



Curbside Recycling in Linn & Benton Counties

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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 provided 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



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History of Recycling

- September 1982 - Corvallis 1st curbside recycling program in OR; Albany 2nd
- 1st HHW - '91 Albany, '96 Corvallis
- 1998, curbside becomes commingled
- 2008, automated roll cart system
- 10 years later, state mandates curbside recycling for cities larger than 4,000 (larger cities have more requirements)



Oregon Opportunity to Recycle Reports

Benton County - 2020

Recycling Program Elements

City	Population	Implemented	Menu items Required	Container (a)	Weekly (b)	Exp Ed and promo (c) Including CREP	Multi fam (d)	Yd debris(e)	Comm (f)	Exp Depot(g)	Rates (h)	Comm fd (i)	Mand Comm (j)	Res food (k)	Dry waste (L)	Man comfd (m)
Corvallis	54520	8	6/7	x	x	x		x	x	x		x		x		
Philomath	4610	8	4	x	x	x		x	x	x		x		x		

Waste Prevention and Reuse Elements (+10,000)

City	Population	WP Menu items Implemented	Menu items Required	Citywide Ed (2)	Res campaign(3)	Comm campaign (4)	Ed in schools(5)	Funding/Infra for Reuse (6)	TA Reuse (7)	Food Recovery(8)
Corvallis	54520		2/3	X			X			
Philomath	4610		0							



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Albany	50520	6/7	7	x	x	x		x	x	x		x				
Lebanon	15565	5/6	8	x	x	x		x	x	x		x		x		
Sweet Home	9005	4	5	x		x		x	x	x						

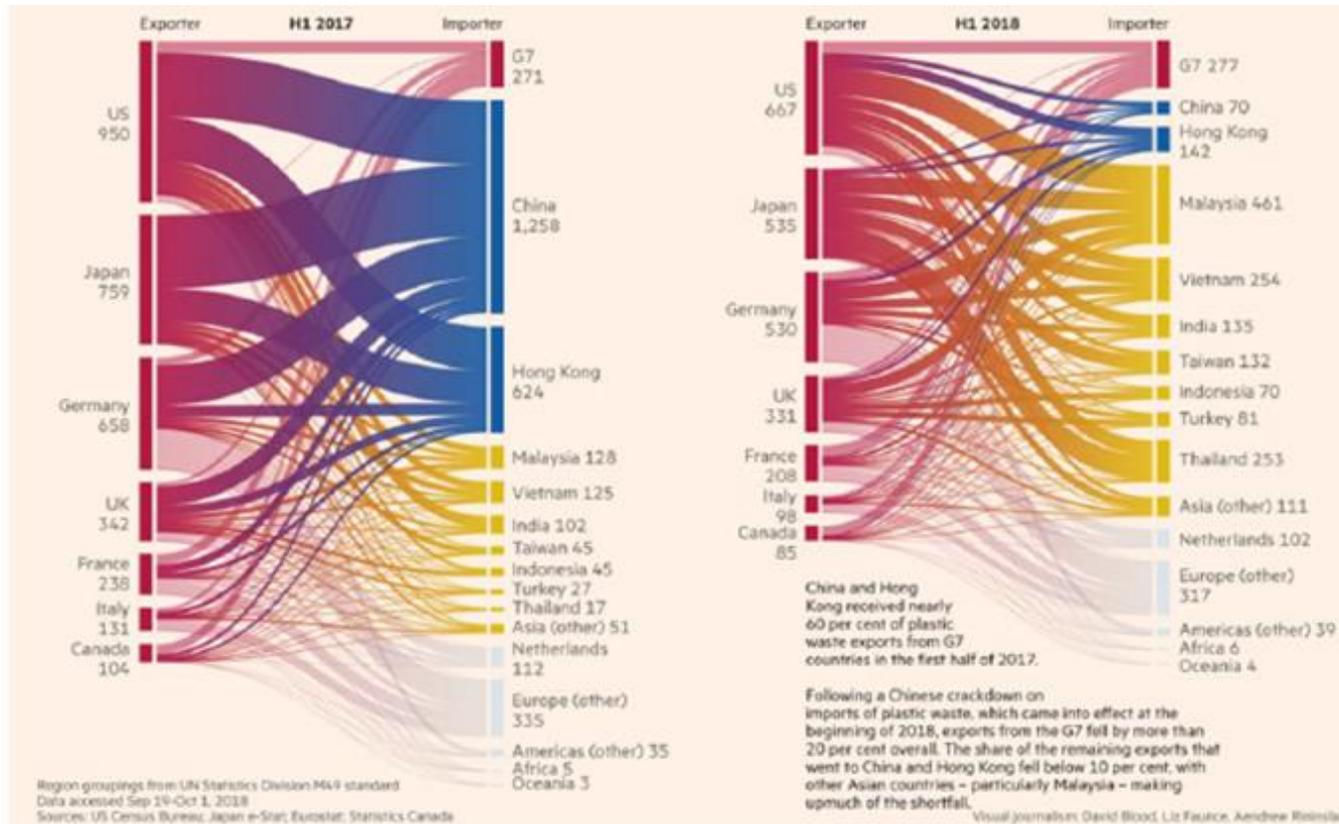
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Lebanon	15565	2		x			x			
Sweet Home	9005	0								



