

DRAFT

SOLID WASTE MASTER PLAN: *Achieving Zero Waste*

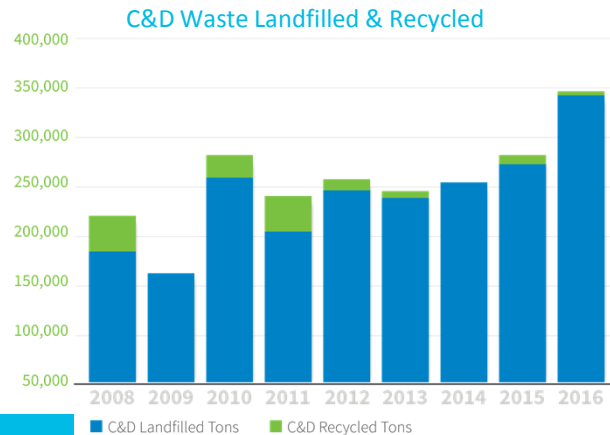
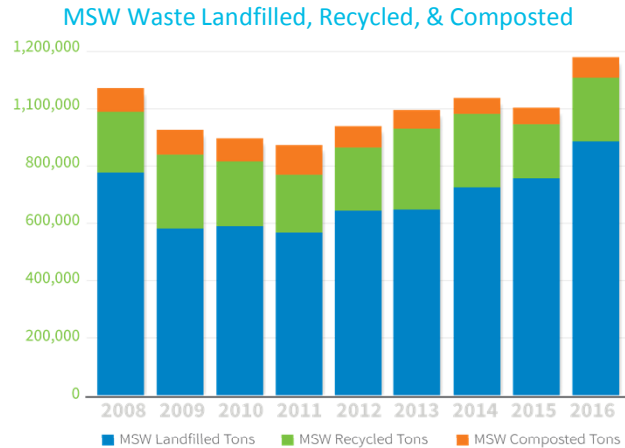


Metropolitan Nashville and Davidson County

*Davidson County Solid Waste Region Board
and Solid Waste Task Force Meeting*

May 21, 2019

The State of Solid Waste Management in Metro Nashville and Davidson County



2016 Solid Waste Breakdown

82%

Landfilled



12%

Recycled



6%

Composted



National Average: 65% Landfilled 26% Recycled and 9% Composted

Setting Goals and Priorities



Adopt a Zero Waste Philosophy

- Minimize waste generation
- Maximize landfill diversion (90+%)



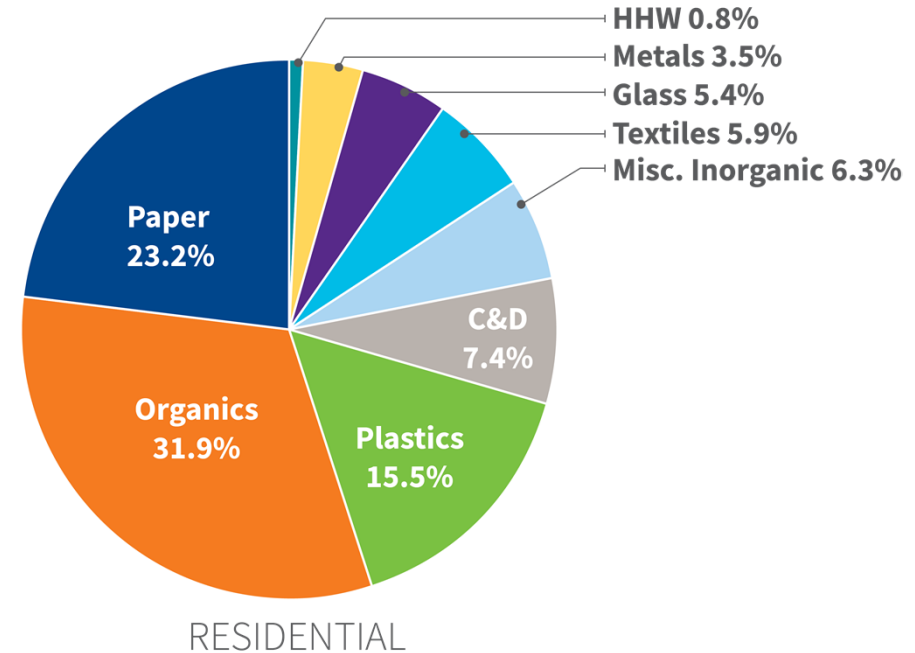
Priorities for meeting these goals

- Strengthen public education and outreach
- Build countywide programs for recycling and food waste reduction and recovery
- Revive recovery programs for C&D Waste



Identifying the Current Major Challenges

- Only 20% of solid waste services are under Metro management
- Insufficient funding for education and compliance
- Recycling is voluntary
- Limited options to landfilling food waste and C&D waste



Critical Policy and Program Recommendations



Establishing Authority

Provides the governance structure needed to fund, implement, and run the new programs.



