Curbside Recycling in Linn & Benton Counties
History of Recycling

- **Oregon Bottle Bill** signed into law in July 1971 (1st in nation, 10 total)

- Oregon retail stores pay the beverage distributor a 10-cent deposit for each eligible container they purchase. Deposits on containers not returned for refund (unredeemed deposits) are kept by the distributors.

- The containers included in Oregon’s Bottle Bill are water/flavored water, beer/malt beverages, soda water/mineral water, and carbonated soft drinks. All redeemable containers are labeled with the OR 10¢ refund value on the label.
  - New containers were added in January 2018

- Further, the bill provides the possibility of increasing the 5-cent refund value to 10 cents after the OLCC determines that, for two consecutive years, the number of containers returned was less than 80 percent of total number of containers sold.
  - Deposit increased in April 2017
History of Recycling

- September 1982 – Corvallis 1st curbside recycling program in OR; Albany 2nd
- 10 years later, state mandates curbside recycling for cities larger than 4,000
- 1st HHW – ’91 Albany, ’96 Corvallis
- 1998, curbside becomes commingled
- 2008, automated roll cart system
Recycling Now

• Green Fence 2013
• National Sword, Spring 2017
  • An effort to increase environmental quality
  • Decrease trash received
    • Haz waste, weapons, drugs, contamination (dirty, non-)
  • Mixed paper, Plastics
    • .3% contaminants (.5)
    • Right now contamination is at about 10%
• Reduced import permits
• Low quality, lack of storage and lack of markets is leading to disposal of some materials for a period (concurrence)
Recycling Now

- In an effort to meet the tightened contamination standards, MRFs have slowed their sorting lines.
- This has resulted in a lower throughput of materials.
- The flow of materials from us sent for recycling has not slowed to match this constraint.
- Without an outlet for the collected materials, sorting and storage capacity have become constrained.
- In some cases, processing and storage capacity have been exceeded.
- In other cases recycling costs have exceeded disposal costs.
- Oregon DEQ issuing temporary concurrences
Recycling Now

- AK, WI, MA, WA, CA and many others
- India, Vietnam, Thailand, Malaysia
- Domestic Markets

Where does this leave us?
The Future of Recycling

- Cleaner material
- Rate increases
- Limiting types of materials for recycling
  - Edits to mixed paper & plastics
  - Most jurisdictions in state cohesive
Collecting recyclables varies from community to community, but there are four primary methods: curbside, drop-off centers, deposit/refund programs, and buy-back centers.

For *curbside* material, the next leg of their journey is usually the same. Recyclables are sent to a materials recovery facility to be sorted into marketable commodities for manufacturing.

Recyclables are bought and sold just like any other commodity, and prices for the materials change and fluctuate with the market.
Collection

Through Republic Services, most recycling is collected at the curb, or depots.
Source Recycling

Commingled material is sent to Source Recycling in Albany, where it is baled for transport.
Processing at the MRF (Materials Recovery Facility)

• After commingled material is baled, it is transported to a MRF, or materials recovery facility, to be sorted.

• At the MRF, commodities are sorted into like materials.

• In this system, only those materials that are accepted by the MRF will be recycled.
The MRF - Processing

• Materials are loaded onto a conveyor belt and are sorted.
• Some sorting is automated, with powerful magnets, series of screens and fans.
• The rest of the sorting is done by hand.
Recycling Commodities

• Materials for recycle are called commodities. Just like stock commodities, **there must be a ready market for them to have value.**

• Not all materials that *can* be recycled are recycled in our system, (or most curbside programs in Oregon.)

• The MRF determines what they will accept for recycling based on markets that are available to them to sell those materials.

• What’s recyclable depends on where you live
BREAK TIME!!!
Commingled Recycling

• Commingled recycling began in 1998 in Linn & Benton Counties.
• Commingling or mixed recycling allows customers to mix most materials without sorting. (the exceptions are glass & motor oil)
• Statewide, recycling totals have gone up as communities move to commingled systems.
Preparing Items for the Curb

- Rinsing food residue from containers before recycling
  - prevents bacteria growth
  - reduces contamination of paper in the recycling.
  - helps to protect the health of people who handle it along the way.

