





Key Benefits of Restarting Incinerators

- **Proven Method:** Incineration was successfully used for nearly 35 years (1982-2016) at this WRF.
- **Cost-Effective Solution:** Incineration is the most cost-effective option, with a projected 10-year payback on the upgrade investment due to savings in disposal costs. Landfill costs have quadrupled since 2016.
- **Reliable Disposal:** Existing incinerators and solids handling equipment will be upgraded, ensuring a consistent and reliable disposal method.
- **Significant Volume Reduction:** Incineration reduces biosolids volume by 95%, leaving an inert, pathogen-free ash.
- **Environmental Responsibility:**
 - Reduces landfill burden in Georgia and surrounding states.
 - Minimizes truck miles and emissions on Georgia roads, with no impact on Atlanta Road traffic.
 - Meets or exceeds EPA air emission standards with the latest technology.
- **Operational Flexibility:** Initially serves R.L. Sutton WRF and South Cobb WRF, with potential to temporarily support smaller plants if landfilling issues arise.
- **Odorless Operation:** The incineration process produces no odor.

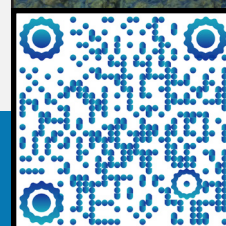
Tentative Project Schedule

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|  Summer 2025
Select contractor for design-build of WRF improvements including upgrades to incinerators. |  Fall 2025
Start design of WRF improvements, which will be done in phases. |  Fall 2027
Start construction of WRF improvements. |  Fall 2029
Complete WRF improvements and return incinerators to service. |
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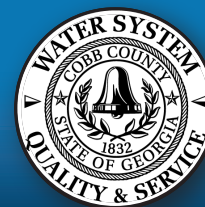
Biosolids Handling Upgrades R.L. Sutton Water Reclamation Facility

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- Monique Sheffield**, District Four
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- Judy Jones**, Agency Director



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Biosolids Handling Upgrades at R.L. Sutton Water Reclamation Facility

May 2025

Serving Our Community Since 1971

The R.L. Sutton Water Reclamation Facility (WRF) is an award-winning facility that has been serving east Cobb County including parts of Smyrna and Marietta since 1971. It is the largest of Cobb County's four WRFs, with a permitted treatment capacity of 50 million gallons/day (MGD).

What are Biosolids?

During the wastewater treatment process, liquids are separated from solids. Those solids are then treated physically and chemically to further reduce the moisture content producing organic matter called "biosolids". The EPA provides three main options for managing biosolids:

- Land application (Only Class A Biosolids)
- Landfilling
- Incineration

A History of Effective Biosolids Management

1971-1981: Biosolids were landfilled.

1982-2016: Incineration became the preferred method due to cost-effectiveness and efficiency. The R.L. Sutton WRF utilized multiple hearth and later, fluidized bed incinerators (FBIs).

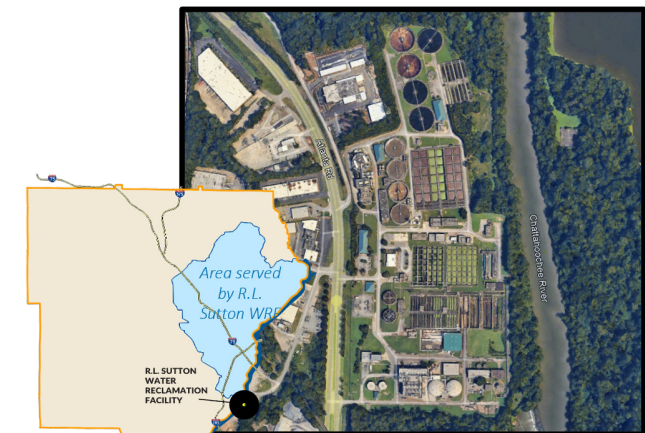
2016-Present: Due to stricter U.S. Environmental Protection Agency (EPA) air emission regulations (MACT Rule), landfilling was resumed as a more economical option than upgrading incinerators to meet new emissions standards.

