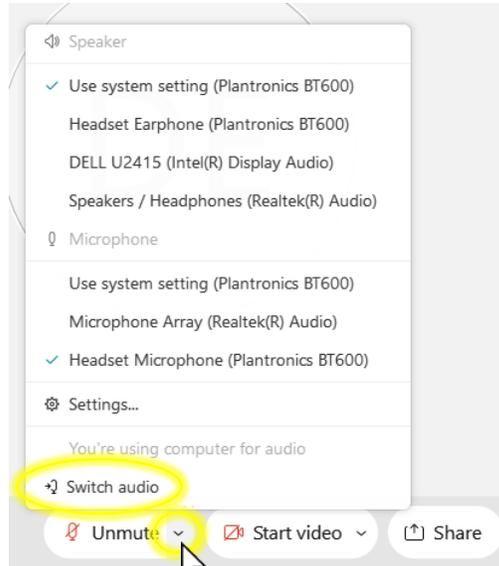




Welcome!

- We are conducting sound tests before 9 am. If you cannot hear us please connect your audio:
- If you have technical issues, please use the chat box and we will help you troubleshoot:

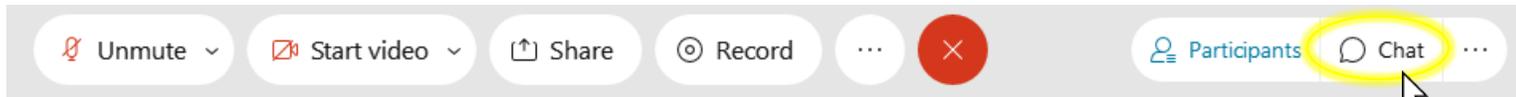


AGENDA

Recycling Development Center Advisory Board Meeting

October 14, 2020 | 9 am – 12 pm (Pacific time)

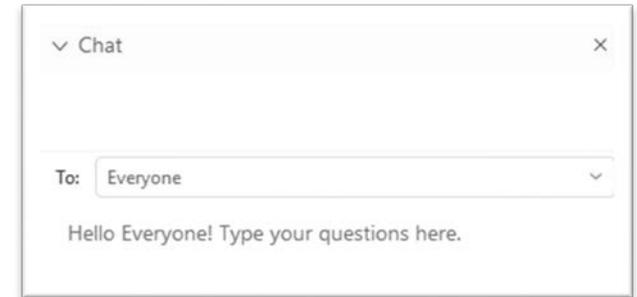
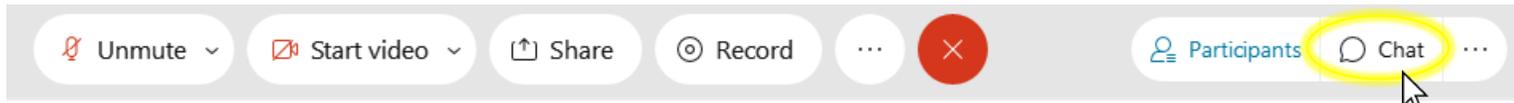
9:00 am	Welcome & review meeting goals
9:10 am	Updates
9:40 am	Market development presentations
11:00 am	Presentation debrief
11:20 am	Board work
11:50 am	Wrap up
12:00 pm	Meeting adjourned



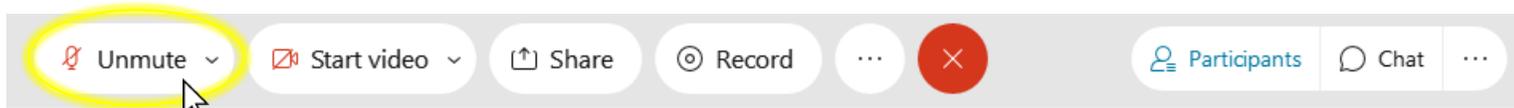
Participating in this meeting:



Anyone may use the chat box to ask questions:



Board members may unmute themselves.



We will have opportunities for public comments throughout the meeting.

*Note: we are **not** recording this meeting, meeting notes will be posted on the Advisory Board website.*

This meeting is brought to you by:



Kara Steward
Center coordinator



Tina Schaefer
Center planner



Katherine Walton
Facilitator

...and many other staff at Ecology and Commerce.

Visit the Advisory Board EZview website at:

www.ezview.wa.gov/site/alias__1962/37596/recycling_development_center_advisory_board.aspx



Meeting goal:

Review and discuss work of recycling market development efforts in other states.

AGENDA

Recycling Development Center Advisory Board Meeting
September 3, 2020 | 9 am – 12 pm (Pacific time)

9:00 am	Welcome & review meeting goals
9:10 am	Updates
9:40 am	Market development presentations
11:00 am	Presentation debrief
11:20 am	Board work
11:50 am	Wrap up
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Visit the Advisory Board EZview website at:

www.ezview.wa.gov/site/alias__1962/37596/recycling_development_center_advisory_board.aspx



Updates:

- Board roundtable
- Center updates
- Dept. of Commerce glass study
- Data and Outreach subcommittee update
- Comments from other attendees

AGENDA

Recycling Development Center Advisory Board Meeting
September 3, 2020 | 9 am – 12 pm (Pacific time)

9:00 am	Welcome & review meeting goals
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Board roundtable:



Corinne Drennan



Allen Langdon



Karl Englund



Scott Morgan



Kyla Fisher



Mike Range



Deb Geiger



Derek Ruckman



Margo Gillaspay



Tim Shestek



Nina Goodrich



Jay Simmons



Sego Jackson



Heather Trim



Broken Glass: Trash or Treasure?

