Maryland
Department of the Environment

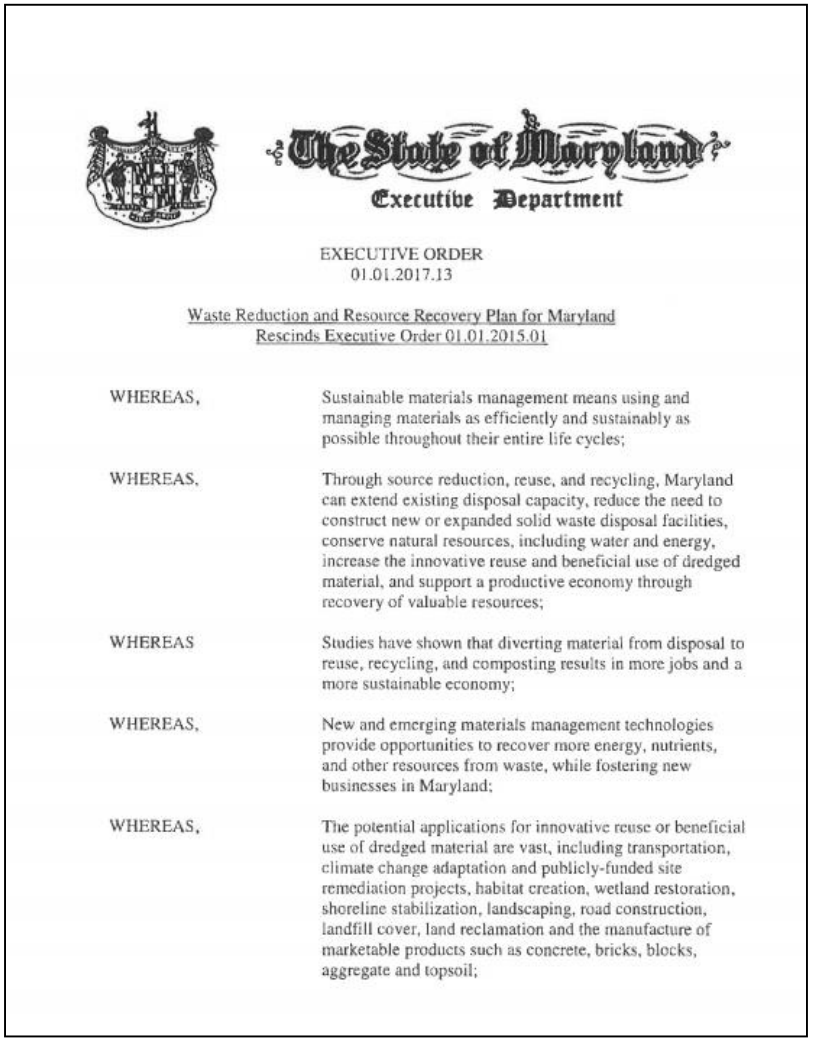
Sustainable Materials Management in Maryland

ECOS SMM Workgroup

August 1, 2019

2017 Executive Order

- Signed June 2017
- Sustainable materials management (SMM) policy
- Metrics and goals
- Building SMM partnerships



The State of Maryland

Executive Department

EXECUTIVE ORDER
01.01.2017.13

Waste Reduction and Resource Recovery Plan for Maryland
Rescinds Executive Order 01.01.2015.01

WHEREAS, Sustainable materials management means using and managing materials as efficiently and sustainably as possible throughout their entire life cycles;

WHEREAS, Through source reduction, reuse, and recycling, Maryland can extend existing disposal capacity, reduce the need to construct new or expanded solid waste disposal facilities, conserve natural resources, including water and energy, increase the innovative reuse and beneficial use of dredged material, and support a productive economy through recovery of valuable resources;

WHEREAS Studies have shown that diverting material from disposal to reuse, recycling, and composting results in more jobs and a more sustainable economy;

WHEREAS, New and emerging materials management technologies provide opportunities to recover more energy, nutrients, and other resources from waste, while fostering new businesses in Maryland;

