

MEMORANDUM

December 2, 2020

TO: Transportation and Environment Committee

FROM: Keith Levchenko, Senior Legislative Analyst

SUBJECT: Briefings:

- Aiming for Zero Waste Task Force Recommendations
- Comprehensive Solid Waste Management Plan Status Update
- Recycling and Resource Management Update

Participants

Adam Ortiz, Director, Department of Environmental Protection (DEP)
Patty Bubar, Deputy Director, DEP
Willie Wainer, Chief, Division of Recycling and Resource Management, DEP
Chaz Miller, Chairman, Aiming for Zero Waste Task Force

Attachments

- Presentation Slides: Aiming for Zero Waste Task Force Recommendations (©1-17)
- Presentation Slides: Recycling and Resource Management Programs Update (©18-32)

NOTE: Online links to other documents are also included throughout this memorandum.

At its December 7 meeting, the T&E Committee will receive a briefing from Chaz Miller, Chairman of the Aiming for Zero Waste Task Force on that group's recommendations transmitted to the County Executive and the County Council earlier this year. The Committee will also receive an update from DEP on a number of Solid Waste-related initiatives as well as the status of the County's Comprehensive Solid Waste Management Plan update.

Aiming for Zero Waste Task Force

In May of 2018, the County, in partnership with the Northeast Maryland Waste Disposal Authority engaged a consultant (HDR) to assist DEP in a comprehensive master planning process for the County's solid waste management system. This effort extended into 2020.

On May 30, 2018 County Executive Leggett announced the creation of a task force (later named the Aiming for Zero Waste Task Force) to assist DEP and the Consultant in this effort. The Executive specifically asked the Task Force to:

“provide advice and guidance on how best to maximize waste reduction, reuse, recycling, and sustainable management of all materials across the entire integrated waste management system, including all programs, facilities, operations, initiatives, and services.”

The Task Force, with staff support provided by DEP, met regularly from June 2018 to May 2020 to discuss major solid waste management issues and to review and comment on draft reports prepared by HDR on various tasks identified in the contract. The tasks included: a current state assessment, benchmarking and best practices, a stakeholder, citizen, and expert engagement plan, a review of potential improvements to the current diversion/recycling system, a review of existing facilities, and a development of options for the collection and disposal of “what’s left.” For more details on the Task Force’s work and the Consultant Study, please see the [Aiming for Zero Waste webpage](#) on the DEP website.

During this process, County Executive Elrich came into office. He expressed an interest in closing the Dickerson Resource Recovery Facility (RRF) as soon as possible. He later clarified that the closure should occur once waste volumes could be reduced enough to result in no net increase in out of county landfilling. Achieving this goal will be a huge challenge.¹

The Task Force transmitted its [recommendations](#) to the County Executive and the Council in June 2020. The recommendations are summarized on Mr. Miller’s attached slides and include:

- If the County chooses to pursue closure of the Resource Recovery Facility (RRF), a substantial amount of additional analysis will be needed regarding disposal options, waste transport, as well as implementation of multiple major initiatives to divert additional recyclables and organic waste.
- The existing Materials Recovery Facility (MRF) needs to be substantially upgraded (or replaced with a new facility) to support current efforts as well as future recycling program expansion.
- Both commercial and residential food scraps pilot programs need to be implemented.
- The County should implement numerous source reduction recommendations included in the HDR consultant report.
- A targeted education campaign for recycling old corrugated cardboard (OCC) is needed.
- The County should adopt appropriate new requirements to require higher diversion rates of construction and demolition (C&D) debris.
- The County should expand its education and enforcement efforts to reduce contamination in its curbside recycling program.
- The County should institute a “pay as you throw” system into its solid waste charges.
- The County should consolidate Subdistrict B into Subdistrict A to have a uniform waste and recycling system in the county that optimizes recovery potential. This issue was also the subject of [Office of Legislative Oversight \(OLO\) Report 2019-17](#). *NOTE: Council Staff suggests the T&E Committee take this issue up in early 2021 after it receives a briefing by OLO staff and feedback from trash haulers and other interested parties.*

¹ The County currently hauls non-processible waste and ash generated at the RRF to out-of-County landfills. In FY19, the RRF produced about 187,000 tons of ash from over 629,000 tons of waste received (including construction and demolition (C&D) debris which is not considered municipal solid waste). Assuming that the non-processible waste continues to be landfilled, and assuming C&D could be completely diverted, additional MSW recycling/diversion efforts would need to capture the MSW burned at the RRF (531,501 tons in FY19) minus the ash sent to landfills (187,000 tons) or over 344,000 additional tons to meet the Executive’s goal of no net increase in waste to landfills. This would equate to a recycling/diversion rate of about 74 percent (not counting the additional C&D that would need to be diverted). As noted in the attached Aiming for Zero Waste slides, this diversion rate would be nearly double the County’s current recycling rate (not counting ash) and also far higher than the rates achieved by the jurisdictions benchmarked in the HDR report.

