

MONTGOMERY COUNTY SOLID WASTE ADVISORY COMMITTEE
Wednesday, June 5, 2024 – 5:30 – 7:30pm
MEETING NOTES

SWAC MEMBERS IN ATTENDANCE:

Amy Maron, Chair	Oladapo Awe
Robin Barr, Vice Chair	Pradip Mukerjee
Adam Diamond, Secretary	Dawn Jessel
Chaz Miller	Mark Symborski (M- NCPPC rep, non-voting)
Fred Kranz	Carol Jones
Michelle Ennis	Oladapo Awe

SWAC Members absent: Troy Cavell, Heidi Lovett

DEP Officials in attendance:

Jeff Seltzer, Deputy Director

Willie Wainer, Director, RRMD

Lisa Shine, Executive Administrative Assistant to the RRMD Division Director

David Rosenbaum, Program Manager, Materials Management Section, RRMD

Contractors in attendance: Steve Nesbitt, Arcadis, Steve Lezinski, B&L

Members of the public in attendance: Susan Eisendrath, Mike Ewall, Lauren Greenberger, Alan van Order

May Minutes were approved at 5:40 p.m.

Continued Update on Arcadis Work—MSW (Municipal Solid Waste) Management Alternatives for Replacing RRF: MSW Process Technology Assessment & REOI Review—Steve Nesbitt

Overview

--Have completed technology assessment and REOI; now working on Request for Proposals (RFP), Cost-benefit analysis (CBA), Adaptation Strategies, and Detailed Analyses.

--Soliciting interest from specialty vendors, hopefully with cost information. RFP will be built around preferred technology that came out of the Request for Expressions of Interest (REOI), focusing on Materials Recovery with Biological Treatment (MRBT).

--Adaptation strategies address how to apply different technology at different locations and how to move residuals by truck or rail for final disposal at a landfill. This will be followed by detailed analyses which include: lifecycle analysis, environmental justice screen, carbon footprint analysis, which all feed into application of evaluation model to come up with preferred MSW system and primary technology.

Waste Stream Components & Processing Technologies

Looking at two types of Mixed Waste Processing: 1) dry mechanical combined with dual stream recycling and source separated organics; 2) Materials Recovery with Biological Treatment. The latter is a more advanced, proprietary process. MRBT can be done with or without thermal hydrolysis (application of high pressure steam).

Anaerobic Digestion would be done with organic residuals, producing renewable natural gas and revenue for the county.

Composting could be done using aerated static piles or in-vessel systems.

Construction and Demolition debris recycling has significant diversion potential.

All these technologies can be provided with a range of delivery methods: Design-Build, Design-Build-Operate, or Design-Build & Own. Most common method is design-build.

The County prefers Design-Build-Operate—all by one vendor.

Alternatively, one vendor could design, build, operate, and own the facility, with the County guaranteeing a certain volume and paying per ton disposal/processing fee.

Details of contracts are complicated and differ by each vendor.

Mixed Waste Processing—need source separate organic processing (SSO) and dual stream recycling to minimize contamination.

Moving up value chain: MRBT—deals with organic fraction—thermal hydrolysis with autoclave—high pressure steam to break down and separate out organic fraction. Recovered recyclables and composting of organics as a soil amendment. Residuals go to landfill.

Source Separated Organics would result in to potential composting options—either Aerated Static Pile (as is done at the Dickerson Yard Trim Facility) or In-Vessel Composting.

ASP is much cheaper than in-vessel composting.

Recycling of Concrete, Brick, Rock/Stone/Earth and other building materials. It is relatively affordable to recycle C & D materials.

Co-located Revenue generating technologies—Additional RFPs/Capital Projects would need to be created.

The anaerobic digestion (AD) could be co-located with either a renewable natural gas (RNG) generation facility from the biogas coming from the digestion process or a facility that generates solar electricity and green hydrogen from the biogas produced through the biodigestion process.

Either AD with RNG from Biogas or solar electricity/green hydrogen.

Need to build pipeline for RNG.

Some facilities inoculate material to make hydrogen. Better off using solar to make hydrogen.

Costs of municipal waste processing with MRBT are relatively expensive. Examples of Monroe County, Indiana, San Leandro and Santa Barbara, California, with much smaller tonnages range from \$47 million to \$139 million in capital costs in 2024 dollars. So, a facility like ours which must process up to 600,000 tons per year of MSW could cost almost \$850/ton.

REOI

Preferred MSW Processing Vendors & Technologies—can't share some of the details because of confidential business information.

Broad outreach to attract applicants. Reached out to 40 vendors. 7-8 vendors have been prequalified.

Arcadis has developed a good mix of system integrators and specialized technology vendors that can form teams with other companies to meet the County's needs.

Leaving of C&D recycling off RFP right now. Working with a team on establishing evaluation criteria. Conducting workshops with DEP, County Attorney, Risk Management group, procurement office – how to manage risk.

Combined System Integrators & Specialty Vendors Address All Primary Technologies.

Responses received from seven different vendors. Some combination of these vendors will be selected based on their ability to provide different services/technologies.

