

YOU STAY GLASSY, GEORGIA

Middle / High School Course Outline on Clean Glass Recycling Hosted by Comm Jason Shaw and Comm Tim Echols

GLASS RECYCLING FACTS + NUMBERS

- Glass can be recycled and re-manufactured an infinite amount of times without loss of integrity.
- Making glass from recycled material cuts related water pollution by 50%.
- Recycling just one glass jar saves enough electricity to light an 11 watt CFL bulb for 20 hours.
- More than 28 billion glass bottles and jars end up in landfills every year -- that is the equivalent of filling up two Empire State Buildings every three weeks.
- In 2018, landfills received approximately 7.6 million tons of MSW glass.

BRIEF HISTORY OF RECYCLING AND COLLECTION METHODS

- Originally recycling centers accepted sorted materials
- In the 90's single-stream recycling gained popularity as the convenient option
 - What is single-stream recycling? (SINGLE-STREAM GRAPHIC)
 - Single-stream recycling : (also known as "fully commingled" or "single-sort") recycling refers to a system in which all paper fibers, plastics, metals, and other containers are mixed in a collection truck, instead of being sorted by the depositor into separate commodities (newspaper, paperboard, corrugated fiberboard, plastic, glass, etc.) and handled separately throughout the collection process. In single-stream, both the collection and processing systems are designed to handle this fully commingled mixture of recyclables, with materials being separated for reuse at a materials recovery facility (MRF).
 - Convenience - no sorting required. Just throw it in the bin.
 - Feel good - residents feel good by easily participating.
 - High contamination - there are many studies / articles dating back decades acknowledging the high contamination levels in single-stream
 - Single-stream recycling often results in 30%-70% contamination rates
 - Many single-stream loads take the long route to the landfill
 - Glass in single-stream collection
 - Breaks, embeds, and contaminates other materials.
 - The glass is also highly contaminated, sometimes even chemically contaminated, and is often still not clean after being fully processed.
 - Many tons of glass that go through the single-stream system often end up in the landfill or at best, being down-cycled.
 - Quality glass leaves the circular economy.



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TRENDS IN CLEAN GLASS RECYCLING

- Communities are trending towards more clean recycling systems which require some degree of sorting by the resident. ([DUAL-STREAM GRAPHIC](#))
 - Why does glass need to be collected in a clean stream? ([WHY GLASS ONLY COLLECTION VIDEO](#))
 - Benefits to clean glass collection communities ([#GLASSONLY BENEFITS TO COMMUNITIES VIDEO](#))

GLASS RECYCLING AND U.S. MANUFACTURERS

- Current mainstream glass recycling chain ([MAINSTREAM RECYCLING CHAIN GRAPHIC](#))
 - Where can contamination enter the chain in single-stream recycling ([CONTAMINATION ENTERS GRAPHIC](#))
 - Added contamination decreases value ([ADDED COST TO MATERIAL CHAIN GRAPHIC](#))
- Dirty glass in manufacturing
 - Creates increases risk / danger for workers in the plant
 - Weakens integrity of new glass containers
 - Bottles breaking
 - Manufacturers are limited in the amount of recycled content they can use when making new products due to potential contamination in the recycled content
 - Without a source of clean glass cullet manufacturers are stifled in working towards sustainability goals that include increasing recycled content
 - Glass container manufacturers' clients want increased recycled content!
- Demand for recycled glass cullet is high
 - Glass container manufacturers can make thinner and stronger containers when they have a steady supply of clean recycled glass cullet
 - Manufacturers want to increase and in some cases double or more their recycled content
 - Clean glass recycling collection program benefits to manufacturers ([MANUFACTURER BENEFITS VIDEO](#))
- What industries use recycled glass content
 - Glass Containers Manufacturers
 - Insulation Industry
 - Lightweight Concretes
 - Foamed Glass



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GLASS RECYCLING AND THE ECONOMY

- Closed loop process / Circular economy
 - What is the circular economy ([CIRCULAR ECONOMY GRAPHIC](#))
 - (also referred to as "circularity") is an economic system aimed at eliminating waste and the continual use of resources. Circular systems employ reuse, sharing, repair, refurbishment, remanufacturing, recycling, and upcycling to create a closed-loop system, minimizing the use of resource inputs and the creation of waste, pollution and carbon emissions.
 - What is a linear economy ([LINEAR ECONOMY GRAPHIC](#))
 - "take, make, dispose" model of production.
- Material needs to be clean to be turned into new products
- Expanding recycling creates jobs
 - Collection
 - Processing
 - Manufacturing
 - Transporting

CLEAN GLASS RECYCLING TIPS

- Make sure your glass is #CleanAndDry before tossing it in the recycling bin
- Remove caps / lids
- When in Doubt, Throw it Out!
- Don't bag your recyclables
- #GlassOnly means only glass should go in the bin
- Visit recycleglasshere.com to learn more
- Follow #recycleglasshere to get involved in the conversation

OTHER RESOURCES

- [Recycle Across America](#)
- [Glass Packaging Institute](#)
- [US EPA](#)

