

MONTGOMERY COUNTY SOLID WASTE ADVISORY COMMITTEE
Wednesday, April 9th – 5:30 – 7:30pm
MEETING NOTES

SWAC members in attendance:

Amy Maron, Chair	John Meyer
Robin Barr, Vice Chair	Michelle Ennis
Kaela Martins, Secretary	Mark Symborski (M-NCPPC rep, nonvoting)
Chaz Miller	
Barry Shanoff	
Robin Barr	
Fred Kranz	
Peter Mukerjee	
Kavita Battula	
Dave Rosenbaum	
Lauren Greenberger	
Dapo Awe	

SWAC Members absent: Dawn Selis, Andrew Cassilly, Troy Cavell

DEP officials in attendance:

Lisa Shine, Executive Administrative Assistant to the Director, Recycling and Resources Management Division (RRMD)
David Frank, RRMD, Technical Liaison to SWAC
Kaley Laleker, Division Director, Zero Waste
Alan Pultyniewicz, RRMD
Eileen Kao, RRMD, Chief, Waste Reduction and Recycling Section
Willie Wainer, Division Director, RRMD
Jeff Seltzer, Deputy Director, Natural Resources Admin, DEP

Guests:

Stephen Lezinski, Barton & Loguidice
Steve Nesbitt, Arcadis

Members of the public:

Elisabeth Fidler, Montgomery County resident
Jane Hunter, Montgomery County resident
David Rosenbaum

AGENDA

Meeting started (approx 5:32)
Introductions

MSW Managements Systems Alternatives Analysis – Results and Next Steps, Kaley Laleker (approx 5:40)

- Purpose of briefing to:
 - o Present the options for an alternative Municipal Solid Waste (MSW) management system;
 - o Compare the impacts and costs of those options against the current system, based on analysis by Arcadis;
 - o Explain how advanced waste processing technologies may significantly increase waste diversion and reduce emissions.
- Part of the County's Aiming for Zero Waste Initiatives is managing material remaining after source reduction and recycling
- Arcadis looked at 3 options for the county as alternatives for MSW Management
 - o Material Recovery Biological Treatment (MRBT) - technology that would extract recyclables from the MSW stream. The MRBT facility would be constructed, and recyclables would be pulled out from the waste stream and returned to market. The residuals that are generated after MRBT would go to the rail yard in Dickerson for staging and then out of county to a landfill by rail.
 - o Long Haul - MSW would be received at the transfer station. It would be sent by rail to the RRF rail yard for staging to accumulate longer train lengths, and then it would be sent by rail to an out-of-county landfill. Arcadis did look at a number of different long-haul options, but the preferred long-haul scenario was transport by rail.
 - o Resource Recovery Facility (RRF) – continuation of the current system including retrofits and repairs to the RRF over time to bring it to best-in-class technology. The flow of materials would be the same as they are now. MSW would be received at the transfer station in Derwood, would be sent by rail to the RRF in Dickerson for incineration, and the resulting ash would be transported by rail to an out-of-county landfill.
- What is MRBT?
 - o Ability to handle MSW and recover as much of the valuable material that's left in the waste stream as possible before disposing of the residuals.
 - o Not a replacement for source separated recycling systems or traditional MRF for recyclables. It's a system that's specifically designed to manage the leftover MSW stream.
 - o Sorts the incoming waste stream using different equipment like shredders, screeners, magnets, optical sorters, etc. to recover recyclables like metals and plastics for recycling.
 - o The organic fraction of the waste is also separated and that would include things like food and non-recyclable paper. That would be biologically treated, in this case using anaerobic digestion. Anaerobic digestion produces biogas, which can be used for energy. It also produces a digestate.

- The remaining residual that's left that can't be recycled would then go to a landfill.
- Existing MRBT Locations:
 - GreenWaste, San Jose CA (150,000 tons per year of organic waste)
 - Lane County, OR (under construction)
 - Grenada Eco-Center, Spain (manages MSW for a few municipalities – 450,000 tons per year)
 - Veolia Southwark, Southwark, England (200,000 tons per year)
- MRBT is Preferred Alternative Based on Arcadis Analysis
 - Arcadis analyzed and compared the three options based on diversion, carbon footprint reduction, and cost.
 - MRBT is the top ranked alternative because it offers the highest diversion potential with the lowest carbon footprint.
 - Diversion estimate criteria – percent diversion of the total MSW stream that's arriving at the transfer station and how much of that could be diverted from disposal under each of the options.
 - MRBT – 45%
 - Long Haul – 0% (directly landfilling)
 - RRF (with retrofits/repairs) – 3 to 4% (recovery of metals)
 - Carbon footprint reduction criteria – Used EPA's Waste Reduction (WARM) model that allows comparison of a baseline method of managing waste with an alternative method. Gives you impact of that change on greenhouse gas emissions. For each ton of MSW (assumes 600,000 tons per yr), the below options are:
 - MRBT – 0.73 metric tons of CO₂ relative to the RRF, 100,000 passenger vehicles per year
 - Long Haul – 0.03 metric tons of CO₂ relative to the RRF, 4,785 passenger vehicles per year
 - MRBT has significantly higher GHGs reductions than long haul because material is recycled through MRBT, which means you have reduced GHGs associated with making new products from virgin material. It also avoids the CO₂ emissions from things like plastics from the incinerator. It would reduce methane emissions because that organic material is being separated and stabilized through anaerobic digestion.
 - Cost of service criteria: system costs over a period of 30 years, including total operating and capital expenses. Also includes offsets for any revenue generated.
 - Option 1A - MRBT: 30-year system costs including Health & Environmental (H&E) = \$173/ton
 - Option 2A - Long Haul from RRF via rail from RRF to out-of-county landfill = \$194/ton
 - Option 2C – Long haul to out-of-county landfill by truck = \$245/ton
 - Current system for comparison = \$130/ton

