

Solid Waste Committee Meeting

Initiative Prioritization and Policy Discussion

Douglas Krietemeyer
Solid Waste Bureau

January 19, 2023



Agenda

- Welcome
- Erik's HSWR Announcement
- Review Prioritized Initiatives
- Policy Position Discussion
- Open Discussion (time permitting)

HSWR (30% increase still 25% less than neighbors)

- Current \$307.89
- Proposed- approximately \$405
- Reasons:
 - Significant increase to collection contract (option years after 8 year contract)
 - Significant increase in recycling processing costs (10 year contract ended)
- Comparisons FY23:
 - Alexandria \$500
 - Fairfax \$535 (includes leaf collection fee of \$60 for \$500K home (.012 per \$100 of assessed property value))

Initial Prioritization - Discussion

Priority (1-20)	Initiative	Diversion Impact	Estimated GHG Impacts (MTCO ₂ E)	Cost Impact	Estimated Timeframe	Notes/Comments
1	Expand Education and Outreach Initiatives	13.7%-16.0%	↓ 67,900	\$4.9 – 7.3 M	2024-2029	
2	Waste Reduction Educational Campaign	2.6%-3.2%	↓ 32,300	\$425 – 595 k	2024-2029	
3	Organics Diversion at Farmer's Markets	0.1%-0.2%	↑ 30 (WtE) ↓ 160 (Landfill)	\$108 – 132 k	2024-2029	
4	Organics Diversion from MF/C Sectors	3.7%-5.0%	↑ 780 (WtE) ↓ 4,500 (Landfill)	\$425 – 595 k	2024-2029	
5	Additional Glass Collection Services	1.0%-1.3%	↓ 750	\$54 – 75 k	2024-2029	
6	Additional Trash Cart Charges	1.4 - 1.4%	↓ 7,100	\$27 – 30 k	2024-2029	
7	Develop Hard to Recycle Materials Program (CHaRM)	1.8 - 2.5%	↓ 4,900	\$2.1 – 3.2 M	2024-2029	Identify the need for a facility in the short-term; would consolidate HHM Program and Recycling Drop-off Center. Creates potential for hard to recycle material collection only if necessary.
8	Comprehensive Organics Management (includes ban)	11.9%-12.7%	↑ 1,900 (WtE) ↓ 10,900 (Landfill)	\$1.3 – 2.0 M	2029-2034	Required to meet the 90% diversion goal. Understanding that widespread participation would not be immediate, implementation in the medium-term would allow participation growth prior to 2038.
9 - 15	Zero Waste Special Events	0.1%-0.2%	↓ 500	\$42 – 53 k	2029-2038	
9 - 15	Reuse-Repair Fairs	0.3%-0.5%	↓ 500	\$162 – 198 k	2029-2038	
9 - 15	Encourage Material Donation/Reuse	0.3%-0.4%	↓ 1,600	\$0	2029-2038	
9 - 15	Online Zero Waste Tracking Dashboard	0.0%-0.1%	↓ 2,000	\$18 – 22 k	2029-2038	
9 - 15	Equipment Sharing Program	0.0%-0.0%	↓ 300	\$72 – 88 k	2029-2038	
9 - 15	EP4 Policy	0.0%-0.0%	↓ 3,400	\$0	2029-2038	
9 - 15	Reusable Packaging at Restaurants	0.0%-0.0%	↓ 200	\$90 – 180 k	2029-2038	
16 - 19	Support EPR Initiatives	0.7%-0.9%	↓ 9,100	\$0	2024-2038	
16 - 19	Support Bottle Bill Legislation at State and National Levels	3.1%-3.5%	↓ 12,000	\$70 – 90 k	2024-2038	
16 - 19	Support State Level Circular Economy Initiatives	0.1%-0.3%	↓ 2,700	\$0	2024-2038	
16 - 19	Support Other Major Legislative Initiatives	0.0%-0.0%	↓ 200	\$0	2024-2038	
∅	Reusable Dishware at APS	0.0%-0.0%	↓ 300	> \$10 M	n/a	

Initiative Clarification

- Support Bottle Bill Legislation at State and National Levels
 - What container types should the County advocate for including?
 - Plastic
 - Aluminum
 - Glass
- Support Extended Producer Responsibility (EPR) Initiatives
 - What products should the County advocate EPR legislation for?
 - Batteries*
 - Electronics*
 - Paint*
 - Gas Cylinders*
 - Lighting*
 - Motor Oil*
 - Mercury Auto Switches*
 - Mercury Thermostats*
 - Pesticides*
 - Carpet
 - Mattresses
 - Tires
 - Pharmaceuticals
 - Packaging
 - Junk Mail
 - Phone Books
 - Medical Sharps
 - Solar Panels
 - Refrigerant-containing Appliances**
 - Household Hazardous Waste*
 - Textiles
 - Radioactive Devices

* Indicates that Arlington funds collection programs through utility fee.