Mandatory Recycling & Food Waste Recovery

Necessary to move toward 75% diversion as they provide the motivation that drives increased participation.



Save-As-You-Throw (SAYT)

Volume-based pricing and embedded costs for recycling and food scraps collection provide strong diversion incentives.



C&D Waste Deposit System

A deposit is submitted with building permit applications and is returned when a builder demonstrates they have met recycling requirements.



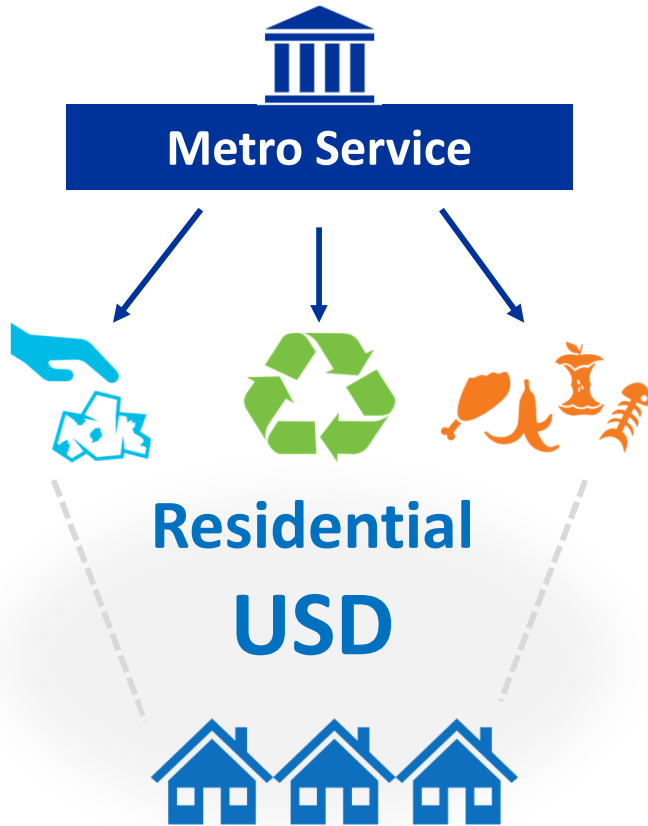
Franchise Collection

Allows countywide implementation of the plan strategies while maintaining the current privatized collection of waste materials.

Recommendations are dependent on legislative support of policy and program funding.

