

Climate on Tap

'What's Recyclable in Jefferson County?'

Facilitator:
Laura Tucker

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What will be covered today:



- How did we get into this mess?
- Why is it so difficult to know what to recycle?
- Where does our recycling go and what does it become?
- How can we reduce contamination and keep our recycling marketable?

Sort the objects into three categories:



1. **CAN** be recycled in Jefferson County
2. **CAN'T** be recycled in Jefferson County
3. I'm not sure



A clip from “The Graduate”. This was made in 1967. We thought it was funny then. It was prophetic.
<https://www.youtube.com/watch?v=eMtLdE5Zq-8>





66 million tons of recycling goes into landfills every year in the U.S.

We have been outsourcing
our paper and plastic to China









China has tried to address this problem for years

- “Green Fence” in 2013
- “National Sword” in 2017
- “Blue Skies 2018”



Some historical context ...

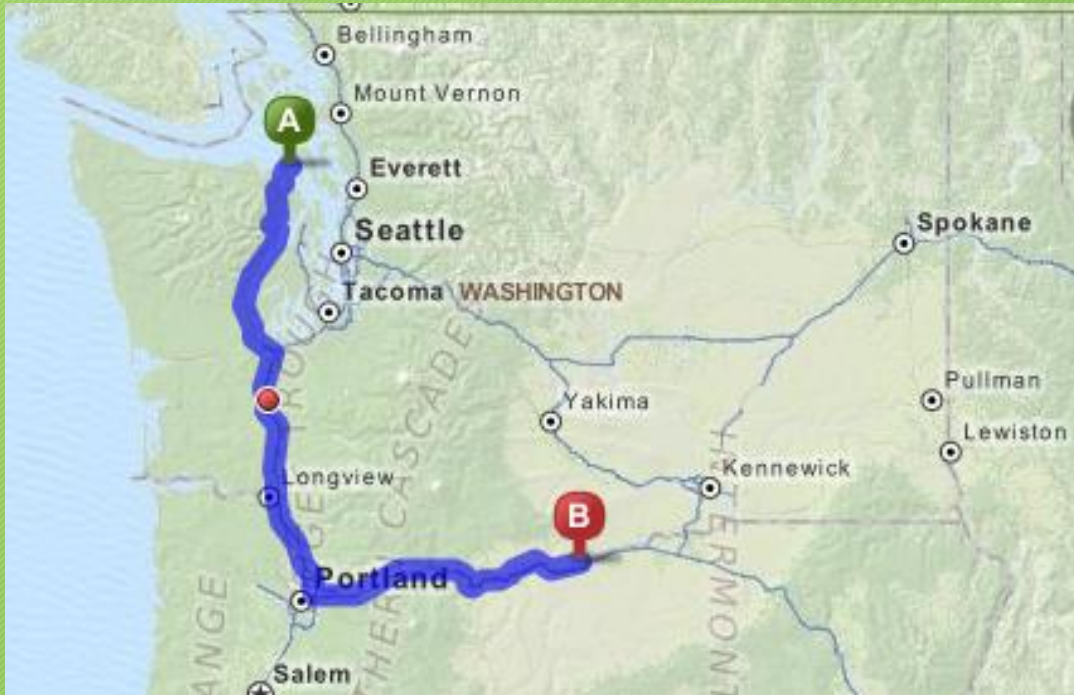
- Numbers with arrows were invented by the plastics industry in the 80's to indicate the main type of plastic in the item
- They were incorporated before there were factories that could recycle them. It was simply 'greenwashing'
- Only #1 and #2 have any real value in today's market

 PETE	Polyethylene Terephthalate Ethylene PETE goes into soft drink, juice, water, detergent, and cleaner bottles. Also used for cooking and peanut butter jars.
 HDPE	High Density Polyethylene High Density Polyethylene HDPE goes into milk and water jugs, bleach bottles, detergent bottles, shampoo bottles, plastic bags and grocery sacks, motor oil bottles, household cleaners, and butter tubs.
 PVC	Polyvinyl Chloride PVC goes into window cleaner, cooking oils, and detergent bottles. Also used for peanut butter jars and water jugs.
 LDPE	Low Density Polyethylene LDPE goes into plastic bags and grocery sacks, dry cleaning bags, flexible film packaging, and some bottles.
 PP	Polypropylene PP goes into caps, disks, syrup bottles, yogurt tubs, straws, and film packaging.
 PS	Polystyrene PS goes into meat trays, egg cartons, plates, cutlery, carry-out containers, and clear trays.
 OTHER	Other Includes resins not mentioned above or combinations of plastics.

