

Solid Waste Management Plan (SWMP)/ Zero Waste Plan (ZWP) Overview

October 23, 2023



Two-Fold Purpose of the Combined Plan

1. Meet the State requirements for a Solid Waste Management Plan

- Considers all elements of waste management during generation, collection, transportation, treatment, storage, disposal, and litter control - must include:
 - An integrated waste management strategy
 - Objectives and schedule for implementation
 - Funding needs & sources
 - Public education strategy
 - Info on source reduction, reuse, recycling, and public/private partnerships
 - Adopt minimum 25% recycling rate
 - Record of all known disposal sites – closed, active, and inactive
 - Adopt method to monitor amount of solid waste produced
 - 20-year plan (2024-2044)

2. Fulfill County Board's 2015 Zero Waste Resolution

- Divert 90% of County's waste from incineration or landfill by 2038

Planning Process Recap

■ Solid Waste Committee

- 16 Meetings (Feb 2022 – Sept 2023)

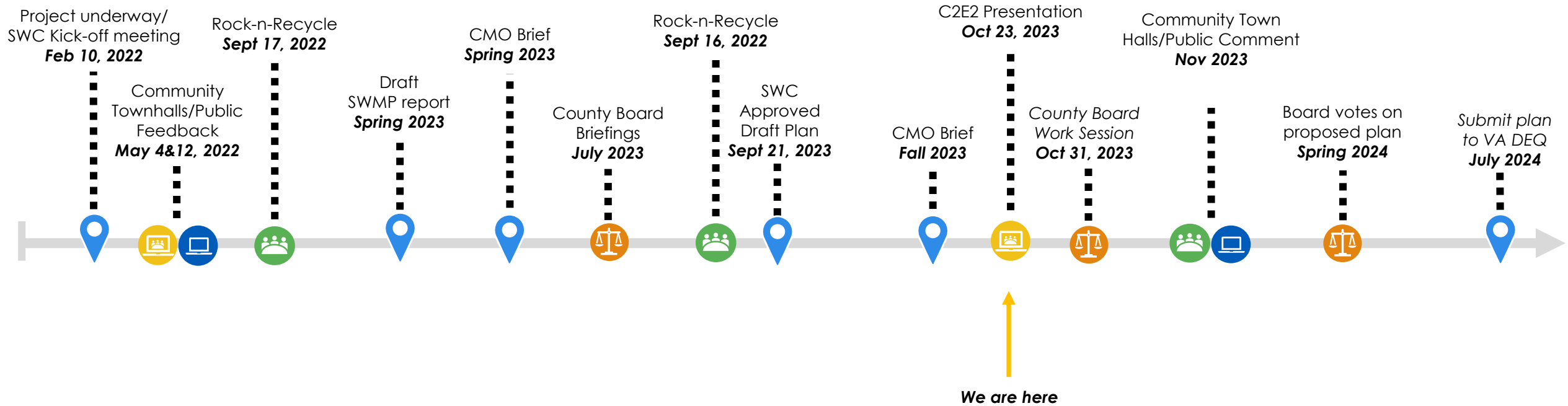
Carrie Thompson - Committee Chair, C2E2 Co-Chair
Dean Amel - SWC member, NAACP, Forestry, Sierra Club
Marlene RedDoor - SWC member
Kimberly Fedinatz - SWC member
Caroline White - SWC member
Sam Watzman - SWC member
Gabriel Calvo - SWC member
Scott Pedowitz - Apartment and Office Building Association
David Dunn & Lisa Worrell - Capitol Trash service

Charles Meng - Arlington Food Assistance Center
Barry Harte - Marymount University
Anne Germain - National Waste & Recycling Association
Saul Reyes - BU-GATA
Larry Straub - Fairlington Villages
Che Ruddell-Tabisola - Restaurant Association of Metropolitan Washington
Brian Goggin - Arlington Partnership for Affordable Housing
John Musso - Arlington Chamber of Commerce
Kerm Towler - Arlington Public Schools