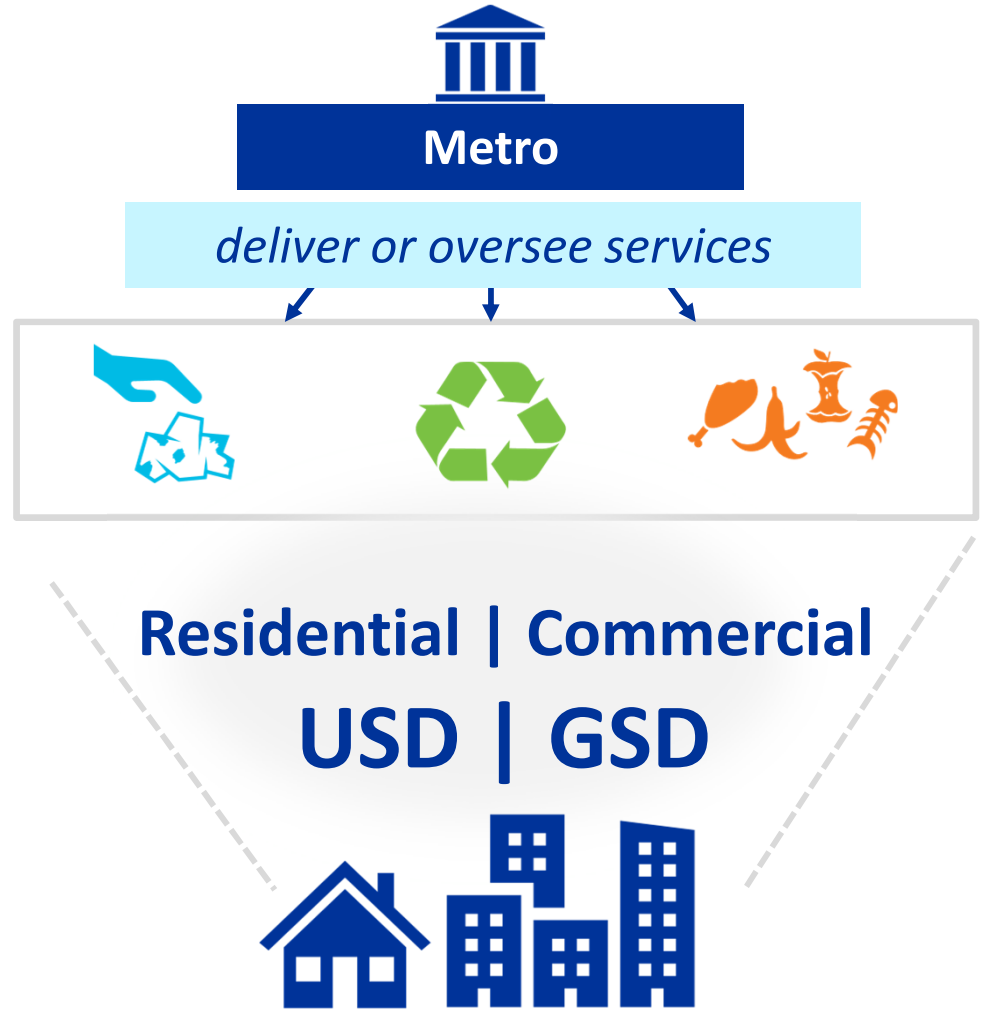
Establishing Authority

Current Delivery System



Establishing Authority

Integrated Approach



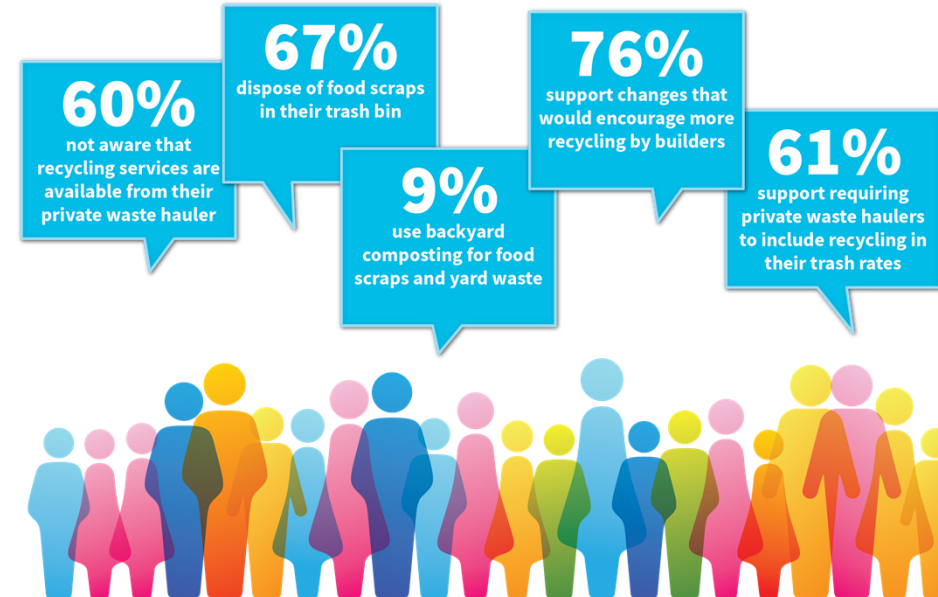


Mandatory Recycling and Food Scraps Ban

- Strong support within the community for increased recycling and foods scraps recovery
- Mandatory policies are essential to driving diversion rates above 40%
- Education and compliance will be needed for increased participation



Brought to you by the Department of Public Works





Save-As-You-Throw

- ✓ Three bin system: trash, recycling, and organics
- ✓ Cost of recycling and organics included in trash fee
- ✓ Incentivize behavior to increase recycling and composting
- ✓ Equitable pricing