WHEREAS, The potential applications for innovative reuse or beneficial use of dredged material are vast, including transportation, climate change adaptation and publicly-funded site remediation projects, habitat creation, wetland restoration, shoreline stabilization, landscaping, road construction, landfill cover, land reclamation and the manufacture of marketable products such as concrete, bricks, blocks, aggregate and topsoil;

SMM Policy for Maryland

- Minimize environmental impacts of materials over the full lifecycle
- Reduce disposal through source reduction, reuse and recycling
- Capture and make optimal use of resources
- Manage materials sustainably in the long term

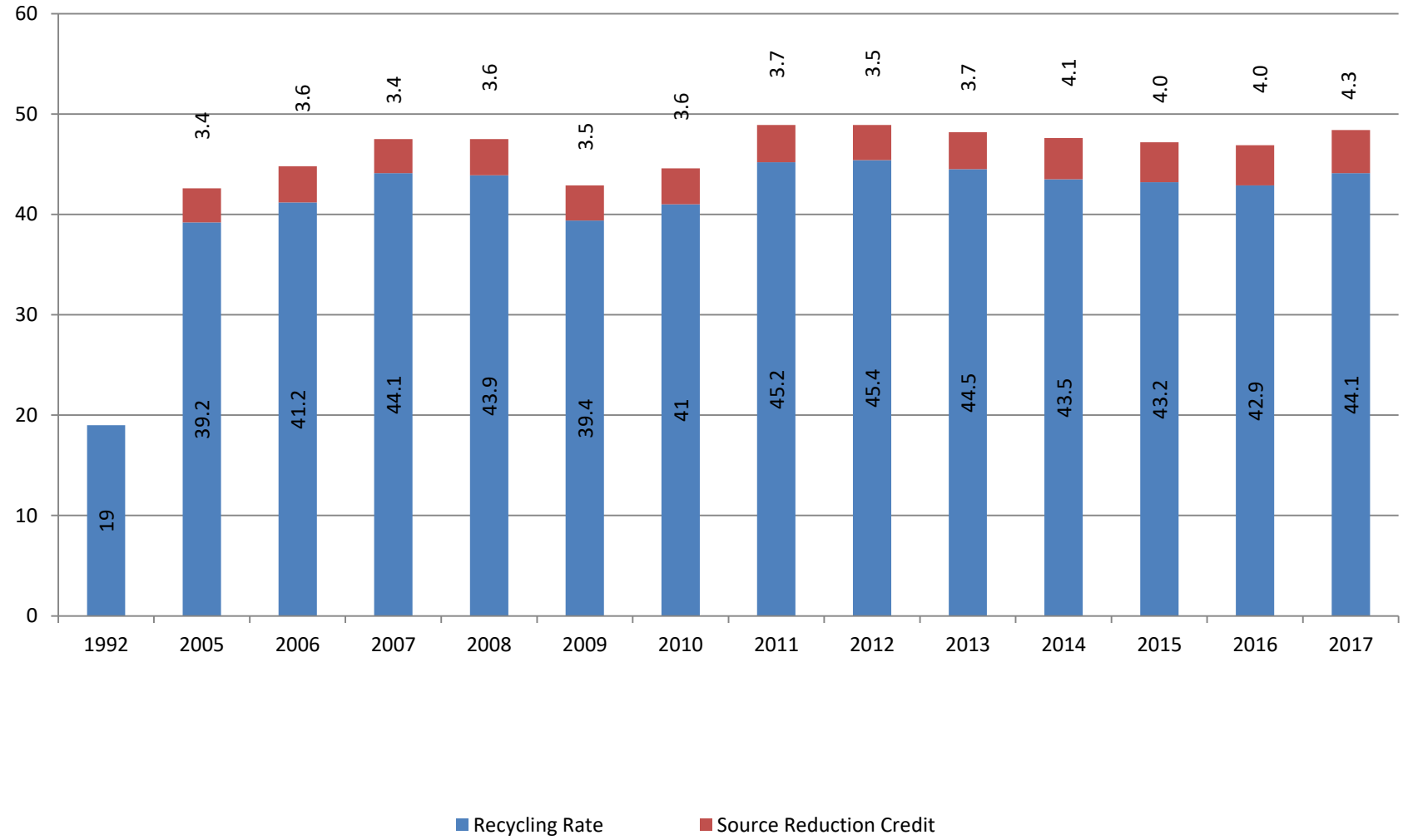
Lifecycle Phases of Materials.
From U.S. EPA