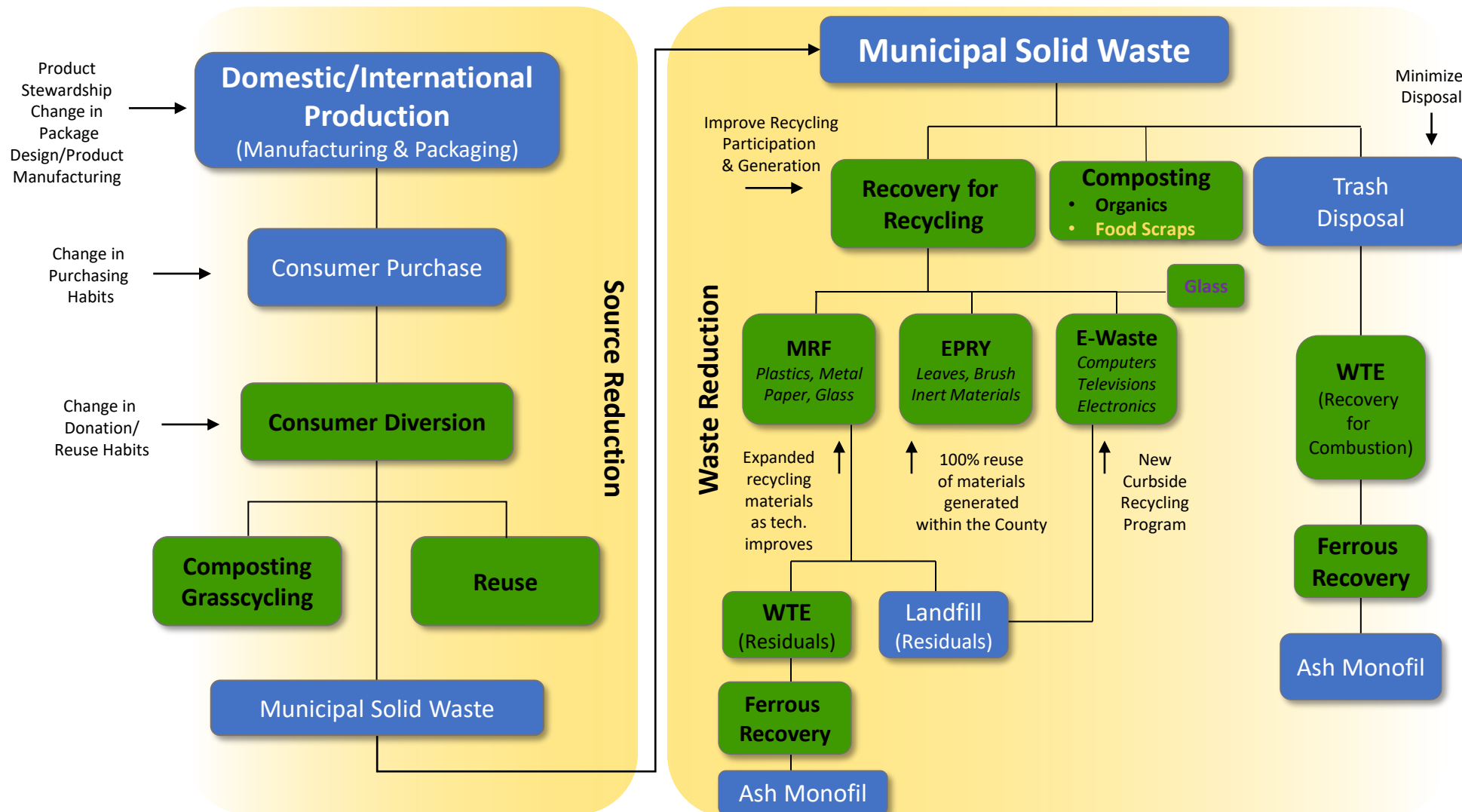
■ Community Engagement

- Two Townhall meetings (May 2022)
- Public Feedback Period (May 2022)
- Rock N Recycle Event (Sept 2022 & Sept 2023)

