

Recycling Terminologies, Technologies and Resources



Recycling Definition per the National Recycling Coalition

- "Recycling is a series of activities by which material that has reached the end of its current use is processed into material utilized in the production of new products."

The slide features a central yellow rectangular area with a fine, dotted texture. This area is framed by a dark green border at the top and bottom, which contains a repeating pattern of light green, downward-pointing triangles. The title "Recycling Terminologies" is centered within the yellow area in a dark green, serif font.

Recycling Terminologies

Term: Zero Waste

- 90% of landfill reduction is considered zero waste.
- Provides a goal to guide people to change their lifestyle and practices to emulate sustainable natural cycles where materials are designed to become resources.

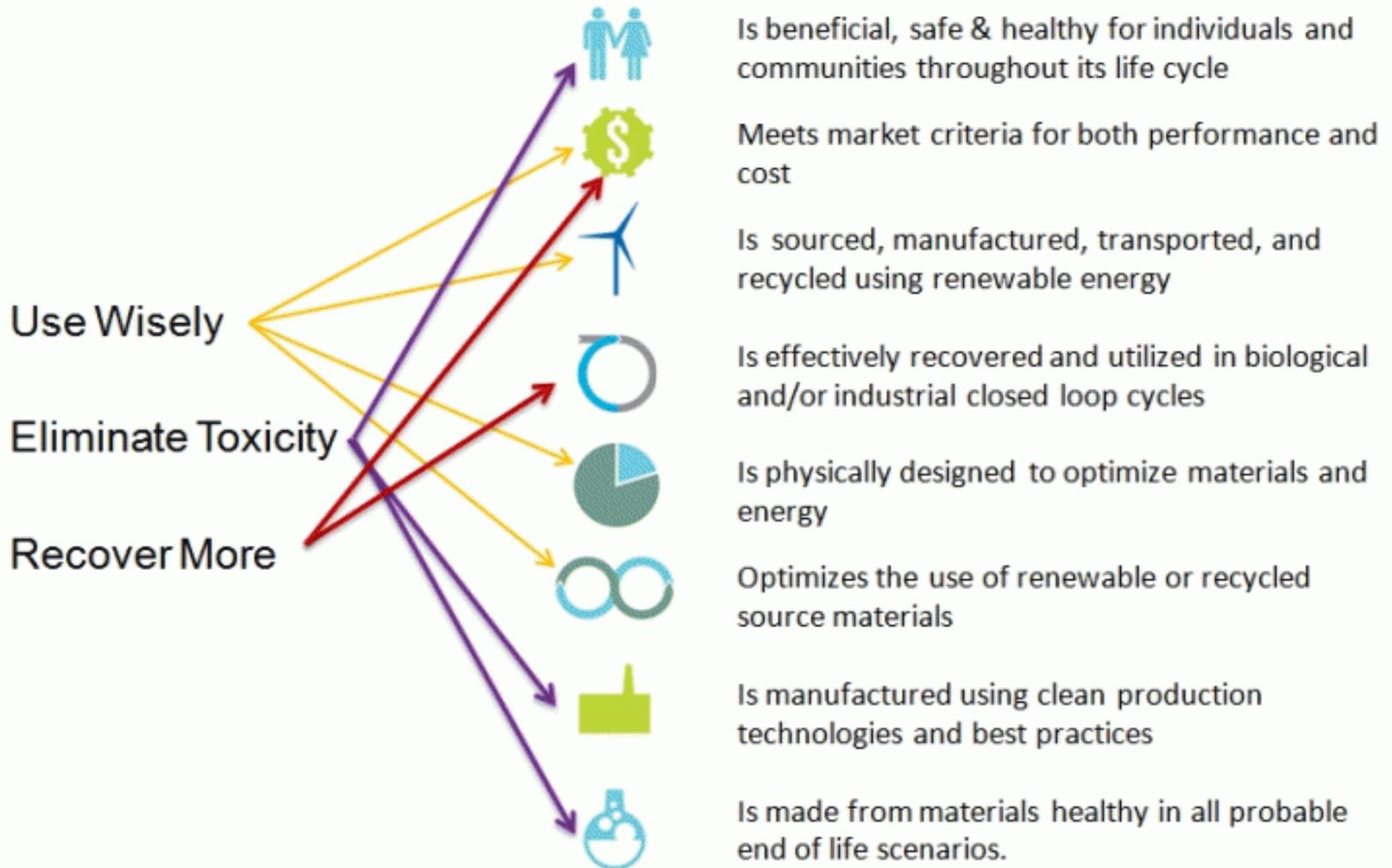


Term: Sustainable Materials Management

- According to EPA, Thinking Beyond Waste doesn't just mean making good decisions about the end of a product's life cycle (recycling, composting, energy recovery, and landfilling).
- It refers to sustainable materials management – the use and reuse of materials in the most productive and sustainable way across their entire life cycle.



