



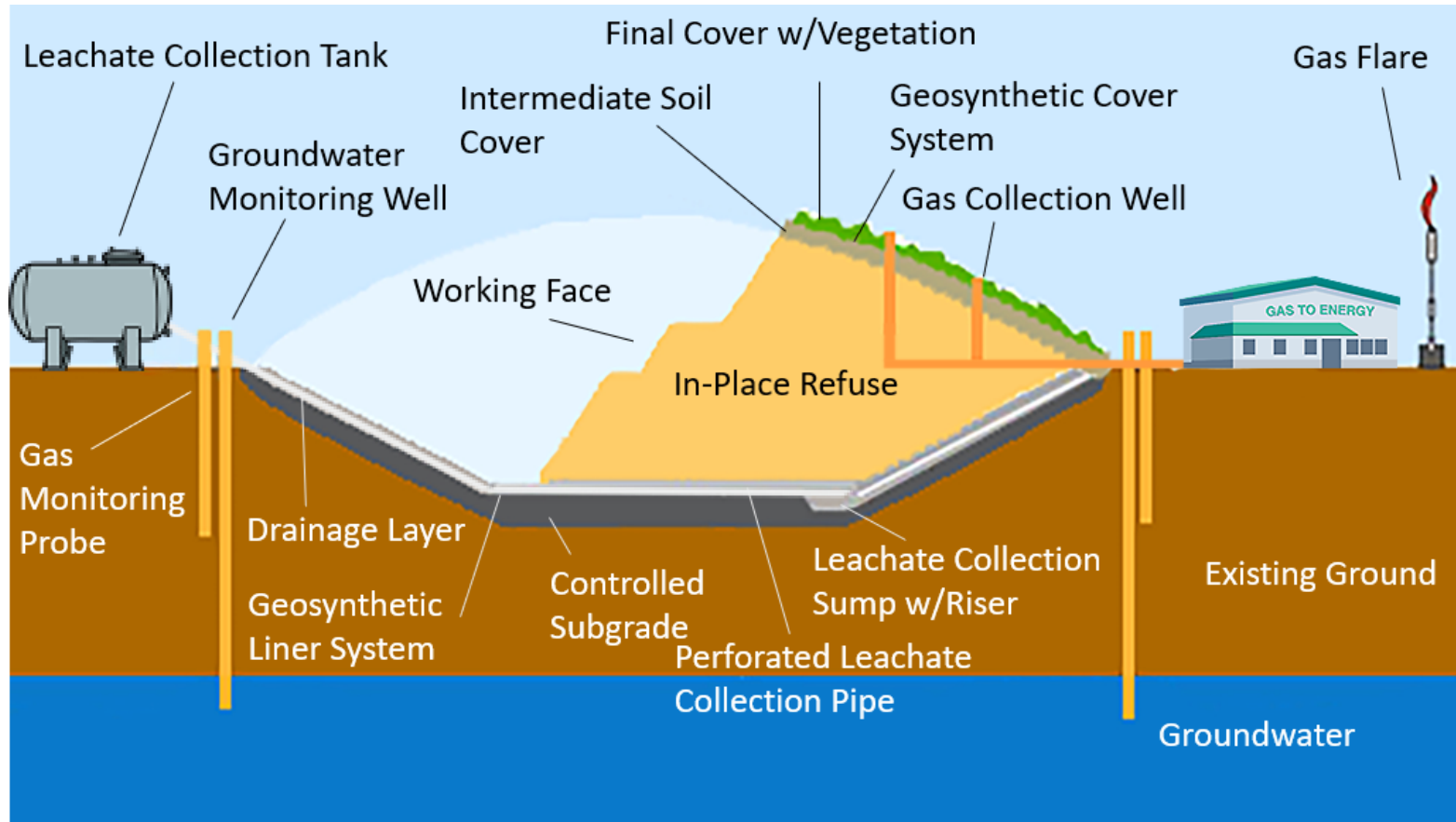
GREEN RIDGE
RECYCLING AND DISPOSAL FACILITY

FACILITY OPERATIONS

- Ground Water Monitoring
- Double Liner System
- Landfill Gas Monitoring and Odor Management
- Leachate Management System
- County Oversight
- Traffic Impact
- Post Closure



TYPICAL MSW LANDFILL



GROUNDWATER MONITORING

- Green Ridge's landfill groundwater monitoring plan encompasses a system of wells that will be routinely sampled to monitor the quality of groundwater near the facility. Groundwater will be monitored in accordance with DEQ regulations.