SWMP/ZWP – Timeline



Solid Waste Management System



Increasing Waste/Fixed Disposal Capacity

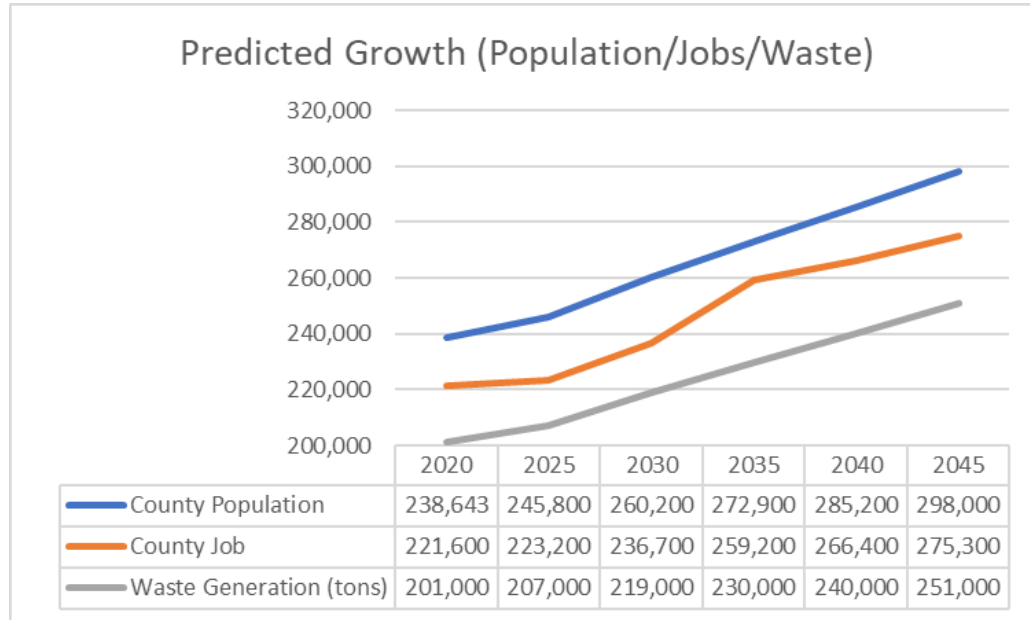
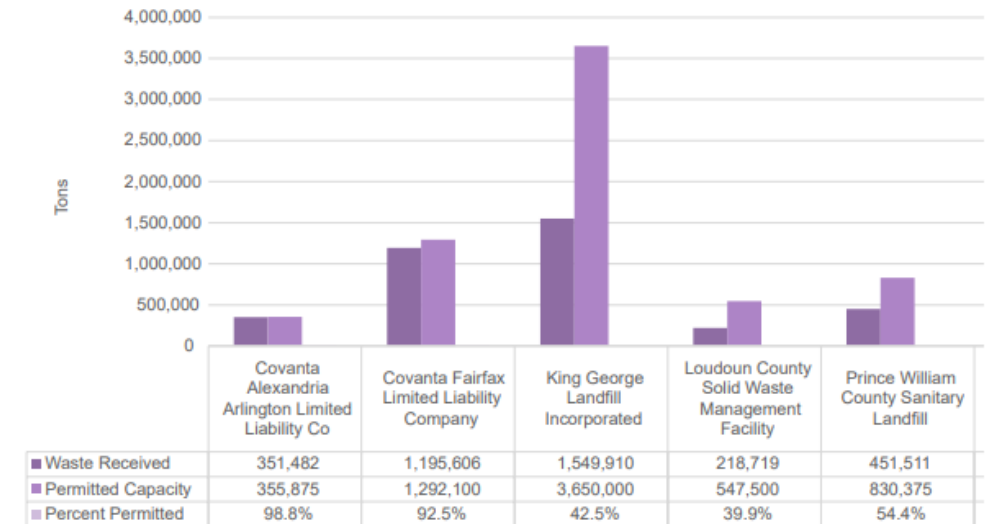


Figure 22: Waste Received vs Annual Permitted Capacity of Facilities used by Northern Virginia and District of Columbia 2020

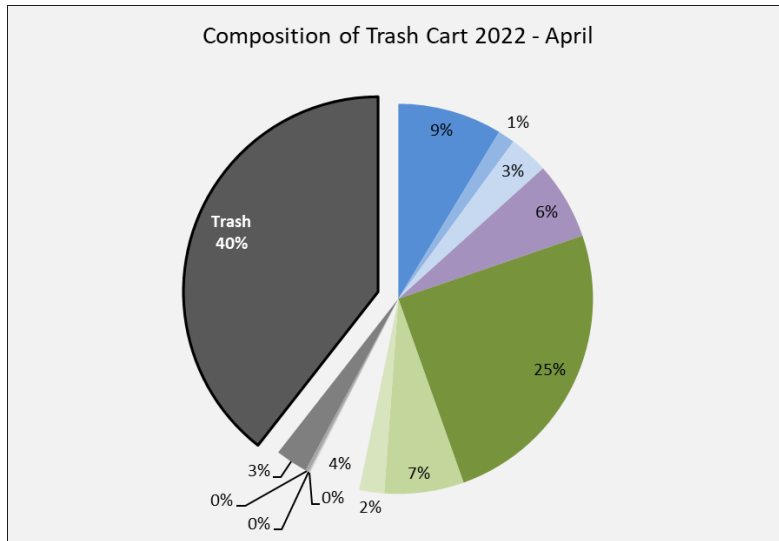


Source:DEQ SWIA Report 2020

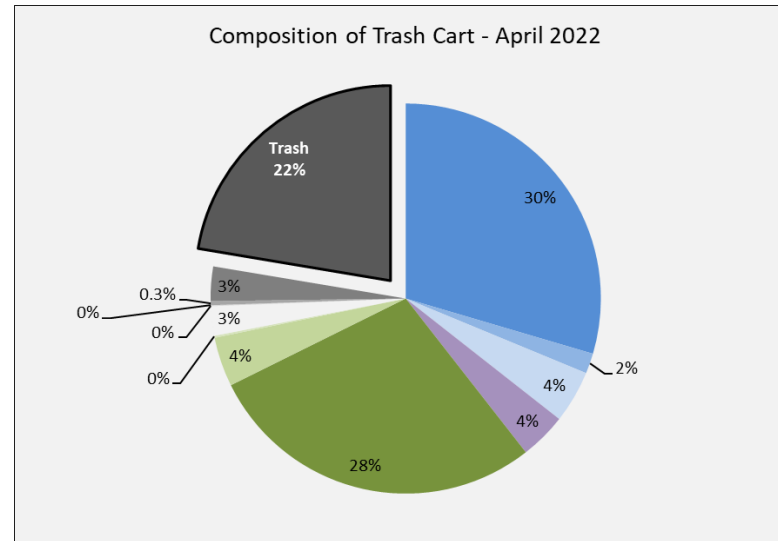
- County will need to focus on re-allocating waste stream disposal as population and waste generation increase over the planning period.
- The SWMP's efforts to encourage recycling and organics diversion should ensure future disposal capacity for County generated waste.