Save-As-You-Throw

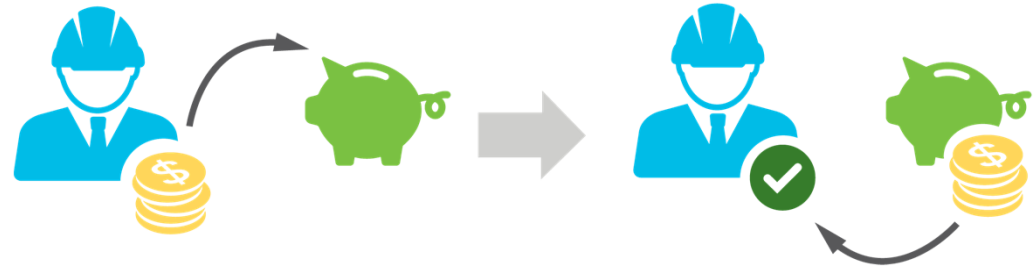


Three Bin System



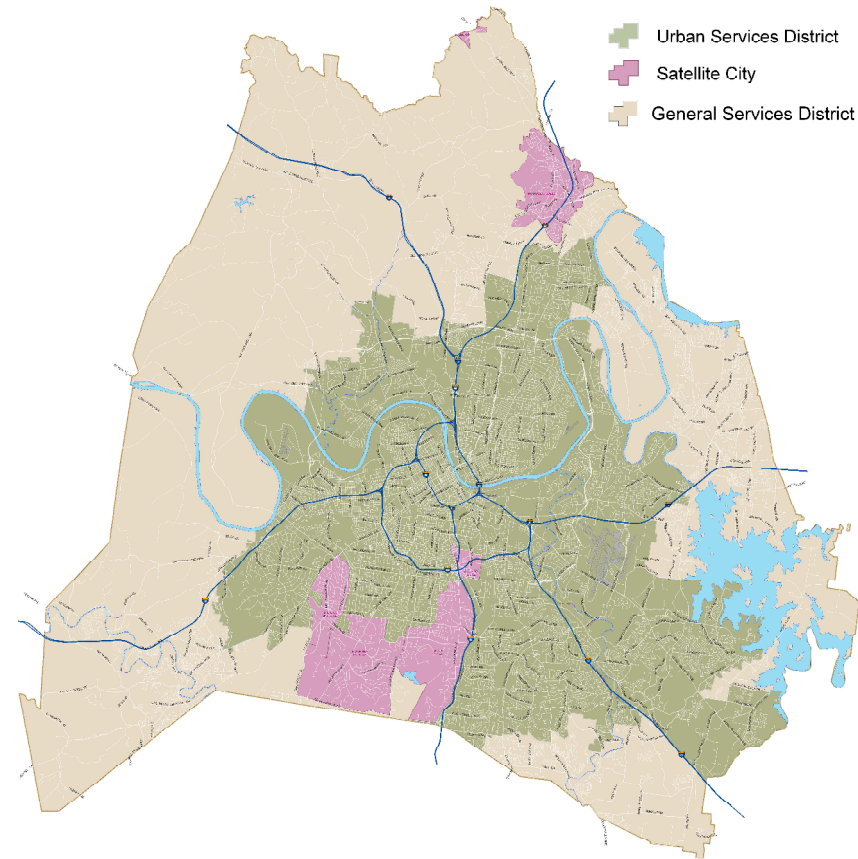
Deposit Programs Are Effective for C&D Recovery

- An alternative to fines (TN law – limits fines to a maximum of \$50)
- 9,000 construction permits were issued last year
 - Start with larger projects (i.e.; 20,000 sf or more)
 - Hire 2 new staff to run the program

