

WA Commingled Improvements Project: Southwest Region Workgroup

August 27, 2009, Ecology HQ, 9:00 - 12:30

Notes

Focus on Plastics in the Commingled System

Responses to Questions on Plastics:

Local Governments and Collectors

- **What is the specific messaging for preparation?**
Only 2 jurisdictions focus messaging on numbers, all others focus on shape/opening; no bags (except 1 jurisdiction); no caps; no message to flatten; rinse/clean; YES/NO photos
- **Special/extra messaging?**
When in doubt throw it out; Take grocery bags back to the store; If it's dairy, we accept it (for tubs); on cart tags for contamination (3 jurisdictions) and yes/no stickers; articles focused on plastics; (In development for Pierce: Throw it out if it requires too much rinsing/energy use); greenhouse gas messages for entire system including external energy inputs
- **Collected the same as other materials?** Yes
- **Does it provide revenue for your program or is it only a cost?**
Cost (2 jurisdictions), revenue (2 jurisdictions), cost benefit to disposal (1 jurisdiction)
- **Percent of total materials collected in curbside program?**
Olympia, Pierce, Auburn, & Shelton estimated at 5-8%; Thurston: 7%; Tacoma: ; Lewis:

Processors

- **Percent of total incoming?**
4-8% (a bit more HDPE than PET)
- **Quality of incoming?**
50% are non-program plastics (due to the high volume, a market is found to avoid the high cost of disposal); .2% of total incoming, all materials, is film (SP); same message throughout county means quality is good (CRC/West Van); film is problematic but the focus has been on making quality bales of the other plastics to ensure market support (export mostly)
- **Problems in processing?**
Film: 30-40% get pulled out, the rest cause problems (\$700-\$1000 a ton to pull out, \$50-60 a ton to sell the recovered film, 20-30% of labor spent dealing with film (a bale a day of film); lids are not recovered as plastic (either end up with fines and disposed or in with fiber due to shape/size); small bottles aren't recovered due to size (either end up with fines or residual—disposed either way); non-program plastics are the issue (Lots of blow-mold packaging. Crinkly stuff is the worst).
- **Areas that could be improved from MRF perspective?**
Use container descriptions instead of numbers; If it's crinkly, stretchy or smaller than a fist, throw it out; rinsing is not a big issue—never had a problem from a sales perspective; at curb checks for non-program materials; flattened plastics cause cross-contamination
- **Percent of residual?**
SP had to staff 6 people on their residual line to pull out plastics due to the high volume. Cans that get missed after eddy current and end up on the residual line are actually paying for the sorters on the residual line—not the revenue from the plastics recovered.
- **Rate the market: Strong, medium, weak for local and export?**
Strong; export (Back to two-thirds of where we were before last fall)
- **High value commodity?**
*Yes, higher labor to get it to the bale quality point, though
PET \$160, \$240 Natural HDPE, \$80 colored HDPE and everything, \$20 film (journal pricing)*
- **Easy to move?** Yes

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- **Sorted into?**
HDPE natural, mixed colored HDPE, PET (optical sort first 3), mixed everything (SP)
Typically HDPE, PET, mixed others

Manufacturers

No end-users were available (Shannon is trying to get e-responses to our questions from Merlin Plastics)

- Prohibitives?
- Outhrows?
- Yield loss?
- Capacity/ Need to use more?
- Problems with your equipment?
- Value in using vs. other virgin feedstock?
- Final product?
End-use of non-bottle rigids: Blow molding for thick-walled products (crates, carts, buckets)
- Percent of incoming from SW region:
- Problem areas:

Market Notes

Cascadia Consulting Group

(Information based on a survey conducted on behalf of the American Chemistry Council, 2009)

- PET, HDPE marketed separately, all else is mixed bales (SP: mixed colored HDPEs as well)
- In the survey, Waste Management reported they try to sell domestic, but they are dealing with large quantities. Mixed colored export.
- Merlin Plastics (B.C.) can take mixed bales in one shipping container vs. China wants all one type per shipping container
- No estimates on plastics in residual from processing
- 99% of plastics you can sell
- Uncertainties as to how much is actually getting recycled once exported (*Are they using all plastic grades or just cherry picking the 1&2's?*)
- Merlin – overseas markets determine quality (a point of frustration)
- The more you sort it, the easier you can move it
- Plastics are breaking even or making money

Moore Recycling Associates, Inc

Bottles:

- PET & HDPE are the strongest domestic markets. Mohawk and KW Plastics(?) are domestic that reach into the East. Export market is out-competing the domestic market (particularly true for HDPE) and there is significant concern of the sustainability of the domestic end-users.
- PET goes into fiber (carpet (Mohawk (US)), clothing, fiber fill) and packaging is rapidly growing. vPET competes with cotton – lots of elasticity between the two so suppliers move between both (the price of one affects the other). Price of vPET then affects the price of rPET.

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- Growing interest in thermoform using rPET. Used to be made out of vinyl and polystyrene. There is a shift away from those materials, and a growing interest in using recycled due to process ability, durability (product protection), and sustainability.
- PET sheet vs. flake. Vertically integrating for processors to turn flake into sheet rather than shipping flake for export. Sheet has higher markets.
- Domestic HDPE end-users are struggling with China taking over the market since China is paying more. Supply is in a world of hurt for domestic end-users.
- Transportation myths (i.e. *It's cheaper to ship to China than transport it nationally*) are really due to cheaper processing costs and a stronger economy in China right now.

Non-bottle rigids:

- Domestic and export markets. High value material for the bulk since it's easier to sort and it's heavy.

Everything else bale:

- No domestic market. 15% is probably disposed overseas. Patty will be going to China in November to see what is actually happening to these materials.
- Caps are recyclable, but processing costs are high. Safety issue with caps on in the bale.

Film:

- 4 grades – clear (pallet wrap, poly bags), mixed (mixture of colored and clear), MRF film (very dirty, amazed it moves), Ag film. MRF film – export only. Clear and mixed – domestic and export.

NIPPON

- Milk jugs are the nemesis from the mill perspective
- To MRFs: When the overall volume of ONP is down, will you be able to pull more plastics so I get a cleaner ONP bale?

Answer from MRFs: *MWP prices are so high that there is no benefit to sort to news grade.*

Reporting Method

Shannon will generate a template report sample by the end of September to see if it meets the needs of the group as a way of compiling /reporting the information gathered at the commodity-focused meetings to give a snap shot of materials (and issues) collected, processed and used in our region from the commingled residential recycling system. If you have any preferences or ideas, please let her know.

Meeting Schedule

Metals – September 24, 9:00 - 12:30

Glass – October 22, 9:00 – 12:30 (*maybe an all day mtg until 4:00?*)

MWP (*including shred*) – November 19, 9:00 – 12:30

Next Steps – December 17, 9:00 – 12:30