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Change in Recycling



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China Sword

- National Sword, Spring 2017
 - An effort to increase environmental quality
 - Decrease trash received
 - They now only accept loads that have .5 percent contamination - 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 (concurrency)



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Recycling Now

- 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
- Now markets needed to be established in other parts of the world or domestically
 - Tightened contamination standards
 - MRFs have slowed their sorting lines
 - MRFs have invested in technology
 - More expensive



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The Future of Recycling

- Cleaner material or rate increases
- Limiting types of materials for recycling
 - Edits to mixed paper & plastics
 - Most jurisdictions in state cohesive
 - Recycling Framework talks
 - Universal list
 - Increased labeling restrictions
 - Extended Producer Responsibility

<https://www.oregon.gov/deq/recycling/Pages/Recycling-Steering-Committee-Resources.aspx>



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Methods of Collection



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Curbside



Weekly in most parts of the state
(population dense areas)

Tan comingled cart (uncommon) Corvallis
set the tone

One size 64 gallon

Nearly 5,000 tons recycled curbside in
Albany & Corvallis annually - Largest
contributor

Recycling Depots



Corvallis - Office location

Albany - 2 blocks from office at 1439 Industrial Way

Accepted items:

- Comingle
- Cardboard
- Glass
- Electronics (Oregon Eycles)*
- Motor oil, antifreeze
- Cooking oil
- Batteries (not alkaline)*
- Compact fluorescent blubs*



Deposit, refund programs



BottleDrop[®]
Oregon Redemption Center

Retailer pays deposit to distributor upfront

Passes the cost to the consumer and consumer can receive a refund when the empty container is returned to a supermarket or other redemption center.

The distributor then reimburses the retailer or redemption center the deposit amount for each container, plus an additional handling fee in most states.

*Unredeemed deposits are either returned to the state, retained by distributors, or used for program administration.

Deposit, refund programs



PaintCare programs are funded by a fee (referred to as the PaintCare fee) which is applied to the purchase price of new paint sold in the state.

The fee is paid to PaintCare by paint manufacturers and passed the cost of managing post-consumer paint to consumers.

There is no charge for dropping off paint at a PaintCare drop-off site.

The PaintCare fee is not a deposit; you don't get it back when you drop off paint—a common misunderstanding.

Fees fund all aspects of the paint stewardship program. This includes paint collection, transportation, recycling, public outreach, and program administration, and to manage "legacy" paint, material that has been accumulating in homes and businesses from before the program started

Collection

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



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Source Recycling

Commingled material is sent to Source Recycling in Albany, where it is baled for transport.



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Processing at the MRF (Materials Recovery Facility)