Feedback loop prior to award implementation. Results from RFP will inform detailed financial analyses and confirm preferred MSW management system and primary technology in advance of council and MDE.

Coordinate with MDE—get solid waste management plan approved. Get council approval—how going to pay for it. Extended Award Duration.

This is the first of many RFPs and is for primary technologies. Others will follow for other technologies. Might be RFPs for AD, C&D.

Stakeholder Feedback and Discussion

Q: Is MRBT considered the technology the county is looking at?

A: Yes, but it is still subject to feedback loop. Big advantage of MRBT is that doesn't need source separated organics (SSO).

Q: Does the RFP being prepared include functional guarantees?

A: Still working on them with legal. Considering tonnage throughput and diversion percentages. And penalties if goals not meant. Cures & Remedies.

Q: How stable are these specialty technology companies?

A: There will be qualifications built into the RFP including measures of financial stability and functional guarantees.

Q: Do companies come and go as technologies fall in and out of favor?

A: There is a risk. These are very proprietary technologies.

Q: Did Arcadis look at the Report by EA, contracted through MES, which made its own recommendations regarding composting technology/locations.

A: We will look at this report more closely when SSO is considered. It fits in with adaptation strategies. EA Report will be part of adaptation strategies.

Q: Was agitated bed composting considered?

A: It was considered by EA.

Q: Did anyone propose long-haul rail?

A: No, because this was looking at alternative technologies. Will compare rail/truck haul to alternative technologies.

Q: Will you look at ultimate disposal of organics? A lot of people are concerned about land application of certain types of leftovers.

A: Yes, we will look at how residuals are managed.

Q: Why was MRBT selected?

A: You have base case options. Truck or rail out of county haul of MSW. Site 2—no one wants to do. Upgrade RRF—no one wants to do. Remaining options—MWW, MRBT, AD.

Q: When will report be ready for County Council?

A: Technology assessment can be released within a week. Actual report after RFP—in late November.

Q: How long will it take for a whole new system to be in place?

A: Based on putting out RFP this summer and professional judgement of contractors, this will take longer than the April 2026 date for closing RRF.

Q: What's happening with RRF extension?

A: Very preliminary. A letter has been sent to start negotiations for a possible extension of the service agreement with Reworld (operator of RRF). Time is of the essence—can't stand up these technologies by April 2026. Any extension negotiated will have an early termination clause.

ReWorld is the new name of Covanta.

Q: Will HDR be one of the on-call contractors?

A: Yes.

Q: What's happening with EA's recommendation to do ASP?

A: Now whole systems approach, several technologies considered together.

Q: Is waste to energy being considered:

A: Base case, what it would cost to refurbish RRF? But assumption is it will be closed.

Q: Did these proposals answer where the waste will be ultimately landfilled? EJ considerations?

A: RFP is looking for primary technologies.

Q: Will RFP address residuals.

A: Yes, Arcadis evaluation model addresses EJ concerns.

Q: Given that an independent lifecycle analysis done by Dr. Jeffrey Morris showed that using RRF is far more harmful than landfill, is DEP committed to switching to landfilling now before MRBT facility is up and running?

A: No, the determination is that is not the preferred way to move forward. Looking for alternative technologies that take us to the next level. Yes, it will be part of the new system.

RRMD Updates

Food Scraps Dropoff at Farmers' Markets

Lisa Shine read the following update:

Montgomery County has a goal to reduce waste and recycle more, aiming for zero waste. Looking for more opportunities to make progress toward achieving this goal, the Waste Reduction and Recycling Section of Montgomery County Department of Environmental Protection's Recycling and Resource Management Division (RRMD) has been focusing efforts to divert additional food scraps from disposal for recycling. According to Montgomery County's most recent waste composition study completed in 2023, it was estimated that single-family and multi-family residences combined disposed of 61,000 tons of food scraps in the trash annually. RRMD is providing new opportunities to recycle food scraps by creating multiple food scraps recycling drop-off locations strategically located throughout the County to maximize convenient access for all. By establishing these drop-offs, RRM hopes to reduce the amount of food scraps disposed in the trash and increase recycling of food scraps in the County, providing food scraps recycling options for residents, farmers, and food service businesses at existing farmers' markets. RRMD has been providing curbside collection of food scraps for recycling from approximately 1,600 single-family households in three neighborhoods in Silver Spring, Potomac, and Bethesda/Rockville, and anticipates ultimately providing this recycling service to all single-family households throughout the County once it has developed its own processing capabilities. Currently, there are several challenges impacting the farmers ability to compost their food scraps on-site, including concerns from neighboring property owners regarding on-site processing, costs of operations, contamination of feedstocks, and regulatory limitations. However, these dedicated food scraps recycling drop-off opportunities located at farmers' markets may assist farmers to manage spoiled or damaged produce and support their efforts to keep food scraps out of the waste stream.

