

PUBLIC WORKS DEPARTMENT SOLID WASTE DIVISION PROJECT UPDATES



November 18, 2025

CENTRAL LANDFILL - PROJECT STATUS

- Leachate Evaporation – COMPLETE
- Glass Pulverizer and Collection – COMPLETE
- MSW Cell 4 Expansion – COMPLETE
- Landfill Residential Entrance – IN PROCESS
- Compost and Recycling/Transfer Sites – IN PROCESS
- Waste Tracking Software – IN PROCESS

LEACHATE EVAPORATION

What is leachate? Water that filters through decomposing waste

- Average 4 to 5 million gallons of leachate annually
- Haul to Anchorage at average cost of \$0.12 per gallon
- Anchorage removes the solids and then sends leachate to the Cook Inlet
- Permit renewal is every 5 years and requires costly monthly testing of contaminants
- 2 to 3 times annually we are unable to haul due to exceedances of particulates
- Evaporation solves this and many other problems

LEACHATE EVAPORATION

Benefits of Evaporation

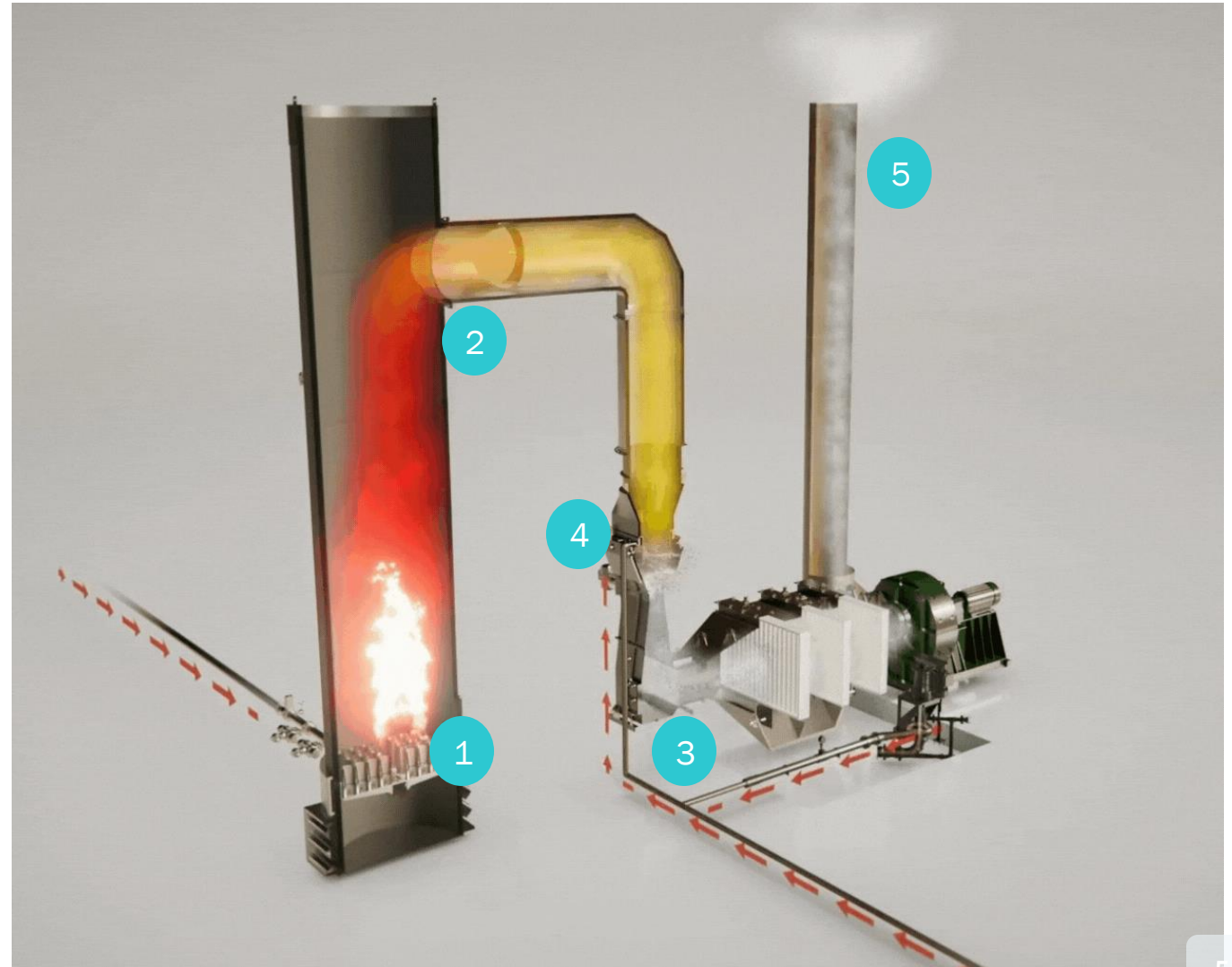
- Approximately half the cost to operate saving \$0.06 per gallon
- Eliminates addition of future equipment and labor
- Uses landfill gas creating a Waste-to-Energy reuse
- Less than 1% of particulates from leachate are released in the plume
- Saves \$270,000 a year in current operating costs
- Eliminates future permitting issues with AWWU

Design

- Will evaporate 20,000 gallons per day in the next 18 to 24 months
- Startup expected 10,000 gallons per day (GPD)
- Recirculation efforts and new gas line increased methane from 30% to 40%
- System was completed October 2025
- Increased methane allows system to run at full capacity now with 22,350 GPD