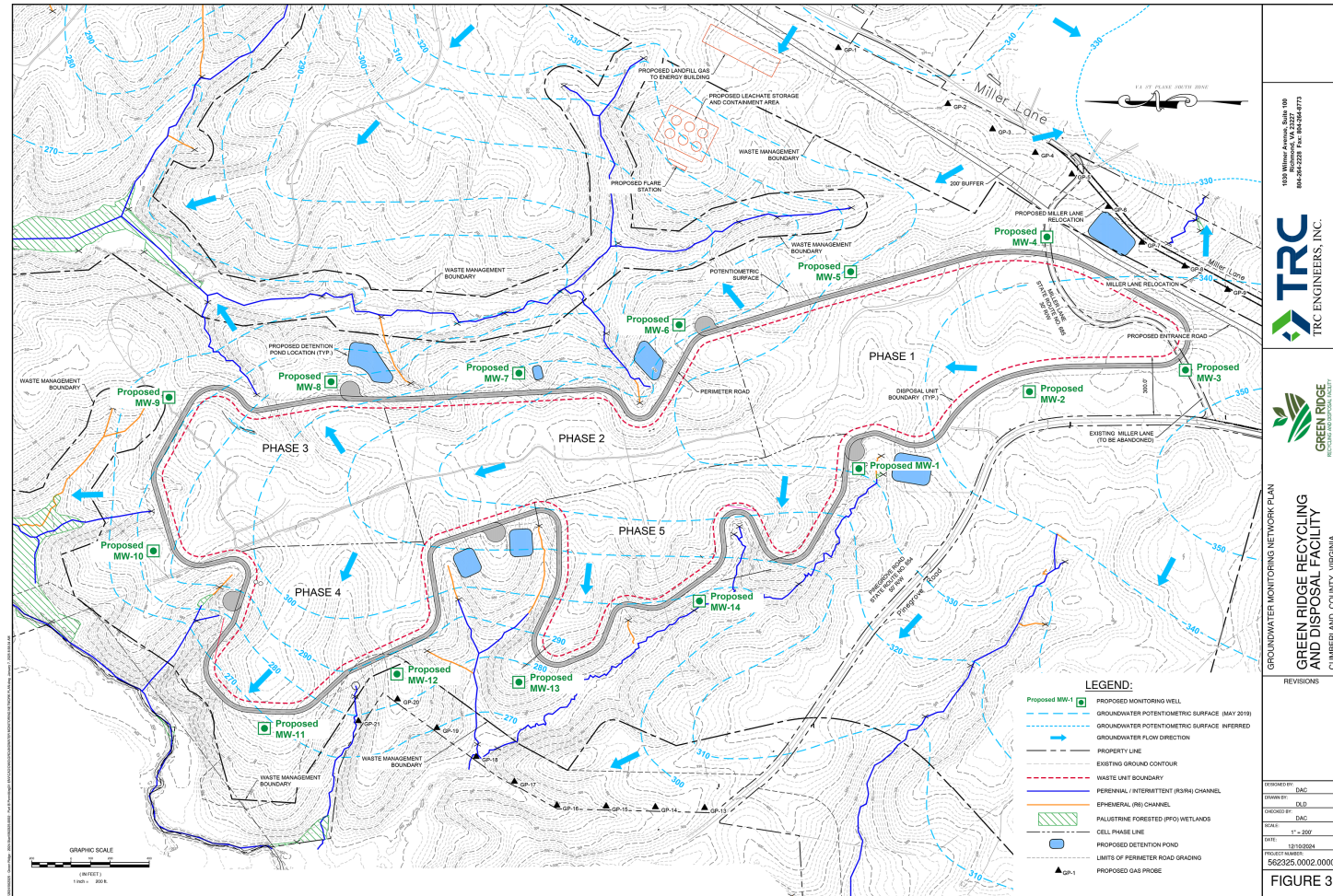
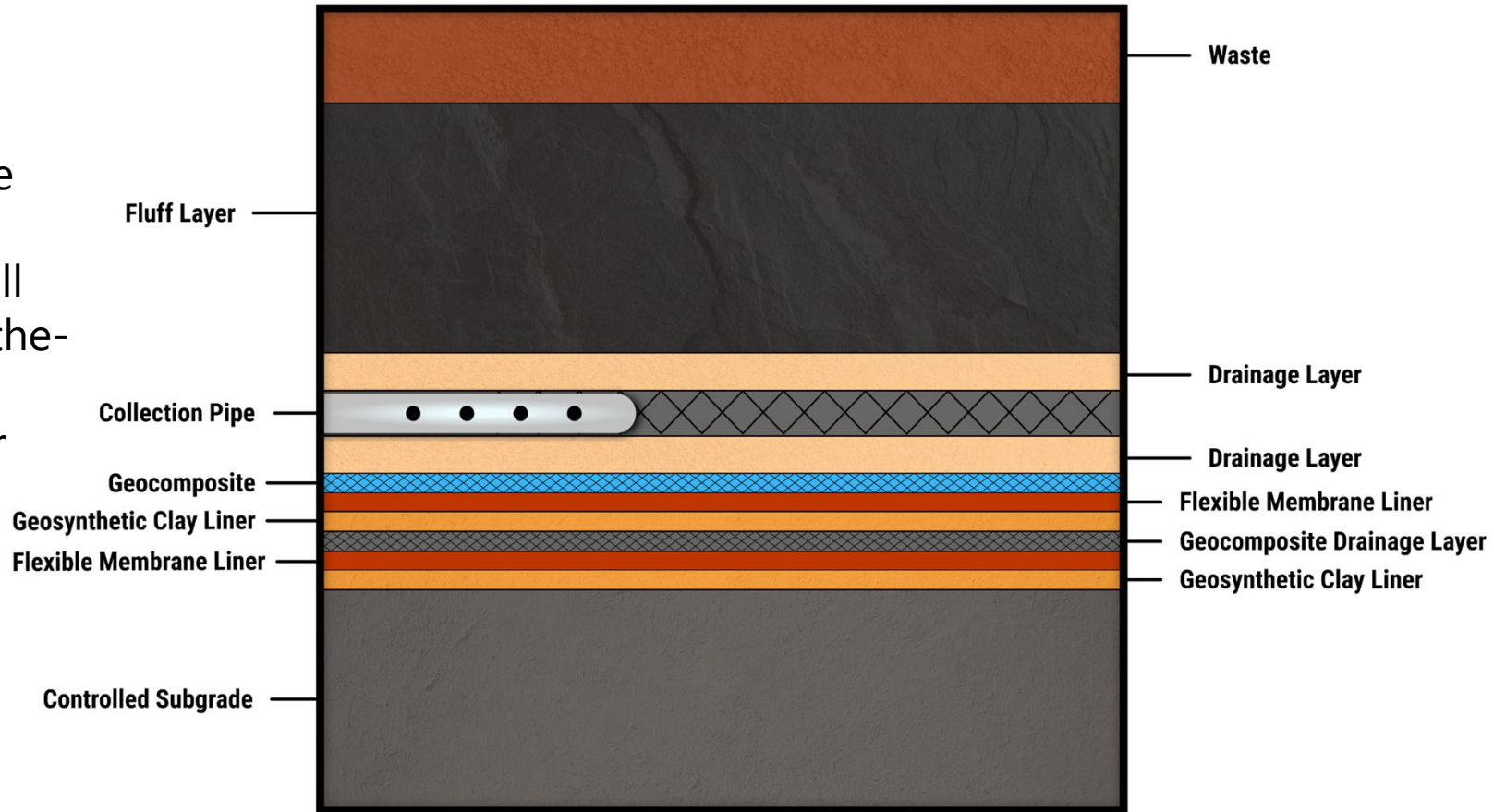


