

# What to Include in Your Residential Commingled Recycling Collection Program:

*A best management practices guide for governments*

The purpose of this guide is to illustrate what an ideal commingled collection program would include if the focus of the program was to ensure best and highest use of recyclable materials and maximize their market value. It is intended to be used by local governments in Washington as a tool to inform policymakers on decisions on what to include in their programs and why.

The Expanded Southwest Region Commingled Workgroup created this guide as part of the statewide WA Commingled Recycling Improvements Project. It is based on the group's report, *Beyond the Curb – Tracking the Commingled Residential Recyclables from Southwest WA* (June 2010), and represents the consensus of the Workgroup members, which includes stakeholders from local governments, haulers, MRFs/processors, and end-users. The full report can be found at <http://www.ecy.wa.gov/pubs/1007009.pdf>.

For questions about this guide or the WA Commingled Recycling Improvements Project, please contact:

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# Yes ✓

Include in your commingled cart:



**Paper:** Newspaper (w/inserts), phone directories, non-refrigerated paper food boxes, printer and notebook paper, unwanted mail/catalogues, magazines, paper bags and corrugated boxes are all compatible with commingled collection and processing systems, and are wanted by local and export end-use markets either as news, mixed or corrugated grades.



**Plastics:** PET and HDPE bottles and jugs—clear, colored and natural—are all compatible with commingled collection and processing systems, are understood by the public, have good value, and are wanted by local and export end-use markets either as PET, HDPE, or mixed grades. Non-bottle rigid plastic containers have domestic and strong export markets. It has a high value for the bulk since it is heavy and easier to sort than lighter, thinner plastic containers.



**Metals:** Steel cans, aluminum cans, and metal pots and pans are all compatible with commingled collection and processing systems, are understood by the public, have good to excellent value and are wanted by local end-use market as either used beverage container grade or scrap steel.

Empty, dry, no lids, flatten if made of paper

# No

DO NOT include in your commingled cart:



**Glass:** Because glass breaks—unlike the other commodities—it poses significant problems and hazards for the processing and end-use parts of the commingled system. Not only does it contaminate the paper, but because it has been commingled, its potential end-uses are dramatically reduced from an environmental and economic standpoint.



**Paper:** Greasy or soiled paper is not wanted by end-users and is considered contamination. Shredded paper falls through the processing system at the MRF and ends up as litter or as fines (garbage).

**Plastics:** Plastic film and bags cause significant problems for the processor as it wraps around machinery. Plastic drinking cups, trays and clamshells are easily flattened in the collection and processing system and end up mixed in with the paper and not recycled. Plastic caps and lids fall through the processing system and end up in the paper or the fines (garbage). Hazardous materials or medical waste are safety hazards for MRF employees and should not be commingled.

**Metal:** Very small pet food cans are collected in such small amounts that they cannot reasonably be separated and end up as a contaminant in the paper. Long, flexible or heavy scrap metals are a hazard—no chains, wires or auto parts. Lids that are not firmly attached to a can are a safety issue for MRF staff, get stuck to the paper or lost in the fines and are not recovered.

**Collect separately, take to a drop off location or put in the garbage**

# Use Caution

Talk with your hauler, MRF and end-users to decide if these materials make sense to include in your commingled cart:



**Paper:** Paper products that held liquids or were intended to be refrigerated (polycoated, aseptic and wet strength) are designed not to break down in water. This property makes them undesirable at news and kraft mills where they are considered a contaminant. Yield losses of these materials when pulped are at, or close to, 100%. If gabletops and aseptic containers are separated during processing and baled separately, they can be recycled at tissue mills. Egg cartons in paper bales are prohibited by Chinese customs due to possible food contamination. Pieces of paper smaller than a postcard will likely fall through the processing system and will not get recovered.



**Plastics:** Bottles smaller than 8oz may fall through the processing system and may not get recovered. Clear plastic containers made of PS or PVC are commonly read as PET by the optical sorters and get sorted into the PET bottle bales, in which they are not compatible. MRFs that use hand sorters instead of, or in addition to, optical sorters may be able to process PS or PVC containers.



**Metals:** Aerosol cans can pose problems on the collection system if they are not empty, causing a mess (paint) or a hazard to the driver (pesticides). Aluminum trays, plates, and foil are collected in such small amounts that they cannot be reasonably separated at MRFs. They end up as a contaminant in paper bales because they are easily flattened and move through the processing system like paper. Steel scrap metal that is heavy or long can cause safety hazards for both the collection and processing system. It can also lead the consumer to think of the commingled recycling cart as having the ability to accept everything.

**Ask: Is this material getting recycled?**