Several of the recommendations involve major policy/facility changes which would require amendments to the County's Comprehensive Ten-Year Solid Waste Plan. The status of this Plan is included in DEP's briefing (discussed below). Some of the Task Force's recommendations are already in some form of study or implementation and DEP can summarize those efforts to date as part of its briefing.

Comprehensive Solid Waste Management Plan

State law (Sections 9-503 and 9-515, Environment Article, of the Maryland Code) requires the governing body of each County to adopt and submit to the Maryland Department of the Environment (MDE) a ten-year plan dealing with solid waste disposal systems, solid waste acceptance facilities, and the systematic collection and disposal of solid waste.

The Environment Article further requires each County to review its solid waste management plan at least every three years. The current plan was adopted in March 2015 via [Council Resolution 18-86](#).

In 2018, DEP notified MDE that its latest review of the Plan was being deferred pending the development of recommendations stemming from the Solid Waste master planning effort and the Aiming for Zero Waste Task Force. DEP forwarded a draft plan to MDE for an initial review which was completed earlier this year. However, the COVID-19 pandemic resulted in a delay in DEP's completion of a final draft plan for Council review and ultimate MDE approval. DEP now expects the Executive's Recommended Plan Update to come to the Council within the next month.

In addition to updating demographic and other statistical information, DEP has noted that the Plan Update will note several major policy areas where the County plans to pursue further evaluation and/or major initiatives in areas such as:

- The potential phase-out and closure of the RRF
- Organics (i.e. food waste)
- Additional recycling opportunities
- Upgrades to the MRF
- Source Reduction
- "Pay as you throw"
- Subdistrict A and B

The DEP update on December 7 is intended to provide a summary of the major issues addressed in the Update. However, a public hearing and then a detailed review and discussion by the T&E Committee will be scheduled after the Plan has been formally transmitted.

Recycling and Resource Management Update

DEP Staff will provide an update to the Committee on some initiatives already in place or under development for implementation. Of particular note are: the expansion of the County's organics (commercial and residential food waste diversion) initiatives, DEP's "Recycle Right" contamination reduction program (for which the Council approved additional funding in the FY21 budget), and the current evaluation underway with regard to potential upgrades to the MRF.

Attachments

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Aiming for Zero Waste Task Force Recommendations

Montgomery County Council
Transportation & Environment Committee
December 7, 2020

COMMITTEE HISTORY

Appointed by Isiah Leggett May 31, 2018

Met 16 times

- Last meeting, April 15, 2020

Extensive web site with all documents presented to the Task Force

Toured County waste, recycling and composting facilities

Heard presentations from outside experts on various aspects of the draft plan

Provided County staff and consultants with extensive comments and recommendations

COMMITTEE MEMBERS

Sara Bixby, Dep Exec Dir, Solid Waste Association of North America

Peter Ettinger, BTS Bioenergy

Lauren Greenberger, Sugarloaf Citizen Association

Ken Lavish, citizen and longtime county recycling volunteer

Keith Levchenko (ex officio), Council staff

Chaz Miller*, citizen, retired from career in solid waste and recycling

Caroline Taylor, Montgomery Countryside Alliance

Robin Wiener, CEO, Institute of Scrap Recycling Industries

* elected Task Force Chair

TASK FORCE CHALLENGE

Closure of the Resource Recovery Facility in 2026

- No increase in county waste going out-of-county for disposal

County data in consultant report (2017)

- 1.1 million tons of Municipal Solid Waste
- 453,000 tons recycled or composted
- 156,000 tons ash generated at RRF

BENCHMARKING

“Apples to apples” comparison of Montgomery County with programs in:

- Austin, Texas
- King County, Washington,
- Minneapolis, Minnesota
- San Francisco, California
- Toronto, Ontario

BENCHMARKING RESULTS

Recycling/composting rates:

- 45.4 percent: Austin
- 59.6 percent: King County
- 45.4 percent: Minneapolis
- 47.5 percent: San Francisco
- 48.1 percent: Toronto
- 55.9 percent: Montgomery County (with ash recycling credit)
- 41.9 percent: Montgomery County (without ash recycling credit)

RRF CLOSURE

The Council will need an analysis of additional diversion of recyclables and organics achievable by 2026 in order to properly calculate the amount of material going to disposal in 2026 and succeeding years. In addition, in order to make the best determination of alternative disposal options, the County should expand the analysis of the environmental impact of disposal that was undertaken in the HDR study along with an analysis of health and social justice issues related to potential alternatives. Finally, the Council will need to analyze potential impacts of all of these various strategies on the Solid Waste Charges.