Metrics and Goals

Recommend:

- A method of quantifying and tracking statewide waste diversion
- Voluntary statewide SMM goals
- A method of obtaining business waste diversion data

Maryland Recycling and Waste Diversion Rates



Metrics and Goals – Work to Date

- Applying the SMM policy to metrics:
  - Consider the impacts throughout the lifecycle
  - Link metrics to environmental outcomes
  - Recognize environmental impacts of different types of materials
  - Incorporate the most comprehensive data available, including from the commercial sector

Metrics and Goals – Work to Date

Benefits of Recycling Rates

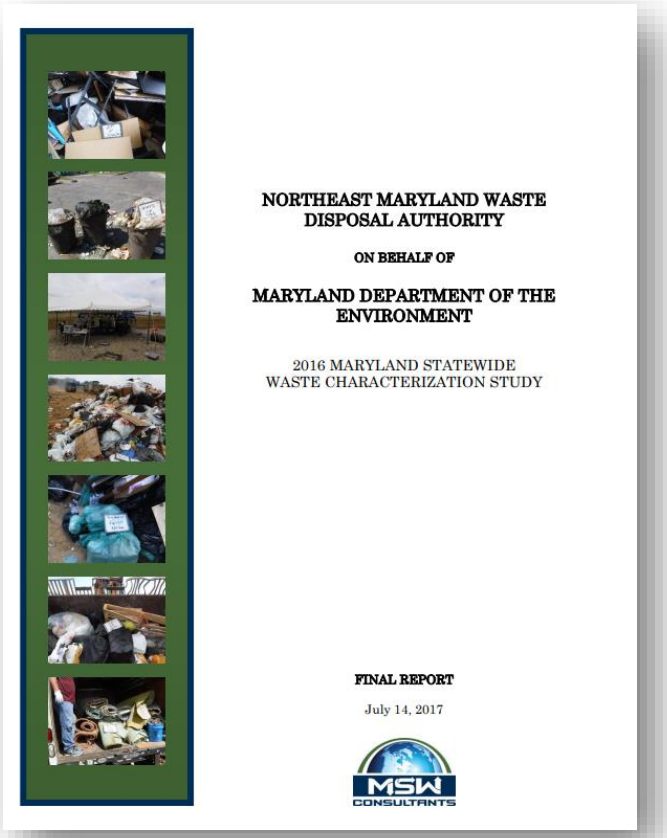
- Easy to calculate and understand
- Can be tracked historically
- Indicator of end-of-life management

Limitations of Current Metrics

- Focus only on end-of-life management
- May not always reflect optimal environmental outcomes
- Treat all materials the same

