30 October 2025

Report for Friends of Sligo Creek Board, from Kit Gage, Past President and Advocacy Committee Chair, and Dr. Vivian Thomson, member, FOSC Advocacy Committee

Montgomery County's Solid Waste Management Options: Analysis and Recommendations

Summary of Findings and Recommendations

The County plans to close its Resource Recovery Facility (RRF) and transport its approximately 600,000 tons of annually generated waste to out-of-state landfills. Thus far, there is no provision for public input.

The RRF started operating in 1995, with a useful life estimated at 40 years or more. In 2024, the RRF generated $24 million in revenues from sales of electricity and recovered metals. The RRF was valued in 2024 at $91 million.

In July 2025, County staff presented to the County Council alternative plans for dealing with the County's solid waste, based on a report written by Arcadis. Council members at the July meeting stressed the need for public input and for full information on the County's waste management options.

A Request for Proposals (RFP) has been issued for transporting the County's waste to a landfill and operating the County's transfer station. The Department of Environmental Protection's (DEP) timeline proposes January 2026 for awarding a landfill contract.

The County's cost estimates for waste management options are incomplete, and they point in different directions.

DEP staff estimate that, in the short term, the landfill option would be cheaper than continuing to operate the RRF, because of needed upgrades to the RRF. DEP staff maintain that the RRF's expenses would divert resources from efforts to decrease the County's waste stream and that paying for landfilling on a per ton basis would incentivize waste reduction.

But the Arcadis Report projects that, in the long term, even with costly RRF upgrades, continuing to operate the RRF would be cheaper than landfilling.

The County has not estimated the likely substantial costs of closing the RRF and remediating the RRF site. Those costs should be wrapped into the landfill option.

Studies conducted between 1994 and 2015 showed negligible risks associated with the RRF's toxic air pollution.

The County's latest solid waste plan says (p. 3-32): "Several health-risk assessment studies have concluded that there are no measurable influences on ambient air concentrations attributable to RRF source emissions." The RFF's air pollution levels fall far below permitted limits, and the Maryland Department of the Environment says that, except for one pollutant, the facility is currently meeting the stricter standards for RRFs that EPA proposed in 2024. The RRF's emissions of sulfur dioxide, particulate matter, carbon monoxide, and nitrogen oxides are swamped by County-wide emissions.

Landfilling the County's waste could produce much higher amounts of greenhouse gases and water pollutants than burning the County's waste in the RRF.

The Arcadis Report estimates that the landfilling option would produce slightly less greenhouse gas pollution overall than the RRF option. However, the report concedes that the EPA model Arcadis used overestimates RRF greenhouse gas pollution and likely underestimates methane pollution from landfills.

We have used a thoroughly reviewed EPA screening model (MSW DST) to produce a preliminary estimate of the environmental impacts of handling the County's waste in the County's RRF vs. in a landfill. MSW DST indicates that the greenhouse gas pollution produced in a landfill would 1.4 million $MTCO_2e$/year higher relative to the RRF. MSW DST predicts that landfill disposal would produce more water pollutants than the RRF.

Landfills harbor pathogens, while incinerators kill such microorganisms. Landfills produce contaminated leachate, and the US EPA has said that even the best protected landfills will eventually leak. One Virginia landfill mentioned in the Arcadis Report as a potential recipient of the County's trash produces 400,000 gallons of leachate per week, according to the Virginia Department of Environmental Quality.

Sending our trash outside the County raises important ethical concerns.

The principles of proximity and self-sufficiency encourage the treatment of waste close to its point of origin. The RRF's ash goes to a Virginia landfill whose surrounding community is majority African American. In sending its trash to any of the ten landfills listed in the Arcadis Report, the County would be transferring its trash treatment from a well-off area to a more vulnerable area. Many of Virginia's landfills are in marginalized communities. Maryland is already the leading out-of-state contributor to Virginia's trash imports.

Alexandria and Arlington extended the life of their RRF to 50 years.

