





Maryland EPR Recycling Needs Assessment

EPR Committee

November 7th, 2024

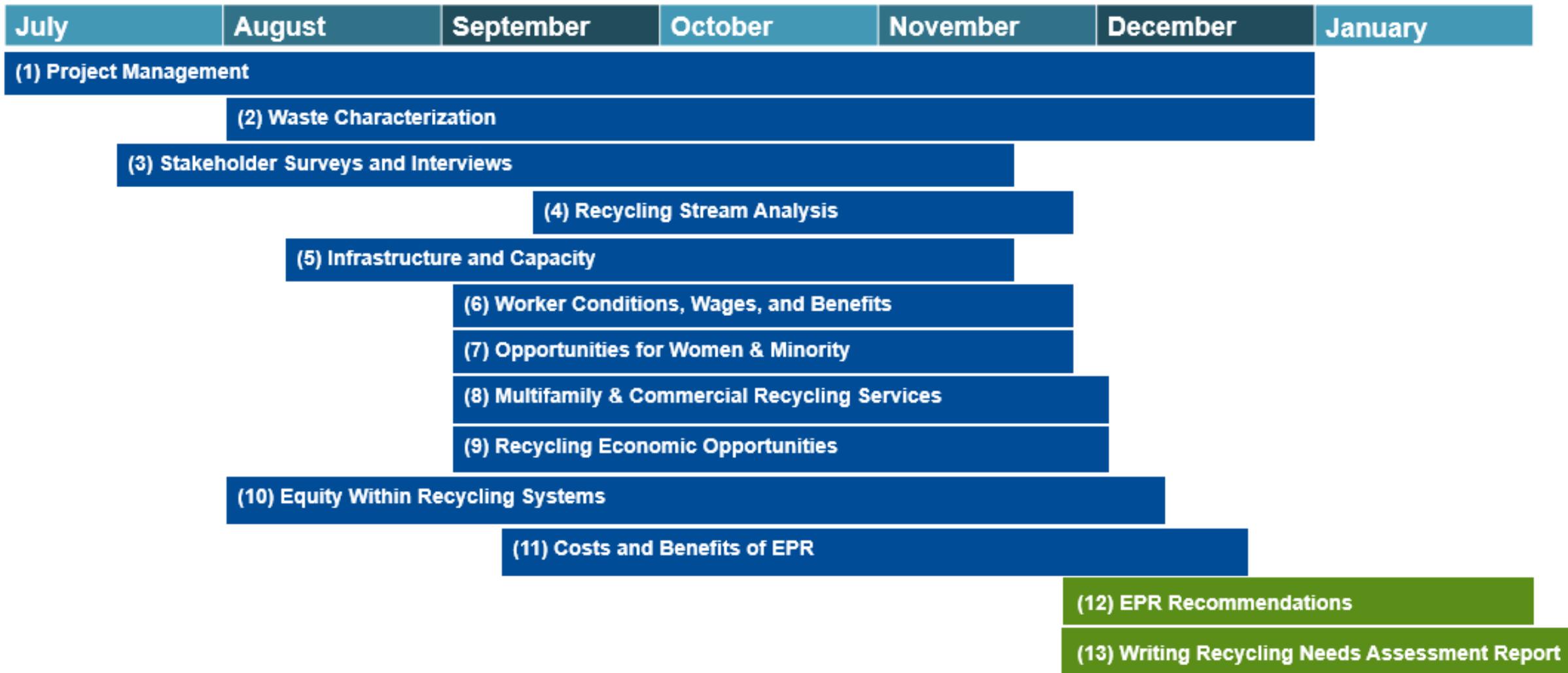
Scope of Services

- Project Management
- Waste Characterization
- Stakeholder Survey/Interviews
- Recycling Stream Analysis
- Infrastructure & Capacity
- Worker Conditions
- Opportunities for WMBE
- Multifamily and Commercial Recycling Services
- Recycling Economic Opportunities
- Equity within Recycling System
- Costs, Benefits, and Environmental Impacts of EPR
- EPR Recommendations
- Writing the Needs Assessment



Updated Schedule

Updated 2024 Schedule



Stakeholder Engagement Approach

Stakeholder Overview

Sent surveys to...