Metrics and Goals – Work to Date

Statewide Waste Characterization Study



Metrics and Goals – Work to Date

Figure ES-6 Comparison of Residential and ICI Most Prevalent Materials

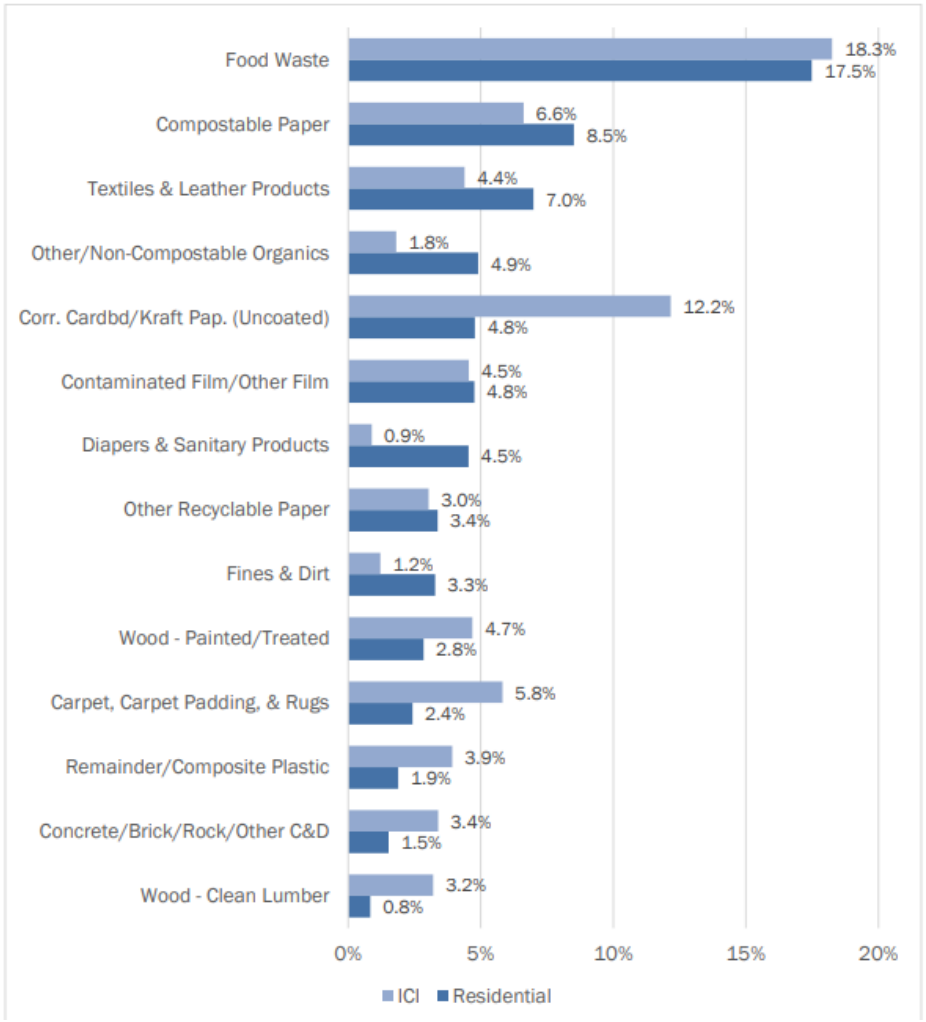
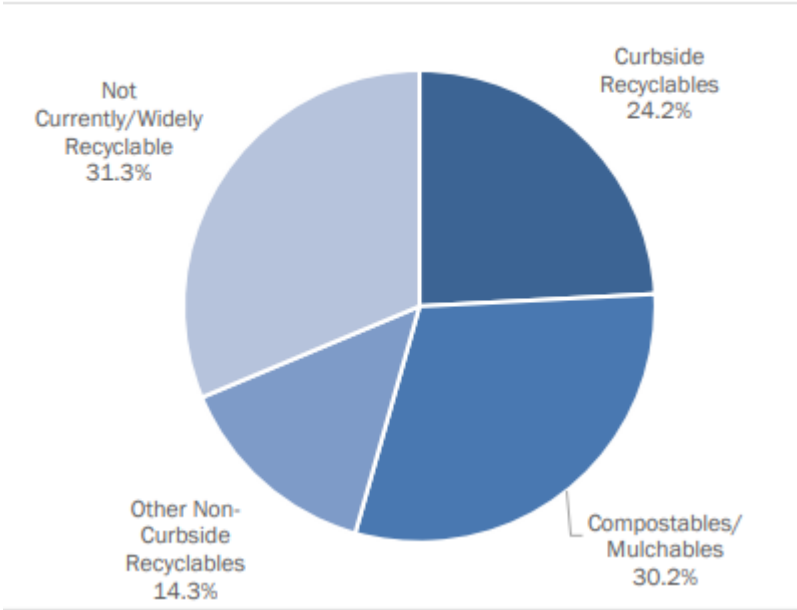
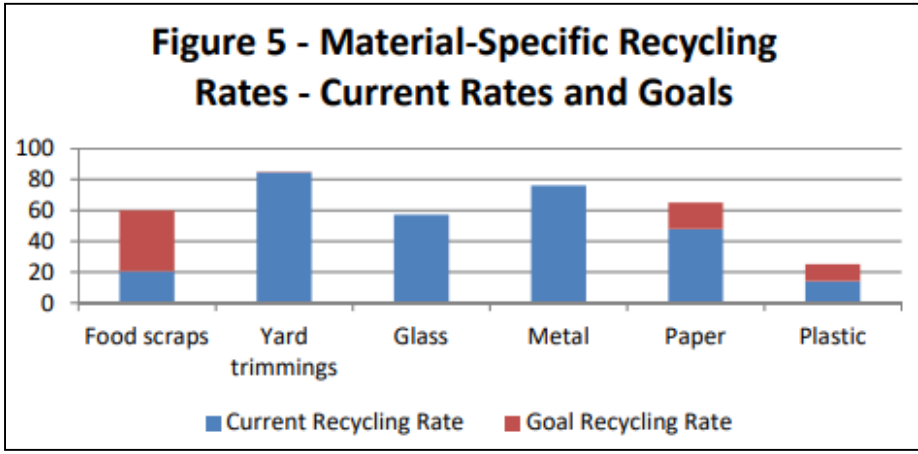