They did so because in their words "it was found to be economically beneficial for both jurisdictions" and they cited the strong environmental record of the facility, which is operated by Reworld, Montgomery County's RRF contractor. Even with an RRF, Arlington and Alexandria report strong recycling rates (53 percent in 2023).

Recommendations

The County should consider extending the life of the RRF and issue an RFP to that end, so that the Council and the public will have firm cost estimates for that option. The County must also estimate the costs of closing the RRF and remediating its site. The RRF's ash should be redirected, preferably to the northern Virginia ash monofill. The County must provide for public input. Finally, because of research indicating that composting food can lead to contamination by PFAS ("forever chemicals"), the County should proceed cautiously with its plan to establish a new organics processing facility that would accept food scraps.

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Overview

Montgomery County is actively considering sending its non-recyclable waste, which amounts to roughly 600,000 tons per year, to landfills in Virginia or Pennsylvania and closing the County's resource recovery facility (RRF) in Dickerson. In parallel, the County plans to establish an organics processing facility that would accept food waste and to increase efforts to reduce waste and recycle materials. In 2025, the County commissioned a report by Arcadis that examined waste management alternatives.

The County's RRF started operating in 1995. Waste and recyclables collected in the County go to the Shady Grove transfer station in Derwood. From there, non-recyclable wastes are loaded onto rail cars and transported to the Dickerson RRF.

A Request for Proposals (RFP) for long hauling the County's waste and operating the County's waste transfer station was issued in September 2025. Proposals are due on 11 November 2025. The County has not issued an RFP for continuing to operate the RRF, whose contract has been extended until 2031.

In a July 2025 County Council meeting on the Arcadis report, Council President Kate Stewart committed to a "transparent process" to "evaluate all long-term waste disposal options." Several Council members stressed the need to have full information on the County's waste management options and for public input. But now, only three months later, it seems the County is on a fast track to sending its waste to a landfill in either Virginia or Pennsylvania, without a clear opportunity for public input.

In that same July 2025 briefing, the Department of Environmental Protection (DEP) proposed a timeline that would award a contract in January 2026 for long hauling the County's waste to an out-of-state landfill. That timeline anticipated a Council briefing "and/or a closed session" prior to contract award.

The prospect of an abrupt, marked change in the County's waste management policy raises the following basic question: Why does the County want to close the existing RRF?

That question led to a host of other question: Has the RRF finished its useful life? What are the harms to public health and the environment of the RRF and of landfilling? Is landfilling

the County's waste less expensive than continuing to operate the RRF? What are the implications of transferring the harms of our trash to people and ecosystems outside of the County? Has the County carefully considered all environmental and financial tradeoffs, e.g., the costs of closing the RRF and remediating the RRF's site? Has the County invited expert review and public comment?

In performing this analysis, we studied County and scientific publications and consulted with staff at the County's Department of the Environmental Protection (DEP) and at the Maryland Department of the Environment (MDE). Using County-specific data, RTI International ran the US EPA's thoroughly peer reviewed life cycle waste model, "Municipal Solid Waste Decision Support Tool," or MSW DST. We are grateful to Keith Weitz of RTI International for his assistance.

MSW DST is a screening-level tool that generates full life cycle estimates of the environmental impacts (air and water pollution, including greenhouse gases) and costs of selected waste management options. MSW DST was developed with a long list of partners, which included NC State University, the University of Wisconsin at Madison, and RTI International. Because DEP is collecting detailed information on the potential costs of landfilling the County's waste, we focused on MSW DST's estimates of the relative environmental impacts of using the County's RRF vs. those of landfilling.

Friends of Sligo Creek's volunteers bring special expertise to solid waste and air pollution issues. They have authored scholarly publications, including books, on those issues. One member, Dr. Vivian Thomson, a retired University of Virginia Professor of environmental policy, has published three books, on garbage transport, climate change policy, and air pollution policy at the state level. She has been a government official in air pollution at the state (Virginia) and national (US EPA) levels.