FIGURE 3

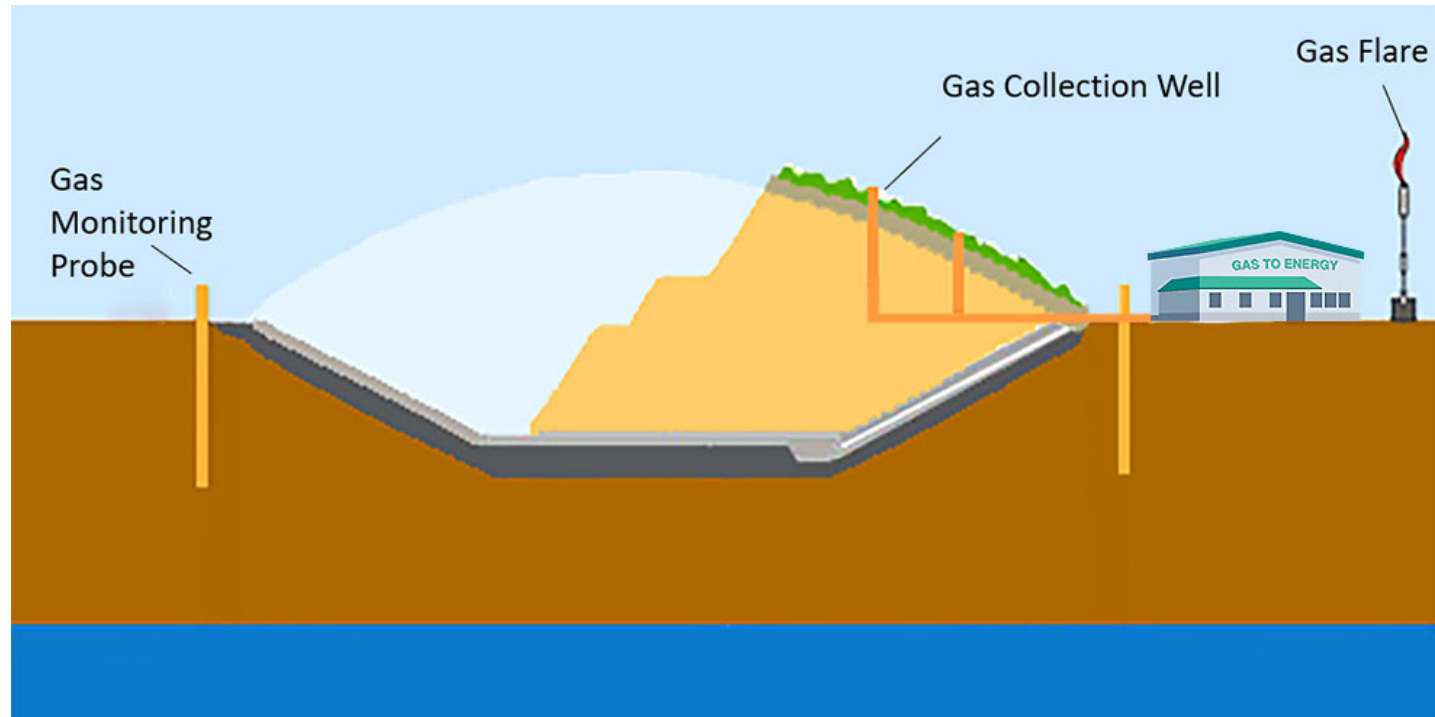
DOUBLE LINER SYSTEM

- Under a new condition in the proposed CUP, Green Ridge will use a state-of-the-art double composite liner system.



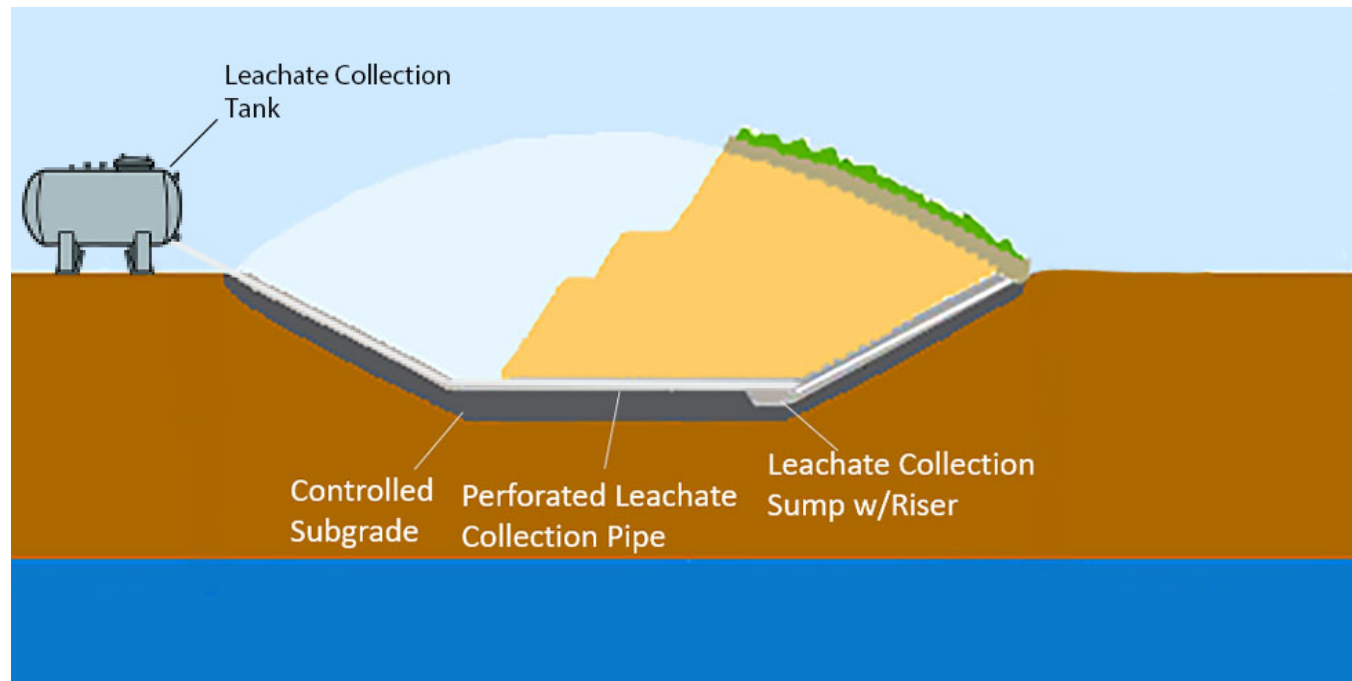
ODOR MANAGEMENT

- Green Ridge **WILL NOT** accept any hazardous waste, wastewater sludge or processed sheet rock which cause odors.
- Green Ridge will have a comprehensive gas monitoring plan.
- Odor control includes: maintaining small working face; daily cover placement; apply intermediate cover when reach grade; collect and destroy. (flare)
- Once sufficient waste is in place, Green Ridge will utilize a methane gas collection system for gas-to-energy that will generate significant income for the county.



LEACHATE MANAGEMENT SYSTEM

- Green Ridge will have a leachate collection system that collects the leachate at the bottom of the landfill.
- Leachate is pumped from the landfill to on-site tanks for temporary storage, then is trucked off-site for disposal.
- Green Ridge will have a leak detection layer (double-liner system) beneath the base liner that will be monitored for leaks through the primary liner. This layer will also serve as an additional liner separating the waste from the surrounding soil and groundwater.