- Materials should be loose in cart

*Empty. Clean. Dry.*

Be sure your recyclables are empty, clean & dry before you toss them in the recycling container.
Commingled Recycling

- Newspaper
- Magazines
- Paperboard
- Office Paper/Mail
- Corrugated Cardboard
- Aseptic Cartons/Gable-top Milk Cartons (plastic spout removed)
- No shredded paper
- NO Metallic or Plastic Coated Paper
Think about recyclability before purchasing!
Commingled Recycling

Metals

- Aluminum Cans & Tins
- Aluminum Foil and pie trays
- Tinned (steel) Cans
- Metal Lids
- Aerosol cans (non-haz)
- Pots & Pans
- NO scrap metal

Recycling aluminum takes 95% less energy than making aluminum from raw materials.
Check the list, not the label! Just because an item says it is recyclable, doesn’t mean you can toss it into your curbside bin. Virtually every plastic has the chasing arrows. Some packages even state “please recycle.” However, something can only be recycled if there is someone willing to turn the item into something new. There has to be a market for these items.
Resin Identification Code

• This well-known symbol identifies the resin or polymers used in a plastic product.
• It is **not** intended to dictate whether or not a material will be recycled.
• Just because items have the same number doesn’t mean they have all the same “ingredients” to be combined.
• The state as a whole does not go by this number when collecting recyclables.
**Commingled Recycling**

**Plastics**

- Plastic **Bottles** (opening is smaller than rest)
- Plastic **Jugs** (bottle with a handle)
- **★★?** Plastic **Tubs** (flip top/press on)
- **★?** Plastic **Jars**
  - Remove screw-top lids
  - Leave in press-on lids
When in doubt, throw it out!!!
Commingled Recycling
(no changes)

Glass

- Glass is the only commodity that must be separated, for now.
- Clear and colored glass containers go in a separate bin for curbside collection.
  - Corvallis area - 1x/month
  - Albany area - Every other week
  - Philomath/Adair Village = in the cart
Recycling in Oregon – How are We Doing?

In 2016, Oregonians recovered 2,266,556 tons, or 42.6%, of the municipal post-consumer waste generated in Oregon. This was a decrease from the 46.2% recovery rate reported for 2015.

\[
\begin{align*}
\text{Total Recovered} & = 2,266,556 \text{ tons} \\
\text{Total Generated} & = (\text{Total Recovered} + \text{Total Disposed}) \\
& = 5,316,989 \text{ tons*} \\
\text{Recovery Rate} & = 42.6\% 
\end{align*}
\]

*up 4.8 percent from 2014
Recycling in Oregon – How Are We Doing?

The following are the major categories of materials recovered and their percentages by weight of all material recovered in 2016.

Of the material recovered, 63% of the material recovered was recycled, 24% was composted and 13% was burned for energy.

Local Recycling – How Are We Doing?

**Benton County Recovery Rate**

Goal 44%

**Linn County Recovery Rate**

Goal 45%

**Graphs showing recycling recovery rates for Benton and Linn counties from 2004 to 2016.**
New Recycling and Recovery Goals from DEQ

**Senate Bill 263** passed in June 2015
Sets new recovery goals for high (environmental) impact materials:

- 25% of food by 2020 (13)
- 25% of plastics by 2020 (12)
- 25% of carpet by 2025 (3)
Upstream & Downstream Effects

Manufacturing

Transportation

Disposal

REDUCE

REUSE

RECYCLE
Take-Home Points

• Cleanliness and quality
• Check with local recycler to determine recyclability of an item
• Recycling is only a part of the solution.
• Reuse of materials also plays an important role, and should be utilized when possible.
• Waste reduction - buying, consuming, having less stuff in the first place - is the best option.
• Consider the upstream/downstream effects before consuming or purchasing items