefits:
10% of Landfill Gas Revenue
Supporting CDL and Mechanic Education Program
Paying for the cost (\$100,000 per year) of a County Landfill Monitor*
25 acres of land for the County post-closure
Free waste disposal and recycling drop off at the landfill for County residents
Estimated \$125M - \$150M in construction costs over the life of the facility