An Examination of Glass Recycling in
Washington State

Tammi Vellinga and Rebecca Duncan

RESEARCH SERVICES, DEPARTMENT OF COMMERCE

10/14/2020



Washington State
Department of
Commerce

We strengthen communities



**HOUSING
HOMELESSNESS**



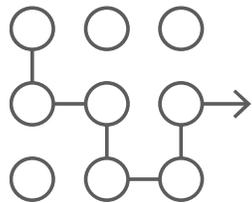
INFRASTRUCTURE



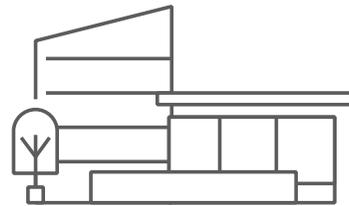
BUSINESS ASSISTANCE



ENERGY



PLANNING



COMMUNITY FACILITIES



**CRIME VICTIMS &
PUBLIC SAFETY**



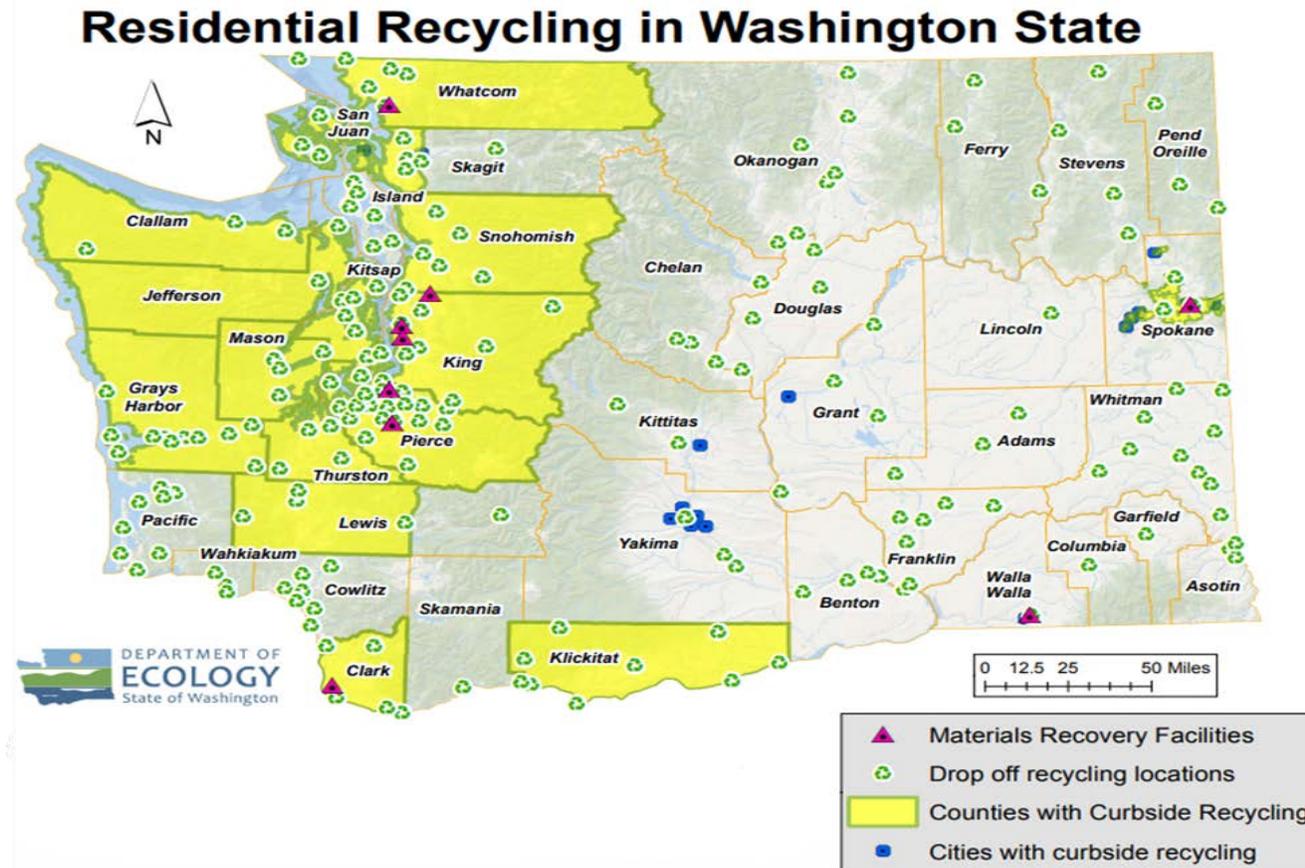
COMMUNITY SERVICES

Our Research

Overview



Washington's Current Recycling State



- Washington utilizes a predominantly commingled recycling system, also referred to as mixed or single-stream recycling. This requires residents to place all recyclables into one bin at the curb. The materials in the bin are picked up by a recycling company and brought to a material recovery facility (MRF). The MRF sorts the material into individual commodity streams such as glass, paper, plastics, and metals.
- According to 2016 data, Ecology reports that 88% of people living in single-family homes and 77% of people in multi-family residences have access to curbside recycling. The remaining population is served by 192 recycling drop off locations.

Using Commingled Recyclables

Benefits of a commingled system

For a collection system, there are many benefits for choosing an automated, "single bin" approach:

- Easy collection
- Increased participation by residents
- Higher collection volumes
- Greater public convenience and privacy

Using Commingled Recyclables

Limitations of a commingled system

- Causes a need for separation
- Damage to sorting equipment
- Increased contamination
- Increased costs for MRFs
- Residents often hold the belief that everything can go in the recycling bin, and it will get sorted and recycled

Contamination

- Any item that does not belong in the recycling process is a contaminant.
- If plastic bags or lids are mixed with paper, they contaminate the paper and reduce its value.
- If glass is placed in with other recyclables, it can break and contaminate the rest of the material.

Contamination

Contamination is a serious issue, it

- Reduces efficiency
- Destroys value
- Leads to more waste going to landfills

Chinese Regulations

Previously, more than 60% of Washington's recycled material was shipped to China. Beginning in July 2017, the Chinese government imposed new regulations – known as “National Sword 2017” and “Blue Sky 2018.”

- These regulations restrict the import of low-grade and contaminated recyclables.
- The policy includes a strict 0.5% limit on the amount of contamination allowed for other imported recyclables.
- The new regulations on contamination levels have created an immediate crisis.
- Washington is particularly impacted due to the reliance on Chinese markets because of the close proximity, relatively low cost, and ease of shipping recyclable materials to China.

Manufacturing and Recycling Glass

- Glass is made from all-natural sustainable raw materials. It is the preferred packaging for consumers concerned about their health and the environment. Consumers prefer glass packaging for preserving a product's taste or flavor and maintaining the integrity or healthiness of foods and beverages. Glass is the only widely-used packaging material considered "GRAS" or "generally recognized as safe" by the U.S. Food and Drug Administration. (Source <https://www.gpi.org/benefits-of-glass-packaging>)
- Manufacturing glass is a three-step process. Raw glass material is housed in large silos at a location called the batch house. After leaving the batch house, the raw materials are fed into a furnace or tank where it is melted into glass. Once the glass is created, it goes through the forming process.

Glass Container Life Cycle

<https://www.gpi.org/glass-recycling-facts>

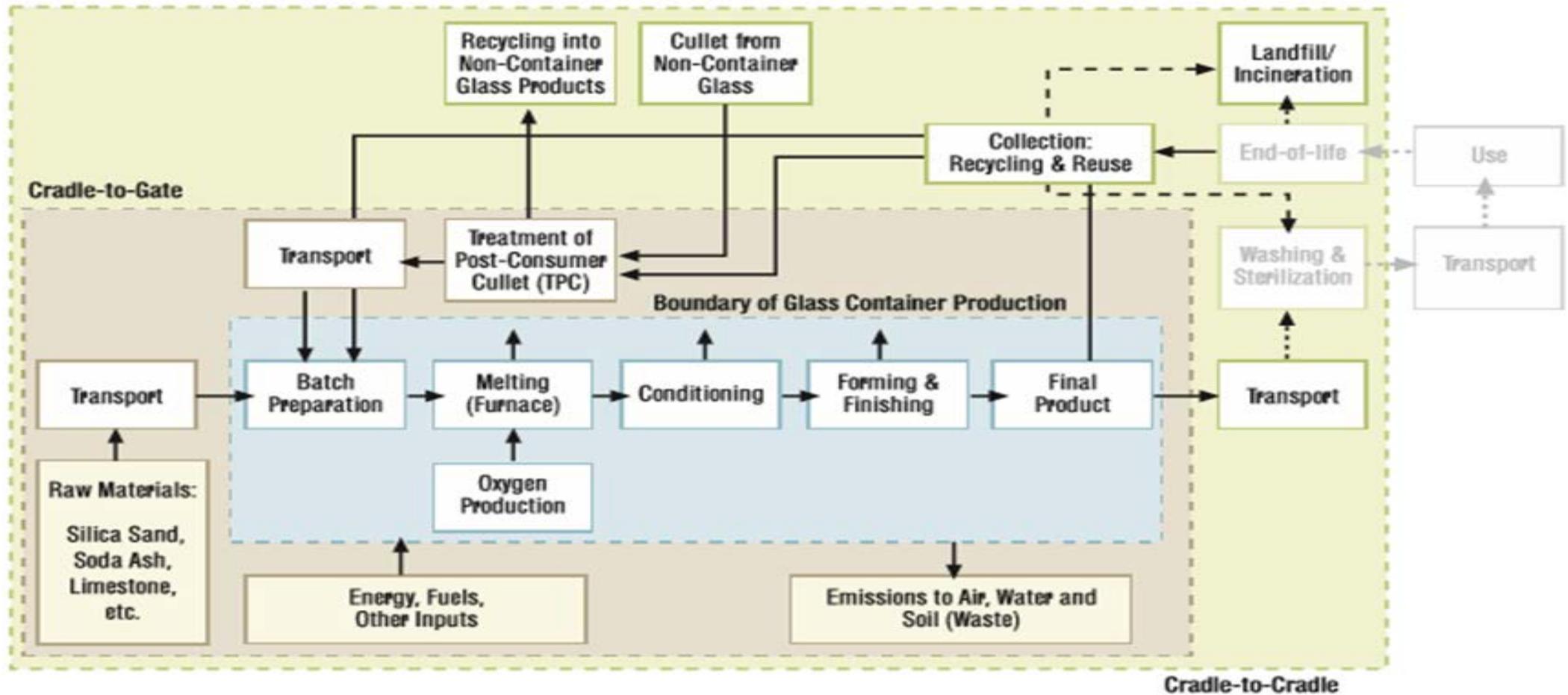
Glass Container Recycling Loop

Glass bottles and jars are 100% and infinitely recyclable



Glass Life Cycle Flow Diagram

https://assets.noviams.com/novi-file-uploads/gpi/pdfs-and-documents/Learn_About_Glass/LCA - GPI2010 - compressed.pdf



