MONTGOMERY COUNTY SOLID WASTE ADVISORY COMMITTEE
Wednesday, May 1, 2024 – 5:30 – 7:30pm
MEETING NOTES

SWAC MEMBERS IN ATTENDANCE:

Amy Maron, Chair Robin Barr, Vice Chair Adam Diamond, Secretary Troy Cavell Fred Kranz	Pradip Mukerjee Dawn Jessel Barry Shanoff Mark Symborski (M-NCPPC rep, non-voting)

SWAC MEMBERS ABSENT: Oladapo Awe, Michelle Ennis, Carol Jones, Heidi Lovett, Chaz Miller

DEP STAFF IN ATTENDANCE:

Jon Monger, Director

Jeff Seltzer, Deputy Director

Willie Wainer, Chief, RRMD

David Frank, RRMD Waste Reduction and Recycling Section

Lisa Shine, RRMD Executive Administrative Assistant

Alan Pultyniewicz, RRMD Acting Section Chief, Recycling and Refuse Services Section

Eileen Kao, Chief, Waste Reduction and Recycling Section

David Rosenbaum, DAFIG Coordinator, RRMD

ARCADIS AND B&L STAFF IN ATTENDANCE:

Julie Yaish, Steve Nesbitt, Jennifer Padgett, Luann Meyer

MEMBERS OF THE PUBLIC: Alan van Order, Carrie Maslen, Elisabeth Fidler

The meeting began at 5:30pm.

Overview of meeting, Jon Monger: We asked Arcadis to help us determine what a solid waste management system could and should look like. First and foremost, the system

should be reliable and dependable and maintain a commitment to public health. Second, we should be looking at how we can put less in the trash to begin with.

Feature Presentation by Arcadis on Evaluation of Municipal Solid Waste System Options: Follow-up to earlier Arcadis presentation presenting different technology/site options for organics recycling

The MSW Systems Analysis Approach looks at available processing technologies, their constraints, and adaptability. The analysis reviewed the proposed technologies submitted by vendors in response to the Request for Expressions of Interest issued by the county. Arcadis conducted a cost benefit and "Return on Investment" analysis for different technology options, all of which are expected to produce diversion rates that are higher than the County's current diversion rate.

Arcadis then developed a list of 4-6 possible options (time and budget restrictions had them narrow down from 14 total) and conducted a detailed analysis of each one, including a lifecycle cost, environmental justice screening, and carbon footprint. Then Arcadis weighed the pros and cons for each option, using data from the detailed analysis to produce a ranking of options in order to find the preferred MSW technology.

Using this information, Arcadis is close to preparing an RFP for the primary technology in the preferred MSW system. This will likely be followed by several more RFPs for secondary technologies.

The County said the analysis should compare the status quo to the new technology options on a cost and diversion basis. Additional diversion achieved with a new system is counted as avoided cost for the solid waste management system. In other words, a ton that does not get landfilled is one less ton for which tipping fees have to be paid.

<u>Overview of Technologies Considered</u>

1) Mixed Waste Processing (combined with dual stream recycling and source separated organics, or using materials recovery through biological treatment [MRBT] (with/without thermal hydrolysis)
2) Source separated organics and composting (either Aerated Static Pile with Membrane or In-Vessel Composting)
3) Construction and Demolition Debris Recycling
4) Enhanced Materials Recycling Facility
5) Co-located Revenue Generation—either anaerobic digestion (AD) or solar panels

Mixed waste processing needs to be combined with either recycling and source separated organics to reduce contamination OR autoclave to separate organic fraction from rest of mass, along with recycling.

Construction and Demolition Debris (CDD) is a heavy proportion of waste stream so it's critical to divert as much as possible of this fraction of the waste stream.

Co-Located Revenue Generating activities could be anaerobic digestion with biogas, solar panels used to generate electricity and in turn hydrogen for fuel on the parcel where the Resource Recovery Facility now stands. This would produce revenue from gas, electricity, and hydrogen.

Three sites are under consideration for the entire system: Derwood (Shady Grove) Transfer Station and Materials Recovery Facility (MRF); the Dickerson MCRRF/MCYTCF, and the Site 2 Landfill in Dickerson.

The Transfer Station is about 45 acres and is close to homes and very crowded, with little room for expansion

Dickerson—MCRRF/MCYTCF—total property 118 acres. Constraints—neighbors. Only 10 acres are available if RRF decommissioned—hard to shoehorn in capacity here.

Site 2—Dickerson—650 acres.

Analysis of Various MSW Processing Technologies

Calculate total costs—capital and operating expenditures. Measure against effectiveness as measured by incremental cost per additional ton diverted.

Estimated capital cost for three recent MWP/MRBT facilities (Monroe County, IN: 130,000 tons/year=$40 million; San Leandro, CA: 150,000 tons/year=$120 million; Santa Barbara, CA: 180,000 tons/year=$130 million). The estimate for a facility that can handle 800,000 tons/year is $800 million

REOI—responses received March 26th.

A selection committee submitted results April 30th.

Arcadis is conducting a cost benefit analysis for each technology, with primary and secondary technologies for each MSW system option.

Financial Model weighs diversion rate for each technology against a combination of capital and operating expenses, avoided costs from increased diversion, and revenue for co-located activities.

Adaptation Strategies. Once understand what each technology costs, then look at how they can be combined with one another, including material, processing technology, transfer, and hauling, with specific locations for particular combinations of these different elements. Right now, Arcadis is looking at 14 permutations of these 4 elements. Need to get it down to 4-6 options.