Arlington Trash Stream Composition

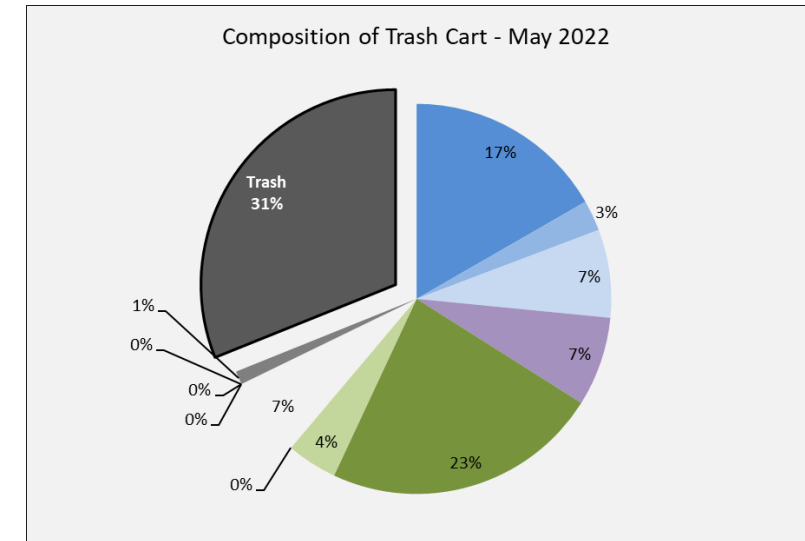
Residential



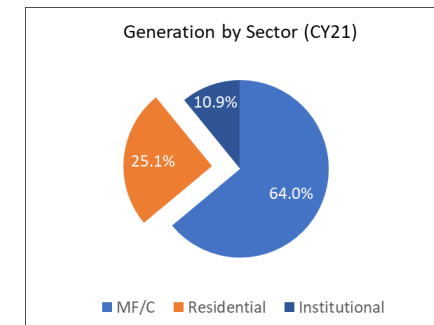
Multi-Family



Commercial



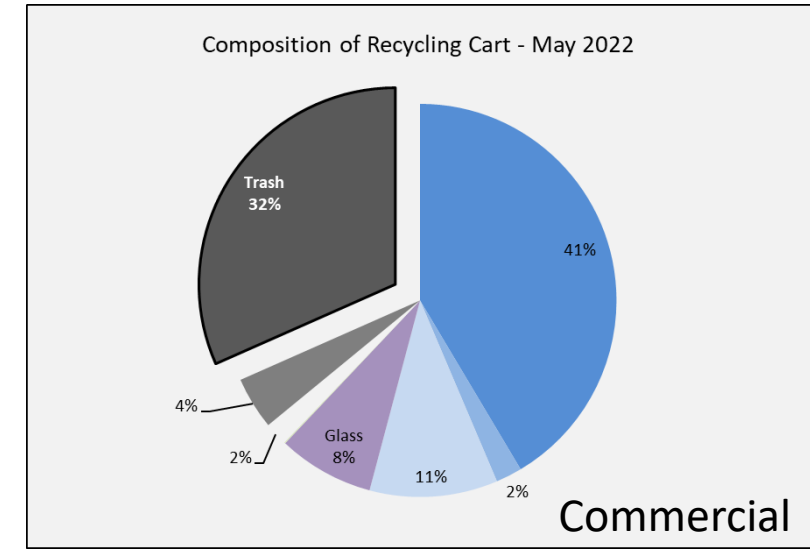
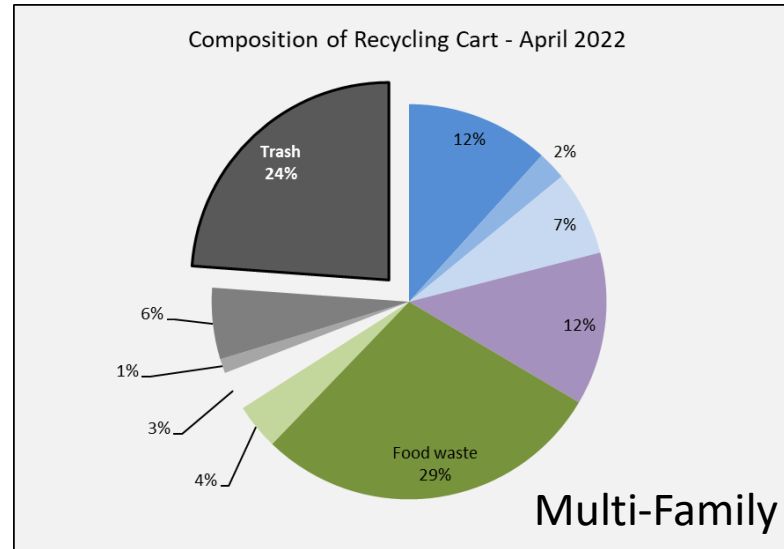
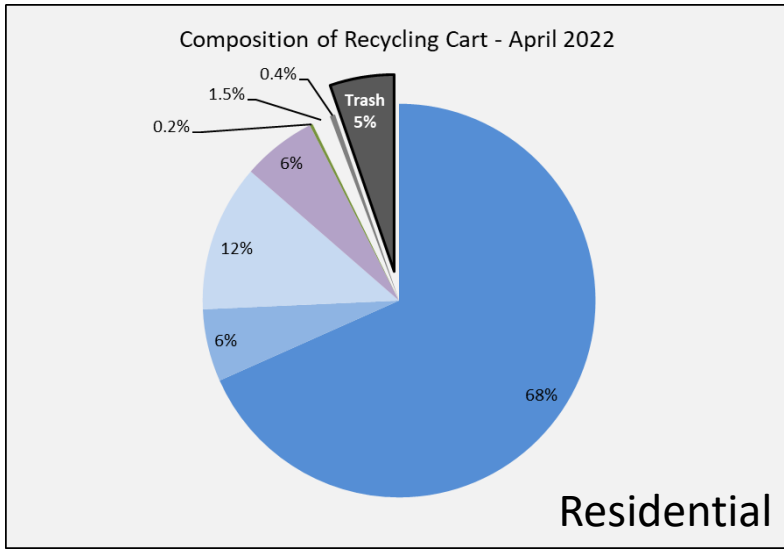
- >2/3 of material in Multi-Family & Commercial trash could be diverted
- Food waste is biggest opportunity to divert across all 3 sectors