Glass Recovery

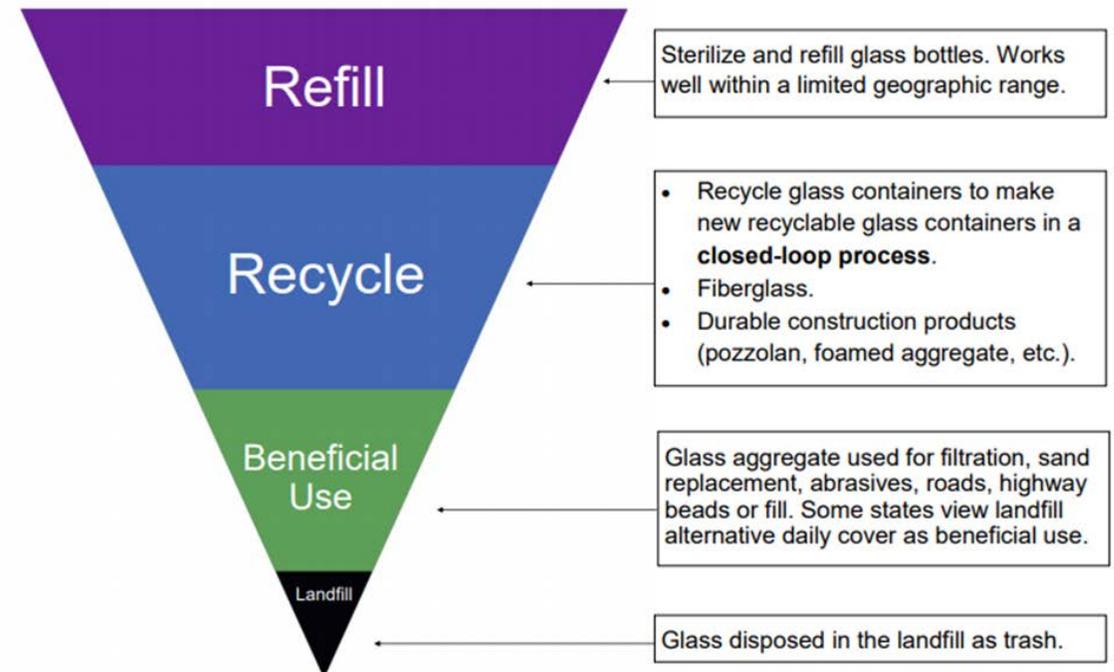
Once glass is used, it has four basic recovery options:

1. **Refill-** Refillable bottles can be used about 25 times. Sterilizing and refilling a bottle uses about 93% less energy and 47-82% less water than making a new bottle.
2. **Recycle-** Glass bottles can be recycled repeatedly back to their original use without loss of quality or purity, with recycled glass substituted for up to 95% of raw materials and minimal material loss.
3. **Beneficial use-** Glass can be substituted as aggregate for filtration, sand replacement, abrasives, road/highway bed or fill, and alternative daily cover for landfills.
4. **Landfill-** Glass is disposed as trash.

https://nerc.org/documents/Glass/glass_hierarchy_oct_15_2019.pdf

Glass Recovery Hierarchy

Glass bottles and containers are a valuable and versatile material resource. This hierarchy prioritizes common uses for glass including reuse, recycling and substitution for raw materials.

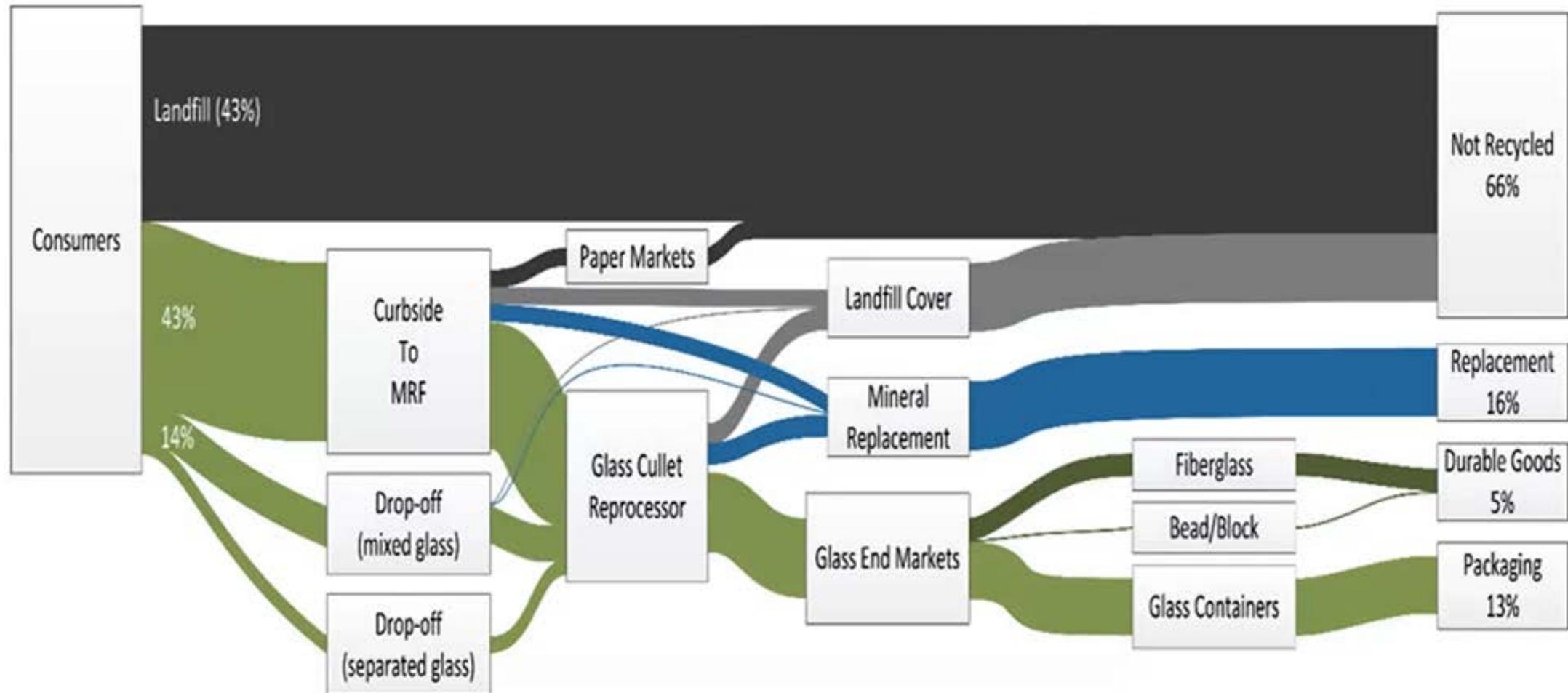


Current Trends

- In 2017, glass generation in all products was 11.4 million tons in the United States, which was 4.2 percent of all material solid waste (MSW) generation.
- The amount of recycled glass containers was three million tons in 2017, for a recycling rate of 26.6 percent. The total amount of combusted glass in 2017 was 1.5 million tons. This was 4.3 percent of all MSW combustion with energy recovery that year.
- In 2017, landfills received approximately seven million tons of MSW glass. This was 4.9 percent of all MSW landfilled that year.
- In the U.S. it is estimated that 66% of glass is not recycled, of which 43% ends up as trash at a landfill.
- In 2017, states with a glass deposit collection system had almost a 70% glass recycling rate compared to the 12% rate in non-deposit states.

Flow across the Value Chain for Non-Redemption States.

Source: GPI, Northeast Glass Forum PowerPoint Presentation



Market Information for Recycled Glass

Recycled glass cullet can be used in a wide variety of products and manufacturing materials.

- Containers/Bottles
- Fiberglass
- Roadway/Construction Applications

<u>General Construction Backfill</u>	<u>Roadway Construction</u>	<u>Utility Construction</u>	<u>Drainage</u>
Stationary loads	Base course	Pipe bedding	Retaining wall backfill
Landscaping fill	Subbase or subgrade layer	Trench backfill	Foundation drainage
	Embankment		Septage field media
			Sand fillers
			Drainage blanket
			French drains

Market Information for Recycled Glass

- **Fillers**

Borosilicate	Caulks/Adhesives
Brick/Tile	Coatings/Paint
Plastics	Flooring
Aluminum Castings	

- **Others**

- abrasive replacements like sand
- making specialty glass
- ceramics
- bricks
- astroturf
- landscape applications
- countertops
- filtration media

Environmental Benefits

- Saves raw materials - Over a ton of natural resources are conserved for every ton of glass recycled, including 1,300 pounds of sand, 410 pounds of soda ash, 380 pounds of limestone, and 160 pounds of feldspar.
- The container and fiberglass industries collectively purchase 3.2 million tons of recycled glass annually, which is melted and repurposed for use in the production of new containers and fiberglass products.
- Lessens the demand for energy - Energy costs drop about 2-3% for every 10% cullet used in the manufacturing process.
- Cuts CO2 emissions - For every six tons of recycled container glass used, a ton of carbon dioxide, a greenhouse gas, is reduced. A relative 10% increase in cullet reduces particulates by 8%, nitrogen oxide by 4%, and sulfur oxides by 10%.
- Extends furnace life - Including cullet in the manufacturing mix makes it less corrosive and lowers the melting temperature (from 2800 degrees F. to 2600 degrees F.), prolonging furnace life.