**Consumer fee at disposal

SWMP Planning Goals

In response to the SWMP requirements put forth by Virginia DEQ, the County is reinforcing the following goals:

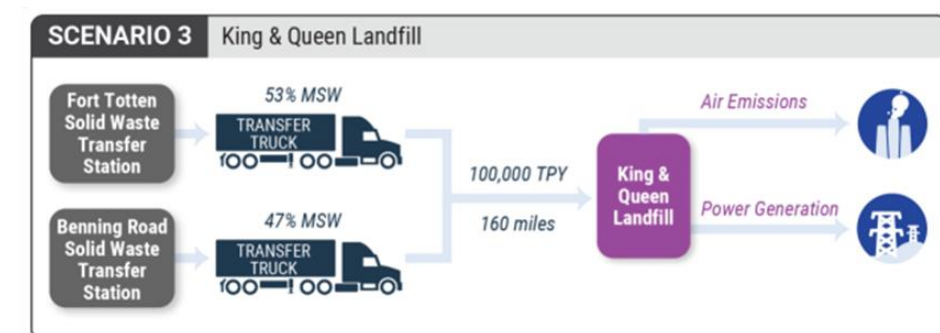
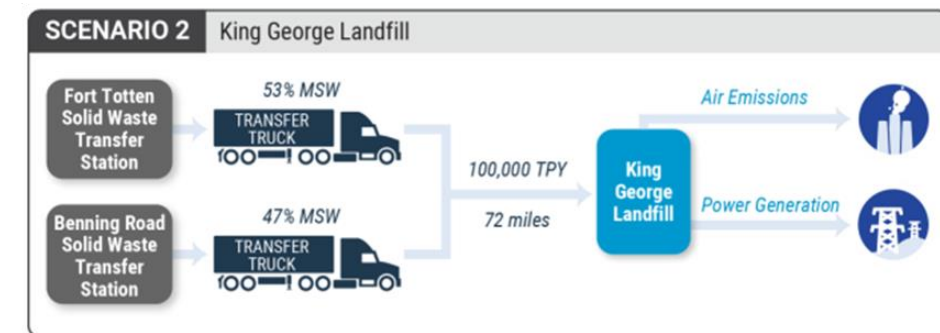
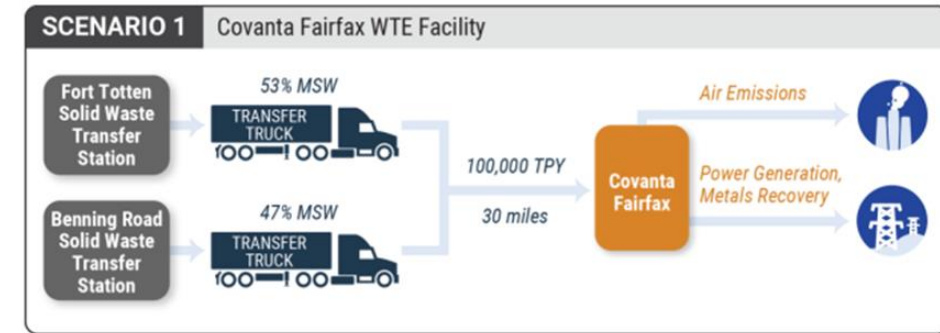
- Employ a comprehensive solid waste management system that considers the Commonwealth's hierarchy.
- Ensure that the County implements a strong recycling program and that the County recycle at a rate that, at a minimum, meets the Commonwealth's recycling goals.
- Carefully evaluate the waste management needs of the county for the next 20 years and identify actions to be taken to meet those needs.

Solid Waste Infrastructure

- Waste-to-Energy Facility – express support for WTE as long-term disposal option for remaining waste according to 2015 resolution
- Explore opportunities for and develop facilities if appropriate:
 - Position on Public Ownership of Infrastructure
 - Ex. Materials Recovery Facility (MRF) – allows for cost control
 - Add food scraps processing to WPCP AD Facility
 - HHM and Recycling Drop-off Center Consolidation (with CHaRM development potential)