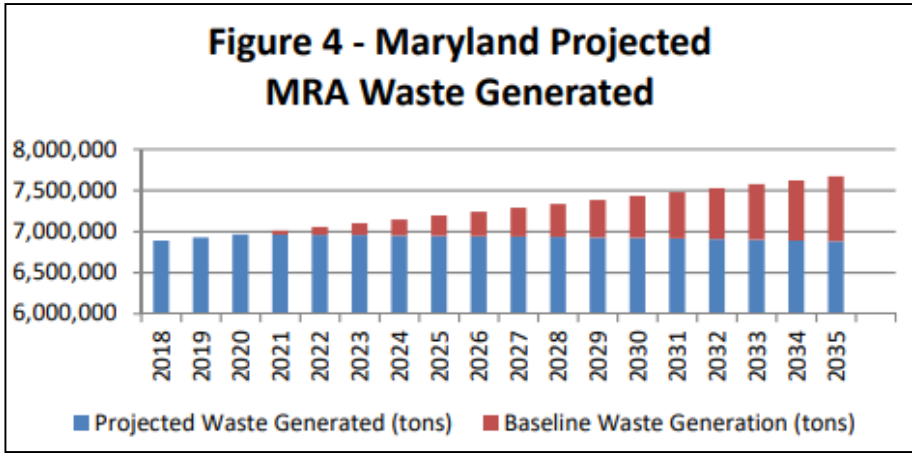
Figure ES-4 Statewide Divertibility of Disposed Wastes



Metrics and Goals – Work to Date

Metric	Goal
Waste generation per capita	Reduction in the amount of waste generated by 10% to 5.5 lbs/person/day
Greenhouse gas (GHG) emissions reductions from materials management	Annual reduction of 1.2 million $MTCO_2e$ in 2035, compared to a baseline year of 2016.
Reduction in energy usage associated with materials management	Annual reduction of 4.3 trillion BTUs in 2035, compared to 2016.
Material-specific recycling rates	Voluntary recycling rate goals for each county of: • Food scraps – 60%; • Yard trimmings – 85%. • Glass – 55%; • Metal – 75%; • Paper products – 65%; and • Plastic – 25%.
Overall statewide recycling and waste diversion rate goals	Maintain the goals of 55% recycling and 60% waste diversion currently in the statute, but extend the timeframe to 2035.



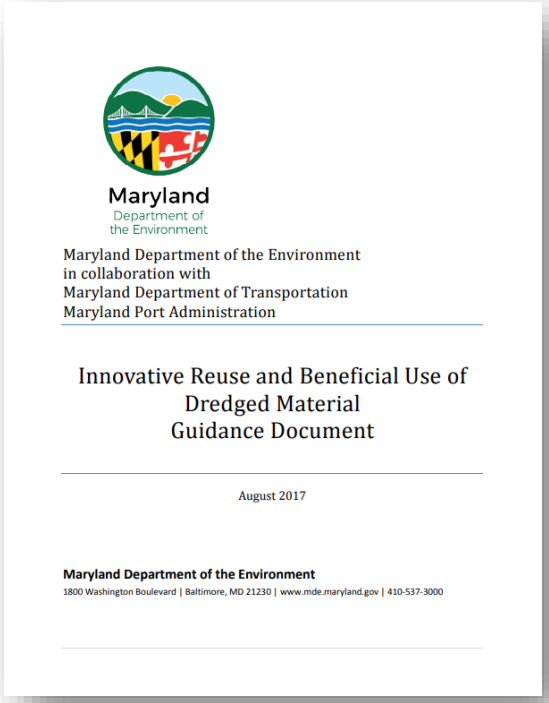


Metrics and Goals – Work to Date

- Commercial recycling data may be incomplete
- Encourage more voluntary reporting:
  - Create a simple, online reporting system
- Update the source reduction credit system