- While MRBT has the highest system costs, when you factor in health and environmental costs, it has a lower cost than long haul at \$173 per ton versus \$194/ton.
 - Timeline for Refining Cost Information
 - Phased Procurement Process
 - An RFP would be issued for the first phase of the project, which would be pre-construction services. Planning and design work for that project would be performed by a project developer in close coordination with the county.
 - At end of pre-construction services phase, the project developer would provide a guaranteed maximum price. More detailed information available about how much it would cost to actually construct the facility.
 - The county would then have the opportunity to consider that price before proceeding with the second phase, which is construction services.
 - Capital Cost Estimates
 - From FY26 to FY31, MRBT to have highest costs at \$810 million, RRF (with retrofit/repairs) \$356 million, and Long Haul \$216 million
 - Rate Impacts
 - MRBT would have the highest rate impact for single-family, multifamily and nonresidential, with RRF and Long Haul options significantly lower
 - Concluding Thoughts and Considerations
 - All of the options involve significant capital investments.
 - MRBT provides value for form of increasing waste diversion, lowering greenhouse gas emissions. It also reduces reliance on an out-of-county landfill.
 - When you look at the costs over time and factor in health and environmental impacts, MRBT has the lower total cost of service than long haul.
 - County's budget that is currently under review by Council includes recommended funding for MRBT if chosen
 - If funding is approved, RFP to be issued in mid 2025. End of 2025 make an award and start pre-construction services phase.
- Questions
 - The capital costs of the MRBT would hit residents quite hard in first few years. Any thought to arranging a bond that would spread costs to residents over a longer period, 15 years, 20 years, that could reduce the overall fee?
 - Yes, that is included in the cost analysis by Arcadis
 - Are there any current operating systems in this country managing material to the extent of Montgomery County's that are doing MRBT?

- No, this would likely be one of the largest, if not the largest MRBT facility, in the US. The ones that we know of are smaller facilities. Technology is proven but the scale of the facility needed for the County is not something that exists in the U.S.
- Was an analysis done of the operating costs?
 - Yes, so the operating costs are also included in the total system cost.
- What is the residual amount of waste that would be going to landfill under MRBT?
 - 55% would be the residual
- For organics, is there only anaerobic digestion or is there any composting involved?
 - This has not been determined yet; it would be addressed in the design phase.
- Are the operating costs the same for MRBT and RRF?
 - They are close but RRF is ~\$100 per ton, and MRBT is ~\$150 per ton
- Is biochar a technology being considered? It has its own environmental and GHG benefits
 - It could be included but it was not part of the current analysis
- Where would this facility be located?
 - The transfer station facility
- Does the cost include the time period for rerouting of waste while construction is occurring at the transfer station facility?
 - Analysis does not factor in interim costs.
- Which agency would be the contractor for the project?
 - Hasn't been fully vetted but DEP would be the ones to issue the RFP, and likely be responsible to the contract. Equipment has to be owned by County.
- What is the size of the green waste facility in CA?
 - Sits on 10 acres.
- Any disruptions or delays in waste coming into the transfer station during construction period?
 - The developer will be required to maintain continuity of operations. That was included as a requirement in the ROI and there were no objections.
- Has MD permitted a facility like this?
 - No. Permit submittal would be when design stage is 60 to 90 percent complete. (There was discussion of asking one of the state delegates or senators to review this.)
- What is the source for the calculation for MRBT revenue?
 - The data used to calculate these figures came from RecyclingMarkets.net
- Are you assuming the recyclables (that would be pulled out of mixed garbage) recovered through MRBT would have the same value as virgin recyclables (uncontaminated by garbage)?

- Yes, the calculations that material from the MRBT would generate the same value as material from the county MRF.
- Despite these recyclables producing a dirtier grade than curbside recycling and having a lower market value?
 - Yes, based on our calculations

Amy: County Budget Letter (approx. 6:53)

- Review of draft letter with thoughts and questions to the council of the proposed budget for the County

January 2025 Minutes approved (approx 7:36)

Meeting adjourned at 7:38 pm.

ACRONYMS

AD	Anaerobic Digestion
C&D	Construction and Demolition
CC	County Council
CE	County Executive
CNG	Compressed Natural Gas
CPI	Consumer Price Index
DAFIG	Dickerson Area Facilities Implementation Group
DEP	Department of Environmental Protection
EPA	U.S. Environmental Protection Agency
GHG	Greenhouse Gases
FTE	Full Time Employee
FY	Fiscal Year
H&E	Health and Environment
MDE	Maryland Department of the Environment
MC	Montgomery County
MES	Maryland Environmental Services
MRF	Materials Recovery Facility
MML	Maryland Municipal League
MCPS	Montgomery County Public Schools
MRBT	Material Recovery and Biological Treatment
MSW	Municipal Solid Waste
NPV	Net Present Value
OLO	Office of Legislative Oversight
PAYT	Pay-As-You-Throw
RFP	Request for Proposal
ROI	Return on Investment
RRF	Resource Recovery Facility
RRMD	Recycling & Resource Management Division
SA	Service Area for County collection

SAYT Save-As-You-Throw
SCA Sugarloaf Citizens Association
SF Single-family
SWAC Solid Waste Advisory Committee
SWMP Solid Waste Management Plan
T&E Transportation and Environment Committee
TPD Tons per Day
TPW Tons per Week
ZWTF Zero Waste Task Force