2019/2020-Present: Changes in state landfill rules reduced capacity for biosolids disposal, which drastically increased costs, forced many utilities to haul biosolids to out of state, and created uncertainty about the future viability of landfilling.

Why Return to Incineration?

Rising landfill costs and limited landfill capacity led Cobb County Water System (CCWS) to re-evaluate biosolids management. As landfilling costs continued to rise, CCWS considered various options for biosolids disposal. CCWS also considered that land application is becoming increasingly difficult and still requires significant hauling cost.

- **Biosolids Dryers:** High capital investment (\$110-\$130M). Reduces moisture but not overall volume like incineration. Odor is a concern. Produces Class A Biosolids that can be land applied.
- **On Site Thermal Hydrolysis Regional Facility:** Very high capital investment (\$220 M). Newer technology and challenging to operate. Requires changes to WRF processes at additional costs. Generates renewable natural gas that may be able to sell. Reduces biosolids volume by 50%. Creates Class A biosolids that can be land applied. Facility would need to accept biosolids from all four Cobb WRFs and from another utility to offset costs.
- **Third-Party Mobile Drying System:** No construction costs, but Cobb would pay vendor to operate system. Requires changes to WRF processes to control odors at additional costs. Creates Class A Biosolids that can be land applied. This system has not been used at a large facility like R.L. Sutton WRF. Requires an Air Emissions Permit.
- **Third-Party Lime Stabilization Off Site Regional Facility (Project Cancelled):** Temporary pilot project at R.L. Sutton WRF produced Class A biosolids that were land applied. Experienced odor issues and no cost savings compared to landfilling. Regional facility planned in a neighboring county that would serve all four WRFs. Vendor was unable to get necessary permits to move forward with construction, so pilot project was discontinued.
- **Off Site Regional Drying Facility:** Cobb joined in discussions about partnering with a metro area utility that would build and operate a regional drying facility. Project did not move forward.
- **Incineration:** Uses existing infrastructure. (Estimated incinerators upgrade - \$55 M, plus other equipment upgrades - \$15 M.) Reduces biosolids volume up to 95%. Anticipate recouping project costs over 10 years from savings in biosolids disposal. Air emissions is a sensitive public issue.



R.L. Sutton WRF sits on 40 acres between Atlanta Road and the Chattahoochee River.

Incineration: A Time-Tested and Proven Approach for Solids Disposal in the Water Sector

The existing incinerators at R.L. Sutton WRF are fluidized bed incinerators (FBI). They use a stream of air and bed of hot sand/granular material to apply extreme heat, up to 1,460 degrees Fahrenheit, directly to dewatered biosolids to create a sand-like, inert ash. This process eliminates pathogens and reduces the volume by up to 95%.

Biosolids incineration is regulated by the federal **Clean Air Act** (Section 129) through **Maximum Achievable Control Technology** or **MACT** standards.

The incinerators will be permitted by U.S. EPA. GA Environmental Protection Department (EPD) will administer the permit that contains parameters for operations and maintenance. There will be periodic third-party testing of emissions from the incinerator stacks.



The entire incineration process at R.L. Sutton WRF is enclosed in a building except for the top portion of the stack.