Partnerships, Collaboration, and Outreach

Innovative reuse of dredged materials and soils



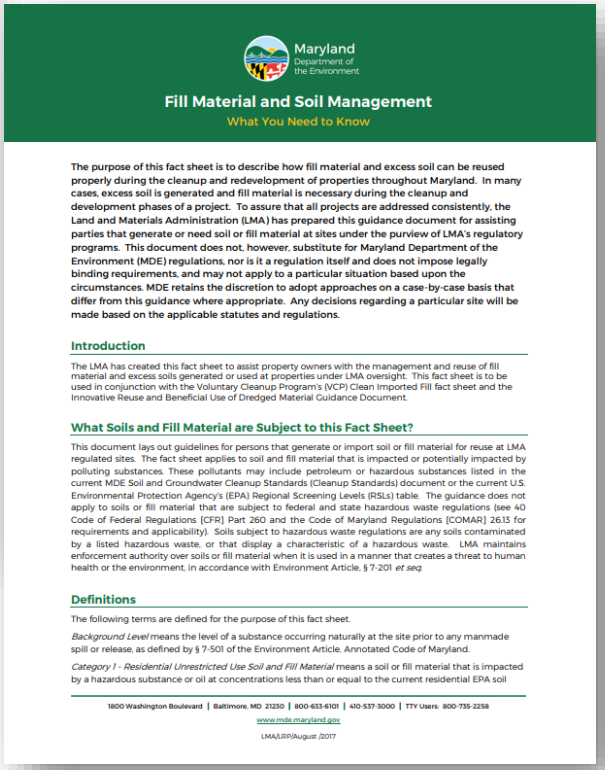
Maryland
Department of the Environment

Maryland Department of the Environment
in collaboration with
Maryland Department of Transportation
Maryland Port Administration

Innovative Reuse and Beneficial Use of Dredged Material
Guidance Document

August 2017

Maryland Department of the Environment
1800 Washington Boulevard | Baltimore, MD 21230 | www.mde.maryland.gov | 410-537-3000



Maryland
Department of the Environment

Fill Material and Soil Management
What You Need to Know

The purpose of this fact sheet is to describe how fill material and excess soil can be reused properly during the cleanup and redevelopment of properties throughout Maryland. In many cases, excess soil is generated and fill material is necessary during the cleanup and development phases of a project. To assure that all projects are addressed consistently, the Land and Materials Administration (LMA) has prepared this guidance document for assisting parties that generate or need soil or fill material at sites under the purview of LMA's regulatory programs. This document does not, however, substitute for Maryland Department of the Environment (MDE) regulations, nor is it a regulation itself and does not impose legally binding requirements, and may not apply to a particular situation based upon the circumstances. MDE retains the discretion to adopt approaches on a case-by-case basis that differ from this guidance where appropriate. Any decisions regarding a particular site will be made based on the applicable statutes and regulations.

Introduction

The LMA has created this fact sheet to assist property owners with the management and reuse of fill material and excess soils generated or used at properties under LMA oversight. This fact sheet is to be used in conjunction with the Voluntary Cleanup Program's (VCP) Clean Imported Fill fact sheet and the Innovative Reuse and Beneficial Use of Dredged Material Guidance Document.

What Soils and Fill Material are Subject to this Fact Sheet?