The debate around RRFs is often quite polarized, with advocates and opponents speaking in generalized terms about the alleged safety or dangers of RRFs. We have tried, to the extent possible, to gather information that is specific to the County's RRF and to avoid such generalizations.

(1) Has the RRF finished its useful life?

In February 2017, when briefing Council members about the trash fire at the RRF, DEP Director Lisa Feldt indicated that the reasonable life of an RRF is "in excess of 40 years."

In extending the use of its RRF, Montgomery County would be following the example of Arlington County and the City of Alexandria in Virginia, which have extended the life of their RRF to 50 years because "it was found to be economically beneficial for both jurisdictions." Those jurisdictions also cited the strong environmental record of the facility, which is operated by Reworld, Montgomery County's RRF contractor. Arlington and Alexandria reported 2023 recycling rates of 53 percent, indicating that resource recovery—even with relatively old facilities--and relatively strong recycling can go hand in hand. Arlington, Alexandria, and Fairfax County send their incinerators' ash to an ash monofill in Lorton, Virginia.

(2) What can we say about the environmental and public health effects of the County's RRF and those of landfills generally?

Toxic air pollutants: RRF Several careful County studies undertaken between 1994 and 2015 looked at how the RRF's "toxic" air pollutants (e.g., lead, mercury, and dioxins and furans) affect levels in the surrounding air. Those studies showed that there are "no measurable influences on ambient air concentrations attributable to RRF source emissions." A 2014 risk assessment found that estimated risks from the RRF's toxic air pollutants were far below risk targets.

"Criteria" air pollutants: RRF As detailed in the following section, the RRF's emissions of sulfur dioxide, particulate matter, carbon monoxide, and nitrogen oxides (the "criteria" air pollutants, using EPA's terminology) are swamped by mobile source emissions of those pollutants in the County. The RRF has long emitted air pollutants below its permitted levels.

In 2024, the US EPA proposed to tighten the national emission standards applicable to the RRF. According to a 2025 analysis performed by the Maryland Department of the Environment that was shared with us, the County's RRF operates within those proposed limits for all pollutants except hydrogen chloride.

Greenhouse gases: RRF and landfill The RRF emits carbon dioxide. Landfill gas contains carbon dioxide and methane.

Methane is a much more potent greenhouse gas than carbon dioxide, especially in the short term. But methane does not persist as long in the atmosphere as carbon dioxide. As such, there's a new emphasis on reducing methane as much as possible now, since the resulting climate benefits could be felt relatively soon. Recent research indicates that US landfills

produce much more methane than has been thought. Landfills continue to produce methane for decades.

The Arcadis report estimates that the long haul, landfilling option produces slightly less greenhouse gas pollution overall than the RRF option. But the Arcadis report emphasizes that the EPA model (WARM) used for those calculations overestimates the greenhouse gases emitted from the County's RRF: "WARM does not take credit for carbon offsets associated with the recovery of non-ferrous metals (such as copper and aluminum), which would have a large impact on calculated net greenhouse emissions and energy use footprints (p. 11)." And the report says that WARM probably overestimates landfill gas collection efficiency, thereby underestimating landfill methane pollution.

As a point of comparison, Keith Weitz of RTI International, the firm that developed MSW DST, ran MSW DST for us. MSW DST's greenhouse gas calculations account for carbon offsets from metals recovery and from electricity that would be produced from other sources if the RRF is shut down. More importantly, MSW DST incorporates, appropriately, a higher global warming potential for methane (80 times that of carbon dioxide, over 20 years) than is used in EPA's model WARM (25 times that of carbon dioxide, over 100 years).

Like WARM, MSW DST is a screening-level model whose results should be regarded as directional and comparative. There are many uncertainties in making these kinds of calculations, not the least of which is that we don't have inputs specific to a particular landfill.