- **24 Counties** (including Baltimore City) and **53 municipalities** where counties do not provide services to understand existing programs and policy
- **27 haulers** with guidance from NWRA
- **25 Tier I and Tier II composting facilities** in the state to request information on processing capabilities for compostable packaging materials
- **13 identified MRF processing facilities**

Held interviews with...

- **6 MRF processing companies** to discuss technical, financial, and operational considerations
- **15 strategic partner groups** to discuss perspectives on impact of EPR and implementation considerations

Counties and Municipalities

Maryland Counties Surveyed by Region

Washington Metro - 65% Complete

Total Regional Population: 2,287,298 (37.1%)

Frederick County	273,829 (4.4%)
Montgomery County	1,056,910 (17.2%)
Prince George's County	957,189 (15.5%)

Baltimore Metro – 50% Complete

Total Regional Population: 2,789,689 (45.3%)

Anne Arundel County	588,109 (9.5%)
Baltimore City	584,548 (9.5%)
Baltimore County	850,737 (13.8%)
Carroll County	173,225 (2.8%)
Harford County	261,059 (4.2%)
Howard County	332,011 (5.4%)

Lower Eastern Shore – 75% Complete

Total Regional Population: 213,871 (3.5%)

Dorchester County	32,557 (0.5%)
Somerset County	24,672 (0.4%)
Wicomico County	103,815 (1.7%)
Worcester County	52,827 (0.9%)

Maryland – 65% Complete

Total Regional Population: 374,093 (6.1%)

Calvert County	93,244 (1.5%)
Charles County	167,035 (2.7%)
St. Mary's County	113,814 (1.8%)

Upper Eastern Shore – 100% Complete

Total Regional Population: 244,464 (4.0%)

Caroline County	33,320 (0.5%)
Cecil County	103,876 (1.7%)
Kent County	19,289 (0.3%)
Talbot County	37,663 (0.6%)
Queen Anne's County	50,316 (0.8%)

Western Maryland – 100% Complete

Total Regional Population: 251,662 (4.1%)

Allegany County	68,161 (1.1%)
Garrett County	28,856 (0.5%)
Washington County	154,645 (2.5%)