Why the numbers are outdated and misleading

Notes: Show demo of the various types of #1s

Where does our trash go?



Our trash goes all the way to Roosevelt Regional Landfill near Richland, about 350 miles from here.



Jefferson County sends 19,000 tons of garbage there (38,000,000 lbs.), about 3 big trucks every day.

The average garbage can contains this amount of Materials.



The 'single stream' recycling dilemma

- Waste haulers found it was a more efficient system than 'source separation'.
- More people recycled, but the recycling was more contaminated
- Giant Materials Recovery Facilities (MRFs) were built



Photos of a MRF (materials recovery facility); where
Our tin, aluminum and plastic go



The 'single stream' recycling dilemma

- Waste haulers found it was a more efficient system than 'source separation'.
- More people recycled, but the recycling was more contaminated
- Giant Materials Recovery Facilities (MRFs) were built
- Contamination rate is still high

Single stream recyclables = up to 40% becomes garbage

Source separated recyclables = 2-5% becomes garbage

What can we recycle?



First, keep your recycling **CLEAN** and **EMPTY**!



Bin #1 – cans: tin and aluminum



What happens to recycled cans?



Bin #1 - plastic: bottles, jugs, jars, and tubs



What happens to recycled bottles?



**THE COLOR OF THE BOTTLE IS THE COLOR OF THE SHIRT.
NO DYES.**



Bales of TAP (tin, aluminum, and plastic) at our recycling center on Jacob Miller Road. Skookum sends these bales to Pioneer Recycling - a MRF in Tacoma



“Wish Cycling”



*“If I put this
item in the bin,
it will become
something
wonderful!”*



Then an elf takes it to a magical place ...



Where a fairy turns it into something useful!



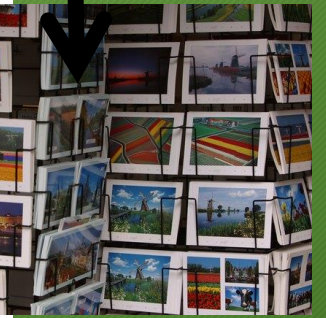
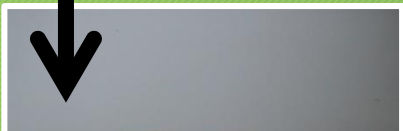
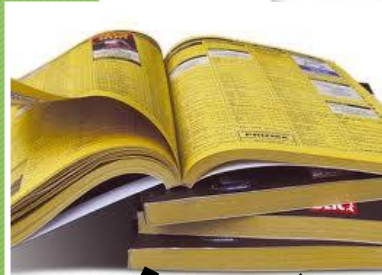
Here are four things that can happen when you *wish cycle* instead of *recycle*:

- It takes longer to sort recycling, which costs recycling programs more money.
- Items that are recyclable, but not through your curbside pickup — such as electronics — never get recycled. Instead, they end up in landfills.
- Other items that are recyclable, but not through your curbside pickup — such as plastic bags and extension cords — jam and damage sorting machinery.
- Recycling is most economical when people recycle only clean materials that can be sold to make new goods. So when we recycle only what is accepted, it keeps down the cost to run our recycling program.

Bin #2 - glass



What can you make with recycled paper?



Bin #3 - paper



Bin #4 - cardboard

CORRUGATED
CARDBOARD
only!



Bin #4 - cardboard



boxes with
corrugated dividers



**Please
flatten boxes!**

What can you make with recycled cardboard?



**More
boxes!**

Bin #4 - cardboard



Round 2:

Sort the objects into three categories:



1. **CAN** be recycled in Jefferson County
2. **CAN'T** be recycled in Jefferson County
3. I'm not sure



- Green, brown and clear glass bottles
- Clear glass jars



- office paper
- junk mail
- paper bags
- magazines
- newspaper
- cartons
- phone books
- toilet paper rolls



- bottles
- jugs
- tubs
- rigid pots & buckets
- tin cans
- metal lids
- aluminum cans

Our motto: **When in doubt,
throw it out!**



Where does our recycling go?