RRF CLOSURE

To ensure a successful transition to land disposal, the County staff will need to design, and the County Council will need to approve, funding of additional infrastructure including changes to the Transfer Station and Recycling Center, a new organics collection and processing infrastructure, and a modified transportation system to ship county waste to an alternate disposal site. Individually, each of these is a multi-year project. To meet the 2026 timeline, Montgomery County will need to begin work on several major projects in FY 2021 and sustain those efforts and funding through completion.

ADDRESS PROCESSING FACILITY (MRF) NEEDS

Recommendation: Addressing MRF needs is a critical priority. County staff should determine which option is best in terms of cost and timing. The County Council and Executive must make this facility a priority.

Reason: The existing MRF is 20 years old and out-of-date. It could be retrofitted or replaced by a new facility. Failure to take action will jeopardize the County's recycling programs.

ORGANICS

Recommendation: The County Council should fund the pilot programs. It should require mandatory residential and commercial organics collection and diversion while ensuring a processing infrastructure is being developed. These steps can be taken in parallel with the pilot program.

Reason: Organics recovery, with an emphasis on food waste, is essential for decreasing disposal. Both mandatory residential and commercial food waste separation requirements are necessary as is processing capacity. The proposed budget includes funding for both commercial and residential organics recovery pilots.

SOURCE REDUCTION

Recommendation: Montgomery County should proceed with the recommendations of HDR Task 9, Figure 2-1, pages 3-4, which include numerous source reduction planning and implementation efforts. These efforts will lower the size of the waste stream while increasing awareness of the importance of creating less waste.

Reason: The Draft of Task Nine listed a number of source reduction activities at the top of the timeline (see Figure 2-1, page 3 of the Draft Task Nine). These include a food waste reduction campaign, a ReUse center and several other options.

INCREASED RECYCLING OF OCC

Recommendation: A targeted education campaign explaining to residents the ease and importance of recycling cardboard boxes.

Reason: Cardboard boxes (known as Old Corrugated Containers, or “OCC” in the recycling industry) are one of the most common paper products found in households. They are also one of the more valuable recyclables, easily recoverable through Montgomery County’s dual stream collection program. Recycling of this product can be increased through targeted education efforts.

CONSTRUCTION & DEMOLITION (C&D) WASTE

Recommendation: Montgomery County should adopt appropriate ordinances to require higher C&D diversion rates than currently exist and promote C&D salvage and reuse markets through education of the building community.

Reason: Construction and demolition waste represents 20 percent, by weight, of the waste generated in Montgomery County. Source reduction measures, as well as enhanced recycling and reuse programs, are a critical part of our waste reduction efforts, would reduce greenhouse gas emissions and create jobs in the reuse and salvage industries.

EDUCATION & ENFORCEMENT

Recommendation: Montgomery County should expand its education and enforcement efforts based on the results of the pilot program. This will include additional FTEs to aid in enforcement. The County needs to continue to update and expand its education efforts to ensure that all county residents can recycle correctly. In addition, the County should explore efforts to work with non-profits and other groups to enhance recycling education efforts.

Reason: Education and enforcement are crucial to increasing participation and lowering contamination. The County completed an enforcement pilot program which through the use of educational flyers, recycle bin inspections, and warning notices, reduced contamination from 40 percent to 20 percent.

PAY-AS-YOU-THROW

Recommendation: Montgomery County should institute a pay-as-you-throw system as part of the Solid Waste Charges. It is further recommended implementing the system with an emphasis on its ability to increase recycling and organics recovery and lower waste generation.

Reason: “Pay-as-you-throw” payment systems have proven effective in increasing recycling and organics recovery and reducing the amount of material sent to disposal. This will require modifications to Montgomery County’s existing Solid Waste Fee. That fee can continue to provide a financially secure base for fixed costs while also requiring generators to pay variable fees that reflect the amount of material disposed. Making this change will require a study of how to create a new system that will both encourage more recovery and less waste while preserving the county’s ability to have a financially secure base.

SUBDISTRICT B

Recommendation: Montgomery County should consolidate Subdistrict B with Subdistrict A in order to have a uniform waste and recycling system in the county that optimizes recovery potential.

Reason: A majority of Montgomery County residents now live in Subdistrict B. Failure to have a unified waste and recycling collection system hampers overall progress toward zero waste goals.