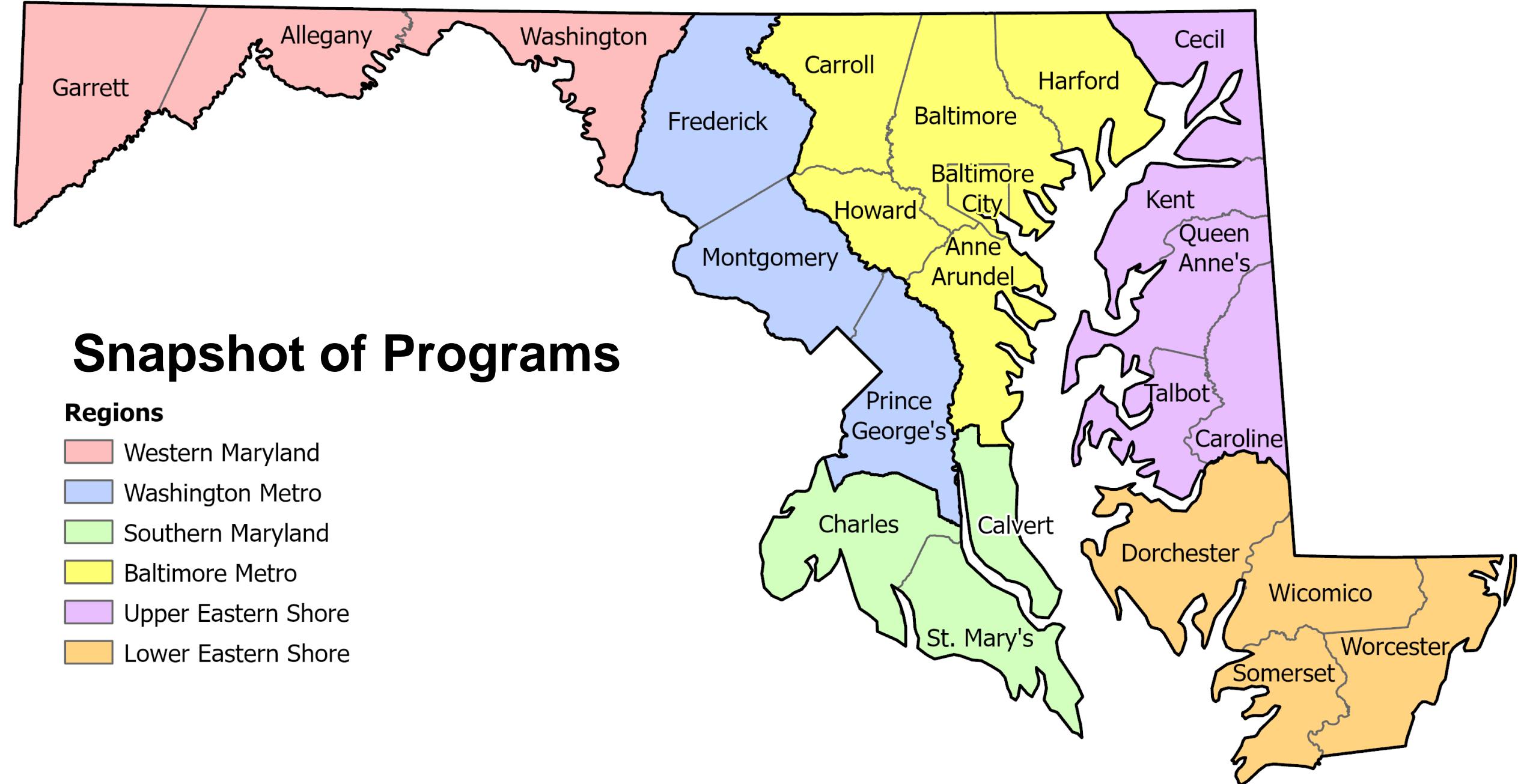
 Survey Not Completed

Maryland Cities Surveyed

Reached out to **53 Cities/Towns** that were:

- County Seat
- Most densely populated location within County
- Provided Solid Waste Collection Service
- High diversion rate/goals
- Unique geography (waterfront Community, low housing density, etc.)

Cities/Towns	Population (rounded)
Western Maryland	
Hagerstown	43,500
Cumberland	18,700
Frostburg	7,000
Washington Metro	
College Park	34,200
Rockville	67,300
Tacoma Park	17,500
Greenbelt	24,400
Laurel	29,400
Baltimore Metro	
Annapolis	40,500
Upper Eastern Shore	
Denton	5,000
Port Deposit	650
Elkton	16,000
Chestertown	5,600
Centreville	4,800
Lower Eastern Shore	
Salisbury	33,200
Princess Anne	3,500



Snapshot of Programs

Regions

- Western Maryland
- Washington Metro
- Southern Maryland
- Baltimore Metro
- Upper Eastern Shore
- Lower Eastern Shore

Haulers

Engagement Approach

- 1 Confidentiality considerations
- 2 Work closely with NWRA
- 3 Evaluate Results



Information Requested

Customers serviced

Collection programs

Equipment

Frequency of collection

Collection environment

Cost of collection



Composting Facilities

Engagement Approach

- Reached out to **25 Tier I and Tier II composting facilities**
- Included composting and food waste AD facilities to understand perspective on compostable packaging
- Some facilities are interested, others do not have the technology or capacity for compostable packaging