A “Typical” MRF in 2018:

- It is likely to be a single stream system.
- If it is single stream, it may be confronting high residue rates. Trash, or "residue," contaminates recyclable materials, turning the whole bin into trash. Not only can co-mingling of trash and recyclables ruin your batch, but it can also contaminate other materials if it is dumped into the truck meant only for recyclables. If it's not removed before it goes to the processing plant, the trash can damage expensive machinery used to separate recyclables. Rates, if glass is included could be in the range of 20 to 30%.
- It is likely to process more than 100 tons per day.
- Over the past several years, it has accepted more materials, particularly with respect to fiber and plastics.
- It is relying on highly mechanized sort systems with optical sorting equipment.
- It is most likely owned and operated by a private firm.

MRF Technology

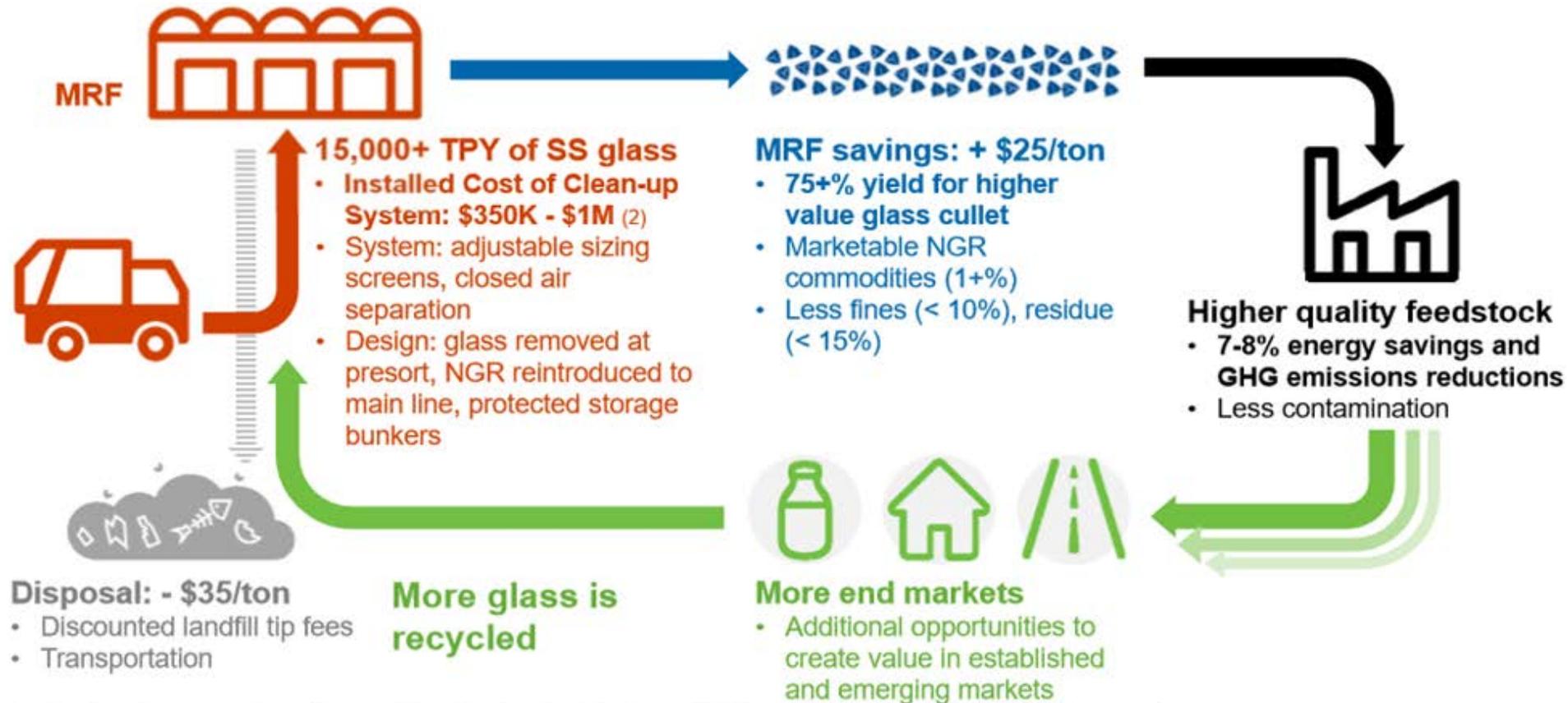
- Single stream MRFs pushing technology
- Continually evolving technologies within the MRF, i.e. robots, A.I., new types of screens, separators.
- Paradox
 - technology supports less sorting at the curb, while markets are demanding a high quality product.
 - can drive up sorting costs in volatile market environment

Challenges to Single Stream Programs

- High costs in reduced revenue environment. Average capital cost for a new MRF is \$11,000,000.
- Facilities have broadened acceptable materials, but have seen an increase in residue rates and handling costs.
- Results
 - Increased emphasis on customer education
 - Tabling of additional equipment purchases
 - Cutting back of types of materials taken, particularly plastics and glass.
 - Sharing of market risks, implementation of processing fees. Base fees, before revenue sharing, in range of \$35 to \$45 per ton, but can go above \$65 per ton.

Return on Investment on Improving Glass Clean-up

https://nerc.org/documents/Webinars/Finding%20Opportunity%20in%20MRF%20Glass/Ellen%20Martin_CLF%20Presentation.pdf



(1) Actual results will vary depending on MRF and local market. (2) Does not include cost of downtime at MRF to install new equipment

Challenges to Improving Glass Recycling in Washington

- **Consensus among stakeholders**

The stakeholders surveyed and interviewed indicated very little consensus as to the current key issues in the glass recycling market. For example, some stakeholders emphasized the importance of consumers in sorting, cleaning, depositing and appropriately recycling glass containers. Other stakeholders maintained that consumer actions had very little impact on the glass market, and the key issues were more with technology, transportation, and the material's market value. While having diversity in perspective among stakeholder perspectives is a strength when seeking ideas and problem solving, it can also be a challenge when it comes to advancing policy.

- **Policy/Legislation- lack of a bottle bill**

Laws and deposit amounts differ from state to state, but all tend to:

- ❖ Improve the quality of glass collected for recycling.
- ❖ Increase the percentage of containers going to bottle-to-bottle recycling.
- ❖ Exclude some glass containers (like wine and liquor bottles).