Term: Sustainable Materials Management



Term:

Volume Based Billing

- **Volume Based Billing** also known as PAYT.
- In communities with pay-as-you-throw programs (also known as unit pricing or variable-rate pricing), residents are charged for the collection of municipal solid waste based on the amount they throw away. This creates a direct economic incentive to recycle more and to generate less waste

Pay As You Throw

**Implementing
volume-based
solid waste fees**



Term:

The Evolving Ton

- Per capita waste generation is down 8% since 2000 and that has an effect on all approaches to handling the “waste” stream including: recycling, landfilling and waste to energy.
- Packaging is becoming lighter weight with more and more plastics being used in lieu of other materials.
- Newspaper printing has decreased and more online buying has increased the volume of smaller corrugated boxes. So there is less paper, more plastic and little growth in metals.

Term: The Evolving Ton

The evolving package

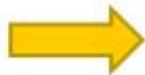


Glass jars,
metal
cap to
PET jar,
PP cap

- Light-weighting
- Flexible packaging expected to grow 4-6% annually in the next few years



HDPE Bottle, PP
Cap to multi-
layer, flexible
film pouch



From steel can,
paper label
adhesive to multi-
layer, foil-lined
flexible film
pouch

Term: The Evolving Ton

The materials and products we use in our daily lives have evolved.
We are seeing: Less paper, more plastic and no growth in metal.



Term: Adaptive Reuse

- Adaptive reuse refers to the process of reusing an old site or building for a purpose other than for which it was built or designed. It encompasses two related but divergent concepts: (1) renovation and (2) sustainable deconstruction.



Term: Circular Economy

- The Circular Economy looks closely at how we design, make, sell, re-use and recycle products to determine how to secure the maximum value, both in use and at the end of their life.

Term: Circular Economy





New Technologies

Technology: Mixed Waste Processing (aka Dirty MRF)

- There are three primary ways to collect household recycling:
 - source separation
 - single stream
 - no separation from trash (or “all in one”), also known as mixed waste processing.
- MWP is a one-bin system where the consumer places all trash and recyclables in one bin with no separation.