CONTACT INFO

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T&E Committee Briefing



December 7, 2020

Recycling and Resource Management Division
Department of Environmental Protection

Programs Update

MONTGOMERY COUNTY, MARYLAND

December 2020

Briefing Agenda



December 7, 2020

1. Solid Waste Management Plan 2020-2029 Update
2. Zero Waste Task Force's Recommendations
3. Policies and Programs Under Review
4. MRF Upgrade
5. Organics
 - 5.1 Update on Commercial and Residential programs
 - 5.2 Analysis of technologies/infrastructure options
6. Recycle Right / Contamination Program update

1. Solid Waste Management Plan 2020 -2029 – Update



- The Plan was originally due March 2018. DEP requested an extension because the Zero Waste effort and recommendations would impact the update of the Plan.
- Recommendations made by the Task Force were carefully incorporated in a draft Plan that was sent to MDE for their technical review.
- On March 2020, MDE approved the draft Plan with a few modifications. The deadline to submit the Plan was set for June 12, 2020.
- On April 15, 2020, DEP informed MDE that the Plan would be delayed due to the COVID-19 pandemic.

2. Task Force Recommendations

#	ZWTF Recommendation	Proposed Draft 10 Year Plan
1	Alternative Disposal Options with Proposed Closure of the Resource Recovery Facility by 2026 need further analysis including environmental impacts, health and social justice issues	<ul style="list-style-type: none"> RFI/RFP to evaluate MSW processing, transport and disposal options. Evaluate improvements to existing infrastructure and/or development of new facilities.
2	Address Processing Facility (MRF) Needs	<ul style="list-style-type: none"> Evaluate the existing infrastructure and equipment. Determine cost/benefits/feasibility of a partial or full upgrade. Pursue options for new MRF with ample and flexible processing capacity for a longer-term.
3	Organics	<ul style="list-style-type: none"> Commercial food scraps recycling program implemented. Single-family residential food scraps pilot program is being designed. Post-consumer food scraps recycling in MoCo cafeterias included for FY21. Regulations and/or legislation related to the reduction and recycling of organics will be prioritized. Evaluate organics processing infrastructure.
4	Source Reduction	<ul style="list-style-type: none"> A large variety of Source Reduction programs will be proposed to be included in the FY22 and FY23 budget cycles.
5	Increased Recycling of OCC	<ul style="list-style-type: none"> RRMD's Recycling Plan includes targeted campaigns oriented to increase the OCC capture rate for recycling.

2. Task Force Recommendations

#	ZWTF Recommendation	Proposed Draft 10 Year Plan
6	Construction & Demolition (C&D) Waste	<ul style="list-style-type: none">Evaluate several programmatic, policy and regulatory options to reduce the amount of non-processible C&D received by the Transfer Station and to incentivize and increase the recycling of those materials.
7	Education & Enforcement	<ul style="list-style-type: none">RRMD has targeted programs with specific budget allocations to continue to provide and reinforce education, outreach and enforcement.
8	Pay-As-You-Throw	<ul style="list-style-type: none">Feasibility study of PAYT will be evaluated in connection with the incorporation of Subdistrict B for trash collection.
9	Subdistrict B	<ul style="list-style-type: none">OLO report being presented and reviewed by Council.

3. Programs and Policies Under Review



1	Commercial food scraps recycling program
2	Pilot single-family residential food scraps recycling collection
3	Recycling bins for Wheaton, Bethesda & Silver Spring
4	Incorporate e-waste residential curbside collection on RFP for Areas 9 through 13
5	Backyard composting of food scraps
6	Mandatory Commercial Food Scraps Recycling (once processing capacity issue is resolved)
7	Advocate for Extended Producer Responsibility (EPR) of other materials

4. MRF Upgrade

- Preliminary findings from the current engineering study indicates a full re-design with replacement of processing equipment will be recommended. New equipment could include:



Optical Sorter



Auger Screen



Ferrous Metal Separation



Non-Ferrous Metals



Glass Separation

- Benefits: increased production, material quality and reduction of labor costs

5.1 Organics – Commercial Food Scraps Recycling



- Secured processing capacity at Western Branch
- Commenced commercial food scraps recycling collection service with 3 partners on May 29
- Increased collection service to 11 partners as of November 9th
- Provide training, education, containers, compostable bags and monthly data

Over 65 tons of food scraps collected through November 2020



5.1 Organics

Residential Food Scraps Recycling Pilot



- Identify two (2) single-family routes
- Select routes with higher rates of recycling participation; densely populated
- Developing plan to solicit households to participate; educational materials & collection service
- Collect food scraps from 850 single-family households in both routes; total of 1,700 participating households