COUNTY OVERSIGHT

- Green Ridge will reimburse the County for a full-time, County employee who will serve as a Landfill Monitor. The Landfill Monitor will have the ability to inspect the facility at any time during operating hours, including during facility construction.
- County Administrator will also have the right to inspect the facility during operating hours.
- Green Ridge will have an inspection program to verify that incoming waste is acceptable in content and origin.



TRAFFIC IMPACT

- The revised plan significantly reduces the amount of vehicle traffic to the landfill.
- Approximately 75 waste hauling trucks per day.
- Approximately 80% coming from the east on Route 60.
- The Traffic Impact Analysis found that Route 60 has a capacity of 15,000 vehicles per day. Current projections show approximately 5,800 vehicles per day at build-out of the proposed facility. (only 39% of the roadway capacity)



POST CLOSURE



WHAT IS GREEN RIDGE NOW?

- **Type:** Non-hazardous sanitary landfill to be permitted by DEQ and operated by GFL.
- **Permit Acreage:** Approximately 104 acres available for disposal under current DEQ permit request (with a maximum of 350 acres with additional permitting); 200 acres for operations; 850 acres for buffer, roads, non-landfill related activities.
- Green Ridge will have **200'** wide perimeter buffers, at a minimum, with adjacent residential properties to the facility, with a 50-foot buffer from any future entrance road off Route 60.
- **Operations:** 1,500 tons per day; 6am-5pm Monday-Friday; 6am-1pm Saturday; no operations on Sunday.
- **Convenience Center:** 7am-6pm Monday-Friday; 7am-1pm Saturday, no operations on Sunday.
- **Service Area:** Virginia. (primarily Central and Southwest Virginia)
- **Controlled Waste Materials:** No sludge, no fly ash, no processed construction debris.



WHY GREEN RIDGE?

Waste disposal costs are skyrocketing with diminishing capacity and competition.

- Mid-Atlantic region has approximately 9 years of disposal capacity remaining.
 - Other Virginia landfills receive most of the out-of-state waste because of trucking lanes and rail lines.
 - Shoosmith Landfill stopped accepting waste at the end of 2023 and has started the final closing process.
- Waste disposal costs for Cumberland County exceeded the budget by \$174,587 in 2023. (2023 waste disposal budget \$962,253)
 - In Virginia, 97% of the private landfill capacity is held by two companies.
- Green Ridge allows a competitive environment to exist for customers in Virginia and Cumberland County.



WHY CUMBERLAND COUNTY?

Determination of location

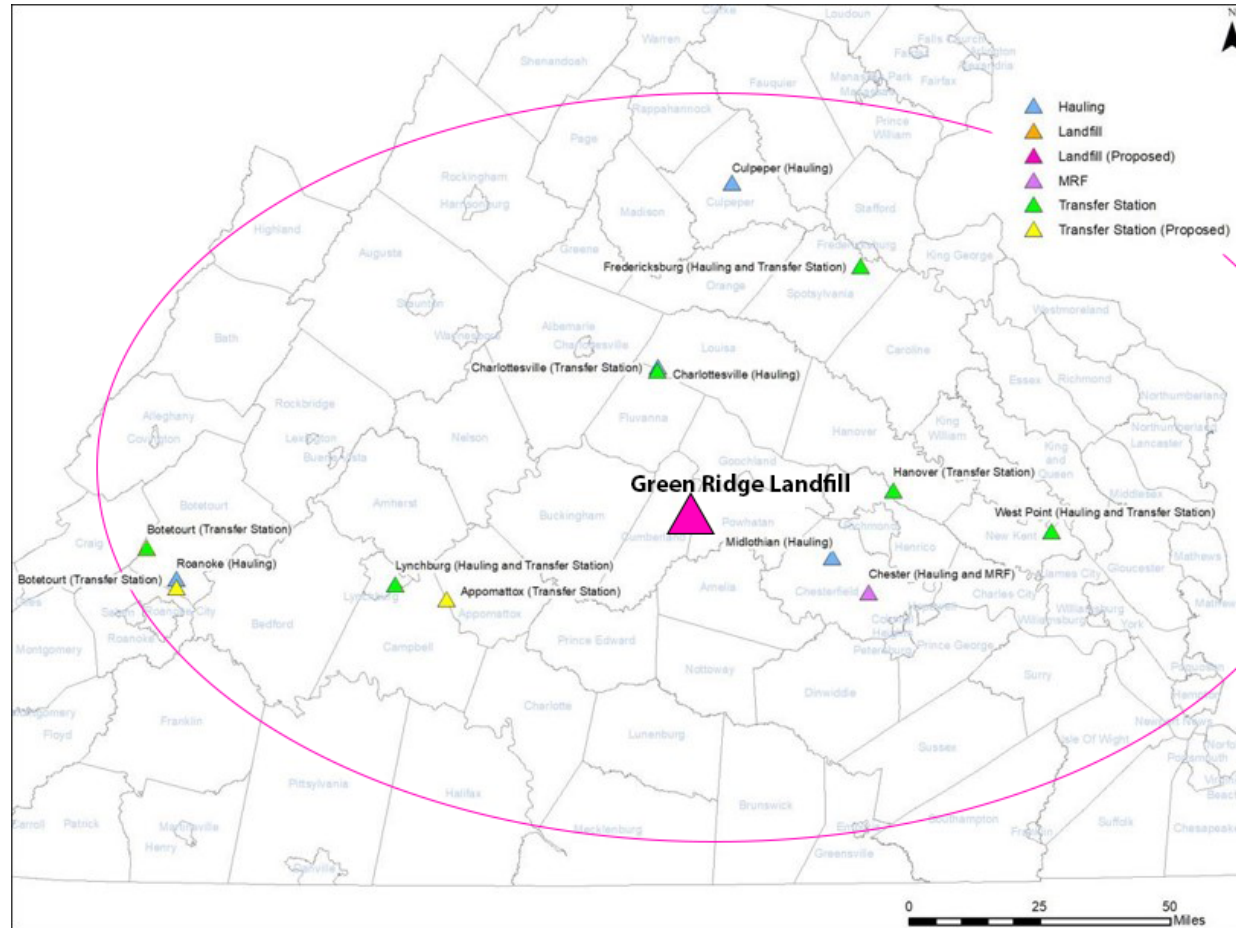
- Criteria: (1) serve Central and SW Virginia;
(2) ideal transportation network.