Composting Facility Information Requested



Technology



Policy regarding compostable packaging



Throughput



Planned Facility Upgrades



Materials Accepted



Material Recovery Facilities

Recycling Processing Facilities in Maryland

Facility	Region	Ownership	Type
Prince George's County MRF	Capital	Public	Single Stream
Montgomery County Recycling Center	Capital	Public	Dual Stream
Baltimore County MRF	Central	Public	Single Stream
WM Elkridge MRF	Central	Private	Single Stream
WM Dump/Bale	Central	Private	Dump/Bale
WB Waste	Central	Private	Single Stream
World Recycling	Central	Private	Paper Only
Encore Recycling	Central	Private	Paper Only
Eagle Recycling LLC	Eastern (Lower)	Private	Paper Only
Apple Valley MRF	Western	Private	Single Stream
Wicomico County Mini-MRF	Eastern (Lower)	Public	Multi-Stream
Republic Dump/Bale	Western	Private	Dump/Bale

Types of Recycling Processing



**Single
Stream**



**Multi-
Stream**



**Dual
Stream**



**Push and
Bale**

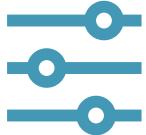
MRF Information Requested



Facility Operations



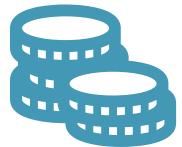
Plans for Expansion



Throughput



Planned Facility Upgrades



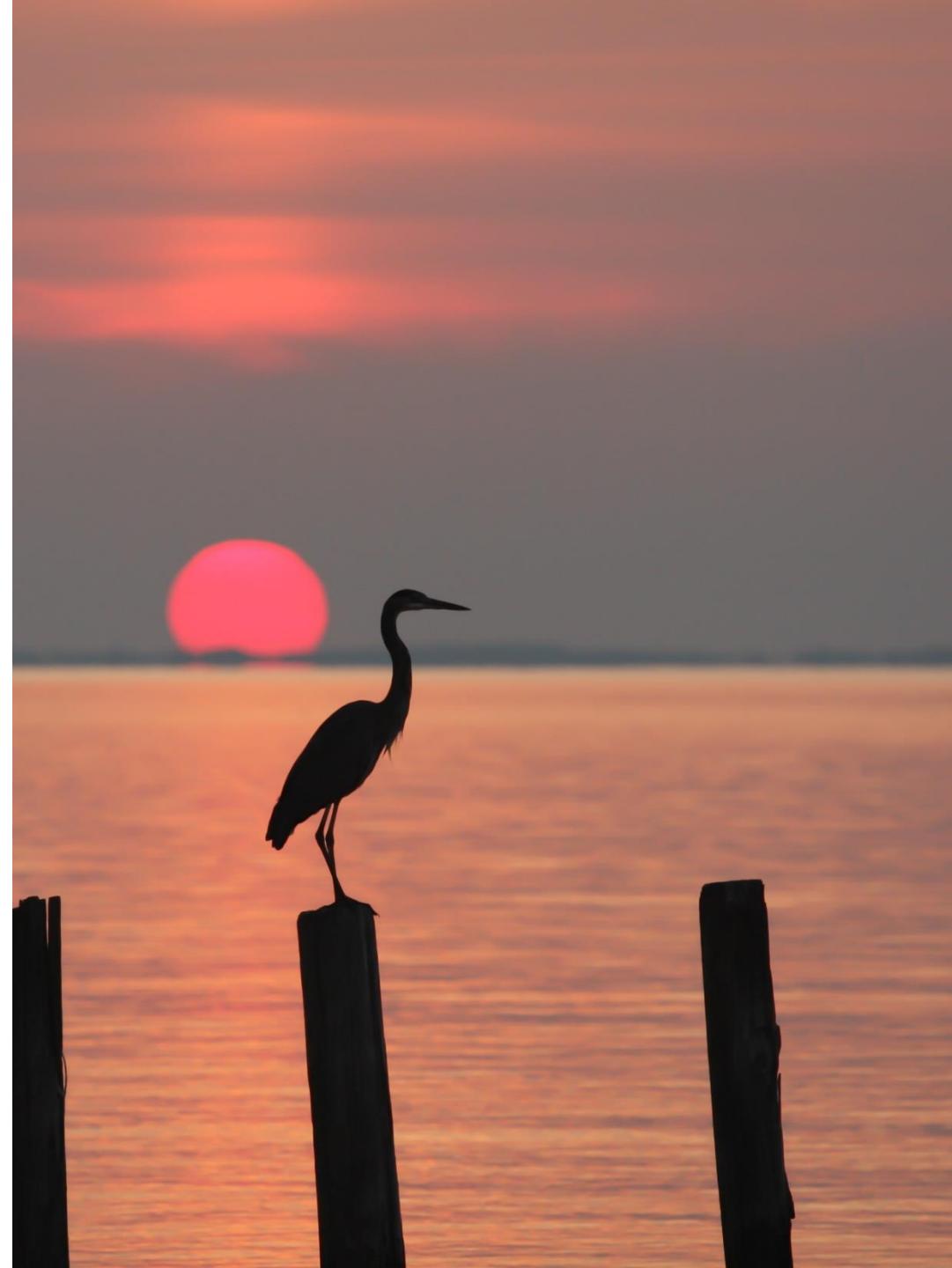
Capital / O&M Costs



Strategic Partners

Strategic Partner Discussions

- Provide the opportunity for key stakeholders to provide perspective including:
 - Material group representatives
 - Regional planning
 - Environmental/industry advocates
 - Economic/Planning organizations
 - Diversity & Equity/WMBE representatives



Overall Strategic Partner Considerations

- Different perspectives on EPR's potential impact
- Diverse set of needs among material groups, regional groups, and state agencies

Key considerations that have been discussed:

- Education/outreach is key gap that EPR can support
- EPR should not simply be a financial transfer
- Counties/municipalities are looking for transparency on how money would be managed

Strategic Partner Interviews

Material Representatives

- America Forest and Paper Association
- Constellium
- The Association of Plastics Recyclers
- Ball
- Glass Packaging Institute
- Biodegradable Products Institute (BPI)



Environmental/Industry Advocates