Quantity versus Quality in Glass Collection

Source: GPI, Northeast Glass Forum Presentation

Glass Collection Models



Recycling Markets Outside of Washington

- **Variety in markets outside of Washington – different laws, different levels of development, different geography**
- **Organizations and states addressing the gaps**
 - Closed Loop Infrastructure Fund (CLIF)
- **Other states and countries**
 - Variety of success with EPR, policy, amount of recycled glass users in proximity depending on region

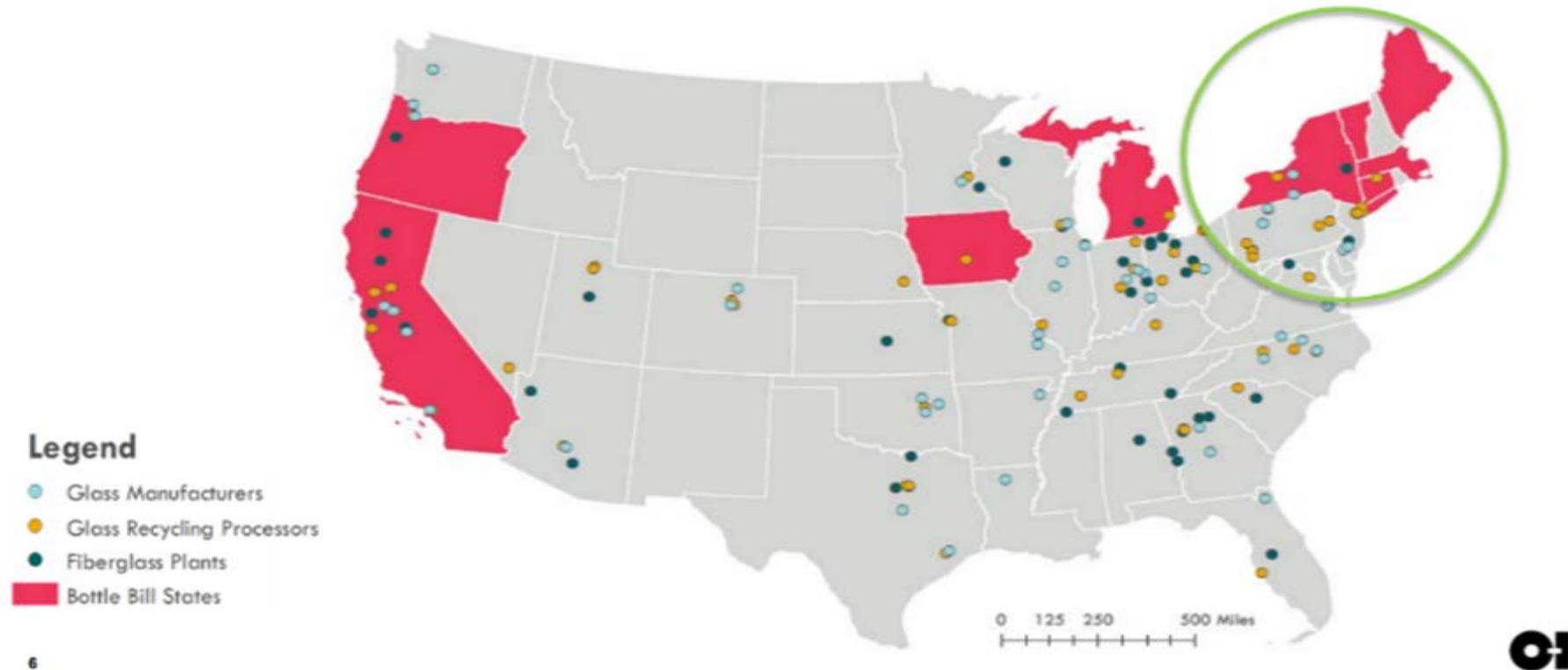
United States – Other Markets

- **Oregon**
 - First ever Bottle Bill in US
 - 100% of responsibility on beverage industry
- **California**
 - 1987 Bottle Bill
 - System of state-certified recyclers: MRFs, redemption centers, registered curbside operations, drop-off sites, and retailers
 - All Beverage containers have California Refund Value (CRV)
- **Northeastern United States**
 - Many states with beverage container deposit laws with high redemption
 - Working on contamination issues to increase glass price

Glass Recycling Infrastructure for the U.S.

Source: NERC Glass Forum Power Point

US Glass Infrastructure



6

Outside of the United States

- **Canada**
 - Every province has some sort of beverage container recycling program
 - Partial or full producer responsibility in several noteworthy programs
 - Ontario, Quebec, Manitoba, British Columbia (BC)
 - Recycle BC has innovative structure with flexibility for local jurisdictions
- **European Union**
 - Double the glass recovery of the US
 - Many countries with EPR or deposit programs, starting from 1989 – 2016
 - European Landfill Directive laid the groundwork for recycling success

Recommendations

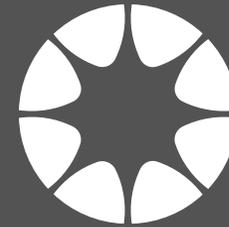
1. Implement glass improvement programs at materials recovery facilities. Promote programs that have clearly demonstrated their ability to produce high-quality recycled glass suitable for reuse in the manufacture of new glass containers. Shift focus from quantity to quality.
2. Create agency partnerships to develop procurement guidelines: Department of Transportation, Ecology, and Commerce can, with recycling stakeholders, promote use of recycled glass in projects.
3. Implement policies to increase the use of recycled material for producing glass products and packaging by setting minimum recycled content targets.

Recommendations

4. Create an Extended Producer Responsibility (EPR) Program to transfer responsibility for end-of-life management for glass products and packaging.
5. Increase awareness and education by developing partnerships with glass recycling companies and communities to improve the quality and amount of recycled glass collected, recycled, and made available for purchase. Promote consistent messaging throughout the state emphasizing the importance of glass recycling. Enforcement of new policies or programs without educating the public will not be as effective.
6. Work in collaboration with stakeholders and the community to build on existing programs and establish new programs for collection and recovery of beverage containers.

Next Steps – Future Research

- Examine manufacturing usage of recycled glass material
- Follow up on recent changes to other states' legislation/system improvements
- Examine trends and challenges pertaining to non-recyclable glass
- Research current landfill practices and possible improvements
- Explore alternative transportation methods or incentives



Washington State
Department of
Commerce

Special thanks to:

Recycling Development Center Board Members
Ecology Staff
Commerce Staff

www.commerce.wa.gov



Thank you!

Tammi Vellinga

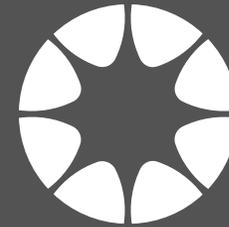
tammi.vellinga@commerce.wa.gov

360-725-5038

Rebecca Duncan

rebecca.duncan@commerce.wa.gov

360-725-5040



Washington State
Department of
Commerce

www.commerce.wa.gov



Data and Outreach subcommittee update:



Corinne Drennan



Allen Langdon



Karl Englund



Scott Morgan



Kyla Fisher



Mike Range



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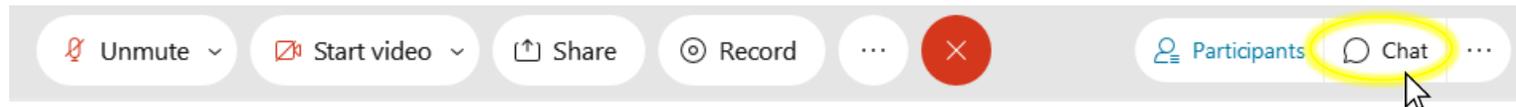


Comments from attendees:



We want to hear from you!

If you would like to comment, **please write your name in the chat:**



We will unmute you to speak in the order that we see names in the chat.

You may also **write your comment in the chat** and we will read it for you.

Please keep your comment to under 2 minutes.



Market development presentations:

- Summary of other recycling market development efforts
- Matt Flechter, Michigan Dept. of Environment, Great Lakes, and Energy (EGLE)
- Anna DeLage, Recycling Market Development program at the South Carolina Dept. of Commerce
- Will Sagar, Southeast Recycling Development Council (SERDC)

AGENDA

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Matt's slides



South Carolina
Department of Commerce

Just right for business.



Recycling in SC

South Carolina
Just  **right.**

Recycling Market Development



- Track recycling's economic impact
- Provide sustainable materials management consulting services for business and industry
- Administer strategic campaigns to advance recycling collection
- Recycling Market Directory
- Provide staff support to Recycling Market Development Advisory Council



Recycling Infrastructure 1993



1 recycled content paper mill



1 PET plastic reclaimer



3 textile recyclers



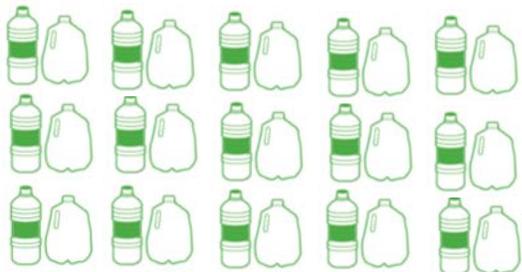
1 glass recycler



Recycling Infrastructure 2020



4 Recycled content paper mills
1 tissue mill



10 PET plastic reclaimers/
15 Industrial plastics processors



4 Steel mills



4 Textile recyclers



4 Tire recyclers



4 Electronics recyclers



1 Glass recycler



1 Carbon fiber recycler



1 Zinc recycler



1 Aluminum roller



Economic Impact of Recycling



\$13B

**300+
Biz**



Recycling Investments



RECYCLING INVESTMENT PAST FIVE YEARS

- **\$1.5B Capital Investment**
- **2,667 Jobs**
- **40 Companies**

Name	Recycle	Investment	Jobs
ACI Plastics	plastics	\$10,000,000	0
DIRTT Environmental Solutions	design, manufacture and install fully-customized environmentally responsible interior environments	\$18,500,000	100
GlassWrX SC	glass	\$15,100,000	63
Southern Environmental Solutions of the Carolinas, LLC (SESC)	electronics	\$1,500,000	45
World Energy	recycles used cooking oil	\$5,400,000	30
Total = 5 companies		\$50,500,000.00	238