LEACHATE EVAPORATION – HEARTLAND CONCENTRATOR TECHNOLOGY

1. Heat Source
2. Waste Heat Transfer System
3. Feed and Recirculation
4. Mist Eliminator
5. Exhaust



GLASS PULVERIZER



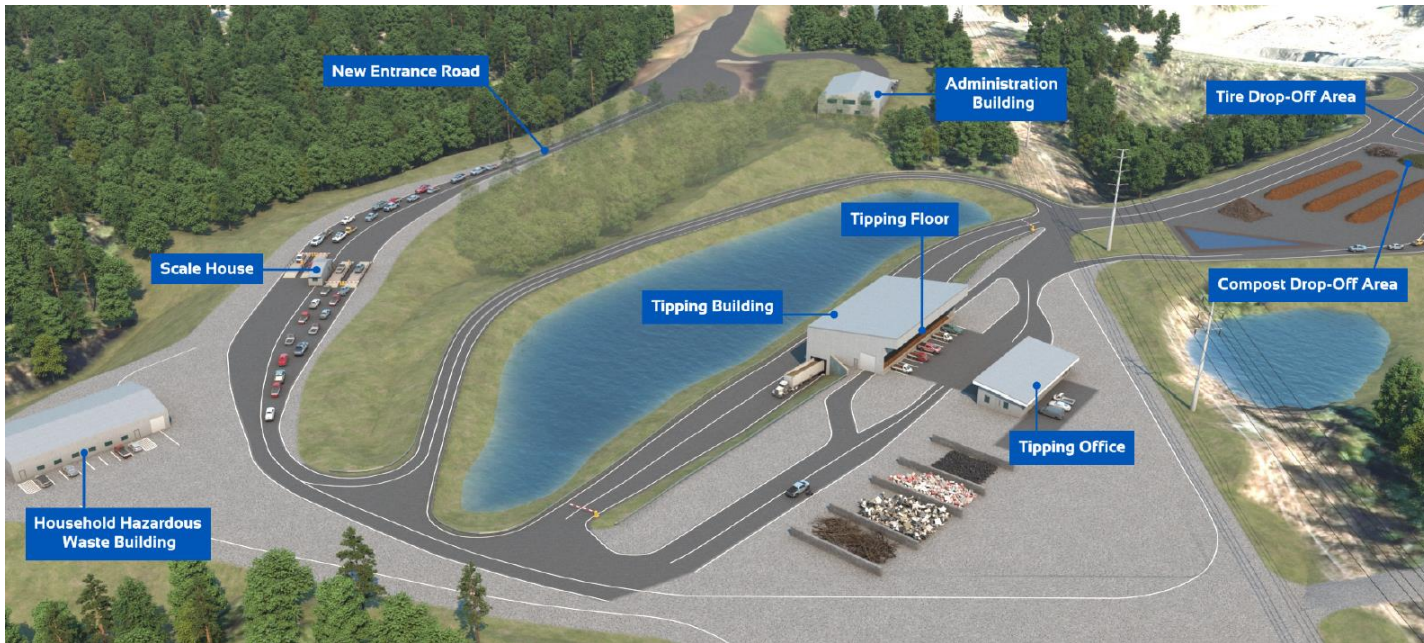
- Glass collection at VCRS collected 63,490 lbs. of glass in 60 days
- Product usage
 - Sand for golf courses
 - Art projects
 - Compost
 - Sand and chips for driveways

MSW CELL 4 EXPANSION

- Construction complete October 2025
- Cell life increased by 4.5 years to 2034
- Capital savings of \$300,000 annually



LANDFILL RESIDENTIAL ENTRANCE



- Nearing Completion
- Next Phase
 - Household Hazardous Waste (HHW) Building
 - Updating Commercial entrance with new scales

COMPOST AND RECYCLING / TRANSFER SITES

\$3.5 million Federal grant funding

- Projects in Summer of 2026
- Purchasing of composting equipment – trucks, screens, loaders, etc.
- Develop 3 acres for composting at new landfill campus
- Improvements at Central Landfill, Big Lake and Talkeetna
- Compost to be made available to the community



Diversion of over 5,000 tons of woody debris from landfill



COMPOST AND RECYCLING / TRANSFER SITES – TRASH COLLECTION

Paid through the compost grant

- Provide more bins for easier disposal by residents
- Saving \$67,000 per year in hauling for three sites
- Increased opportunities for source separated collection and recovery
 - Metal
 - Brush
 - Possible Construction and Demolition (C&D) non-organic material or tires



STRONG SOFTWARE



WORKS GREAT WITH
WINDOWS AND OTHER
BROWSER OPTIONS



ABILITY FOR MULTIPLE
USERS TO EDIT THE
SAME TICKET



THE CUSTOMER PORTAL
ALLOWS CUSTOMERS TO
REPRINT INVOICES, VIEW
LOADS, PAY FEES AND
MORE.



AVAILABLE TRAINING
WILL TAKE PLACE BOTH
REMOTELY AND ONSITE
BEFORE GOING LIVE.

Unattended Kiosk

- Track inbound and outbound weights using the same or different kiosks.
- A photo is automatically taken when the weight is on the scale upon entry and exit.
- Touchless system for selecting products (driver stays in the vehicle).
- Additionally, a Touchscreen is equipped if more complex input is required.
- A paper copy of the load slip and receipt can be taken at the scale.
- Able to operate offline for extended periods



THANK YOU



- More info available on our website – <https://solidwaste.matsugov.us/>