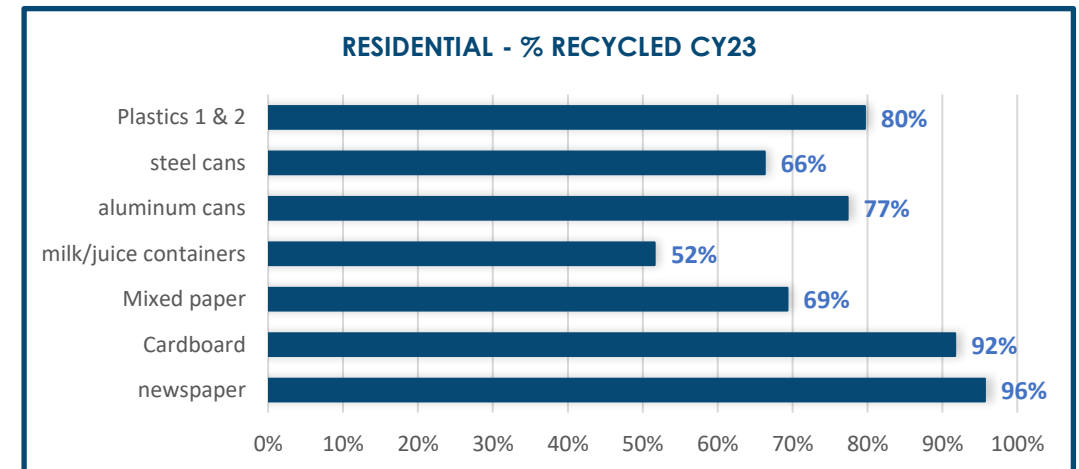
Pie Chart Legend

- Paper and Cardboard
- Metals
- Plastics
- Glass
- Food waste
- Compostable Paper
- Yard waste
- Plastic Bags/Film
- HHM
- C&D
- E-waste
- Textiles
- Trash