5.2 Food Scraps Processing Options



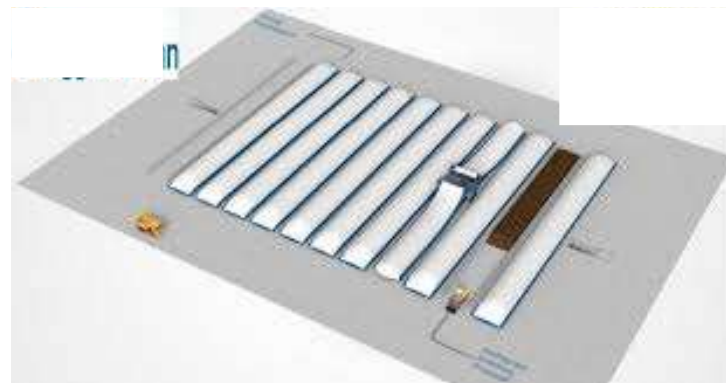
- **Option 1.** Utilize existing composting facility
- **Option 2.** New composting facility
- **Option 3.** County secures land, builds facility, with a 3rd party operation or Public-Private partnership
- **Option 4.** Continue partnership with Prince George's County or future facilities.

5.2 Analysis of Technology / Infrastructure Options

Develop RFI/RFP to determine process best suited for the County's organics.

Review of Available Organics Technologies:

- **Anaerobic Digestion – (AD)**
 - Ideal for high moisture materials like food scraps.
- **Aerobic Composting**
 - MDE composting permit for food scraps requires covered composting system.



6. Recycle Right Program

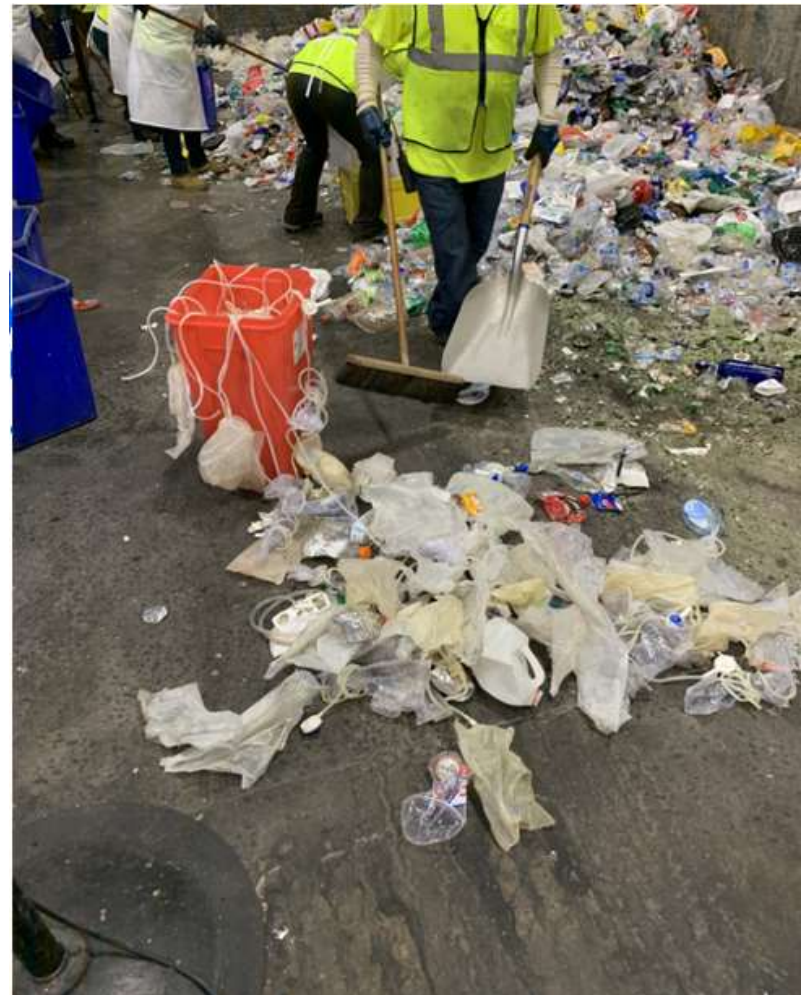
The Problem: *“Wishful Recycling”*



6. Recycle Right Program

The Problem: Costs Time and \$

- 39% of recycled commingle contaminated before project start
- Outsourced material for processing costs approx. \$100 per ton



6. Recycle Right Program

The Solution: Education and Enforcement



- County Inspectors tag contaminated bins before regular collection
- MRF sorts material of evaluated routes and tabulate contamination

Questions?

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