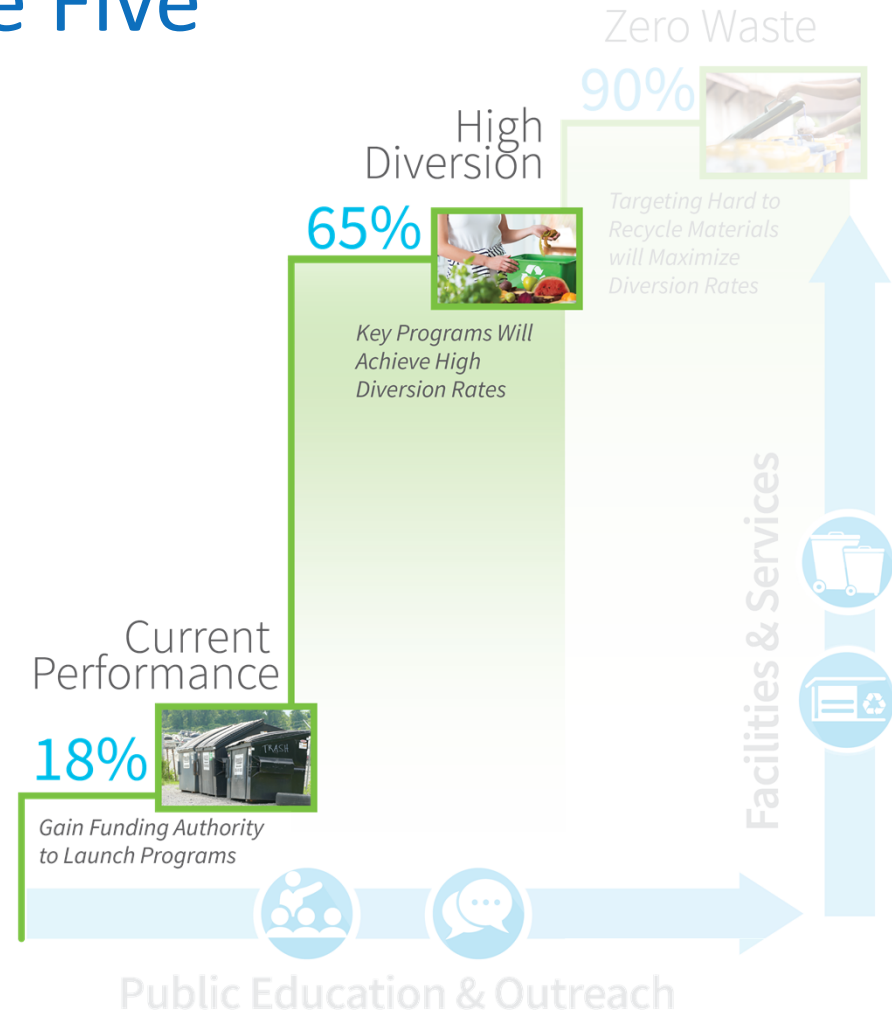
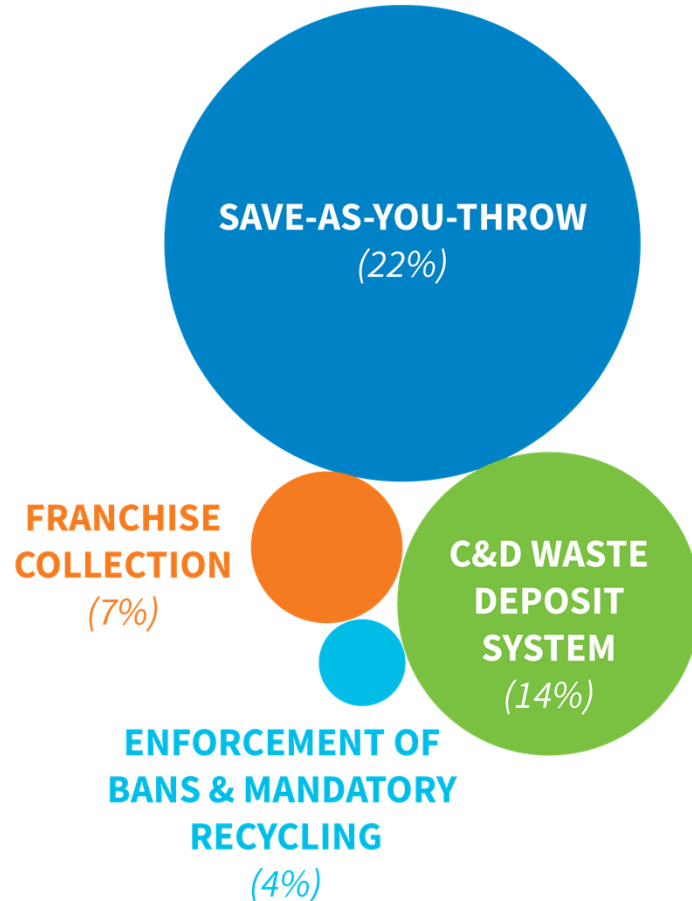


Franchise Collection

- Contract with private haulers to service exclusive “zones”
- Aligns collection services with the Plan strategies
- Develop franchises for residential and commercial sectors
- Include zones for small haulers