Arlington Recycling Stream Composition

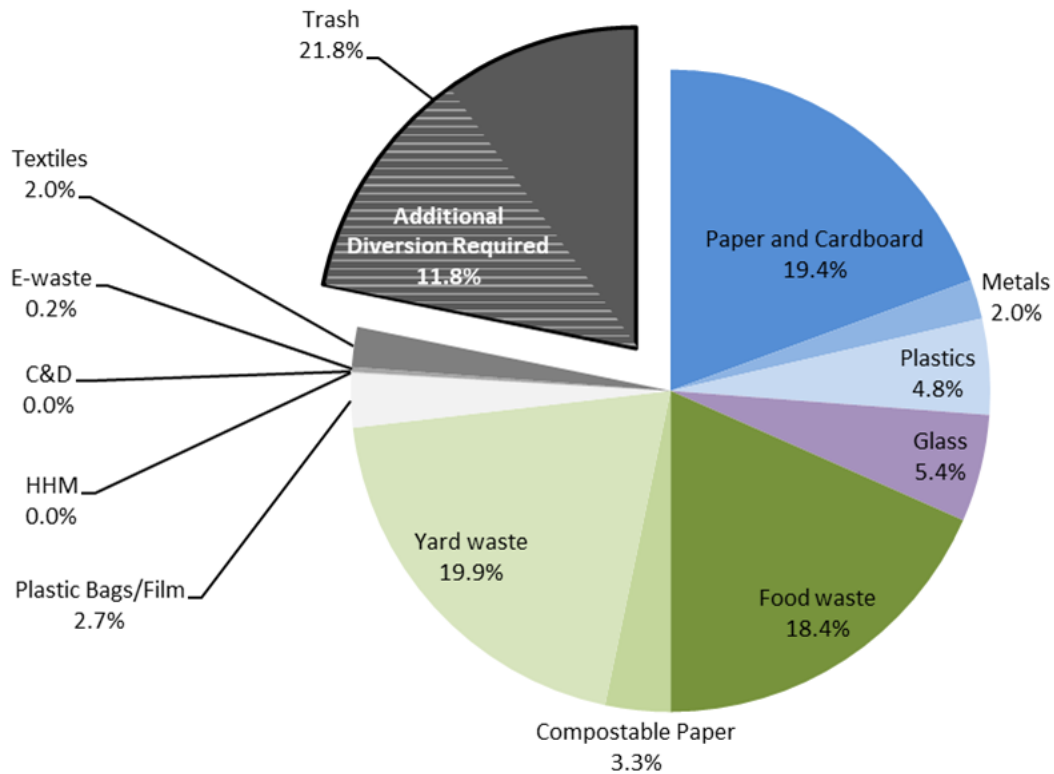


- Multi-Family & Commercial have substantial contamination
- Residential recycling performance is high



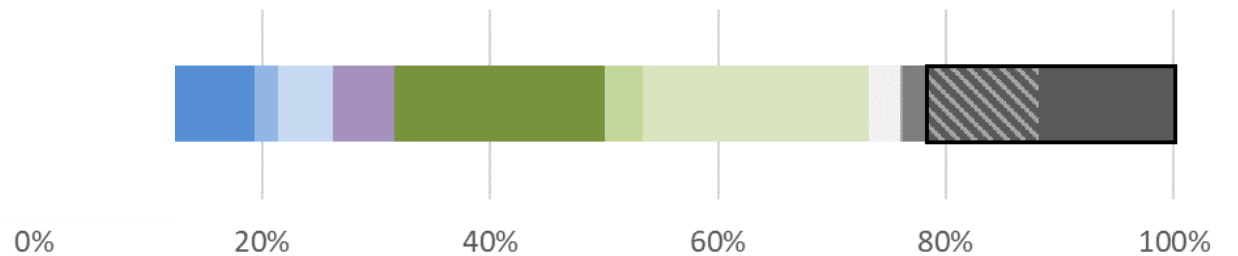
Diversion Potential

Combined Waste Streams*



*excludes County facilities and APS.

- Attain up to **78.2%** diversion through
 - 100% proper disposal
 - Additional regulation (organics)
- How does the County attain the additional **11.8%** diversion?