The Detailed Analysis will lead to a preferred system, which will contain a specific combination of technologies. This will be the basis for the initial RFP, as well as follow-on RFPs.

For each alternative the analysis will look at the capital and operating expenses, avoided costs, and co-located revenues on a system basis. Costs, avoided costs, and

revenue are compiled, spread out over the life of the technology and discounted to the present to get a net present value lifecycle cost for the system.

Arcadis shared with County 4 different evaluation models—Arcadis Lifecycle Cost model, EPA WARM Model, EPA EJ Screen Model, Effectiveness. These four criteria are used to evaluate each system. They are used to score and rank the systems, and produce a preferred alternative.

Questions and Answers

Q: Are the expected levels of potential energy revenue from any of the options the same?

A: (Nesbitt) It varies.

Q: Are Dickerson and Shady Grove being looked at holistically?

A: Yes.

Q: Could some existing processes at Shady Grove be moved to Dickerson?

A: Yes

Q: What are the long-haul options as an interim measure?

A: Long-haul of MSW out of Derwood, whether by rail or truck is going to be very expensive.

(Nesbitt) The rail yard is very limited if we want to long haul waste out of Derwood to an out-of- county landfill. A train carrying waste cannot make it to a Virginia landfill and back in one day. Need more rolling stock to handle all the material. It would be cost $40 million just to retrofit the site, plus the cost of rolling stock. Truck haul is difficult because it would be hard to get all through trucks in the space.

One option would be to rail haul waste to Dickerson and use that as a staging area and haul from there to a landfill. A problem with this approach is that it is likely that the receiving landfill will not have rail capacity and would need to build a depot, and then transfer the waste from the rail cars to trucks. The Republic proposal from two years ago to the previous REOI factored in the cost of building a rail depot. The cost was $150/ton.

Q: What about the possibility of co-locating a solar facility at Dickerson?

A: (Nesbitt) It may be included in the RFP. (Monger) DEP asked for an additional solar staff position in the FY25 budget to explore ways to increase solar capacity.

Q: How much more time will be needed on the RRF contract, which expires in April 2026?

A: (Monger) We are acutely aware of the timeline and are looking at that but don't know the answer yet.

Q: What about necessary administrative changes to implement new MSW system?

A: Monger) We're looking at all the deadlines, including revising the 10-year solid waste plan. The plan will have to include key milestones. All pieces are interconnected and Arcadis's work will inform action going forward. The ultimate path the county chooses to take for MSW will be informed by Arcadis analysis. RRMD is working on developing an integrated project plan that accounts for all required administrative changes.

Willie Wainer—RRMD updates

We will be replacing scales from 1982 at transfer station—was costing a lot for maintenance. Customers are happy with work. Also replacing scale house building with modular homes and administrative building that will hold inspectors. It is closer to the inbound and outbound area. It will be finished in late September or early October.

Q: Who are the inspectors?

A: They help with safety of site and manage appropriate management of materials. There will be situations where inspectors help customers, give guidance to residents and commercial haulers.

We've added one more lane for the public unloading facility and there is a new parking area for electronics drop-off and textiles drop-off.

Now we're working on another safety project for public unloading facility—raising the walls on 5 of the 6 public unloading stations to 46 inches.

The Recycle Right initiative has drastically cut down on contamination in recyclables.

Yesterday, we started with new signage program at transfer station. To encourage people to recycle first, and only dispose of residual materials that can't be recycled. It's going to look like an airport.

SWAC Subcommittee Updates

Robin Barr outlined the organics subcommittee's review of the EA report on organics processing options for the County (Note: SWAC received a briefing on the report, *Organics Management Plan, including Siting, Technology and Capacity Planning, for Montgomery County, Maryland, March 2024,* at the April 3, 2024 meeting*)*:

We don't disagree with the Aerated Static Pile (ASP) technology as the preferred option. However, the report doesn't talk about the current landscape of food scraps collection in the county for both household and residential sectors, nor does it talk about where all of the material is going. There is diverse composting happening now and the report doesn't account for it. On-farm composting is mentioned in the report, and states what the maximum could be in county. Only two farms are currently accepting food scraps for

composting. What would it take to have more farms composting? The report did mention costs of going out of state for food scraps drop-off, but it also costs money to bring material to Derwood. There are long wait times for unloading. If fewer trucks were at Derwood the others would have shorter wait times.

Diversifying processing improves EJ outcomes. Agitated bed composting has the highest throughout per area. Lost out in analysis. Comparison of technologies—took top rated tech with Dickerson, and then 2nd tech with 2nd site, and 3rd tech—agitated bed with 3rd site. Would have been better to compare different technologies at the same sites.

Robin will circulate letter summarizing organics committee's response to be voted on via email by committee members.

Lisa Shine: SWAC Membership Update.

An advertisement has gone out pushing to recruit people for SWAC. Will be nominating candidates.

Tours: SWAC is scheduled to tour the Prince George's Compost Facility on June 19, 2024, at 10:30 am. A tour of Shady Grove will also be planned.

Other Business

Arcadis will complete their analysis this fall.

April minutes were approved with corrections—included Jeff Seltzer's name. Steve Lezinsky is to be listed as a contractor. Luann Meyer is a contractor with B&L.

The meeting was adjourned 7:40 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