

**AT A MEETING OF THE NEW RIVER RESOURCE AUTHORITY
HELD ON WEDNESDAY, MARCH 26, 2025, AT NOON,
NRRA ADMINISTRATION BUILDING,
DUBLIN, VIRGINIA:**

PRESENT: Mr. Steve Fijalkowski, Chairman
Mr. Tom Starnes, Vice-Chairman
Mr. Dirk Compton, Secretary
Mr. Robert Asbury, Member
Mr. Paul Baker, Member
Ms. Debbie Lyons, Member
Mr. Mike Mooney, Member
Mr. Barry Helms, Member

STAFF: Mr. Joseph Levine, Executive Director
Ms. Marjorie Atkins, Recording Secretary
Mr. Howard Estes, Legal Counsel
Mr. Brandon Atkins, Assistant Manager
Mr. Isaac Wall, Scale Operator II
Mr. Josh Owens, Equipment Operator II
Mr. Isaiah Snider, Operations Foreman
Mr. David Rupe, Administrative Manager
Ms. Monica Furrow, Administrative Assistant

GUESTS: Mr. Andrew Monk, Thompson & Litton
Dr. Mousa Maimoun, Labella Associates

Chairman Fijalkowski called the meeting to order. An invocation and the Pledge of Allegiance followed the call to order.

Approval of the Agenda

The motion to approve the amended Agenda (adding a Closed Meeting to the Agenda for §2.2-3711(A)(8) consultation with legal counsel regarding a potential contract), was made by Mr. Starnes. The motion was seconded by Mr. Baker and approved by a unanimous vote of the Authority Board members.

Approval of Minutes

The motion to approve the minutes of the February 26, 2025, Board meeting was made by Mr. Baker. The motion was seconded by Mr. Asbury and approved by a vote of seven "Ayes" and one abstention from Mr. Helms.

Old Business

There were no old business items on the Agenda.

New Business and Administrative Items of Consent

The Transaction By Vendor Report for the month of February 2025 was included in the Agenda and presented.

The motion to approve the Transaction By Vendor Report for the month of February 2025 was made by Mr. Baker. The motion was seconded by Mr. Helms and approved by a recorded roll call vote of the Authority Board as follows:

Mr. Asbury	<u>yes</u>	Ms. Lyons	<u>yes</u>
Mr. Baker	<u>yes</u>	Mr. Mooney	<u>yes</u>
Mr. Compton	<u>yes</u>	Mr. Starnes	<u>yes</u>
Mr. Helms	<u>yes</u>	Mr. Fijalkowski	<u>yes</u>

The draft Financial Statements as of February 28, 2025, were presented. Mr. Levine noted that payments to Government Leasing & Finance Incorporated and HomeTrust Bank were equipment lease payments that are made twice a year.

The motion to approve the draft Financial Statements as of February 28, 2025, was made by Mr. Starnes. The motion was seconded by Mr. Compton and approved by a recorded roll call vote of the Authority Board as follows:

Mr. Asbury	<u>yes</u>	Ms. Lyons	<u>yes</u>
Mr. Baker	<u>yes</u>	Mr. Mooney	<u>yes</u>
Mr. Compton	<u>yes</u>	Mr. Starnes	<u>yes</u>
Mr. Helms	<u>yes</u>	Mr. Fijalkowski	<u>yes</u>

Administrative Items

There were no Administrative Items for consideration.

Reports

Mr. Levine presented the Executive Director's report. Revenues to date were 28.9% above projections and expenses were 7.9% below projections. In February 2025, 14,747.79 tons of waste was managed. On February 27, 2025, NRRA staff met with Labella Associates, Advanced 1 and Thompson & Litton for a GCCS pre-construction meeting. Mr. Levine noted that there would be a presentation with more information on the gas system expansion later in the meeting. On March 4, Edward Shelton from VRSA was onsite to conduct a safety inspection. On April 5, NRRA staff will have a mandatory clean up day on site. Mr. Levine noted that staff had been working to meet upcoming compliance submittal deadlines.

Mr. Monk reported that storm water samples were taken earlier in the month, but testing results had not been received.