Technology: Anaerobic Digestion

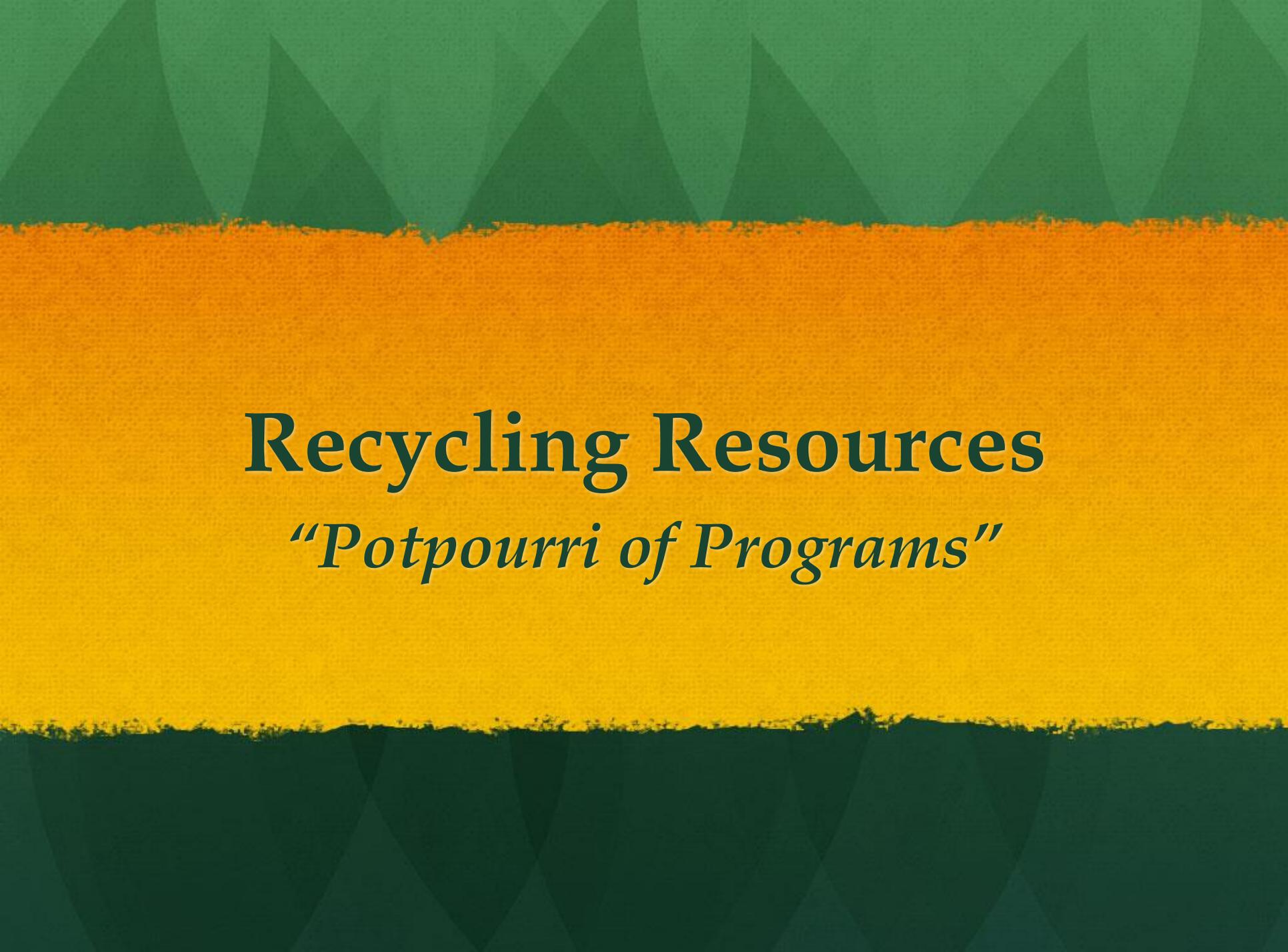
- Anaerobic digestion uses naturally occurring microorganisms to break down organic materials and produce biogas, a mixture of methane and carbon dioxide.
- The biogas can be combusted to produce renewable electricity, cleaned to pipeline natural gas standards, or further processed into compressed natural gas (CNG) fuel.



Technology: Plastics to Fuel

- **Plastics to Fuels**
- Plastic to fuel (PTF) conversion is important not only because it reduces the amount that goes to landfills but it can also be an energy source.
- PTF is accomplished via pyrolysis, the decomposition or transformation of a compound caused by heat.





Recycling Resources

“Potpourri of Programs”

Recycling Resources

- Organizations listed below are getting back to the basics of good recycling to engage citizens in reducing contamination, following directions provided by their collector/hauler as well as standardized labeling/bin placement and design for away from home bins.
- Recycle Across America - www.recycleacrossamerica.org
- Waste Management's Recycle Often/Recycle Right campaign
- KAB/NWRA's "10 in the Bin"
- How2Recycle <http://www.how2recycle.info/> labeling program
- Plastic Recycling Terms & Tools resource: <http://www.recycleyourplastics.org/>

Sample Labeling/Signage

 Georgia Recycling Coalition

Recycle!

