

Optimizing the Commingled Residential Curbside Recycling Systems in Northwest Washington

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Background

Who was involved

- Island
- King
- Kitsap
- Snohomish
- San Juan
- Skagit
- Whatcom



Optimize residential commingled curbside recycling programs to:

- Provide customer, environmental, social, and economic benefits;
- Result in quality materials for return to commerce;
- Ensure public confidence in the recycling system; and
- Provide ease of use by residents.



Report Organization

1. Commodity Issues/ Recommendations
2. Recycling System Issues/ Recommendations
3. Implementation Workgroups





1. Commodity Issues and Recommendations

Metal Lids Findings:



- Loose metal lids that are less than 3 inches in diameter are lost as residual at the MRF and disposed.



Metal Lids

Recommendations:

- Leave metal lids from metal containers attached or crimped inside the can.
- Do not put metal lids less than 3 inches in diameter in the recycle bin.



Plastic Caps Findings:



- Plastic caps are recyclable, but end up as residual at the MRF unless they are put back onto the container.
- Litter and marine debris problems.



Plastic Caps Recommendation:

- Inform residents to put caps back onto empty plastic bottles and into the recycling cart together.



Aluminum Foil, Trays, Pans

Findings:



- Aluminum non-beverage containers are often contaminated with food, are difficult to sort, and have low recoverability at smelters.



Aluminum Foil, Trays, Pans Recommendations:

- Do not collect aluminum foil, trays and pie pans in curbside commingled systems.



Plastic Bags and Film Findings:



- Plastic bags and film become entangled in sorting equipment at MRFs and negatively impact the sorting of other commodities.



Plastic bags and film

Get tangled in MRF screens



Plastic Bags and Film Recommendations:

- Do not collect bags/film from curbside in commingled collection bins.
- Promote taking these items to participating retailers; build on national efforts when feasible (i.e. WRAP; www.plasticfilmrecycling.org).
- Explore bag ban legislation.



Shredded Paper Findings:



- Shredded paper is too small to be sorted by machinery at MRFs, it contaminates other commodities and the majority is not recycled.



Shredded Paper Recommendations:

- Do not collect shredded paper in commingled recycling systems.
- Request customers to tear off and shred only sensitive information.
- Promote use of shred events that collect and recycle the material in bulk.



Food-contaminated Paper Findings:

- Paper that is contaminated with food cannot be recycled. Food contaminated paper is not accepted in any system but it continues to be a common contaminant.



Food-contaminated Paper Recommendations:

- Provide an education program to decrease this form of contamination.
- Do not add food contaminated paper to list of accepted recyclables.
- Do not put food contaminated papers in the recycling bin.



Poly-coated Paper

(milk cartons, juice boxes, cups, and frozen food boxes)

Findings:

- Poly-coated paper cannot be sorted easily at MRFs and cannot be processed at local paper mills.



Poly-coated Paper Recommendations:

- Engage the Carton Council.
- Determine system costs and per ton costs.
- Identify funding sources for pilots/system improvements.
- Engage manufacturers.



Compostable and Degradable Plastics

Findings:

- These plastics are not easily distinguishable from petroleum-based plastics and can contaminate plastics bales.



Compostable and Degradable Plastics Recommendation:

- Require the use of clear and accurate labeling on compostable and degradable plastic packaging.



Glass Findings:



- Glass breaks into fine pieces which contaminate other materials, especially paper products.
- Damages equipment.
- Safety hazard for MRF workers.



Glass Recommendations:

- Collect glass separately if possible.
- Communities that don't take glass in their commingled programs should continue to keep it separate.



Glass

Recommendations:

- Explore alternative methods of collecting glass.
- Conduct further research on the costs and benefits.
- Examine the impacts of the secondary glass processing facility, Strategic Materials that has entered the market in the Northwest Region.





2. Commingled Recycling System Issues

1. Commingled curbside recycling programs accept materials that are marginally recyclable or are disruptive to the regional recycling system.

2. Commingled curbside recycling programs vary across the Northwest Region leading to confusion by the public about what can be recycled.

Materials Collected

All Commingled Programs

- Office paper
- Corrugated cardboard
- Boxboard
- Phone/paperback books
- Mail/envelopes
- Magazines/catalogs
- Paper bags
- Newspaper & inserts
- Aluminum & steel cans
- PET/HDPE bottles & jugs



3. There is a lack of assurance that materials collected in curbside programs are processed at high recovery rates and at their highest value at MRFs.

4. New and existing packaging and products are designed without consideration of recyclability in the current curbside recycling system.

5. Messaging and symbols on packaging can create confusion.

6. The mix of plastic resins and containers is becoming more complex.



3. Implementation Workgroups

Next Steps Implementation Work Groups!

- **Education/Messaging Workgroup**
- **Contracting/Harmonization Workgroup**
- **Packaging Industry Collaboration Implementation Work Group (PICIWG)**



Next Steps

Packaging Industry Collaboration Implementation Work Group (PICIWG)

- WRAP program in WA and OR
- Plastics Recovery Facility in NW





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