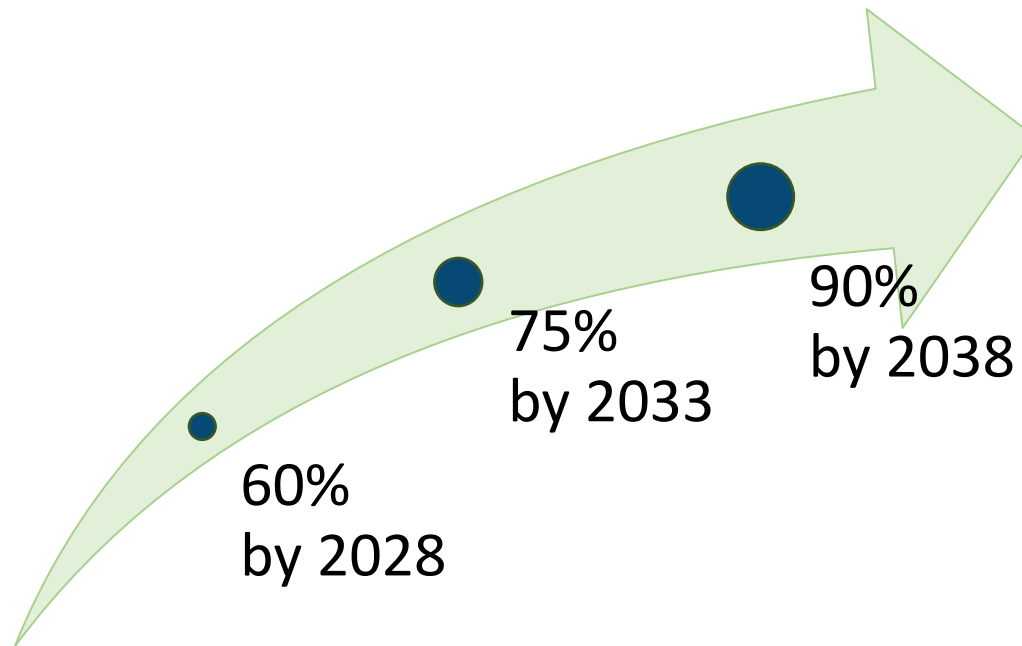
Plan Recommended Goals

- Classify goals as **Mandatory** (as required by DEQ), and **Aspirational** (not enforceable by DEQ) Goals
 - Employ a comprehensive solid waste management system that considers the Commonwealth's hierarchy.
 - Ensure that the County implements a strong diversion/recycling program, and that the County recycles 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.
 - Divert 90% or more of generated waste from landfilling or incineration by 2038
 - Voluntary program enhancements to achieve zero waste goal
 - Enhanced education and outreach efforts to achieve better waste reduction and recycling outcomes
 - Comprehensive organics management
 - Legislative efforts




90% Diversion – How do we get there?

SWMP/ZWP proposes:

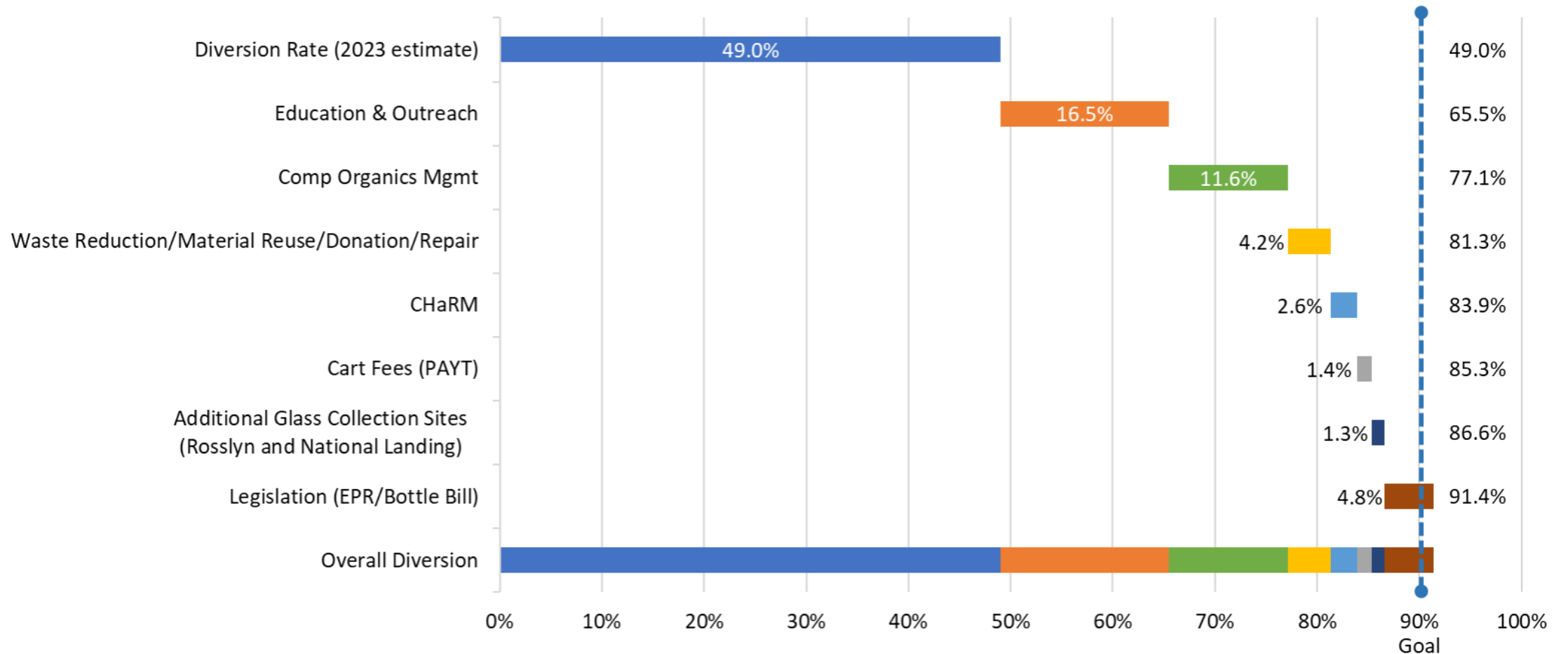
- 15 Voluntary Program Enhancements/Initiatives
- 4 Policy Programs
- Three intermediate diversion targets to gauge progress (excludes 5% bonus from state)



Voluntary Program Enhancements

- Developed by SWC, SWB staff, and public feedback
- Each program enhancement/initiative was evaluated to understand potential impacts in three areas.
 -  Diversion Impact
 -  Greenhouse Gas Emissions Impact
 -  Financial Impact to the County
- Prioritized into short, medium, long term and policies

How Do We Get There?