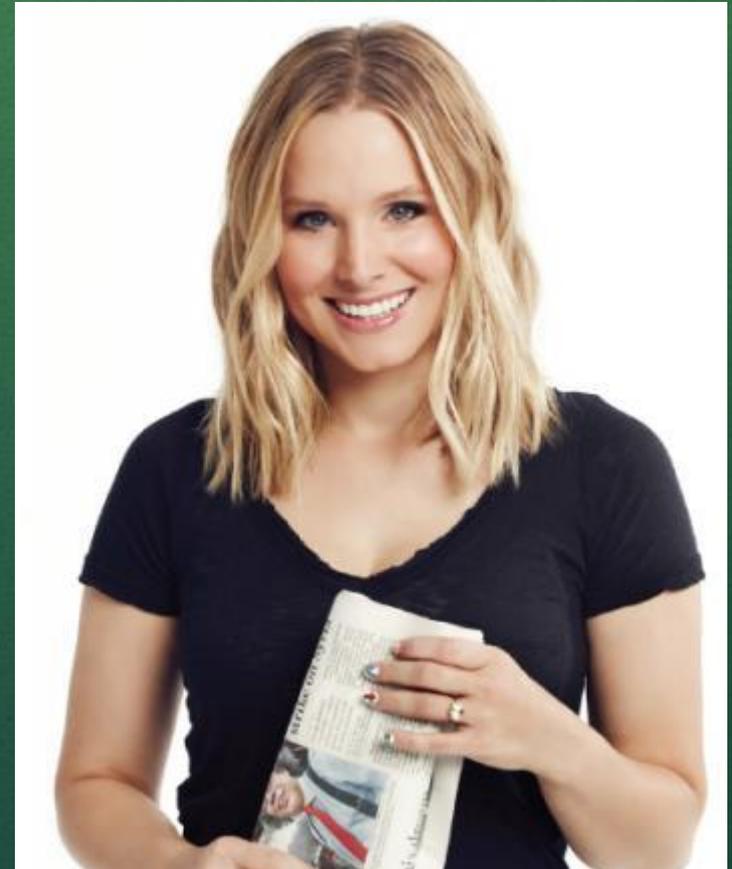
Think before you throw

Follow instructions to avoid contamination 

			
Read the directions provided by your recycling provider	Look for new recycling labels on packaging that explains how to recycle the item	Keep food scraps out of recycling bins, and compost when possible	Check local resources for information on events and locations that accept hard-to-recycle materials

Recycle Right!



Recycle Right

THINK BEFORE YOU THROW



CONTAMINATION MAY CAUSE
MATERIALS YOU PUT IN YOUR
RECYCLE BIN TO END UP IN
THE LANDFILL INSTEAD



Stop Contamination.
Follow directions and
RECYCLE RIGHT!



**RECYCLE OFTEN.
RECYCLE RIGHT.™**

Sample Labeling/Signage

**DON'T HAVE YOUR HEAD IN THE CLOUDS...
follow directions and labeling provided.**

Help keep recycled
materials clean, dry,
and contamination
free.

**RECYCLE
RIGHT!**



**Georgia
Recycling
Coalition**

Sample Labeling/Signage

I ♻️ | **WHAT CAN I RECYCLE?**
America Recycles

TOP 10 IN THE BIN

1. CARDBOARD
2. PAPER
3. FOOD BOXES
4. MAIL
5. BEVERAGE CANS
6. FOOD CANS
7. GLASS BOTTLES
8. JARS (GLASS & PLASTIC)
9. JUGS
10. PLASTIC BOTTLES AND CAPS

ALSO RECYCLABLE BUT NOT IN CURBSIDE BIN

- PLASTIC BAGS AND WRAPS
- ELECTRONICS
- TEXTILES

Find out about your local recycling options here:
www.iwanttoberecycled.org

EPA
United States Environmental Protection Agency

KEEP AMERICA BEAUTIFUL

National Waste & Recycling Association
Clean. Recycle. Innovate.

SWANA
Solid Waste Association of North America

Recycling Resource: Grant Opportunity

- **Recycling Partnership - RFP process open now - Due April 15 - www.recyclecurbside.org**
- Formed in 2014 [The Recycling Partnership](#) transforms public program performance through infrastructure improvements and strategic outreach. Overseen by **Curbside Value Partnership**, the project pools partner dollars to offer communities technical and financial assistance around four key areas:
 - **Access:** Ensuring all households with curbside collection are served by large roll carts.
 - **Champion Building:** Building support from local and state elected officials.
 - **Regional Coordination:** Creating strategy across the entire supply chain, ensuring use of best management practices.
 - **Education and Outreach:** Increasing participation and reducing contamination.

Recycling Resource: Low Interest Loans

- Closed Loop Fund – Open Enrollment Now - www.closedloopfund.com
- Led by [Walmart](#), the Closed Loop Fund is a consortium of major corporations that also includes Coca-Cola, PepsiCo, Johnson & Johnson, Procter & Gamble, Unilever, Keurig Green Mountain and Goldman Sachs;
- The initiative's goal is boosting municipal recycling rates. It is described by its investors as "a social impact fund that provides municipalities access to the capital required to build comprehensive recycling programs." The Fund plans initial investments amounting to \$100 million that will be distributed to municipalities in the form of zero-interest and low-interest loan.

Recycling Resource: Recycling@Work Education

- Recycling at Work
- Keep America Beautiful launched an initiative in fall of 2013 in conjunction with America Recycles Day called **Recycling at Work**: www.recyclingatwork.org. The program is designed to increase recycling in the workplace by asking these entities to pledge to strive for a 10% increase over two years as the proposed goal.