Dr. Maimoun presented "Gas Collection & Control System (GCCS) Update. The presentation included a review of the Authority's existing Gas Collection System (GCCS); Landfill Gas (LFG) Estimate Study, Regulatory Applicability and the GCCS Design Plan. A copy of this presentation is attached to these minutes.

Public Comments

The Chairman noted that no one registered for Public Comments.

Closed Meeting

The motion to enter a closed meeting pursuant to Virginia Code §2.2-3711 (A) (8) consultation with legal counsel regarding a potential contract was made by Mr. Starnes. The motion was seconded by Mr. Baker and approved by a recorded roll call vote of the Authority Board as follows:

Mr. Asbury	<u>yes</u>	Ms. Lyons	<u>yes</u>
Mr. Baker	<u>yes</u>	Mr. Mooney	<u>yes</u>
Mr. Compton	<u>yes</u>	Mr. Starnes	<u>yes</u>
Mr. Helms	<u>yes</u>	Mr. Fijalkowski	<u>yes</u>

Motion to reconvene the regular meeting and to certify the closed meeting:

The motion to reconvene the regular meeting was made by Mr. Starnes. The motion was seconded by Mr. Baker and approved by a recorded roll call vote of the Authority Board as follows:

Mr. Asbury	<u>yes</u>	Ms. Lyons	<u>yes</u>
Mr. Baker	<u>yes</u>	Mr. Mooney	<u>yes</u>
Mr. Compton	<u>yes</u>	Mr. Starnes	<u>yes</u>
Mr. Helms	<u>yes</u>	Mr. Fijalkowski	<u>yes</u>

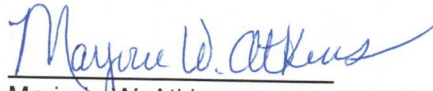
I hereby move to reconvene the regular meeting and for certification pursuant to the Code of Virginia, that the Board of Directors, to the best of each Director's knowledge, heard, discussed or considered only public business matters lawfully exempted from open meeting requirements by the Freedom of Information Act in the closed meeting of this date, and only such public business matters as were identified in the motion convening the closed meeting were heard, discussed or considered by the Board of Directors of the New River Resource Authority. Motion by Mr. Starnes, seconded by Mr. Baker and approved by a recorded roll call vote of the Authority Board as follows:

Mr. Asbury	<u>yes</u>	Ms. Lyons	<u>yes</u>
Mr. Baker	<u>yes</u>	Mr. Mooney	<u>yes</u>
Mr. Compton	<u>yes</u>	Mr. Starnes	<u>yes</u>
Mr. Helms	<u>yes</u>	Mr. Fijalkowski	<u>yes</u>


The Chairman declared the meeting adjourned at 12:45 pm.

The next regularly scheduled meeting of the Authority is Wednesday, April 23, 2025, 12:00 (NOON), at 7100 Cloyd's Mountain Road.

Respectfully submitted,


Marjorie W. Atkins
Recording Secretary

Approved at 04/23/2025 Board Meeting.


Steve Fijalkowski, Chairman

ATTEST:

Dirksen Compton, Secretary



GAS COLLECTION & CONTROL SYSTEM (GCCS) UPDATE

PREPARED FOR
**THE NEW RIVER RESOURCE
AUTHORITY (NRRA) REGIONAL
LANDFILL**

March 26, 2025

AGENDA



**EXISTING GAS
COLLECTION & CONTROL
SYSTEM (GCCS)
OVERVIEW**



**LANDFILL GAS (LFG)
ESTIMATE STUDY**

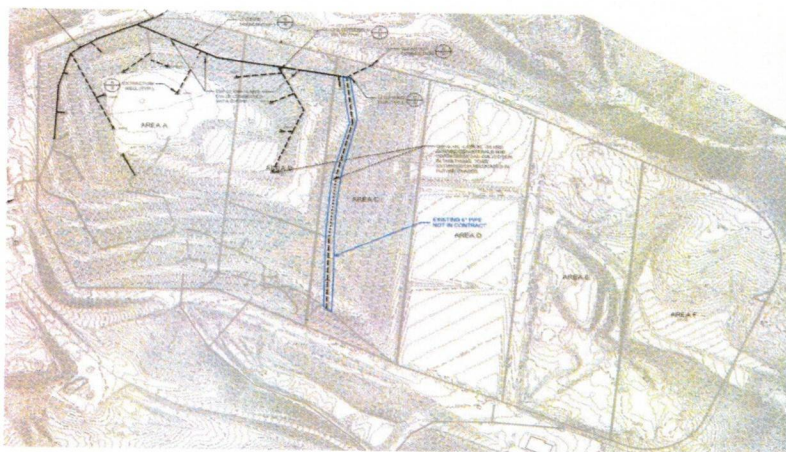


**REGULATORY
APPLICABILITY**



GCCS DESIGN PLAN





EXISTING GAS COLLECTION & CONTROL SYSTEM (GCCS) OVERVIEW

- Active GCCS (initially installed in 2007)
- By 2018, consisted of 31 vertical extraction wells & 14 horizontal collectors in Areas A-C, routed to blower/flare station for combustion by either:
 1. Open flare; or,
 2. Electricity generating engines.
- Developments in recent years:
 - ~13 wells abandoned to allow for waste filling operations;
 - Flow reduction from ~750 scfm -> ~450 scfm; and,
 - Partnership with Archaea Energy to convert LFG into renewable energy.

Operational Priorities

The Authority has expressed the intent to achieve more aggressive gas collection in order **provide the Archaea Plant with more methane.**

DECEMBER 2023

LANDFILL GAS (LFG) ESTIMATION STUDY

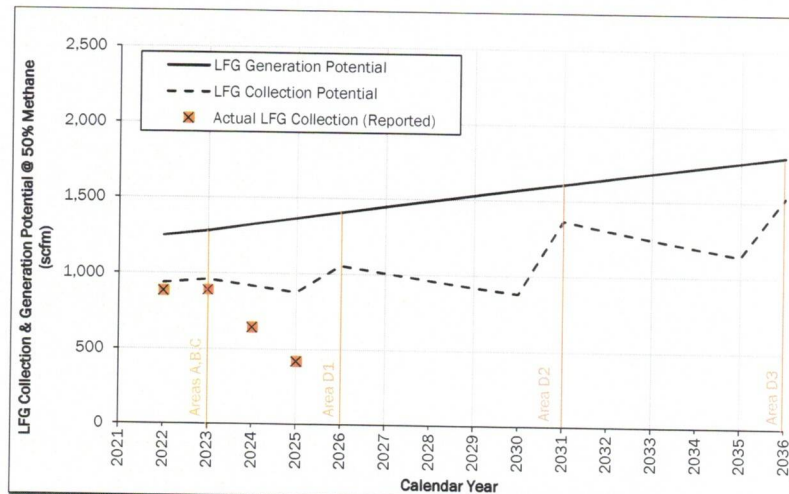
- Presently operational in **Area D (16.2 ac.)**
- Waste stream averages from 2008-'14:
 - MSW = **75%** • Sludge = **15.7%**
 - CDD = **8.1%** • Inert = **1.2%**
- Compaction Density (based on 2020-'22 avg.)
 - **1,648 lbs/cy** (~0.82 tons/cy)
 - Industry Standard = 1,500 lbs/cy (~0.75 tons/cy)
- Estimated growth rate of **1.31%**
(based on NRRRA's tip fee model)
- Estimated LF closure year: **2052**