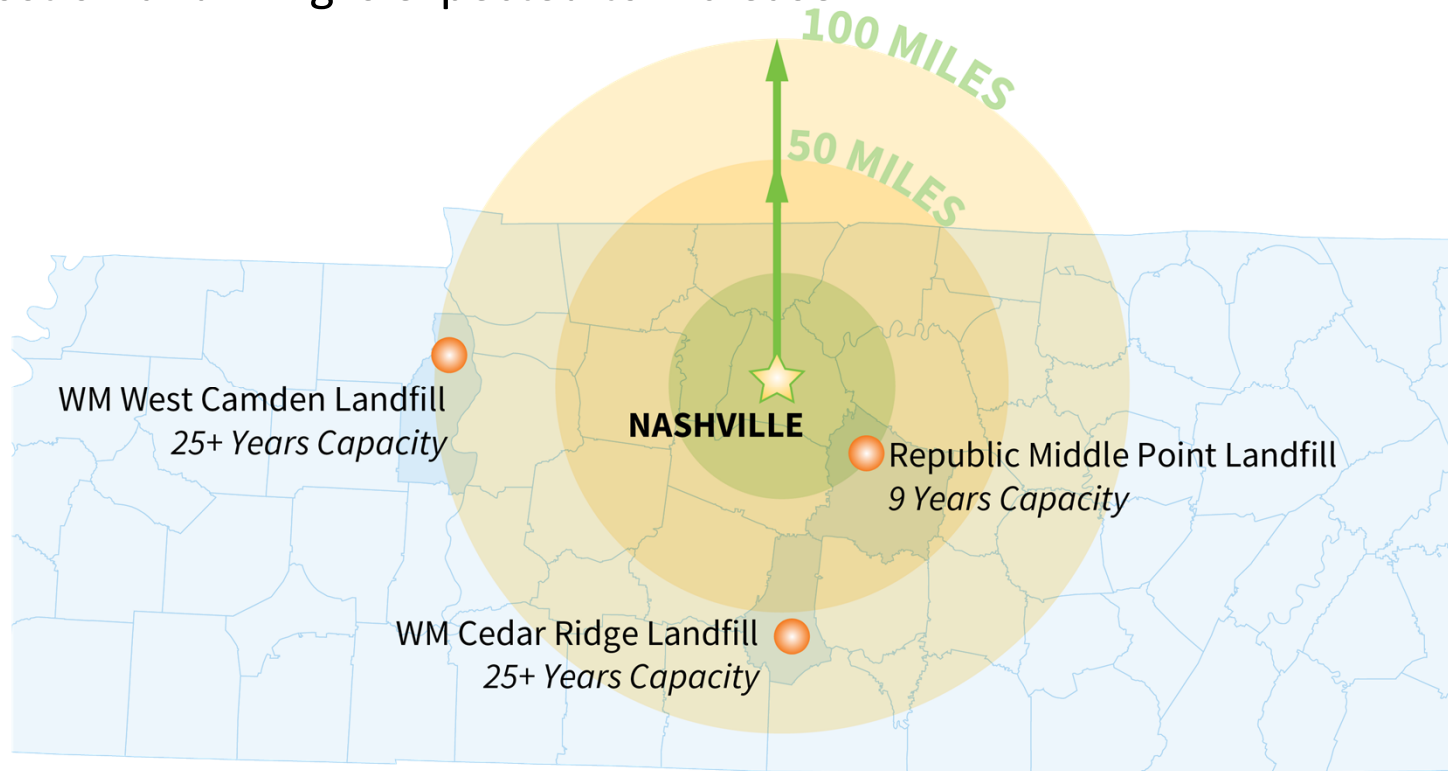
Diversion Impacts of the Five Major Strategies



Transitioning from Disposal to Resource Management

Over 80% of waste materials go to landfills

The cost of landfilling is expected to increase



Transitioning from Disposal to Resource Management



Processing facilities for Recyclables, Composting, Anaerobic Digestion and C&D Recovery will replace Landfills as the dominant form of materials management.