RECYCLING MARKETS DIRECTORY

Please Select A Category ▾

No Category Selected ▾

Category Search

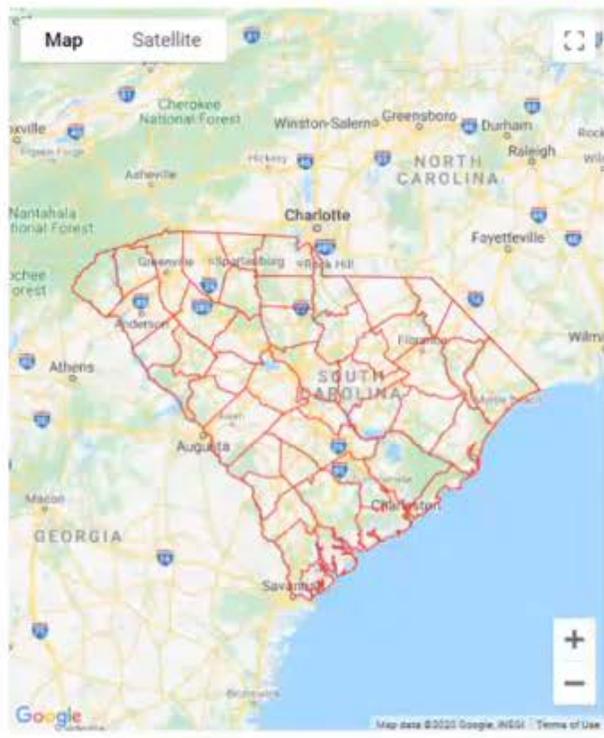
OR

Search by Keywords (City, County, Zip, Name, Types Recycled)

Keyword Search



SC RECYCLING MARKETS DIRECTORY
Connecting Materials to Markets





South Carolina
Department of Commerce

Just right for business.

Questions?

Contact Anna DeLage
adelage@sccommerce.com

Washington Recycling Development Center Advisory Board

October 14, 2020



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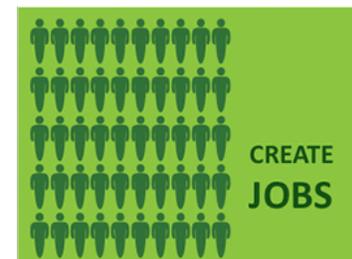
Southeast Recycling Development Council

MISSION STATEMENT

Unite industry professionals, organizations, government agencies and individuals engaged in the business of recycling; to foster communications among those groups; to promote sustainable recycling programs; and, to coordinate education and public awareness activities related to recycling.

VISION

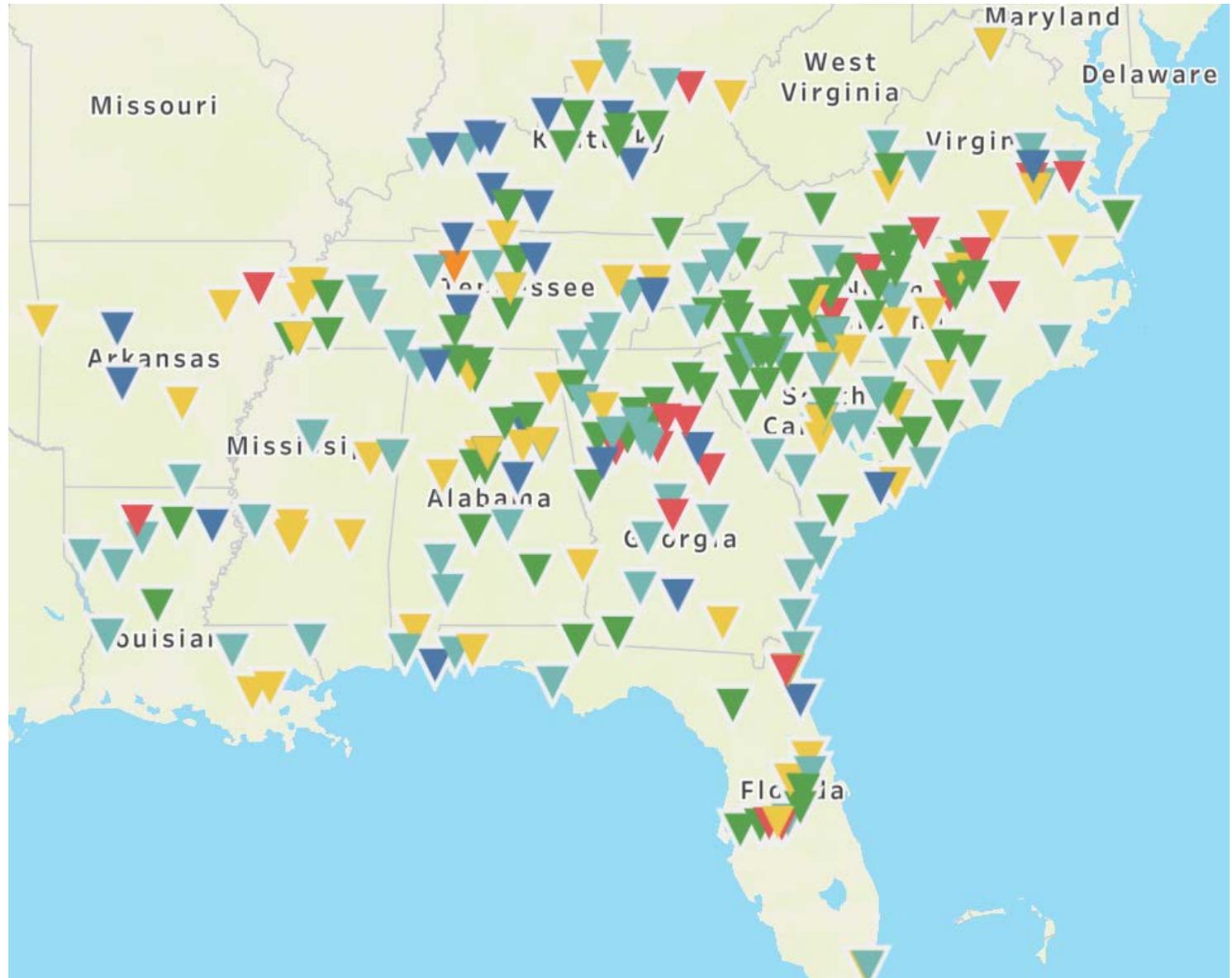
- Increase collection and recovery of quality recyclable material;
- Foster economic development via the recycling industry;
- Create a greater awareness of the recycling industry's impact in the southeast; and
- Engage in other activities as permitted by law.



Recycling

That recycling is beneficial for the environment is probably an uncontested proposition. What is becoming increasingly more obvious is that recycling contributes to the economic health of a state's economy.