DECEMBER 2023

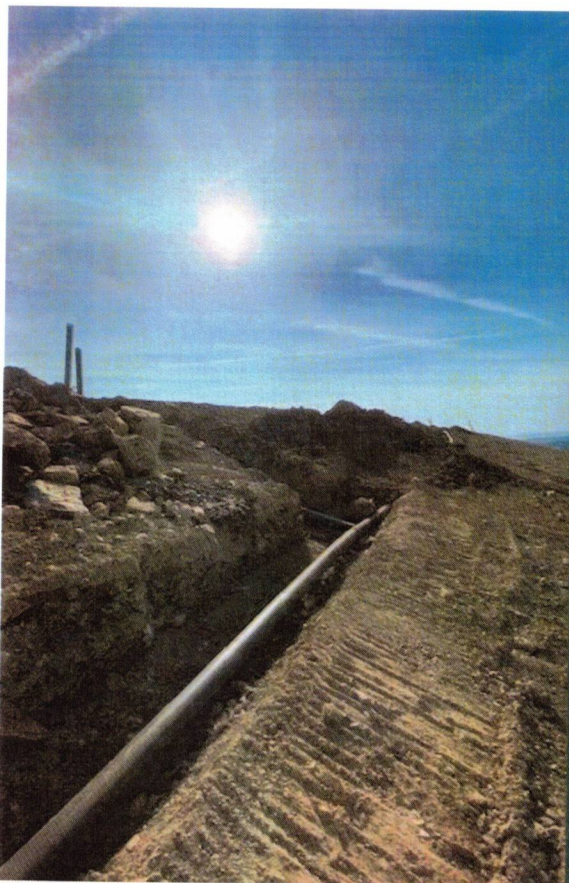
LANDFILL GAS (LFG) ESTIMATION STUDY

- Actual LFG collection **updated through March 24, 2025.**
 - 50% CH₄** assumed for 2024-'25 in lieu of site-specific data.
- Actual Collection Efficiencies (CE):
 - 2022-'23: ~ **70%**
 - 2024: ~ **50 %**
 - 2025: ~ **31%** (Jan. – March 24th)
- Areas D-F split into Sub-Areas to represent **partial GCCS expansions in Areas every 3-5 years.**
 - CEs expected to improve with each partial expansion.



Estimated collection potentials of:

- 1,000 scfm** in 2026*
 - 1,370 scfm** in 2031*
 - 1,500 scfm** in 2036*
- *at 50% methane (CH₄)



REGULATORY APPLICABILITY

NEW SOURCE PERFORMANCE STANDARDS (NSPS) FOR MSW LANDFILLS
(40 CFR 60, SUBPART XXX)

- Active GCCS required for LFs with:
 - Permitted disposal capacities > 2.5 MCM
- AND
- NMOC emission rates > 34 Mg/yr
- NRRRA Status:
 - Voluntarily installed an active GCCS in 2008
 - Net waste disposal capacity of ~11.9 MCM
 - Sept. 2023 NMOC emission (preemptive) estimate = 45.8 Mg/yr
 - Official Tier II Testing anticipated in April 2026

THEREFORE...

- BASED ON THE PREEMPTIVE NMOC EMISSION SAMPLING, NRRRA IS EXPECTED TO TRIGGER FURTHER NSPS REQUIREMENTS BY EARLY 2026.
- ONCE TRIGGERED, THE FACILITY WILL:
 1. HAVE 30 MONTHS TO INSTALL AN ACTIVE GCCS IN ALL AREAS WHERE WASTE HAS BEEN IN PLACE FOR FIVE (5) YEARS.
 2. BE SUBJECT TO ADDITIONAL REPORTING REQUIREMENTS.

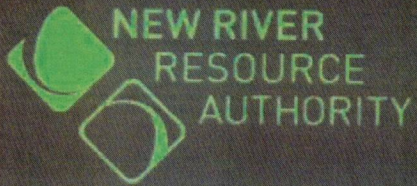


Expansion Priorities

A primary goal of the **Phase 1 Expansion** is to restore flow and collection efficiency to previous levels

GCCS DESIGN PLAN UPDATE (IN PROGRESS)

- Status: 90% Complete
- Phased GCCS Expansions will incrementally install gas extraction wells in Areas A-F.
- The **Phase 1 Expansion** is already underway.
- Phase 1 will consist of installing:
 - 10 new wells in **Area(s) A and B**;
 - 2 Isolation valves;
 - 3 Updated leachate clean-out gas collection risers/wellheads; and,
 - 1 Existing horizontal collector updated to remote design.
- The **Phase 2 Expansion (Area D)** is projected to commence in 2027-'28.



NEXT STEPS



PHASE 1
GCCS
EXPANSION



FINALIZE
GCCS PLAN



TIER II
TESTING



NSPS
SUBPART XXX
APPLICABILITY



QUESTIONS?