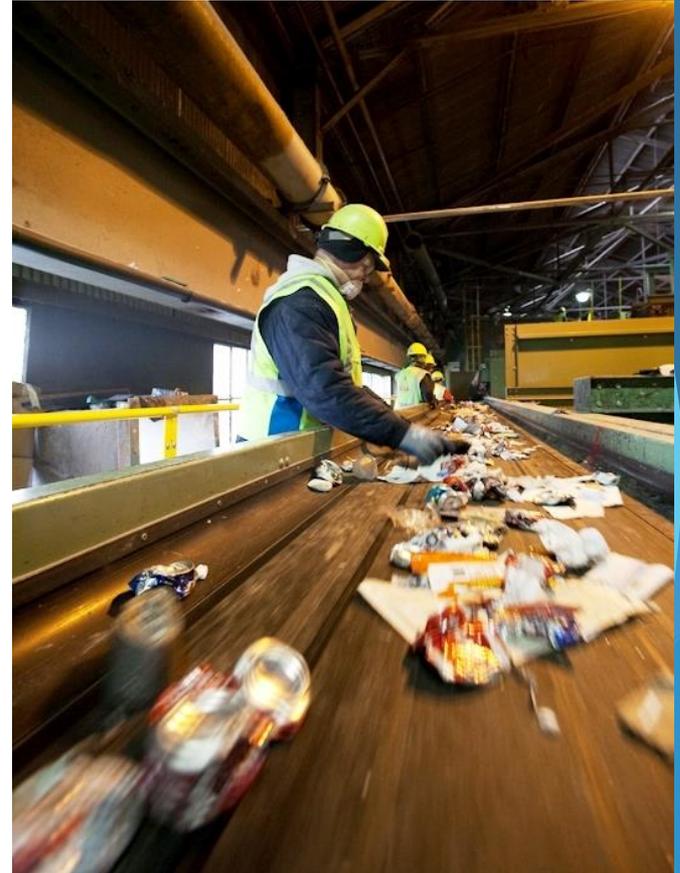
- After commingled material is baled, it is transported to a MRF, or materials recovery facility, to be sorted.
- At the MRF, commodities are sorted into like materials.
- In this system, only those materials that are accepted by the MRF will be recycled.



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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.



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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



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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.



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Preparing Items for the Curb



Empty. Clean. Dry.

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



- Know what to throw
 - Wishcycling can do more harm than good
- Two types of contamination
- Empty, Clean, Dry
- 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



About Those Chasing Arrows...



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."

It was created to identify types of plastics. Puts them into categories.



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PLASTIC RESIN IDENTIFICATION CODES

Quick Reference Guide



PETE
Polyethylene
Terephthalate

- Common Products:
- water bottles
 - soda bottles
 - peanut butter jars



HDPE
High-Density
Polyethylene

- Common Products:
- milk jugs
 - 5 gal buckets
 - shampoo bottles
 - laundry detergent containers



V
Polyvinyl
Chloride

- Common Products:
- vinyl
 - tubing/pipe
 - siding
 - auto product bottles



LDPE
Low-Density
Polyethylene

- Common Products:
- laundry baskets
 - bread bags
 - squeeze bottles
 - plastic film



PP
polypropylene

- Common Products:
- yogurt containers
 - amber-colored pill bottles
 - coffee cup lids
 - straws
 - kitty litter buckets



PS
Polystyrene

- Common Products:
- styrofoam cups
 - solo cups
 - egg cartons
 - to-go containers



OTHER

- Common Products:
- toys
 - sippy cups
 - cd/dvds
 - lenses



What We know about the chasing arrows

1. It is not intended to dictate whether or not a material will be recycled.

2. Just because items have the same number doesn't mean they have all the same "ingredients" to be combined

3. The state as a whole does not go by this number when collecting recyclables



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Recycling in Oregon - How are We Doing?

In 2018 people in Oregon: • Generated 5,652,826 tons of waste, up 2.9 percent from 2017; • Disposed of 3,345,503 tons into landfills and incinerators, up 4.3 percent from 2017; and • Recovered 2,307,322 tons of material, 40.8 percent of the waste generated. This is a 0.9 percent decrease from 2017's 41.6 percent.

$$\frac{\text{Total Recovered}}{\text{Total Generated (Total Recovered + Total Disposed)}} = \text{Recovery Rate}$$