Evaluated diversion impacts, GHG impacts and cost for each proposal

MFC Targeted Initiatives (64% of Waste Stream)

- Expanded Education and Outreach
 - Initial focus on MF - "Recycling Right" to reduce high contamination levels in MF sector
- Organics Diversion from MF and restaurants
 - Assistance and incentives for voluntary diversion of organics at MFC properties
- Comprehensive Organics Management
- Additional Glass Drop Off Locations
 - Focused on high-density development corridors, such as Rosslyn-Ballston and Richmond Highway

Implementation Considerations

Resources

Staff
Education/Outreach
materials
Programmatic Resources
Space



Infrastructure

WTE
CHaRM Facility
Drop-off Locations
Public MRF
AD Facility



Legislation/Regulations

Extended Producer
Responsibility
Flow Control- Organics
Bottle Bill
Circular Economy Support
Zoning Regulations



Implementation schedule (Near, Mid, Long)

Voluntary Initiatives	Near-Term					Mid-Term					Long -Term								
	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37	FY38	FY39	FY40	FY41	FY42	FY43
1 Expand Education & Outreach*	\$369																		
2 Waste Reduction, Material Reuse/Donation, & Recycle Right Campaigns	\$70																		
3 Organics Diversion at Farmer's Markets		\$7																	
4 Outreach to Support Voluntary Organics Diversion from MF/C Sectors			\$70																
5 Additional Glass Collection Services	\$70																		
6 Additional Trash Cart Charges	\$2																		
7 Center for Hard to Recycle Materials (excludes facility costs)*		\$149																	
8 Comprehensive Organics Management*						\$110													
9 EP4 Policy*							\$110												
10 Zero Waste Special Events							\$3												
11 Reuse-Repair Fairs								\$11											
12 Equipment Sharing Program								\$11											
13 Reusable Takeout Packaging at Restaurants (Grants)								\$10											
14 Online Zero Waste Tracking Dashboard						\$22													

Legislative (As opportunities present themselves)																			
15 Extended Producer Responsibility Legislation	\$0																		
16 Bottle Bill Legislation	\$0																		
17 State Level Circular Economy	\$0																		
18 Other Legislative Initiatives	\$0																		
Ongoing Costs (in thousands)	\$511	\$156	\$ 70	\$ -	\$ -	\$132	\$113	\$ 32	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

* Will require additional staff

Financial Costs & Funding Streams

Costs

- Staffing (adding 5 FTEs)
- Program Costs
- Infrastructure
- Outreach/Educational Materials
- Waste-to-Energy facility retrofit in 2038
 - \$50M-\$100M estimated cost (Arlington share \$30M-\$60M)
- Grants/Subsidies

Est. Total County Costs of All Voluntary Initiatives:

- \$11.3 – 17.4 million (over 20 years)

Est. Total GHG Emissions Reductions:

- 143,000 MTCO_{2e}

Funding Streams

- Current Funding Streams
 - 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
 - Plastic Bag Fee Tax
 - Statute limits use to environmental cleanup, environmental education, and reusable bags
- Potential Future Funding Streams
 - General fund
 - Environmental Investment Fee
 - GO Bonds / Industrial Development Bond
 - Others?

HSWR Impacts (For HSWR related costs)

	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
HSWR	\$306.00	\$319.03	\$318.61	\$307.89	\$406.14	\$434-\$438	\$440-\$452	\$453-\$465	\$474-\$485	\$495-\$507
Inflation (4.5% est.)						~\$18	~\$19.50	~\$20	~\$21	~\$21.50
Education Efforts/Glass Collection (33% HSWR)						~\$5				
CHaRM facility (33% HSWR)								\$1.55		
MRF Contract (10% increase)						\$4.70				
Zero Tip Fee							(-\$25.06)	(-\$8.35)		
Collection Contract (5%-10% increase)							\$12-\$23			

*Only a portion of the costs for the CHaRM facility, enhanced educational efforts and expanded glass collection will be captured in the HSWR.

**Majority of the anticipated HSWR increases are contractual cost increases for current HSWR programs

***The most significant ZWP expenditures are associated with the MF/C sector - these programs will need to be generated from sources other than the HSWR.

Overarching Strategies For Success

1. Producer Responsibility

- Front-End
- Industrial design, production

2. Community/Consumer Responsibility

- Back-End
- Purchase, consumption, disposal
 - Use Less Stuff
 - Reuse More Stuff
 - Recycle Right
 - Compost Food Scraps & Organics

3. Policy & Political Leadership

- Craft policies to align and incentivize Producer & Consumer responsibilities (EPR)
- Support programs, policies, systems



Next Steps

- Public Town Halls
 - November 1 & 2, 6:30pm-7:30pm
 - November 2, 11am-12pm
- Public Comment Period
 - November 1-December 1
- Funding of short term initiatives
- Adoption of proposed plan

Questions?