Determination of site

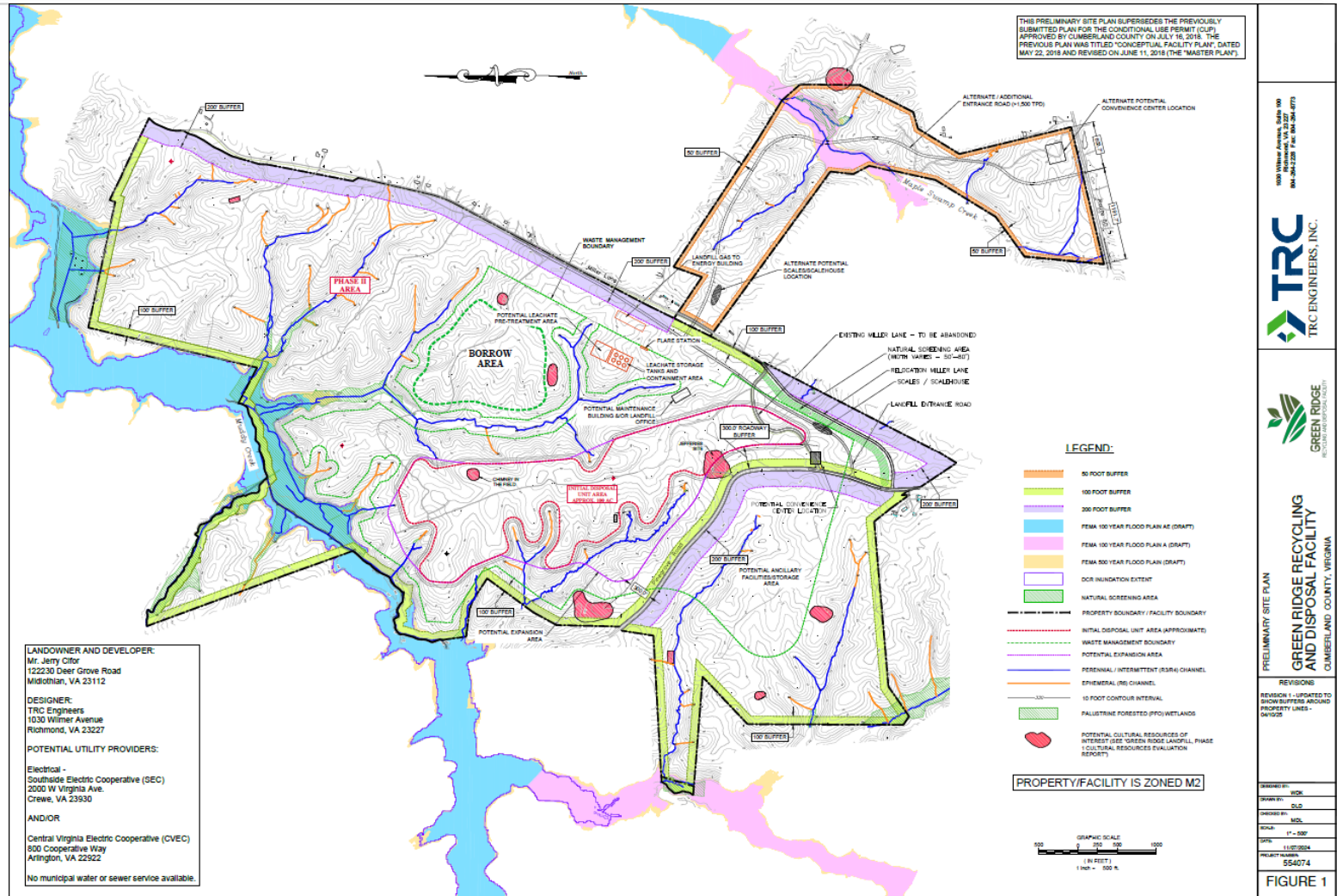
- Evaluated 4 sites in Cumberland.
- Green Ridge site chosen – approved by Board of Supervisors.
- Board wanted a site on the eastern side of the County.