Dr. Frank Hefner
Department of Economics and
Finance
College of Charleston



Recycling and Material Demand Impacts

SERDC Manufacturing Data

	Plants	Jobs	Sales (millions)
Alabama	42	17,350	\$7,838
Arkansas	12	5,420	\$1,710
Florida	28	4,884	\$1,328
Georgia	49	13,151	\$7,180
Kentucky	41	11,232	\$5,171
Louisiana	13	4,887	\$1,146
Mississippi	11	1,971	\$1,947
North Carolina	60	14,142	\$4,078
South Carolina	47	10,442	\$5,563
Tennessee	40	7,730	\$4,413
Virginia	19	6,759	\$2,723
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	362	97,968	\$43,097

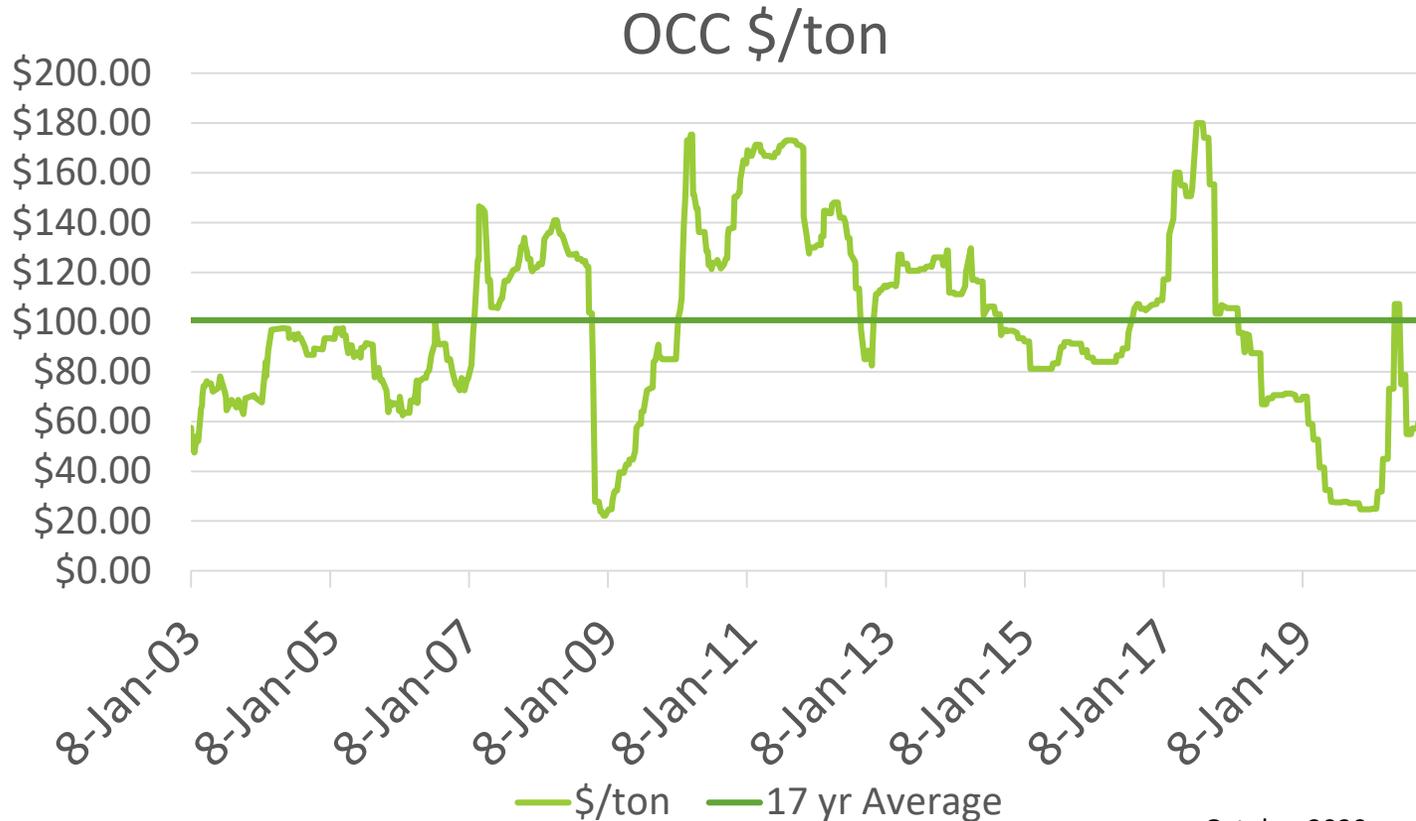
ISRI Recycling Industry Data

	Impact (millions)	Jobs	Wages (millions)	Taxes (millions)
Alabama	\$2,145	10,477	\$539	\$187
Arkansas	\$708	3,631	\$173	\$69
Florida	\$5,000	27,144	\$1,487	\$600
Georgia	\$2,457	12,385	\$685	\$232
Kentucky	\$1,846	8,350	\$472	\$164
Louisiana	\$1,303	5,510	\$328	\$92
Mississippi	\$812	3,717	\$178	\$66
North Carolina	\$3,436	15,909	\$852	\$314
South Carolina	\$1,790	9,163	\$547	\$194
Tennessee	\$26,229	12,521	\$748	\$256
Virginia	\$1,734	8,628	\$501	\$174
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	\$47,460	117,435	\$6,510	\$2,348

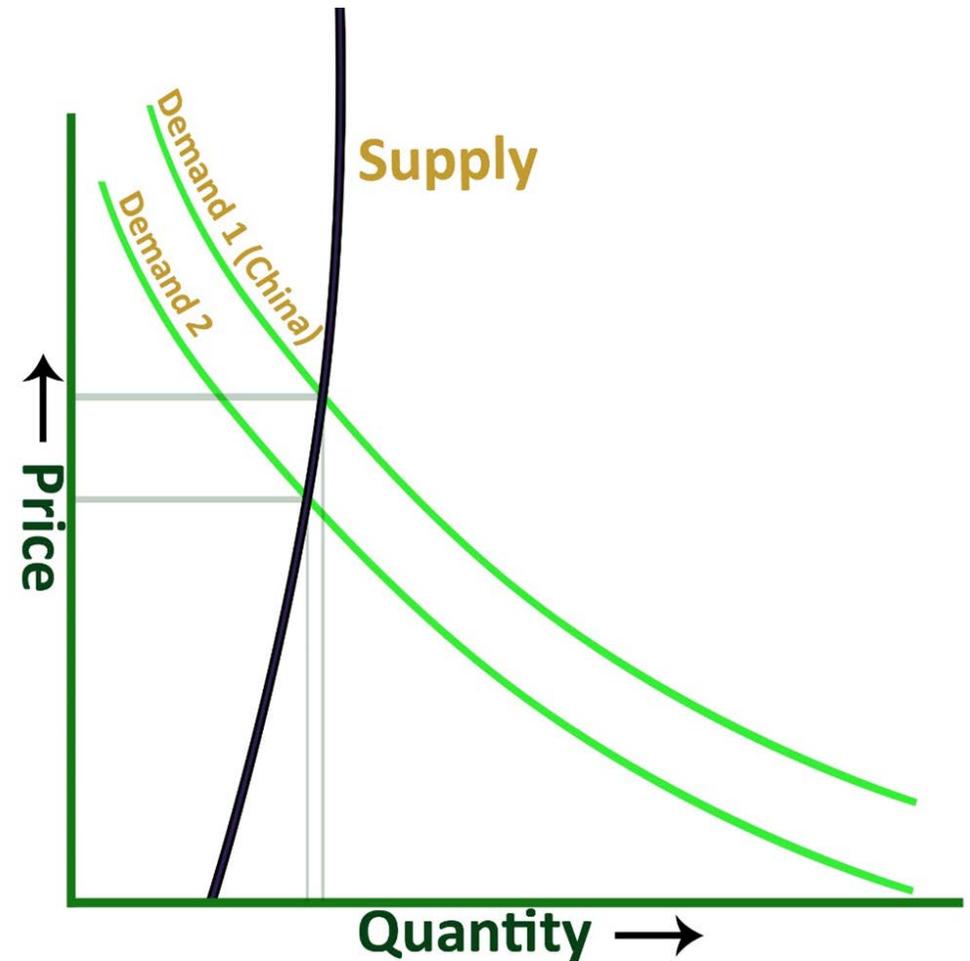
Current Issues for Recycling

- Misinformation
- Contamination
- Fragmented messaging
- Limited recycling access
- Diverse MRF infrastructure
- Processing fee increases
 - Budget timeline
- Strained local government budgets
 - Exacerbated by Covid-19 impacts