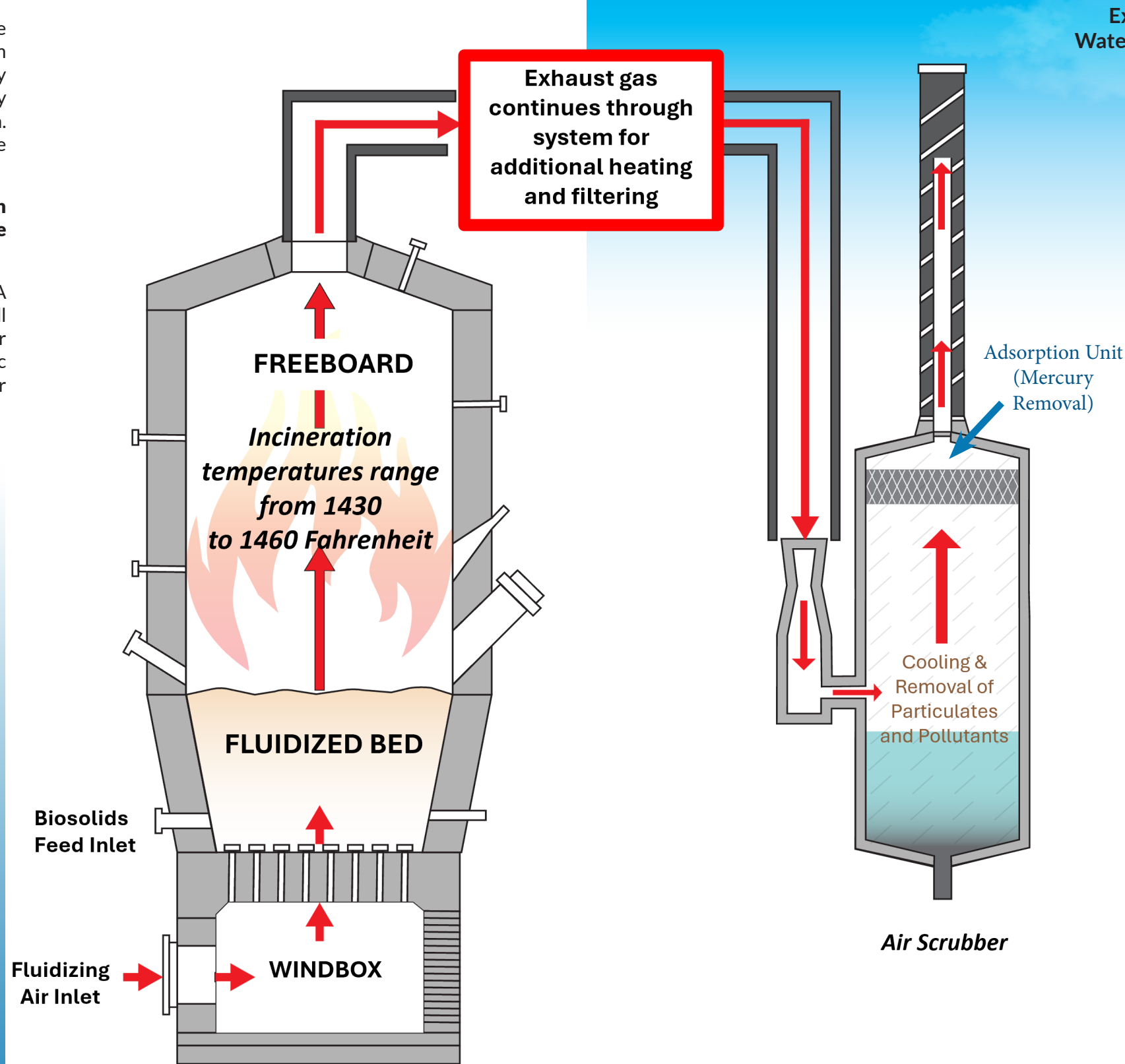


Illustration focuses on key components of system. Connective piping, heat elements, and tanks comprise the fully enclosed system.

Emissions Standards

R.L. Sutton WRF's upgraded incinerators will be designed to operate below U.S. EPA's strict, health risk based emission standards, which are as follows:

Parameter	Limit
Particulate Matter	18 milligrams per dry standard cubic meter
Hydrogen Chloride	0.51 parts per million by dry volume
Carbon Monoxide	64 parts per million by dry volume
Dioxins/Furans	1.2 nanograms per dry standard cubic meter
Oxides of Nitrogen	150 parts per million by dry volume
Sulfur Dioxide	15 parts per million by dry volume
Cadmium	0.0016 mg per dry standard cubic meter
Mercury	0.037 mg per dry standard cubic meter
Lead	0.0074 mg per dry standard cubic meter

Incineration will be on a continuous basis. Depending on humidity and ambient air temperature, you might see water vapor released as a white or light gray plumes. There are no odors from the exhaust.



The inert ash produced by incineration has potential beneficial reuse as material for road construction or as landfill cover creating operational, financial, and environmental opportunities for CCWS.