2,307,322 tons = 40.8%
5,652.826*

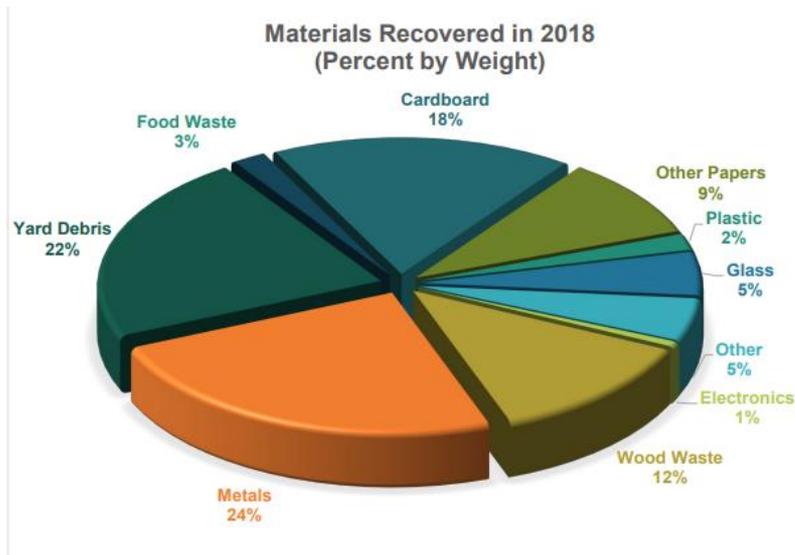


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Recycling in Oregon

How Are We Doing?

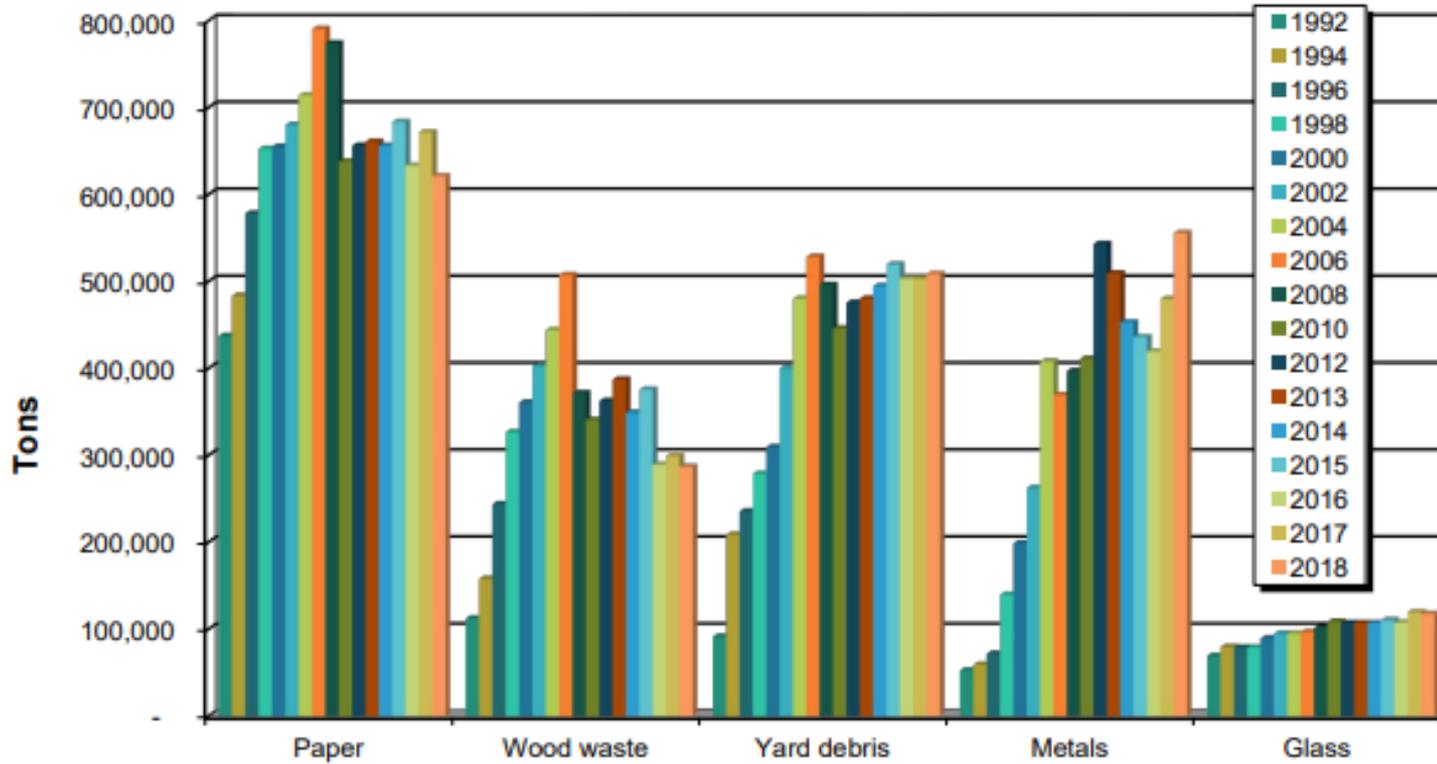
The following are the major categories of materials recovered and their percentages by weight of all material recovered in 2016.