GFL OPERATIONS



SITE PLAN

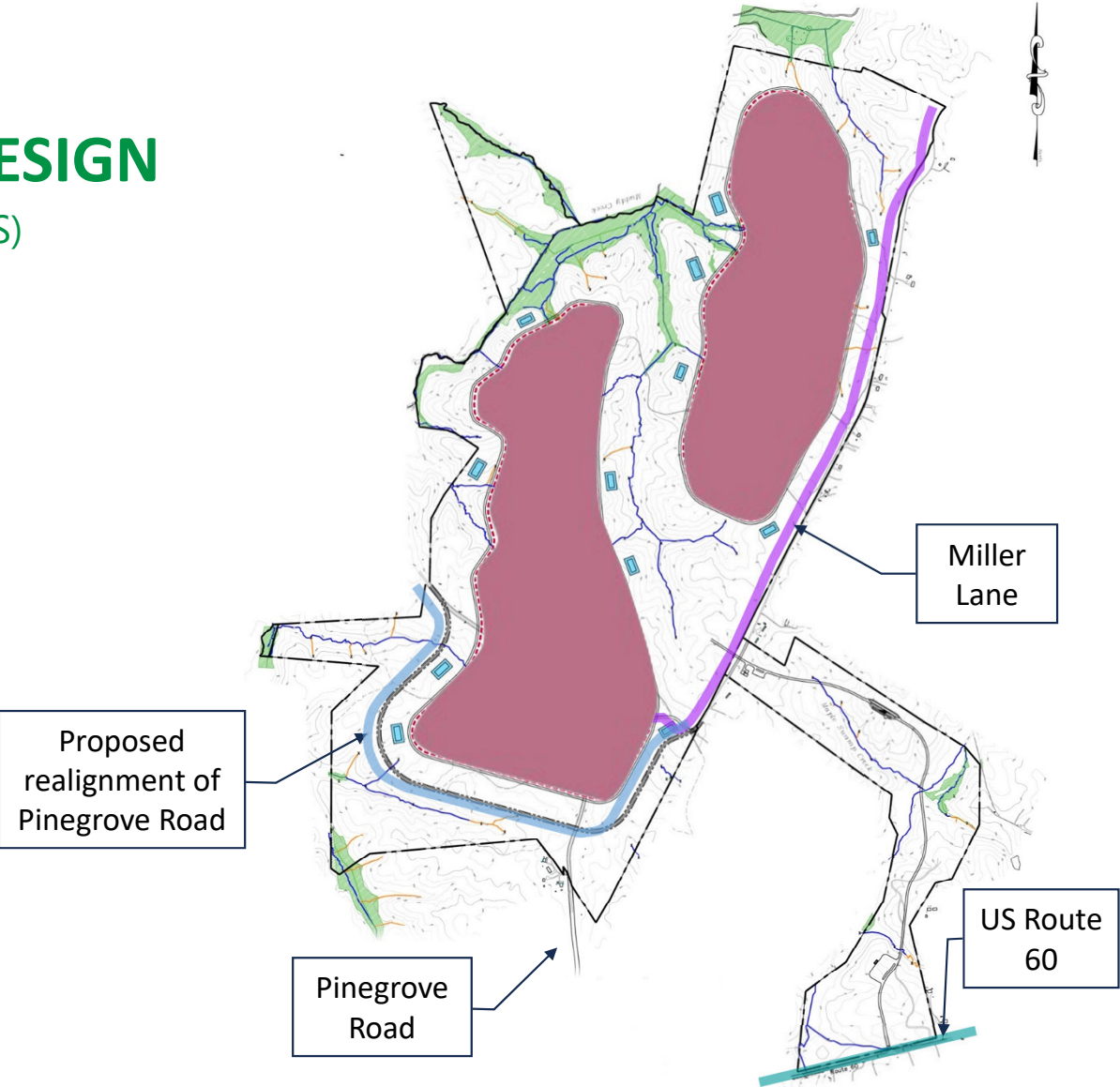


HOW HAS GREEN RIDGE CHANGED SINCE PREVIOUSLY APPROVED?

	Original Design	Current Design	Max. Future Expansion Under Current Part A	Max Future Expansion Under Amended Part A
Size	~500 acres for disposal	104 acres for disposal	~170 acres for disposal	~340 acres for disposal
Maximum Height above ground level	330 feet	140 feet	~200 feet	~225 feet
Operations	Up to 5,000 tons per day	Up to 1,500 tons per day	Up to 3,500 tons per day	Up to 3,500 tons per day
Number of homes within a ½ mile of the disposal area	58	37	52	58
Primary Wetlands Impact	1.5-2 acres	0 acres	.03-.05 acres	2.0 acres
Stream Impact	Approx. 25,000 feet	0 feet	5,925 feet	18,225 feet

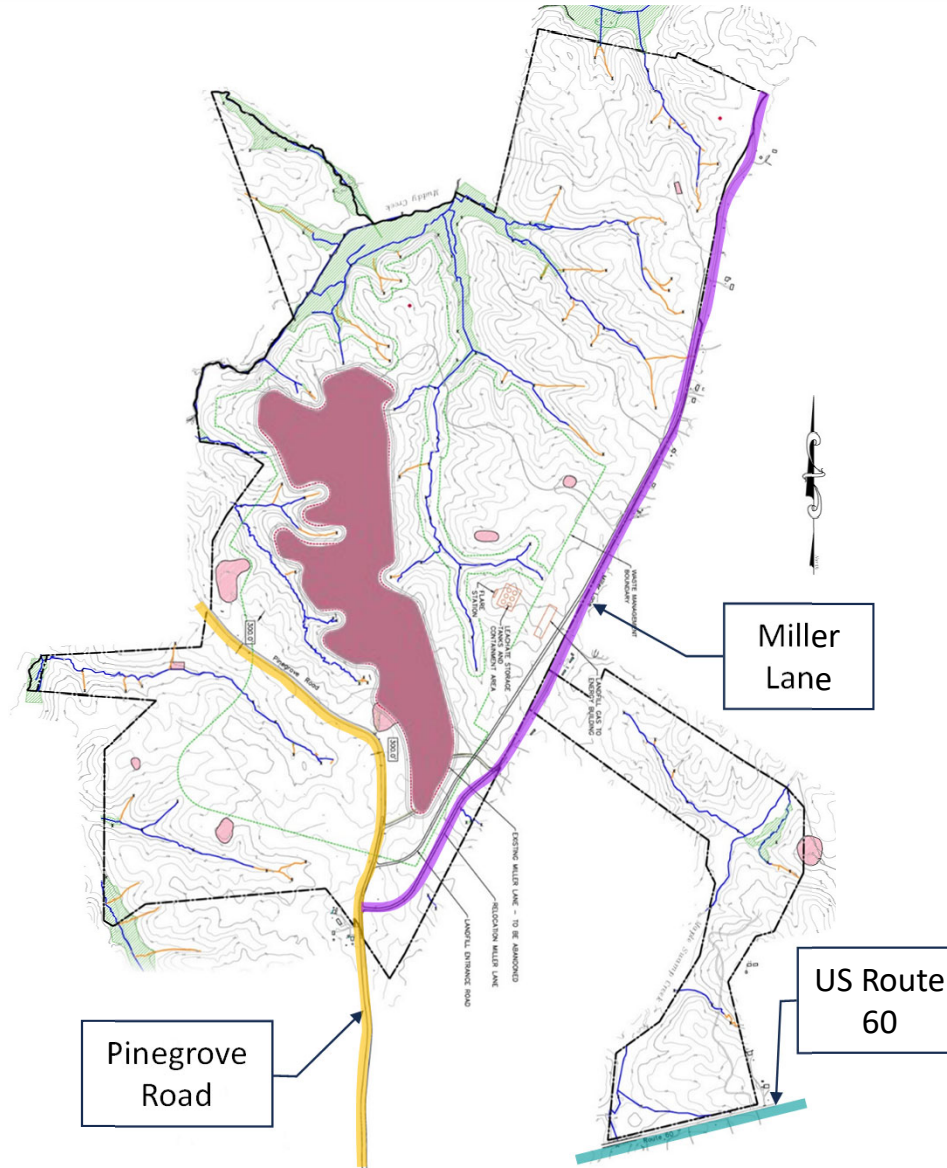
ORIGINAL DESIGN

(as approved by BOS)