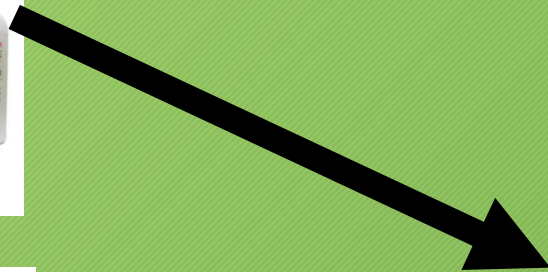


... works hard to find nearby reliable markets for our recycling, saving us money, precious resources, and reduces our carbon footprint!

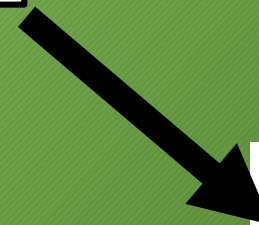




Seattle, WA



Tacoma, WA



Plastic bags and film become plastic lumber



Plastic bags & film can be
dropped off at these locations:



These bags cause serious problems when they get caught in the sorting machinery at the MRF.



The tricky ones!



Why are plastics a problem?





HOW LONG UNTIL IT'S GONE?

Estimated decomposition rates of common marine debris items



Estimated individual item timelines depend on product composition and environmental conditions.

Source: NOAA (National Oceanic and Atmospheric Administration), US / Woods Hole Sea Grant, US
Graphics: Oliver Lude / Museum für Gestaltung Zürich, ZHdK

North Pacific

**Subtropical
Convergence Zone**

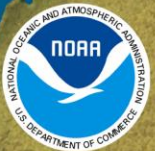
Kuroshio

Western Garbage Patch

California

**Eastern Garbage Patch or
N. Pacific Subtropical High**

North Equatorial



• There is an estimated 200 million tons of plastic littering our oceans.

• The majority of this plastic debris ultimately finds its way to one of these massive swirling gyres.

• The largest of the oceanic gyres is the Great Pacific Garbage Patch.

• In parts of the Great Pacific Garbage Patch, there are over 2 million pieces of plastic per square mile of ocean.

• While plastic is not biodegradable, it is photodegradable. Sunlight breaks it down into ever-smaller pieces known as microplastics.

• Over 90% of plastic pollution is made up of microplastics smaller than your fingernail.

• These microplastics often absorb highly toxic chemicals like DDT & PCB.

• Unable to distinguish microplastics from food, many animals starve to death, their bellies choked with plastic; others survive just long enough to contaminate our food chain

• Hindered by a stale way of thinking, gyre cleanup has been virtually nonexistent. Thanks to recent innovations in science and technology, hope is on the horizon.

• Our oceans could well be void of life within the next two generations if nothing is done to stem this.

GREAT PACIFIC GARBAGE PATCH

WEST
PACIFIC
GYRE

EAST
PACIFIC
GYRE

NORTH
ATLANTIC
GYRE

SOUTH
ATLANTIC
GYRE

INDIAN
OCEAN
GYRE

SOUTH
PACIFIC
GYRE

OCEANUS

DECOMPOSITION RATES

Bananna peel:	2-3 wks
Paper:	5-10 wks
Cigarette butt:	10-15 yrs
Aluminum can:	200-500 yrs
Glass bottle:	1,000,000 yrs
Styrofoam:	never *
Plastic bottle:	never *
Fishing line:	never *
Plastic bag:	never *

* Plastic is not biodegradable

Negative health effects from plastics



Inverted Waste Pyramid



The diagram is an inverted pyramid divided into six horizontal sections. From top to bottom, the sections are labeled: REFUSE, REDUCE, REUSE, ROT, RECYCLE, and LANDFILL. The pyramid is colored in shades of blue and teal, with the top section being the darkest and the bottom section being the lightest. The text is in a bold, white, sans-serif font.

REFUSE

REDUCE

REUSE

ROT

RECYCLE

LANDFILL

Most desirable



Least desirable



Inverted Waste Pyramid

REFUSE
REDUCE
REUSE
ROT
RECYCLE
LANDFILL

If we don't use our landfills for those things that can't/shouldn't be recycled, it ends up in the ocean and on the land.



What can we do to stay in the top layers?



Inverted Waste Pyramid



Climate on Tap

Thank you for coming!
Questions?

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