Recycling Resource: Made in Georgia Video

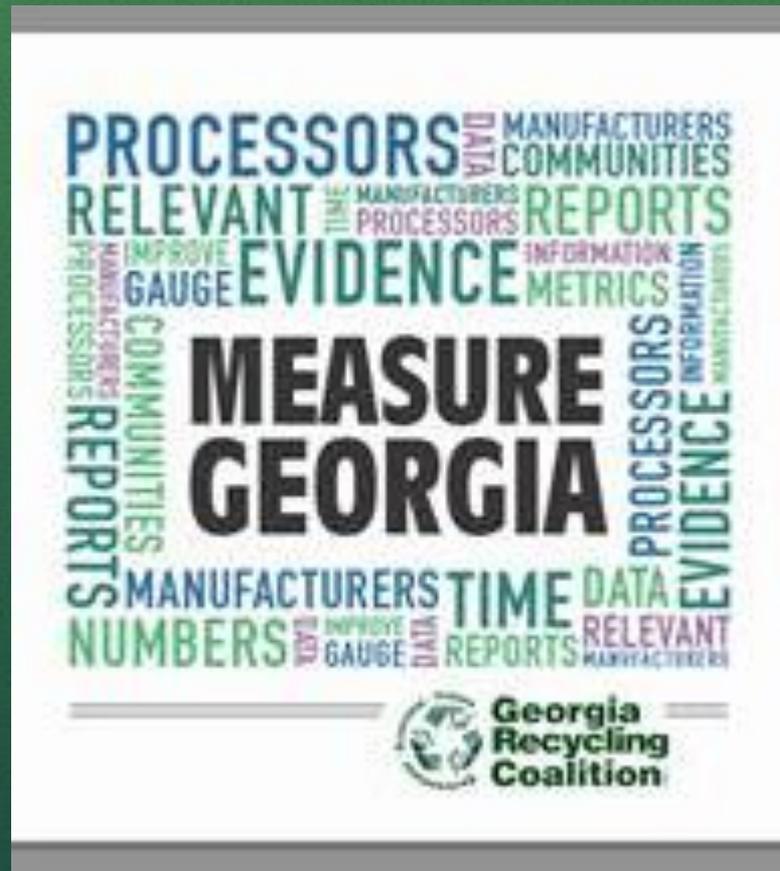
- The *Made in Georgia...with recycled materials* campaign was officially launched August 2013 based on results of a GIS mapping project initiated by GA DNR/ EPD and funded by an EPA grant.
- The GA Department of Economic Development joined as a partner.
- The Mapping tool became an exchange between generators and end users for locating sources for beneficial use of materials.

- <https://vimeo.com/92443221>



Recycling Resource: Measure Georgia

- Measure Georgia, an initiative of the Georgia Recycling Coalition, aims to collect data to report on the size and economic impact of recycling in Georgia.



Recycling Resource: CHaRM-Atlanta

- Center for Hard to Recycle Materials (CHARM) is a program of Live Thrive Atlanta in partnership with the City of Atlanta.
- The program takes materials not collected at the curb like HHW (Household Hazardous Waste), paint, electronics, mattresses, plastic bags & wraps, fluorescents, and tires.
- The center will also offer bins for collection of single stream household and commercial recyclable materials (paper, plastic containers, metals and glass).



CHaRM-Athens

- Athens-Clarke County Recycling Division
- Will accept all of the following materials: Automotive Fluids, Batteries, Bulbs, Carpet, Cleaners, Clothing/Shoes, Electronics, Fire Extinguishers, Grease, Gasoline, Lawn Care Products, Paint, Propane Tanks, Tires and MORE! We will be charging shipping and handling fees on some of the previously listed materials.



COMING IN 2015

CONTACT THE ACC RECYCLING DIVISION AT
WWW.ATHENSCLARKECOUNTY.COM/RECYCLING
OR (706) 613-3512 FOR COMPLETE DETAILS

Recycling Resource: ZWZ

- The ZWZ program is a voluntary, business-to-business environmental effort for restaurants in four designated zones:
 - Downtown, Midtown, Buckhead, and the Atlanta airport
- The program is run by the Georgia Restaurant Association - zerowastezones.org



Resource:

Composter Workshop

- **Compost & Anaerobic Digester Rules for Georgia**
- The new rules pertaining to Composting, Mulching and Anaerobic Digestion Facilities were approved by the Georgia Department of Natural Resources Board of Directors in May 2014.
- **Composting Operators Workshop – March 19 & 20**