This document lays out guidelines for persons that generate or import soil or fill material for reuse at LMA regulated sites. The fact sheet applies to soil and fill material that is impacted or potentially impacted by polluting substances. These pollutants may include petroleum or hazardous substances listed in the current MDE Soil and Groundwater Cleanup Standards (Cleanup Standards) document or the current U.S. Environmental Protection Agency's (EPA) Regional Screening Levels (RSLs) table. The guidance does not apply to soils or fill material that are subject to federal and state hazardous waste regulations (see 40 Code of Federal Regulations [CFR] Part 260 and the Code of Maryland Regulations [COMAR] 26.13 for requirements and applicability). Soils subject to hazardous waste regulations are any soils contaminated by a listed hazardous waste, or that display a characteristic of a hazardous waste. LMA maintains enforcement authority over soils or fill material when it is used in a manner that creates a threat to human health or the environment, in accordance with Environment Article, § 7-201 *et seq.*

Definitions

The following terms are defined for the purpose of this fact sheet.

Background Level means the level of a substance occurring naturally at the site prior to any manmade spill or release, as defined by § 7-501 of the Environment Article, Annotated Code of Maryland.

Category 1 - Residential Unrestricted Use Soil and Fill Material means a soil or fill material that is impacted by a hazardous substance or oil at concentrations less than or equal to the current residential EPA soil

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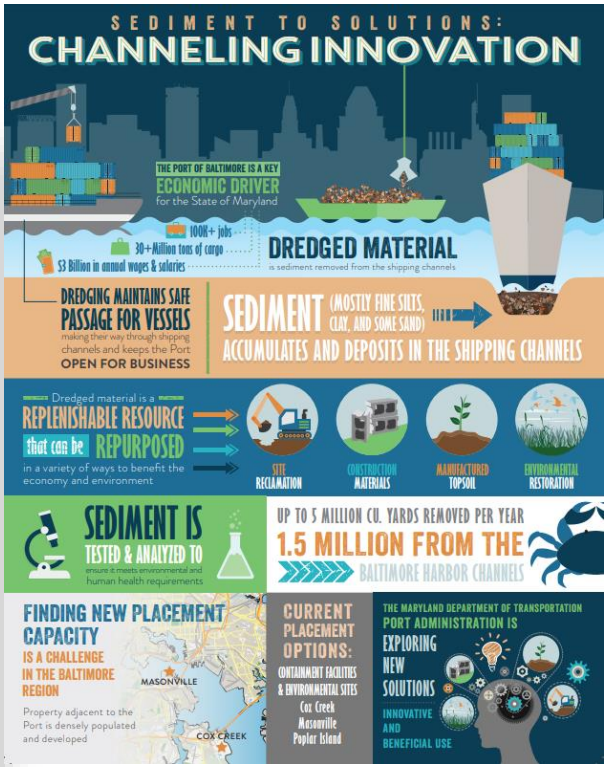
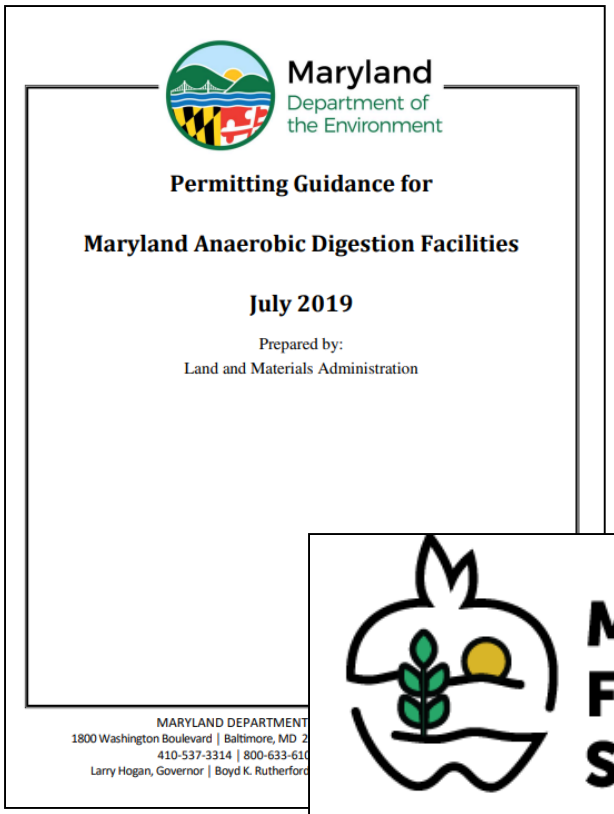
www.mde.maryland.gov
LMA/LRP/August ,2017