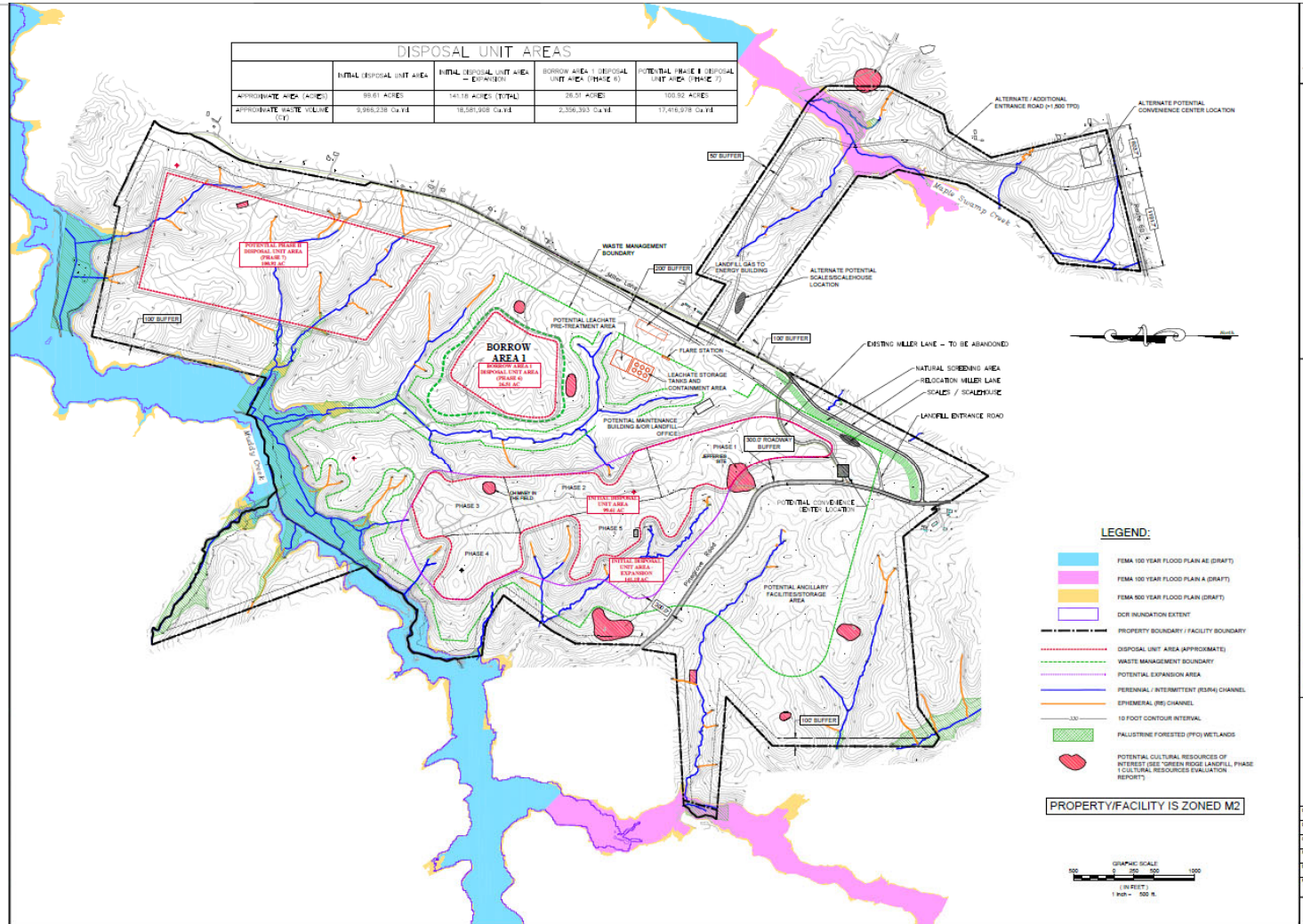


CURRENT DESIGN

(No Wetland or Stream Impacts)



Phasing Plan



DRAFT

1833 Wilshire Avenue, Suite 300
 Alexandria, VA 22307
 (703) 426-2222 Fax: (703) 426-8773



TRC ENGINEERS, INC.



GREEN RIDGE RECYCLING AND DISPOSAL FACILITY
CLIMBERLAND COUNTY, VIRGINIA

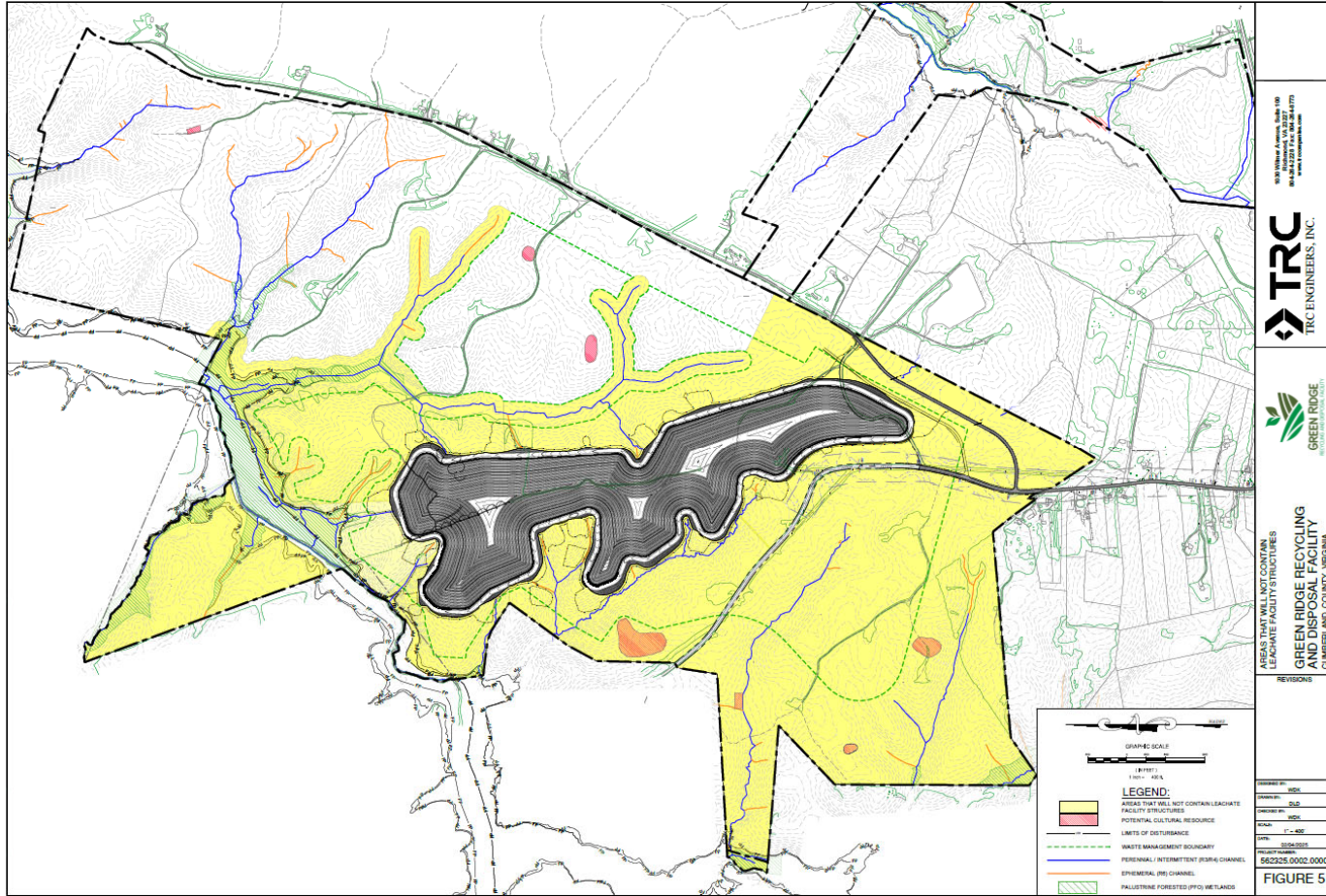
Preliminary Site Plan at Maximum Buildout - Concept Draft