With those caveats in mind, our MSW DST results indicate that landfilling the County's waste might well produce far more greenhouse gas pollution than the RRF, even assuming a relatively optimistic collection rate for the landfill's methane. Specifically, MSW DST estimates that the County's waste would generate 1.4 million $MTCO_2e$/year more at a landfill with energy recovery than if the waste were burned at the County's RRF, net of carbon offsets and landfill carbon storage. Finding that landfilling waste results in higher greenhouse gas pollution than treating the waste at an RRF is consistent with the results of other life cycle analysis studies.

Another way of looking at this estimate is as follows. The RRF's 2024 air pollution compliance report estimates carbon dioxide emissions of 547,025 Mg annually, which is still roughly 850,000 $MTCO_2e$/year lower than MSW DST's estimate for landfilling emissions. The compliance report estimate would be regarded as too high in a life cycle analysis, because, among other factors, it does not account for the RRF's carbon offsets.

Landfill leachate and landfill gas Landfills harbor microbes and pathogens, while incinerators kill those same microorganisms. Landfill leachate is collected and treated on-site or off-site.

The US EPA has said that all landfills, no matter how well protected, will eventually leak. Mixed waste landfills produce huge amounts of toxic leachate, which must be treated. The Shoosmith landfill in Chester, Virginia, which is mentioned in the Arcadis report as a potential recipient of the County's trash, produces an estimated 400,000 gallons of leachate per week, according to the Virginia Department of Environmental Quality.

Our MSW DST results compare the amount of water pollutants that could be created at the County's RRF, where water is used for cooling and treatment processes, with that created by landfills, for example, when landfill leachate is treated at a sewage treatment plant and is then discharged to waterways. The model's results indicate that landfilling the County's waste will produce a much greater amount of water pollutants than the RRF.

Landfill gas contains toxic organic compounds like benzene and vinyl chloride, which are human carcinogens, and volatile organic compounds that can contribute to smog formation.

Incinerator ash According to DEP staff, the RRF's ash is stabilized as needed by the addition of dolomitic lime to ensure that it remains non-hazardous. The ash is tested on a quarterly basis by a third-party lab for full characterization, and the ash is tested monthly on site.

The County's incinerator ash is currently disposed of at a mixed waste landfill near Richmond, Virginia, in an area that is majority African American. We understand that the County is considering redirecting the RRF's ash to the ash monofill that is used by three northern Virginia jurisdictions. Such monofills are more environmentally protective for incinerator ash than mixed waste landfills because ash monofills are designed to make metals insoluble. In mixed waste landfills, metals can become soluble and make their way into leachate.

(3) What are the financial implications of continuing to use the RRF as compared with those of trash transport and landfilling?

At this point, the County's cost estimates for managing the County's waste by long hauling to a landfill and closing the RRF are incomplete, because they do not account for the costs of closing the RRF and remediating the RRF's site. Those costs will be substantial. Further, the County has not issued an RFP for continuing to operate the RRF past 2031, and, as such, has in hand only estimated costs for that option.

DEP's cost estimates differ according to the timeline considered. The 2025 Arcadis report projects that, including costly upgrades to the RRF, continuing to operate the RRF would be cheaper in the long term than long hauling the County's trash to a landfill in Virginia or

Pennsylvania. By contrast, DEP staff estimate that, in the short term, the long-haul option would be cheaper than continuing to operate the RRF.

The differences in those projections are driven by assumptions about amount of waste generated, bond term length for extending the life of the RRF, and informal data on the cost of the landfill option. In a July 2025 briefing for the County Council, DEP Director Jon Monger pointed to the short-term estimates as evidence that continuing to operate the RRF would divert resources from recycling and source reduction efforts.

But the RRF is not simply a financial sink. In 2024, the RRF generated $24 million in revenues from sales of electricity and recovered metals. If the County's trash is sent to a landfill, revenues from electricity and metals sales will disappear, valuable metals will be buried, there will be no carbon savings from recycling the metals, and electricity from other fuel sources will be substituted for the RRF's electricity generation.