Partnerships, Collaboration, and Outreach


Maryland
Department of the Environment

Permitting Guidance for

Maryland Anaerobic Digestion Facilities

July 2019

Prepared by:
Land and Materials Administration

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Larry Hogan, Governor | Boyd K. Rutherford


Mid-Atlantic Food Recovery Summit

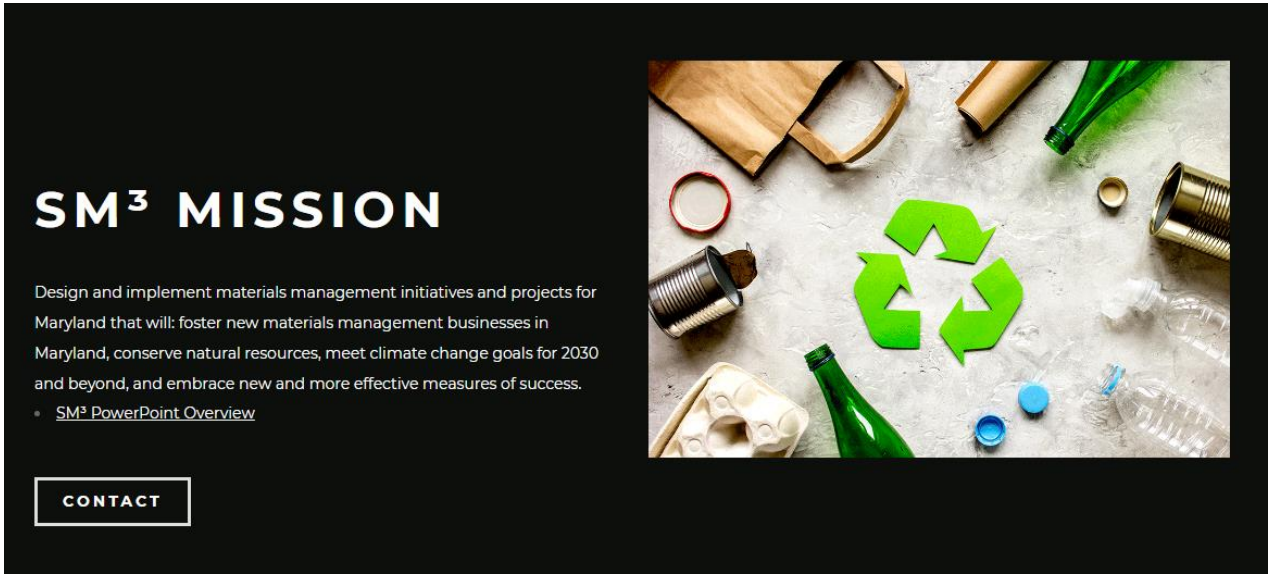
EIGHTH ANNUAL FOOD DAY

Organics recovery

- Stakeholder study group
- Technical assistance and outreach
- Food Recovery Summits

Partnerships, Collaboration, and Outreach

- SM³ private sector-led initiative
- Commerce, agriculture, energy, natural resources, transportation



Partnerships, Collaboration, and Outreach

Social media campaign on recycling quality

“Rethink Recycling”

Maryland Dept. Of The Environment
July 23 at 4:23 AM ·

While recycling is as important as ever, contamination has become a serious problem. Contamination occurs when any unacceptable material gets mixed in with your recyclable items. Anything from food waste (including small scraps) to the wrong kind of glass or plastic items can contaminate a load of recyclable materials. Watch this short video for more info:

YOUTUBE.COM
What is Recycling Contamination?
To learn more about recycling contamination and how you can help to solv…

Maryland Dept. Of The Environment
July 6 at 10:51 AM ·

The average person in the U.S. generates about 4.5 pounds of waste each day. Of that, only 1.5 pounds is recycled! The Maryland Department of the Environment is optimistic about the future of recycling.

This article in Waste360 (http://bit.ly/328QpfJ), is a great synopsis on what is happening right now with recycling. “Be optimistic about the road ahead because real change is afoot, and we are standing on the edge of a defining moment,” writes author Kate Bailey. We will ... See More

WASTE360.COM
Why (and How) to Talk Optimistically About Recycling Right Now

QUESTIONS?