QUESTIONS MUNICIPAL RECYCLING LEADERS SHOULD ASK ABOUT GLASS RECYCLING Glass bottles and jars are 100% and endlessly recyclable. Clean glass is in demand by industry, glass recycling reduces carbon emissions, and surveys consistently show that over 90% of consumers both want—and expect—to recycle them.

So what is really causing pressure to stop or change glass recycling in your area? Collection? Quantity? End markets? Is MRF contamination depressing the value of the material? Is it budget related? Or is it an issue with hauler contract terms or budgets?

Before any decisions are made that will impact the community, it is important to understand the variety of avenues and options for glass recycling that can work for your residents.

The following questions can help determine the best direction for satisfying residents' expectations to recycle glass, coupled with available resources to do so effectively.



COLLECTION

- What type of collection for glass is most effective for your local system? Commingled single-stream collection may be less expensive, but is dependent on truck and MRF technology, and may not produce the highest return when processing and market value are considered. Glass "on-the-side" or dual-stream collection will produce cleaner streams. See <u>examples</u> of collection types for glass.
- Are there locations available for glass drop-off collection or at a transfer station?
- Are there opportunities for the commercial collection of glass (i.e., bar and restaurants)? See a few examples of successful <u>commercial collection</u>.



QUANTITY

- How much glass is available for collection and recycling? Use this <u>chart</u> to make some estimates about available glass in your system.
- Are there nearby communities with similar needs that could create a partnership in a glass collection program or processing? Here are some examples of regional glass programs in <u>Northern Virginia</u>.
- What resources can I call upon to help me expand or optimize my program? <u>The Glass Recycling Foundation</u> provides grants for glass recycling projects.



QUALITY AND END MARKETS

- What end-market resources are in my area? See <u>Glass Recycling Coalition Map</u>
- When is the last time the tipping room floor has been audited or an independent assessment of the quality of material has been made?
- Are you aware of the Institute of Scrap Recycling Industries standards for three-color mixed container glass? The GRC created a <u>MRF Glass Certification</u> based on the <u>ISRI MRF Glass Specification</u>.
- Does the contract provide exclusivity to the hauler for marketing the recycled commodity? If a hauler decides it does not want to recycle the material, we recommend options for marketing glass. This enables another vendor to purchase/process/market the material and avoid the landfill.
- Is separated glass accepted at all community drop-off centers? Learn about successful drop-off programs.
 - » Do these facilities have attendants? Drop off programs without regular supervision can be subject to illegal dumping.
 - » Is glass separated from other recyclables by color? Few communities even separate glass by color, see a collection <u>case study</u>.



PROCESSING

- What is the chain of custody for our city's glass? Where does it go after the MRF? Is my recycling material processed at a MRF or secondary processor? Have you reached out to the secondary processor to have a conversation about options?
- What is the glass capture rate required from the MRF?
- Does your MRF have the equipment needed for basic glass cleaning such as a glass breaker or air separator?
- What types of provisions is my MRF making to remove glass early in the sorting process (e.g., clean-up equipment, manual processes, etc.) and remove contaminants after separating? See <u>best practices</u> for a MRF.
- Are you aware of the end uses for glass at the MRF that may not be considered recycling, like construction uses, roadbed, piping, water filtration, alternative daily cover, etc.?



ADMINISTRATION

- How can I make my resident-supported glass recycling program even more effective? (i.e., popularity, satisfaction, amount diverted, municipal goals, glass end-market products, alternative uses, etc.)
- What are the terms of my current service provider network contracts (e.g., collection and processing of recycling)?
- When are those contracts up for renewal? Consider writing your bid to include glass clean-up or <u>MRF Glass</u> <u>Certification</u> as a requirement.
- Is glass an accepted commodity? Is there the ability to make changes either through the current contract, renegotiating, or issuing a Request for Proposal (RFP)?
- What are the collection terms, included or not included, in a universal, mandatory, and/or opt-in collection schedule? The frequency of collection schedules could make a difference in glass-separated <u>collection options</u>.
- If asked to pay more for glass collection, inquire why and share nearby end market resources. <u>Glass</u> <u>Recycling Coalition Map</u>
- If offered a lower price to remove glass, make sure you and your decision-makers understand the impacts throughout the entire supply chain and consider the consequences for removing glass, such as additional education, potential non-compliance enforcement, and overall confusion for your recycling program. This would include any increased landfill tip-fee cost increases that may paid by your municipality as a result. Find more resources and information on the <u>Glass Recycling Coalition's website</u>.
- Establish a measurement system for glass sold post-MRF processing so that you can understand if the glass value has decreased or if the contamination has increased. Consider establishing a contractual maximum contamination level to increase value.

RESOURCES

There are many options for municipalities to keep glass in their programs. Find out about other case studies, funding opportunities, and end markets. The following organizations work closely together to make glass recycling a success across the country and are ready to respond to your needs.





The Glass Packaging Institute (GPI) is the trade association representing glass container manufacturers, processors and their supply chain partners. GPI has supported the development of the Glass Recycling Coalition and Glass Recycling Foundation, offers technical and networking support, and recently completed a study for strategies to increase glass recycling using regional solutions. More information is available at www.gpi.org.

The Glass Recycling Coalition (GRC), established in 2016, provides technical assistance and support to build strong regional glass recycling supply chains. More information is available at <u>www.glassrecycles.org</u>.



GPI also worked with these same partners to launch the Glass Recycling Foundation (GRF) in 2018 to channel financial support to address critical gaps in regional glass recycling supply chains. More information is available at <u>www.glassrecyclingfoundation.org</u>.