Staff identified farmers' market locations operating throughout the County. RRMD's goals include providing a good geographic distribution of drop-off locations throughout the County; working with markets operated by different vendors or organizations; locating in markets operating in both high- and low-density population areas; locating in markets serving both single-family and multi-family residences; and locating in markets operating during the weekends to maximize participant accessibility when operating. County staff contacted farmers' market managers to evaluate opportunities to partner with RRMD and determine availability of space for RRMD to locate a Food Scraps Recycling Drop-Off. Staff discussed the purpose and goals of the program and asked for support to raise program awareness/advertise to market attendees. Recycling drop-offs operate at the same times as the markets. To address concerns about limited long-term storage space at the markets, all food scraps containers and all materials are transported both on- and off-site each market day.

The County secured food scraps recycling collection through Compost Cab, which provides staffing, collection, and transportation of food scraps at each of the farmers' markets. The County has the capacity to collect up to approximately 3,500 pounds of food scraps at each of the Food Scraps Recycling Drop-Offs for every day of operation. All food scraps are transported to the Prince George's County Organics Composting Facility for processing. At each individual farmers' market all interactions are tallied, actual drop-offs are counted, and food scraps carts are weighed to track the results

from each day of drop-off at each market. In addition, RRM will track the actual weights of truckloads of food scraps delivered to the Composting Facility via scale tickets. Educational materials regarding the food scraps recycling drop-offs are being developed in English, Spanish, Traditional Chinese, and Amharic.

The Food Scraps Recycling Drop-Offs began the weekend of Saturday, May 18, and Sunday, May 19, at the following markets. Three of these markets operate year-round, and one operates seasonally.

- Bethesda Central Farm Market (operated by Central Farm Markets) – Year-round (Bethesda Elementary School, 7600 Arlington Road, Bethesda, MD 20814, Sundays from 9:30 am-1:30 pm, January-February; 9 am-1:30 pm, March-December)

- Derwood Farmers' Market (operated by Milk Lady Markets) – Seasonal (Neighborhood Church, 16501 Redland Road, Rockville, MD 20855, Saturdays from 9 am-1 pm, April 6 through October 5)

- Fresh Farm Downtown Silver Spring (operated by Fresh Farm) – Year-round (Veterans Plaza, 1 Veterans Plaza, Silver Spring, MD 20910, Saturdays from 9 am-1 pm; 10 am-1 pm, January-March)

- Olney Farmers' and Artists Market (operated by Friends of Olney Farmers' Market), Year-round (Maryland 108 and Prince Phillip Drive, Sundays from 9 am-1 pm)

Other RRMD Updates—Willie Wainer

Continued development of phase 1 of SAYT. Will probably brief SWAC in a couple of months on phase 1 program.

Transfer Station upgrades: In process of replacing all the old signs—some of which looked cartoonish—very old. Will see this next time you visit—more colors, better indications. Starting at least one new program at transfer station. Will update next meeting. Completed upgrade of public unloading facility/disposal area. Raised all the walls. Painted. It's safer than before. Continue looking into safety aspects. Making progress on scales replacement and scale house.

Preparing task order for redesign of MRF. Will put together RFP for equipment going into the MRF. Including robotics. We are very excited about that.

Q: Continue MRF renovations now, then new MSW system

A: Yes, never going to get rid of recycling program. Very successful in dealing with market shifts. MRF is outlet for materials recovered from MWP system. Will have increased capacity, to go from 10 tons/hour to 20-25 tons/hour.

Continuing with same companies for design of company. RFP is for equipment.

The new MRF be completed in about 2-2.5 years.

Q: What does 30, 60, 90 design mean?

A: This refers to the percentage of equipment finalized. RRMD is doing design and RFP for equipment in parallel to save time.

SWAC Business

Organics subcommittee letter.

SWAC members will continue to review a letter commenting on the EA organics report and will potentially vote on the letter at a July meeting (date TBA).

Members of the Public Comments

Alan van Order said that Compost Crew manages 6 compost outposts. They process single digit percentages of Compost Crew's food scraps. Most of the food scraps they collect are going to the Prince George's Compost Facility.

Compost Crew collects three tons of food waste and nine tons of yard waste each week for processing at One Acre Farm.

Impediments to more on-farm composting in MD: hard to find sites, farmers seem interested. Less than ½ acre at One Acre Farm. Saving them money on inputs—use compost on farm. Challenges is capital for infrastructure—used repurposed shipping containers for ASP. \$200,000 for all weather surface—a lot for a small business.

Susan Eisendrath stated that she is conducting compost trainings.

Potential topic for September: MES presentation on marketing of county's recycled materials. May look at C&D waste for a fall meeting.

Carol said that zero waste reporting was dropped from annual report in Climate Action Plan, even though it was in quarterly reporting. She will put together a draft letter that may be voted on at a July meeting.

Meeting Adjourned—7:37 p.m.

ACRONYMS

C&D	Construction and Demolition Waste
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
DMV	District Maryland Virginia (metropolitan area)
EPA	U.S. Environmental Protection Agency
FTE	Full Time Employee
FY	Fiscal Year

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
MWCOG	Metropolitan Washington Council of Governments
OLO	Office of Legislative Oversight
PAYT	Pay-As-You-Throw
CPRG	Climate Pollution Reduction Grants
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