Transitioning from Disposal to Resource Management



Eastman Chemical announces chemical recycling technology for plastic waste



Enerkem is producing high octane biofuel from waste

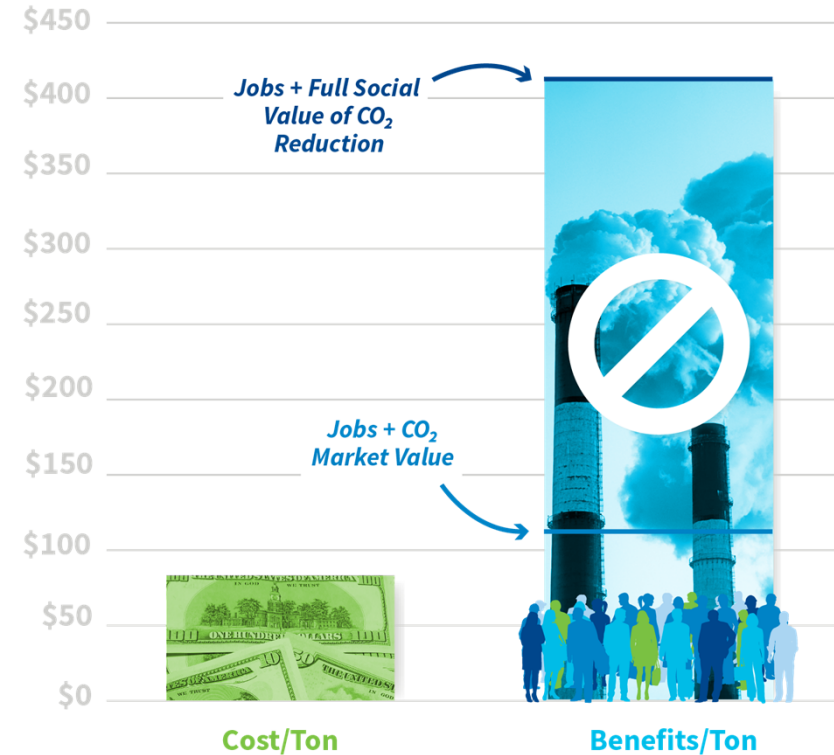


Fiberight brings “next generation recycling” to Maine

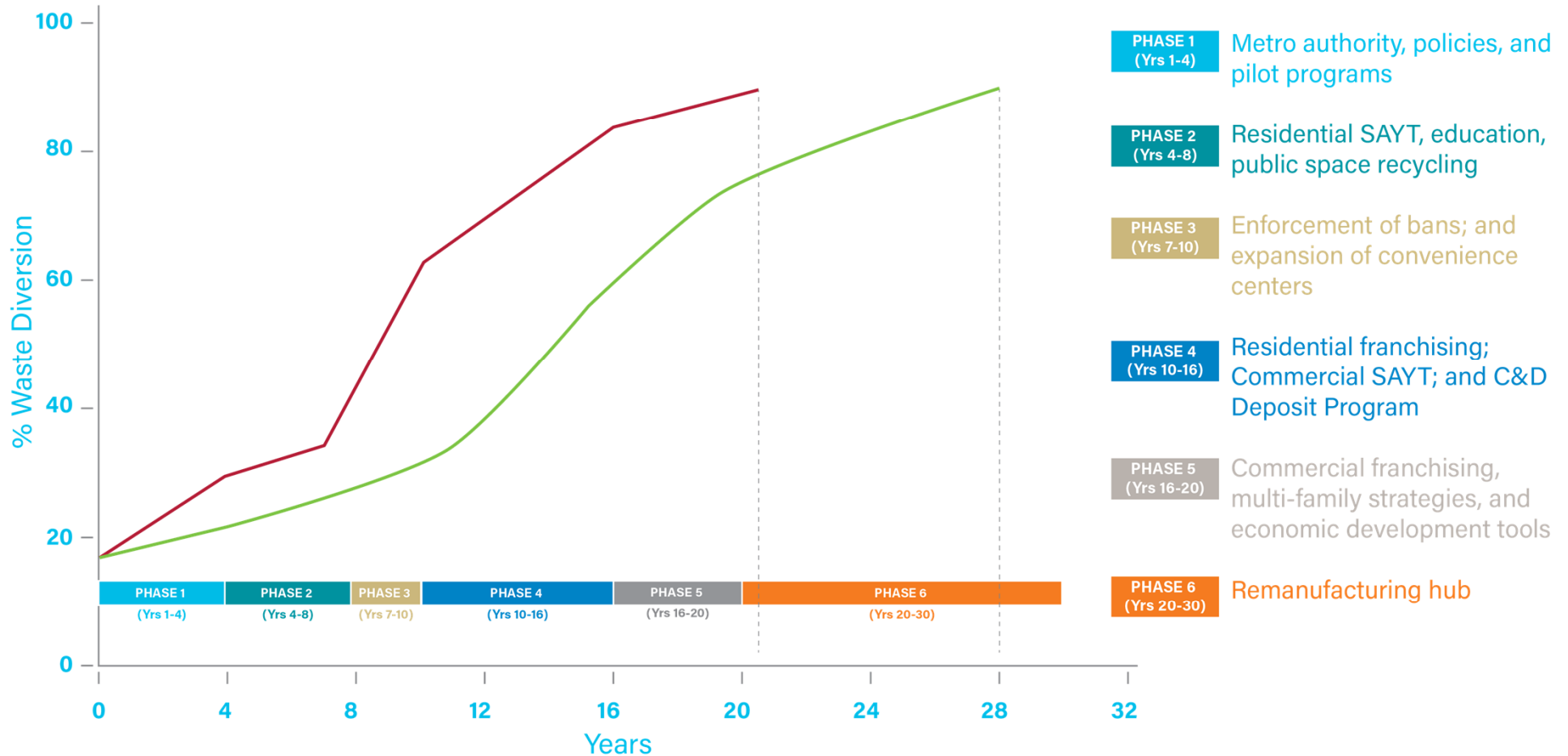
Triple Bottom Line (TBL) – What is the Value of the Plan?

