

Residential Commingled Collection Guidelines

Commingled recycling is being adopted as the preferred collection methodology for communities across the Northwest due to its convenience for customers and the inherent collection efficiencies, but commingled collection is but the first cog of a system that turns discards into value added products. The system includes the promotion and education (government and/or collectors), preparation (individuals), collection programs, the processing arena (MRFs), and an end market (mills).

Inconsistent program design and promotion coupled with varying levels of sorting technology and human resource commitments are leading to systematic quality issues that appear most significantly at the end user level. In order for recycling to remain viable, a stakeholder group from across the region has developed the following guidance for local government regulators or others involved in developing and managing curbside collection programs.

This guidance has been developed with the goal of maximizing the quality and quantity of recycled feedstocks delivered to materials manufacturers, while also addressing health and hazard potentials for participants in the system.

Summary of the Flowchart:

Flowchart : Material		
a: Is material a health hazard?	Yes = A no = b	A: Do not collect at curbside in a co-mingled system.
b: Is MRF designed to sort and capture the material?	No = B Yes = c	B: A separate but rate supported curbside or drop off program may be warranted.
c: Does material routinely become a MRF residual and/or outthrow?	Yes = C no = d	C: This material may not be effectively sorted at the MRF and/or material may cause a processing problem at the MRF.
d: Is material routinely sorted to meet market standards?	No = C Yes = e	
e: Is the end-market sustainable?	No = D Yes = include in program, go to section 2	D: Community needs to address long term market sustainability if this material is included in the program. If included, proceed to section 2.

Flowchart:

1. **Flowchart for determining whether to include a material in a commingled collection program:**
 - a. ***Does the material represent a health hazard for employees who collect and process recyclable materials?***
 - i. ***If yes, go to section A.***
 - ii. ***If no, go to b.***
 - b. ***Is the MRF which processes collected materials designed (and permitted, if applicable) to sort and capture the material being considered for recycling purposes?***
 - i. ***If no, go to section B.***
 - ii. ***If yes, go to c.***
 - c. ***Does the material considered routinely become a MRF residual, or outthrow or prohibitive in another commodity stream?***
 - i. ***If yes, go to section C.***
 - ii. ***If no, go to d.***

- d. ***Does the MRF routinely sort the material such that the level of prohibitives and outthrows meet end market standards?***
 - i. ***If no, go to Section C.***
 - ii. ***If yes, go to e.***
- e. ***Does the MRF sell their sorted materials to a market that is sustainable, where indicators of sustainability include a mature and/or engaged industry and a process that displaces virgin material that involves documented energy or greenhouse gas emissions savings?***
 - i. ***If no, go to Section D.***
 - ii. ***If yes, continue to Section 2.***

- A. This material should not be collected curbside, and all promotional materials should address this exclusion and provide guidance on how to collect them. Continue to sections 2 and 3.
- B. A separate, but supported curbside or drop off collection system may be warranted. Consider:
 - a. Does the material represent a toxicity hazard when disposed, is widely considered a recyclable item, or would represent a significant cost savings when diverted from traditional disposal?
 - i. If yes, consider developing a separate collection program for this material with costs spread across the rate-paying base.
 - ii. If no, this is a material that does not appear to be warranted as inclusive within a community recycling program.
- C. This indicates that the material may not be effectively sorted at the MRF. Community options at this point include:
 - a. If the material can be effectively sorted when prepared in a proper way by the generator, then prioritize recycling education around this material in particular (example - including shredded paper in a paper bag)
 - b. Establish a contract or agreement with the MRF that sets performance standards and recognizes meeting it.OR
 - c. Include references to the NW Recycling Standards or Goals for MRFs when writing contracts, rules, or ordinances, e.g. "collected materials are delivered to a facility that participates is able to document that it meets the NW Recycling Standard."
 - d. Go to section B and continue with the flowchart.
- D. The community needs to address long term market sustainability if this material is included in the program. If included, continue with Section 2 of the flowchart.

- 2. **Materials Specification.** If agreeing to the guidelines, when establishing ordinances, rules, or contractual language, a local government should:
 - a. Create a list of materials that are allowed in the commingled curbside collection program. Other materials may be collected in another type of collection system such as segregated curbside collection or drop-off.
 - b. Require the reporting of information by the MRF, including collected feedstock mix percentages by weight, residual levels, and cross-contamination issues, if any.
 - c. Not refer to the number 1-7 resin code system but instead utilize descriptive terminology for plastics.
 - d. Identify prohibited materials, including at a minimum "sharps".
 - e. Evaluate and consider provisions for keeping commingled materials dry and out of the weather, and provide an adequate recycling collection container, usually a 65 gallon or 90 gallon cart to customers.
 - f. Consider limiting compaction pressures utilized by collection vehicles such that breakage and/or flattening of containers are kept to a minimum.

- g. Specify that those recyclables collected in a source segregated manner should remain source segregated and not be mixed with commingled materials prior to processing at a MRF or elsewhere.
- h. Specify that in no case shall properly prepared source segregated or separated recyclables be disposed of as garbage by a collector and establish approved procedures whereby commingled materials may be considered solid waste due to excessive contamination from prohibitive materials, including provisions for a fee to be assessed to the customer for said solid waste.

3. Customer Education. If agreeing to these guidelines, a local government should establish provisions for customer education needs and establish responsible parties for such provision. Educational elements of ordinances, rules, or contracts should consider including:

- a. An emphasis on the proper preparation of recyclable materials within a commingled collection system through continual efforts made to inform collection customers about material quality utilizing a mixture of media identified under consultation with professional communication specialists.
- b. A procedure through which collection companies are able to identify, verify, and directly notify customers regarding the placement of prohibitive materials into commingled collection containers.
- c. The outcome of an annual assessment of commingled collected materials based on data generated from a validated sample of such materials and which differentiates approved materials from prohibitive materials. The goal of the program is that prohibited material not exceed 5% of the total weight collected.
- d. Information about local source segregated opportunities, if such programs are likely to result in a higher or better use than materials collected through a commingled methodology or if such programs result in the recycling of prohibitive materials.
- e. Sufficient funding for recycling program education and promotion, commingled materials assessment, and vehicle enhancements such that drivers can identify prohibitive materials.

4: Local Government Accountability

- a. Before adding a material to a public collection program, the local government agrees to follow the flow chart from Section 1 to determine whether or not the material should be added.
- b. If private collection companies are providing the public recycling collection program through a franchise or contract or other agreement, the local government agrees to provide a rate structure that is sufficient to support the recycling collection program.
- c. The local government agrees to annually determine the actual amount of materials marketed for recycling as a percentage of the collected material.
- d. The local government agrees to work to achieve a rate of no more than 5% non-program material in the materials collected through commingled recycling collection.

Note: The information contained in this document represents the discussions that occurred throughout the stakeholder process. It does not necessarily represent the views or policies of any of the individual organizations that participated. For more information on the stakeholder process, please contact Vicky Salazar (206-553-1060, Salazar.Vicky@epa.gov) or Melissa Winters (206-553-5180, Winters.Melissa@epa.gov).