REVISIONS

DESIGNED BY: NDC
DRAWN BY: TUP
CHECKED BY: MCL
SCALE: 1" = 500'
DATE: 01/28/2019
PROJECT NUMBER: 554074

FIGURE 1

Leachate Facility Exclusion Area



NEW CONDITIONAL USE PERMIT (CUP)

- The CUP for a much larger landfill was approved in 2018 by the Cumberland County Board of Supervisors.
- Our recently filed CUP is significantly less intensive than the originally approved CUP and is an improvement based on site studies and design improvements that significantly reduces the scope of the project.
 - Size
 - Hours
 - Truck Traffic
 - Volumes of Waste
 - Other Impacts



CUP CONDITIONS

- No relocation of Pinegrove Road.
- No waste disposed of west of Pinegrove Road.
- Repair to any damage caused by construction or tractor trailers on Pinegrove Road.
- Maximum disposal area cut from 650 acres to 350 acres.
- Maximum daily tonnage cut from 5,000 tons a day to 3,500 tons a day. (Under current DEQ permit, maximum 1,500 tons a day)
- No more than 1,500 tons a day may come from Pinegrove Road. (75 trucks)
- Must file all necessary expansion applications and plans, with connection to Route 60 and closing Pinegrove Road entrance to waste, within 5 years of commencement of operation.
- Amended site plan must be approved by County for any future expansion. Future expansion would require meeting any new landfill standards or requirements.
- During any Site Plan Amendment for expansion, the County may request an updated Traffic Impact Analysis.
- The facility will have a designated Community Liaison who will handle all questions, inquires and complaints from residents.



CUP CONDITIONS CONTINUED

- Only accepting waste from Virginia transfer stations.
- No fly ash accepted, not even for beneficial reuse.
- Use of a Double Composite Liner approved by DEQ.
- Reduced hours of operation from 24 hours a day to 11-hour weekdays, 7 hours on Saturday and closed on Sunday.
- Disposal of community's antifreeze and motor oils into holding tanks. (transported to an approved disposal site outside of Cumberland County)
- The County can install additional groundwater monitoring wells.
- Required to pave 120 feet on any entrance road into the facility for dust control purposes.
- Leachate Facility Exclusion Area.
- Installation of evergreen trees, berms and/or shrubs for additional screening of the landfill from public roads and residences.
- Phasing Plan.
- Emergency Management and Contingency Plan.
- Dark Sky Compliant.



DIRECT FINANCIAL BENEFITS TO THE COUNTY

Payments to Cumberland County	Annual Amount
Host Fees	\$650,000+
Machinery, Equipment and Tools Tax Revenue	≈\$50,000
Additional Annual Payments	\$50,000
Savings from free disposal for County residents	≈\$750,000
TOTAL	\$1,500,000+



ADDITIONAL BENEFITS

Additional Benefits

10% of Landfill Gas Revenue

Supporting CDL and Mechanic Education Program

Paying for the cost (\$100,000 per year) of a County Employee

Minimum 25 acres of land for the County

Free waste disposal and recycling drop off at the landfill for County residents (including waste oil and anti-freeze collection)

Estimated \$75-\$80 million in construction costs

An initial 16 full-time jobs and ancillary businesses



BEING A GOOD NEIGHBOR

- **\$200,000** to eliminate the gap in the final settlement between Republic Services and Cumberland County.
- **\$4,271** to the Cumberland County Public Schools for band uniforms.
- **\$500,000** \$100,000 to reimburse County for costs related to rezoning process, and \$400,000 as prepaid Host Community Fees.
- **\$60,000** for a scholarship fund for Cumberland County Public Schools.
- **\$250,000** to Cumberland County for the development of new parks.
- **\$100,000** to Cumberland County for public safety.
- **\$8,391** to Cumberland Minors Youth Baseball Team.
- Approximately **\$29,000 per year** in increased real estate taxes from the rezoning of the properties.
- **\$25,393** for three-year retroactive real estate taxes due to the rezoning of properties.



COMMUNITY PROTECTIONS

- Groundwater monitoring
- Private well sampling program – to be implemented
- Property value protection program implemented



SUMMARY OF ACTIVITIES COMPLETED TO DATE

- Conducted several public meetings to inform the community about the project.
- Completed Third Party studies for Hydrology, Jurisdictional Waters, Seismology, Cultural Resources, Traffic, and Threatened and Endangered Species.
- Prepared Part A Permit Application for DEQ review.
- Addressed completeness review and multiple rounds of technical review comments from DEQ and the public.
- Submitted Final Part A Permit Application to DEQ.
- Received conditional approval from DEQ granting permission to begin Part B Permit Application process.
- Currently preparing Air Permit Application, Road Improvement Preliminary Design, and Landfill Detailed Design.



NEXT STEP: DEQ PART B PERMIT

Detailed landfill design, including:

- Liner systems (bottom and cover systems)
 - Access roads/personnel facilities/barriers & fences/screens/noise attenuation/communications/survey benchmarks
 - Final landfill contours (show structural capacity of liner and leachate system, foundation and slope stability)
 - Surface water runoff control systems
- **NOI (update from Part A)**
 - **VDOT Adequacy Report/Approval Letter (from Part A)**
 - **Closure & Post-Closure Plans**
 - **CQA Plan and Technical Specifications**
 - **Leachate Management Plan**
 - **Landfill Gas Management Plan**
 - **Groundwater Monitoring Plan & Corrective Action Plan**
 - **Financial Assurance Demonstration**



PINEGROVE ROAD VIEWSHED



Top Elevation.
Balloon would be
here (approx.)





GREEN RIDGE
RECYCLING AND DISPOSAL FACILITY