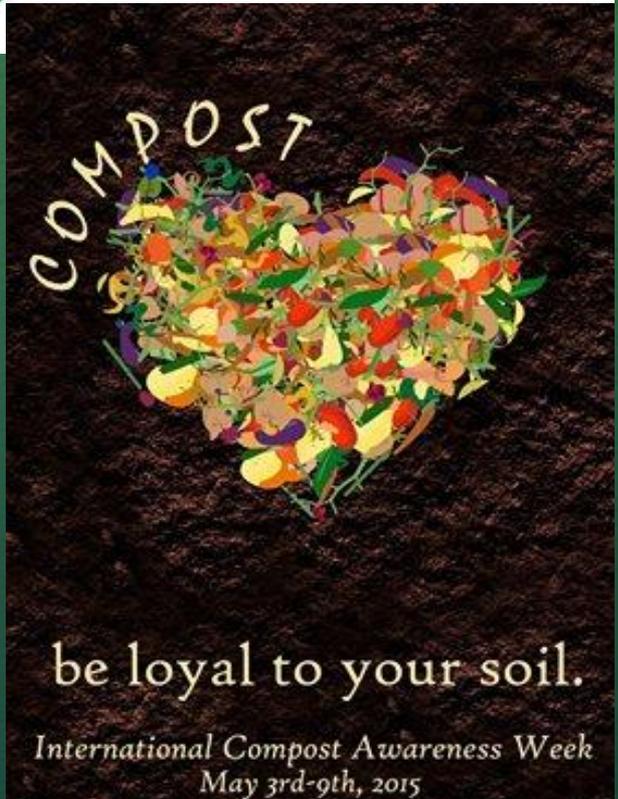


Recycling Resource: Intl. Compost Awareness Week

- Held the first week of May annually, ICAW is a multi-media publicity and education effort that showcases composting and compost products.
- Offered by the US Composting Council, it features composting in your back yard or at large scale commercial composting facilities.



US Composting
Council
*International Compost
Awareness Week*



Recycling Resource: WRAP Plastics Campaign

- The Wrap Recycling Action Program (WRAP) is a new public awareness campaign designed to empower motivated stakeholders to contribute to a common goal: to make plastic film packaging a commonly recycled material with a strong and ever-growing recycling rate.
- www.plasticfilmrecycling.org

www.plasticfilmrecycling.org

Where do I **RECYCLE**
plastic bags and wraps?

NOT curbside.

FIND A STORE OR OTHER
DROP-OFF LOCATION NEAR YOU.

CLICK TO FIND



Recycle clean, dry, plastic bags and film packaging

Look for this label on film products like these...

Recycle if Clean & Dry
Store Drop-off
PLASTIC
BAGS / FILM / WRAP
how2recycle.info

- NO frozen food bags
- NO pre-washed salad mix bags
- NO degradable bags

Recycled plastic bags and wraps can become new packaging or durable home building products.

plasticfilmrecycling.org

Recycling Resource: CVP Connect

- CVP Connect is a web-based communications training tool developed by the Curbside Value Partnership. Designed specifically for recycling coordinators, it is a new, free online destination for resources and guidance on developing, executing and measuring strategic and effective education campaigns.
- www.CVPConnect.org



Recycling Resource: A Bag's Life

- A Bag's Life is a public education campaign that unites non-profits, business, community and government organizations around the common goal of promoting reduce, reuse, recycle as they relate to plastic bags and wraps.



www.abagslife.com

Recycling Resource: Multi-Family Recycling Toolkit

- The goal of this toolkit is provide a map to guide local recycling program managers, property managers and owners, elected officials, haulers and vendors, and professional associations to assure their efforts will have the greatest impact.
- www.georgiarecycles.org
(under Environmental Education/ Citizen Resource Guides)



Recycling Resource: S2ORT

- This toolkit, performance model and more assists local governments in consideration of adding organics collection to their collection programs. Find it under links on GRC website or online at:
- <http://www.dca.state.ga.us/development/PlanningQualityGrowth/programs/SWMrecyclingAssistance.asp>
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Recycling Resource: Prescription Drug Take-Back

- The Drug Enforcement Administration (DEA) held regularly scheduled National Prescription Drug Take-Back Days for four years....now left up to local law enforcement in cooperation with pharmacies, local governments, and non-profits.



Recycling Resource: Local Reclamation/Re-use

LifeCycle Building Center-Shannon Goodman or
Adam Deck

- <http://www.lifecyclebuildingcenter.org/contact-us/>

Reclaim-It-Michelle Uchiyama

- <http://reclaimitalanta.com/>



www.georgiarecycles.org