Net of those $24 million in revenues, the costs of the RRF's operation plus the transfer station ($90/ton) have not been much higher than landfill tipping fees alone (not including transfer station costs) in Virginia and Pennsylvania, which averaged $74/ton in 2024. However, the County is already spending—and would continue to have to spend—millions of dollars for upgrading the RRF. Exactly what the overall cost of extending the RRF's contract past 2031 is unclear, since the County has not solicited a formal proposal.

The RRF itself represents hundreds of millions of public dollars in sunk costs and it is valued by the Northeast Maryland Waste Disposal Authority at $91 million.

(4) What are the implications of sending our trash to people and ecosystems outside of the County?

In closing the RRF and long hauling its trash to any of the ten landfills listed in the 2025 Arcadis report, the County would be moving its trash treatment from a relatively well-off area to a more vulnerable area. Many of Virginia's landfills, especially the huge private regional landfills ("mega-landfills") that import waste from out-of-state, have been located in socially and economically marginalized areas of the state, according to a 1995 report by the Virginia General Assembly's Joint Legislative and Review Commission. A map that Dr. Thomson created for her 2009 book on trash transport shows that many of those mega-landfills are in or near the Black Belt region of Virginia, including the two Virginia mega-landfills identified in the Arcadis report as potential recipients of the County's trash.

Even now, Maryland is by far the leading out-of-state contributor to Virginia's trash imports, according to the Virginia Department of Environmental Quality latest solid waste report. In 2023, Maryland sent 1.6 million tons of trash to Virginia.

The proximity and self-sufficiency principles hold that we should take care of our own trash and not dump it on far-flung communities. Those concerns were expressed by County Council President Bruce Adams in 1992, when some Council members advocated sending the County's trash outside of the County.

Conclusions and recommendations

A decision to replace the County's RRF involves many complicated issues, and the proposals the County receives for long hauling to a landfill will address only part of the County's waste management puzzle. Our findings regarding costs, equity, environmental and public health protection, and unanswered questions, which are detailed in the following section, indicate that the County should consider extending the life of the RRF and issue an RFP as soon as possible to that end, so that the Council and the public will have firm financial estimates for that option. The County must also estimate the costs of closing the RRF and remediating its site. The County must open the decision-making process for public comment.

No matter what, the County must tighten environmental justice parameters for the destination of the facility's ash, which amounts to about 150,000 tons per year, according to the Arcadis report. The County should look into whether the ash can be reused or sent an ash monofill like that in Lorton, Virginia. That monofill is the destination for ash from municipal waste incinerators used by Arlington County, the City of Alexandria, and Fairfax County.

Further, the fact that the County's RRF is outperforming its air pollution permit limits by a significant amount indicates that any extension of the RRF's contract must include operational provisions guaranteeing continued low emissions.

County staff point out that funds invested in keeping the RRF operating would no longer be available for investing in a materials recovery and biological treatment operation. But since no such facilities of the required size operate in the US now, it's entirely unclear that such an operation could be mounted in the County anytime soon. And in its July 2025 briefing to Council members, DEP showed projected costs of such a facility at $3.8 billion over 30 years.

Our research led to one caution regarding food composting. Research indicates that PFAS, "forever chemicals," can appear in compost that contains food waste. Montgomery County is planning to establish an organics composting facility that would accept food waste. But in light of the potential PFAS risk, residents living near such a facility will want to know that local contamination cannot happen and consumers purchasing the County's compost products will want assurances regarding the safety of those products.

Therefore, as the County intensifies its efforts to reduce the amount of trash produced, the County should proceed cautiously with the composting facility, to ensure that the operation can be done safely. Meanwhile, the County should move quickly to incentivize the separation of clean recycled materials and discourage waste of all kinds by residents and businesses.