- Sierra Club
- Maryland Retailers Association
- National Waste and Recycling Association (NWRA)



Regional Recycling

- Northeast Maryland Waste Disposal Authority (NMWDA)
- Maryland Recycling Network (MRN)
- Maryland Environment Service (MES) – Midshore
- Metropolitan Washington Council of Governments (COG)



Economic/Planning

- Maryland Department of Commerce
- Baltimore Metro Council
- Maryland Department of Planning



Equity/WMBE

- Governor's Office of Women Minority Business Enterprise (WMBE) Affairs
- Maryland Minority Business Development Agency



Themes We Are Hearing

Material Representatives

- Minimize material contamination
- Limit financial impact on suppliers of PCR feedstock
- Provide specifications for PCR content by material type
- Require responsible end market and clearly define



Environmental/Industry Advocates

- Incentivize product re-engineering/design
- Education/outreach/compliance is key gap in current system
- Maintain consistency in EPR across states
- Show EPR will move the needle on driving demand for PCR content

Themes We Are Hearing (cont'd)

Regional Recycling



- Transparency about how funds will be distributed
- Careful about directing where material must flow
- Increase access for underserved sectors (e.g., multi-family)

Economic/Planning



- Unintended financial consequences on product pricing
- Packaging ops have slim margins
- Incentivize entrepreneurs working on applying innovation in packaging category

Equity/Worker Conditions/WMBE



- Focus on worker safety – get recycling off top 10 most dangerous industry list
- Improve worker conditions (heat stress, overtime demand, facility fires, etc.)
- Streamline process for WMBE in recycling space

Overall Key Takeaways

- Navigate competing legislative efforts
- Incentivize packaging re-design for waste minimization/recyclability
- Learn from other EPR material programs (e.g., tires, paint, electronics)
- Allow for regional hub/spoke approach to manage recycling
- Minimize potential impact on materials suppliers
- Drive opportunities for small and WMBE
- Meaningfully improve worker conditions for haulers/processors



Questions?

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