- TBL Benefits
 - Avoided carbon emissions
 - Economic activity and new jobs
- Evaluated conservative, moderate and aggressive portfolios
- Aggressive Portfolio
 - Lowest cost per ton
 - Highest total benefits per ton

Aggressive Portfolio TBL Results



Implementing the Strategies in Phases



Making the Plan a Reality

Recommendations for Getting Started



Issue an Executive Order on Waste Reduction within Metro Government



Establish an Environmentally Preferable Purchasing Program



Launch a Residential Food Waste Pilot Program



Finalize approach for executing strategies under Metro Charter



Draft Recycling Mandates for C&D Waste



Draft Food Scraps Diversion Mandates for Large Generators

Making the Plan a Reality

Getting Started: Already in Progress



Every-other-week recycling will start in Feb 2020



Food waste management

Food waste drop off at convenience centers

Anaerobic digestion of food scraps study



Ways to improve collection in downtown area

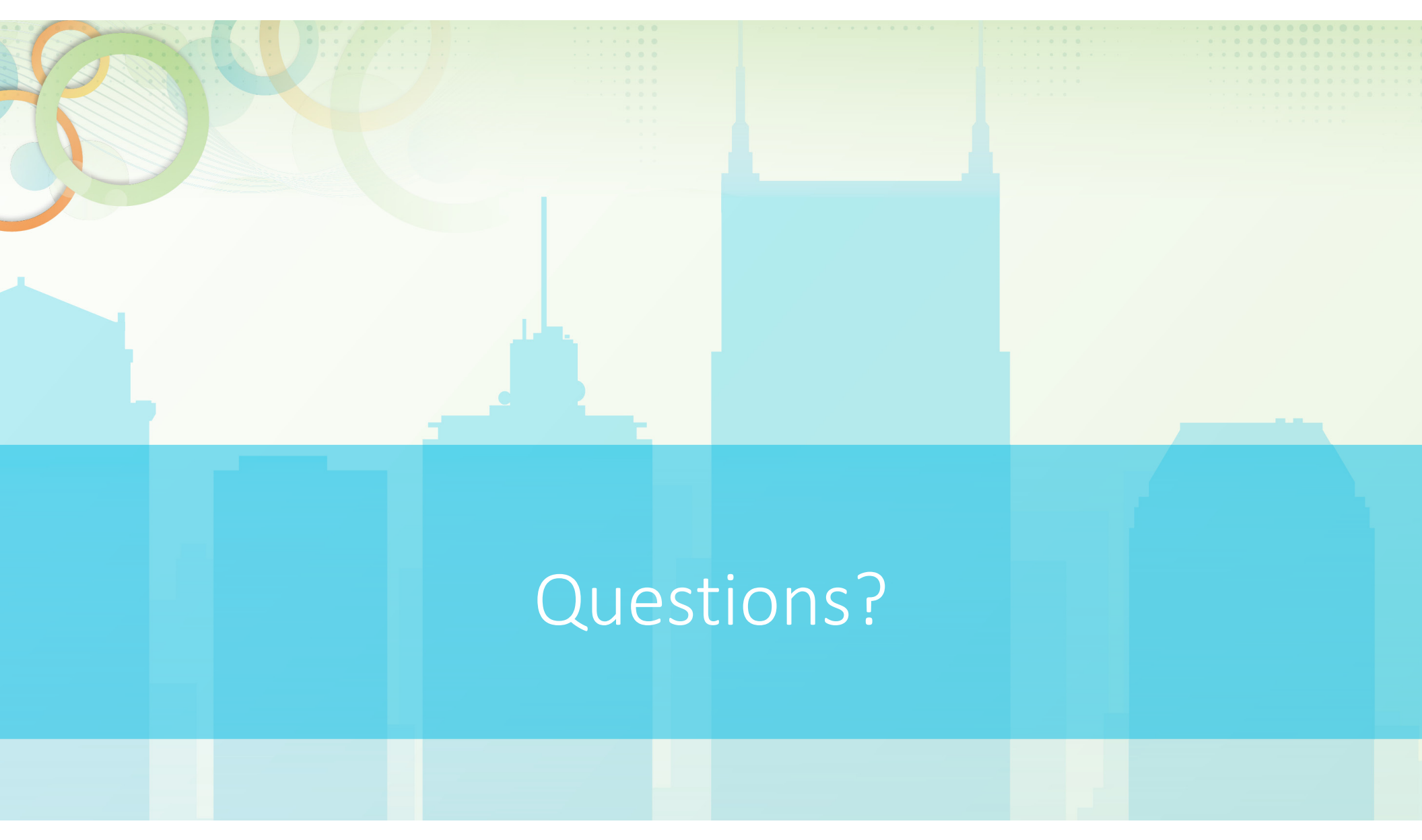


NRDC/Nashville Food Waste Initiative



GNRC – regional solid waste plan updates

Mayor's NashvilleMade Initiative

The background features a stylized city skyline in shades of blue and teal against a light yellow and green gradient. In the top left corner, there are several overlapping circles in green, orange, and blue, some with internal patterns like dots or lines. The word "Questions?" is centered in the lower half of the image in a white, sans-serif font.

Questions?