Finally, it appears that the public has not been involved thus far as the County faces a momentous waste management decision and that the Arcadis report was not independently reviewed. Public participation must be broadened. County staff, Council members, and the public at large could also benefit from learning more about why officials in three northern Virginia localities have decided that waste-to-energy is their preferred approach to waste management.

Further details

Health and environmental impacts of the County's RRF

The County's solid waste plan for 2025-2034 says: "Several health-risk assessment studies have concluded that there are 'no measurable influences on ambient air concentrations attributable to RRF source emissions. (p. 3-32).'" That statement refers to several careful studies of how Dickerson resource recovery facility's trace metals and dioxins/furans emissions affect levels in ambient air quality and in fish, sediments, water bodies, and humans. Those studies were conducted by the County between 1994 and 2015. The most recent such studies posted on the facility's website are from 2016 and 2014.

The 2016 monitoring report and the 2014 quantitative risk assessment found no measurable impact of the County's waste combustor on ambient concentrations of metals or PCDDs and PCDFs (dioxins and furans) and that "all calculated cancer risks were approximately 10 to 250 times less than the cancer target level of 1 in 100,000, while calculated non-cancer hazard indices were approximately 10 to 600 times less than the target level of 0.25 (p. ES-12)."

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The RRF's annual air pollution levels have fallen below permitted limits for many years. Our comparison of the facility's 2024 emissions, as reported to the Maryland Department of Environment, with permitted levels confirms that this pattern continues. In 2024 EPA proposed to tighten air pollution standards for RRFs like the County's. According to the Maryland Department of the Environment, the County's RRF currently operates within those stricter limits, except that for hydrogen chloride.

We compared the RRF's reported emissions of the "criteria" air pollutants (sulfur dioxide, particulate matter, carbon monoxide, and nitrogen oxides) in 2024 with the EPA's estimates of Countywide emissions for those same pollutants in 2020. This comparison is for mobile and nonpoint sources (small sources, like residential wood stoves) only, since the County's pollution from those sources is far higher than that for point (major) sources. Those comparisons are as follows, in tons/year:

Pollutant	RRF (tons/yr)	County mobile/nonpoint source (tons/yr)
PM-10	9.0	11,939
Carbon monoxide	34.6	79,284
Nitrogen oxides	414.3	7,327
Sulfur dioxide	20.2	987

The 2025 Arcadis report, which used a computer model to monetize the health and environmental risks of landfilling vs. those associated with the RRF, concluded that the monetized health and environmental risks of long hauling the County's trash are higher those associated with the County's incinerator. Unfortunately, the report expresses doubts about that model, which, to paraphrase the contractor's own words, employs unverifiable information. Thus, we regard those results as unreliable.

Incineration is not a disposal method, but, rather, a method for transforming waste to air pollution and solid wastes in the form of fly ash and bottom ash, which contain toxic metals. The County's incinerator ash is transported in rail cars to a mixed waste municipal waste landfill near Richmond, Virginia. When incinerator ash is disposed of in mixed waste landfills, metals like lead, chromium, and mercury can become soluble and available in landfill leachate. Metals are less likely to be released from the ash in ash monofills.

The RRF experienced a prolonged, serious trash pit fire in December 2016. Any extension of the contract can happen only if the County is satisfied that such a fire cannot happen again.

Health and environmental impacts of landfills

While RRFs kill pathogens, landfills teem with microbes and pathogens. While RRFs produce ash, landfills generate huge amounts of leachate (garbage "juice") that contains a stew of toxic organic and inorganic contaminants that can pollute surface and groundwater, thereby harming people and non-humans alike. Landfill leachate is collected, and it must be treated before being released to waterways.

Even in landfills protected by liners and leachate collection systems, leaks happen. For example, the Shoosmith landfill, which is mentioned in the 2025 Arcadis report as a potential recipient of the County's trash, generates almost 400,000 gallons of leachate per week. In August 2025, Shoosmith received a 24-page notice of violation from Virginia's Department of Environmental Quality, documenting, among other problems, leachate and sediment runoff flowing toward nearby streams. The landfill owners filed for bankruptcy in June 2025.

