

A Regional Approach to Solid Waste Disposal



The RVRA manages two transfer stations, one located in the City of Roanoke and one located in the City of Salem.

The RVRA also manages the Smith Gap Landfill located in Roanoke County.







LET'S TALL TRACE

RVRA manages
over 320,000 tons
of waste each year
which equals over
700 million
pounds!

RVRA is working with local natural gas companies to capture the methane emitted from the landfill to turn it into energy.

Each month RVRA helps residents dispose of household hazardous wastes like paint & pesticides!

A landfill is just like a big trash bag!
It has a geomembrane liner to ensure that nothing leaks out into the soil and the waste is compacted & covered every night.

Leachate, also known as "trash juice" is the liquid formed when rainwater filters through trash; it can contaminate soil/groundwater if not contained!

Residents in our partner communities can visit our transfer stations with their household waste 12 times per year (July 1-June 30) for FREE!

RVRA serves four localities:

- City of Roanoke
- City of Salem
- Roanoke County
- Town of Vinton

The first stop for trash collected in the Roanoke Valley before it heads to the Smith Gap Landfill is the RVRA Transfer Stations located in the City of Roanoke & the City of Salem.







RVRA & Archaea(bp): Partnership at a Glance

The Problem: Methane + Organic Waste Emissions

The Solution: Renewable Natural Gas!

The Partners:

- Archaea Energy (bp subsidiary): Nation's largest producer of Renewable Natural Gas (RNG). RNG is made from organic wastes (food, sewage, livestock manure).
- RVRA collaboration: Captures landfill gas from the Smith Gap Landfill and converts it into clean, usable energy.

How It Works:

- 1. **Capture** Methane from landfill waste is collected before it escapes into the atmosphere.
- 2. **Convert** Archaea's advanced plants clean, process, and compress the gas into pipeline-quality RNG.
- the gas into pipeline-quality RNG.

 3. **Deliver** bp distributes the RNG through existing pipelines, fueling stations, and the power grid.

1.Capture No.

Proven Impact:

- In 2023, RNG made up **79% of all on-road natural gas vehicle** fuel in North America.
- Over **500 RNG** facilities are already operating across North America, with hundreds more in development.
- Waste could power the future! AND.... RNG improves air & water quality!

Economic & Community Benefits:

Investment & Jobs: RNG projects generate millions in local investment, create 5–7x more jobs than petroleum refineries, and support clean energy careers.

Energy Resilience: RNG provides reliable, storable energy—critical for hospitals, universities, and food systems.

Circular Economy: Produces valuable byproducts like organic fertilizer and animal bedding, keeping nutrients in use rather than wasted.

Environmental Benefits:

Methane Reduction: Methane is 28–80x more potent than CO. Capturing it prevents major climate impact.

Carbon-Negative Potential: Depending on feedstock, RNG can actually offset more emissions than it produces.

Air & Water Quality: Cleaner burning than fossil fuels, cuts smog-forming pollutants, and reduces runoff/pollution from manure management.

Waste-to-Value: Turns landfill waste into a renewable energy source instead of a liability.

"Our partnership with Archaea (bp) ensures that the waste we manage doesn't just go into the ground. It powers homes, businesses, and vehicles, while protecting our air, water, and climate. It's a local solution with global impact and we are proud to be a part of this initiative." - RVRA

Community Engagement

- Monthly Household Hazardous Waste Take Back Days
- Attending Community Events
- Waste Watchers Initiative & Raccoon Mascot Naming Contest
- "Plawking" with Neighborhood Groups
- Engaging with other Community Partners & Non-Profits
- "Let's Talk Trash" monthly collaboration with RVTV