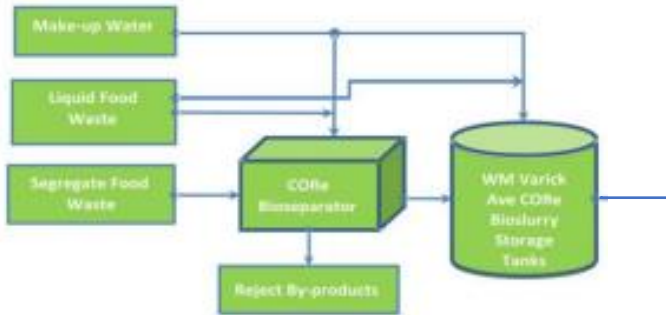
DC Report: Sustainability Assessment of Disposal Options in Dec 2021

- Purpose: compare environmental, social, and economic impacts of landfilling to waste-to-energy to make informed decisions about solid waste disposal.
- Findings: landfilling was found to impart higher sustainability impacts compared to waste-to-energy due to higher facility GHG emissions and social costs attributed to those GHG emissions.



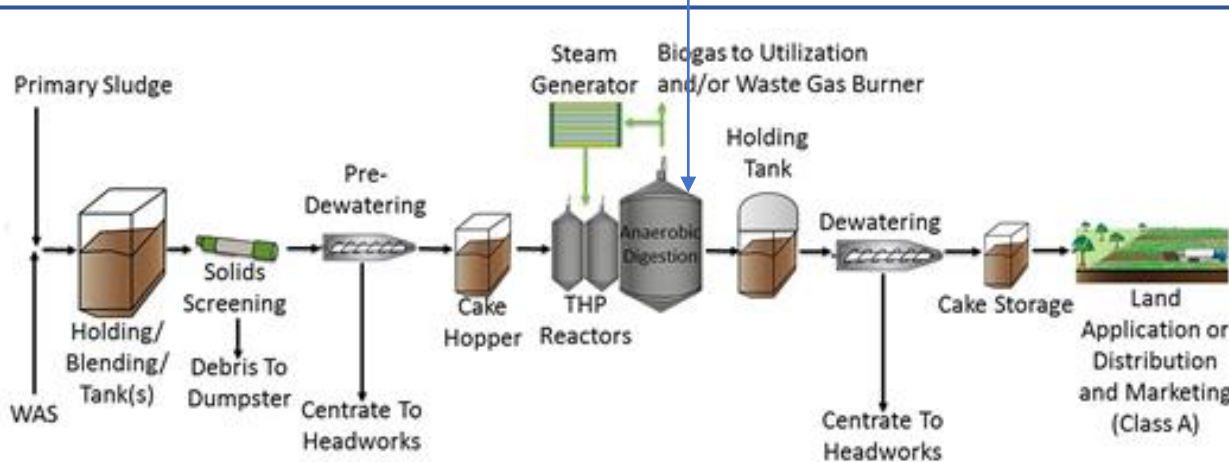
Add Food scraps processing to WPCP AD Facility

Bio-slurry Facility (not yet programmed)



How the Co-digestion Process Works

1. Organics are separated from other materials at the source, e.g. individual households or businesses.
2. Collection vehicles gather organics from households and businesses.
3. Incoming food waste is tipped from collection vehicles within the enclosed receiving station.
4. Food waste is loaded into the system's hopper/conveyor.
5. Food waste is conveyed into a bioseparator, which separates organic source material from inorganic waste (such as plastic, packaging, etc.)
6. Food waste is liquefied within the bioseparator and then passed through a screen creating a fluidized feedstock.
7. The feedstock settles into the collection hopper below the bioseparator and is then pumped into a blending storage tank to produce an Engineered BioSlurry.
8. Engineered BioSlurry is added to anaerobic digesters to increase biogas production.



Proposed Bio Solids Management Process

Re-locate HHM site and combine w/CHaRM Facility (may require interim step to TE&O warehouse)



Financial Funding – How to fund...

- Grants/Subsidies
 - General funds
 - Environmental Investment Fee
- Waste-to-Energy facility retrofit in 2038
 - \$50M-\$100M estimated cost (Arlington share \$30M-\$60M)
 - Fund study to evaluate funding options.
 - Environmental Investment Fee / General Bond / Industrial Development Bond
- Who pays?
 - Collection Mechanism
 - Household Solid Waste Rate (HSWR) – full cost recovery structure for single-family residential
 - Multi-Family and Commercial Recycling Program Fee – full cost recovery for administration of MF/C requirements

Other Aspirational Principles

- Integrate zero waste principles across and support goals of County plans and studies.
- Position on using Community Energy Plan/GHG impacts as impetus for higher service costs
 - Ex. Requiring electric vehicle fleet for disposal contract may increase prices
- Construction & Demolition Waste
 - Support C&D waste management through researching best practices and encouraging adoption into and across County policies (e.g. permitting requirements or Green Building Incentive Policy)

Open Discussion /Questions