Waste deposited in landfills continues to produce air and water pollution for decades. The US EPA has said that all landfills, no matter how well protected, will eventually leak. For some time, the European Union has pressed its member nations to decrease waste sent to landfills. As a result, there are about 500 RRFs in the EU.

Recent research indicates that landfills in the US emit much more methane than has previously been estimated. The Arcadis report indicates EPA's WARM model probably overestimates landfill methane collection efficiency and, therefore, underestimates methane landfill emissions. Methane control systems at landfills can be inefficient.

Further, methane is a much more potent greenhouse gas than carbon dioxide: Over 20 years, each ton of methane is more than 80 times as potent as one ton of carbon dioxide, although methane is removed from the atmosphere more quickly than carbon dioxide. Thus, lowering methane emissions in the short term can have a powerful climate effect. The Intergovernmental Panel on Climate Change stresses the pressing need to reduce methane emissions.

Costs and RRF revenues

Unlike many waste-to-energy facility contracts, the Dickerson RRF contract is not "put or pay," which would require that the County "feed" the RRF a certain amount of trash or pay a penalty for falling below that level. Such contractual provisions are meant to help decrease competition for materials with the County's recycling programs. Montgomery County

reports a recycling rate of 45 percent for 2022-23 and that "recycling rates continue to improve."

According to County staff, the transfer station and the RRF together cost $90/ton to operate in 2024, net of the $24 million in revenue generated by sales of metals retrieved at the incinerator and electricity. By comparison, in 2024 nationally it cost $70/ton on average just for disposal fees at large landfills, not including transfer station operational costs. So, until now, it appears that the RRF's per-cost-ton has been quite competitive with that charged at landfills.

But that situation has changed. In fiscal year 2026, the County will spend $28.5 million to upgrade the RRF, which translates to an additional $48/ton, or $114/ton total for FY 2026. More upgrade expenses are expected in future years. County staff believe that those financial demands will divert resources from the County's efforts to reduce, reuse, and recycle waste materials.

Still, the 2025 Arcadis analysis projects that, over the long term, continuing to operate the RRF, even with needed improvements, would be cheaper, at $124/ton, than long hauling the County's trash to a landfill in Virginia or Pennsylvania, estimated at $154/ton for rail transport and $205/ton by tractor trailer. For comparison, New York City pays $149/ton to export its trash.

In July 2025 Montgomery County staff presented short-term cost figures to the Council in that indicated that long hauling to a landfill would be cheaper, at $130/ton, than using the RRF, at $152/ton. DEP staff cautioned Council members that the actual cost for long hauling trash will become clearer once proposals are received in response to the County's RFP.

Projected (and uncertain) household cost increases shown by DEP in its July 2025 Council presentation estimate total per-family charges in FY 2031 of $480/year for the RRF option and $438/year for the landfill option. While this difference is not insignificant, the Y axis of the graph presenting these figures does not go to zero, thus exaggerating the cost difference visually.

If the RRF is closed, the County will lose the revenue from electricity and metals sales, which amounted to $24 million in 2024. Further, recycling metals saves substantial amounts of energy and, thus, reduces greenhouse gas pollution relative to using virgin materials. Electricity costs are rising in the grid that services Maryland, which points to possible increases in the amount of revenue the RRF will generate from electricity sales.

Closing the RRF will be expensive and would mean abandoning a valuable public asset. The RRF is owned and operated by the Northeast Maryland Solid Waste Authority and the County owns the RRF's land. The Authority estimates the value of the RRF at $91 million. The County has not estimated the costs of closing the RRF, disassembling the RRF and disposing of those materials, and remediating the site. Those costs will undoubtedly be considerable, and the County will be responsible for them.