Of the material recovered, 64% of the material recovered was recycled, 23% was composted and 13% was burned for energy.



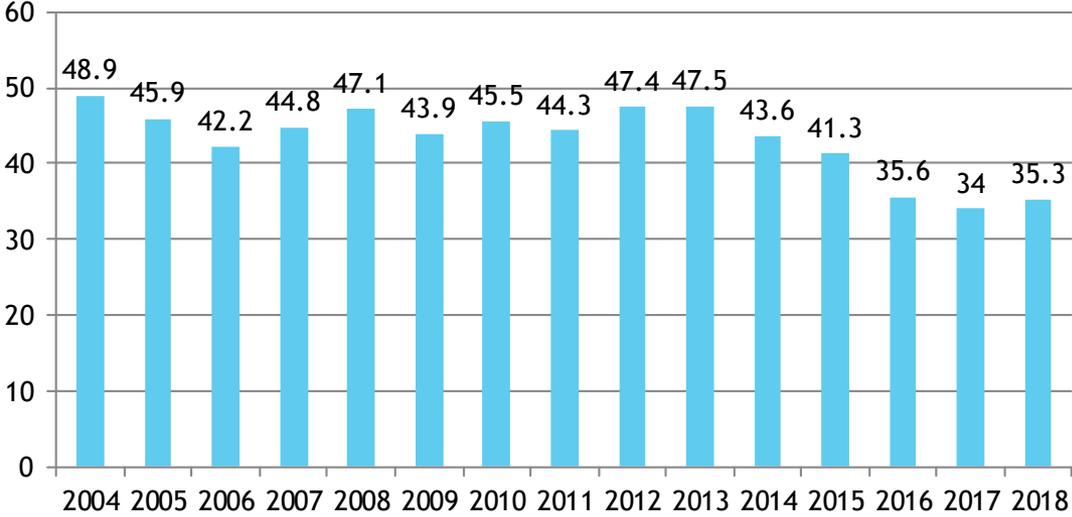
Materials Recovered in Oregon 1992 - 2018



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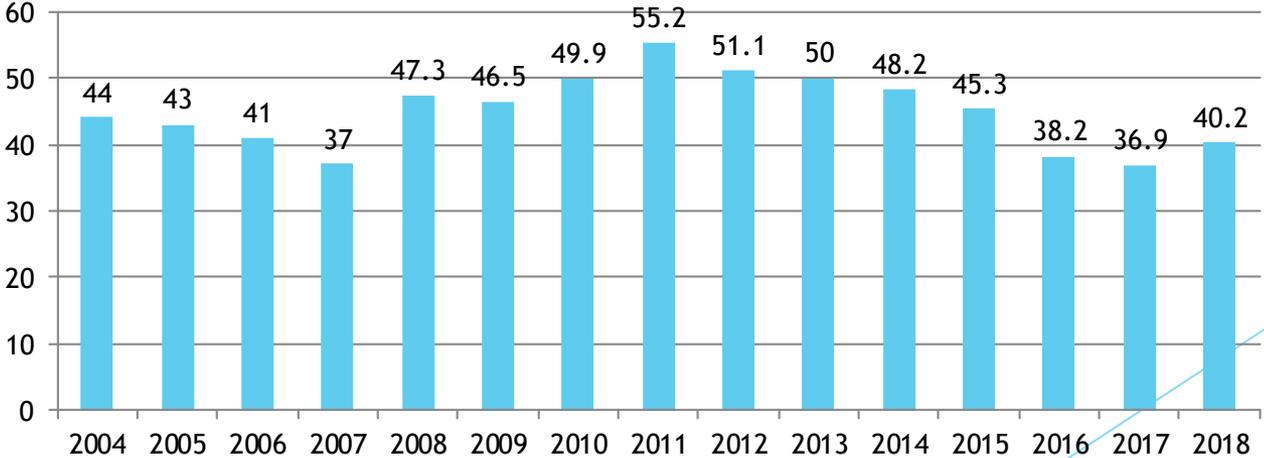
Local Recycling - How Are We Doing?

Benton County Recovery Rate



Goal 44%

Linn County Recovery Rate



Goal 45%



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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)



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Takeaways

Cleanliness and quality

- Know What to Throw
- Empty, Clean, Dry
- Do not bag recyclables

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.



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