According to County staff, no closure study has been undertaken. The costs of closing and remediating the RRF could include the following: Funds to clean out the trash pit; third-party engineer costs to ensure the reasonableness of the costs; and other substantial unknown costs (Per Schedule 22 to the Service Agreement), such as winding down costs for Reworld for employees (including any severance), termination of contracts, supply orders, demobilization, insurance paid, storage costs, payments made under the Electricity Sales Agreement (if applicable), Rail Transportation Agreement and other Project Documents, and all reasonable direct costs to terminate the Service Agreement.

Equity

Even if the proposals for long hauling the County's trash combined with the costs of closing the RRF indicate favorable cost estimates, the County must consider the ramifications of moving the County's waste treatment from the relatively well-off area near the RRF to less privileged areas with landfills.

The 2025 Arcadis report performed an environmental justice analysis for ten landfills in Virginia and Pennsylvania, as well as the County's waste facilities. The results showed that the County's RRF is in a rural area that is the most favorable (least unjust) of all locations analyzed when it comes to a variety of environmental justice considerations, like income, race, and pollution exposures. In fact, the Arcadis analysis of our RRF's location shows no unfavorable environmental justice factors. By contrast, every landfill site mentioned in the Arcadis report, including the one currently receiving the RRF's ash, shows at least some unfavorable environmental justice factors. The landfill receiving the incinerator's ash is in a densely populated area near Richmond, Virginia that, according to 2020 US Census data, is 70 percent African American.

Virginia has become one of the nation's leading trash-importing states for a variety of reasons. One factor is that many of Virginia's 500 local cities, counties, and towns have low populations and low tax revenues, but they must all support their own local public services,

including schools. They are cash-starved, and landfill companies pay them host fees and provide waste disposal.

The Virginia General Assembly sponsored a 1994 study that examined the demographic characteristics of communities near huge private "regional" landfills sited or permitted since 1988. The study found that those communities were not only poorer and more rural than the state as a whole, they had larger minority populations. A recent, years-long battle over siting a new mega-landfill in Virginia happened in rural Cumberland County, which is 33 percent African American. A prime concern of nearby residents was that the landfill would be near an historically African American Rosenwald school. In July 2025, the local Board of Supervisors approved the landfill's permit.

Proximity principle

In Japan and in the European Union, the principles of proximity and self-sufficiency encourage the treatment of waste as close to its point of origin as possible. The idea is to try to avoid dumping on vulnerable areas and to take responsibility for one's own trash. Even within the city of Tokyo, there are 21 trash incinerators, so that each ward can avoid sending its trash to neighboring wards.

In the US, no such principles guide waste management policies generally and long-distance trash transport is common, in part because our Constitution allows only Congress to regulate the interstate flow of commerce. Still, some local governments, like Oneida and Herkimer counties in New York State, have chosen to manage their trash at home, to guarantee revenues from tipping fees and to provide a shield against liability claims that might arise from problems at less protective waste management facilities.

Continuing to treat most of the County's trash in the County, as opposed to dumping it on other, more vulnerable communities, would echo the rationale the County Council president Bruce Adams cited in the 1990s. He worried not only about dumping the County's trash on communities outside the County but about the long-term reliability of long-distance transport to landfills whose operational practices were outside the control of County officials.

Known unknowns

According to the County's Comprehensive Solid Waste Management Plan for 2025-2034, the County has a policy to minimize solid waste-related traffic on County roads (p. 2-13). If

the County's trash is long hauled by tractor trailers to an out-of-state landfill, how many trucks would go in and out of the County's transfer station? This number might be around 15,000 per year or 288 trucks per week, assuming 40 tons of waste per truck. Alternatively, exactly what would be involved in establishing a rail operation large enough to transport the County's trash elsewhere?

And what are the potential long-term financial liabilities of sending huge amounts of trash to mega-landfills in other states? Many Superfund sites were once landfills, albeit landfills with little or no environmental controls. Adding 600,000 tons/year to any landfill could mark the County as a prime contributor to any future contamination that might occur.

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