Recycling is not dead

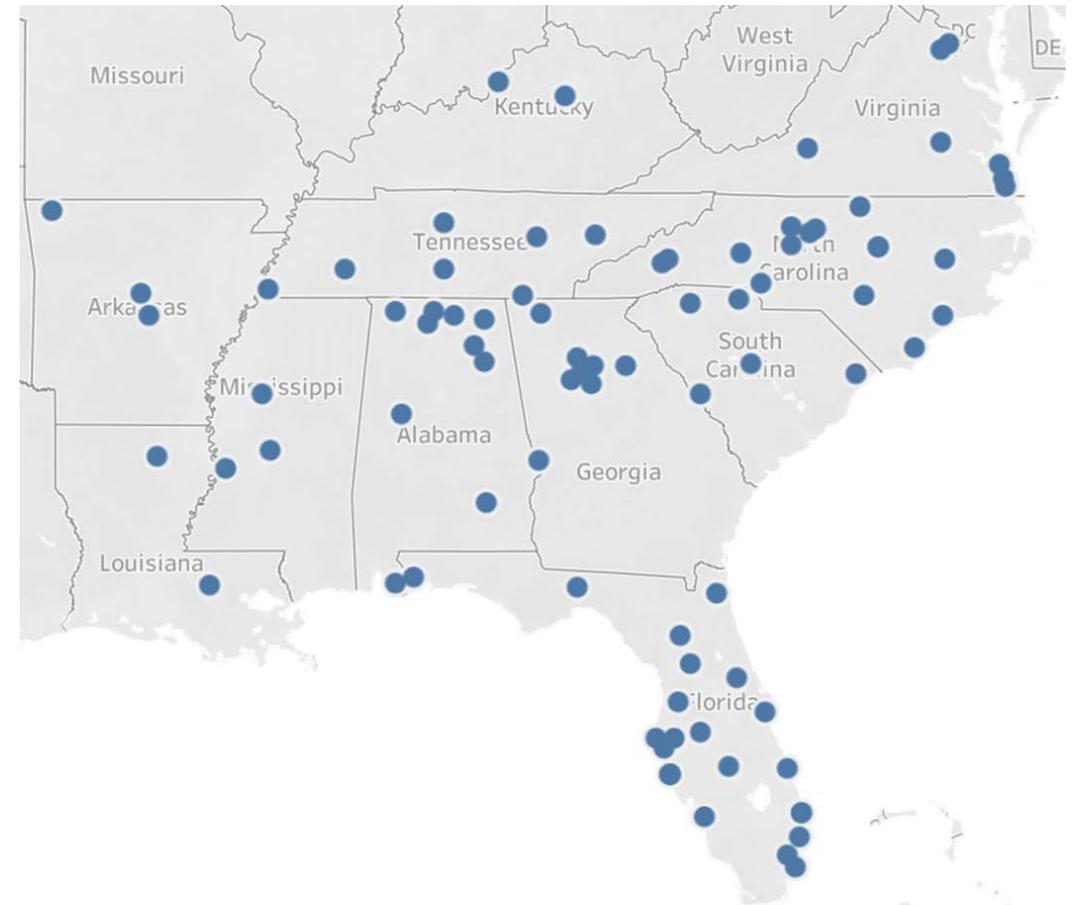
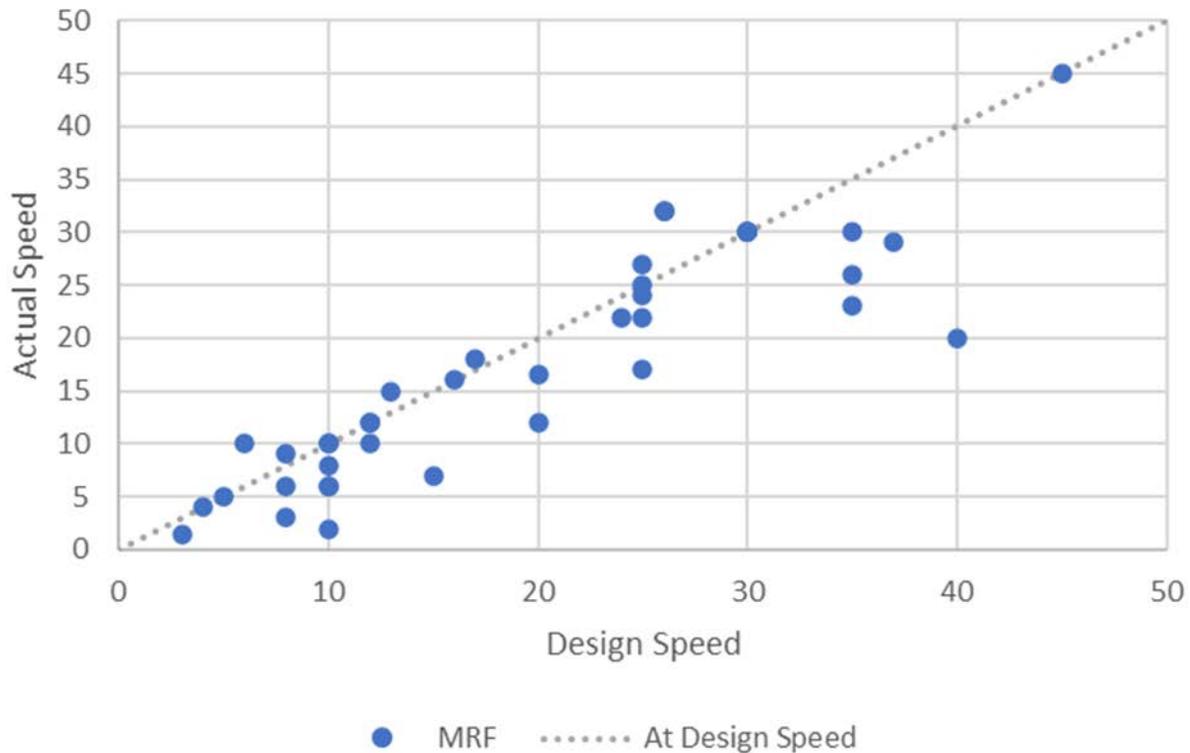


October 2020



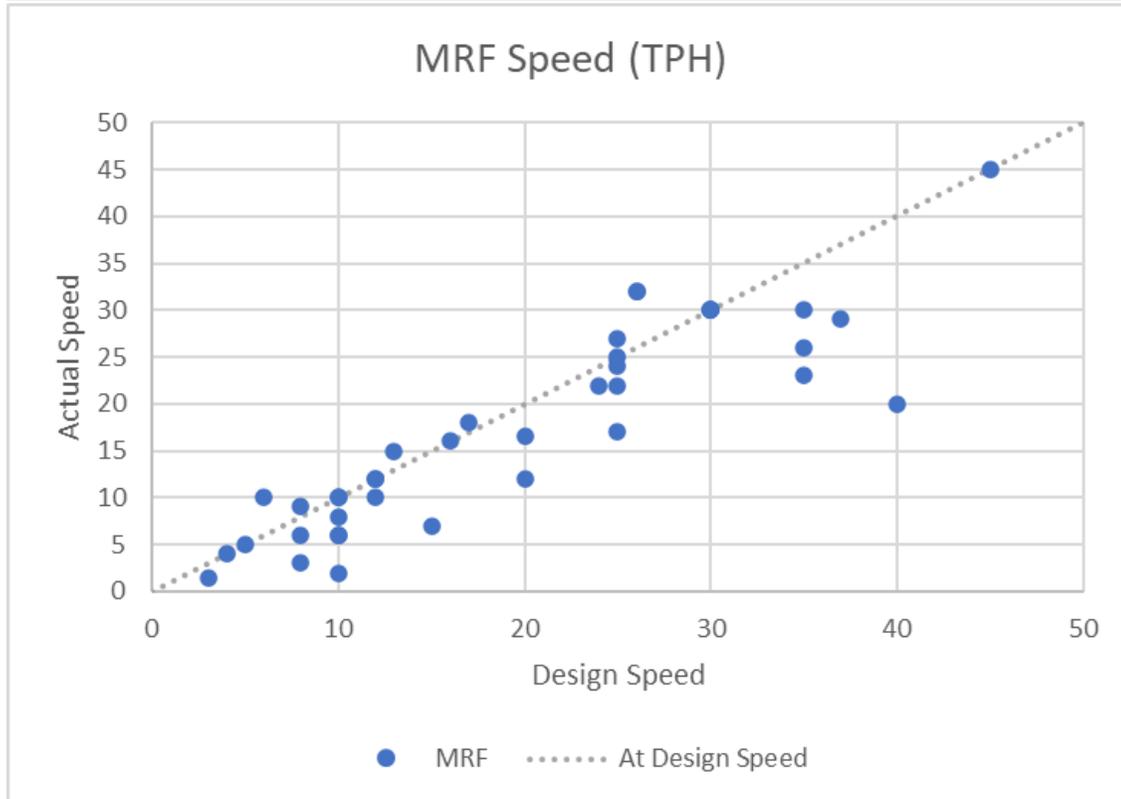
Measuring the MRF infrastructure

MRF Speed (TPH)

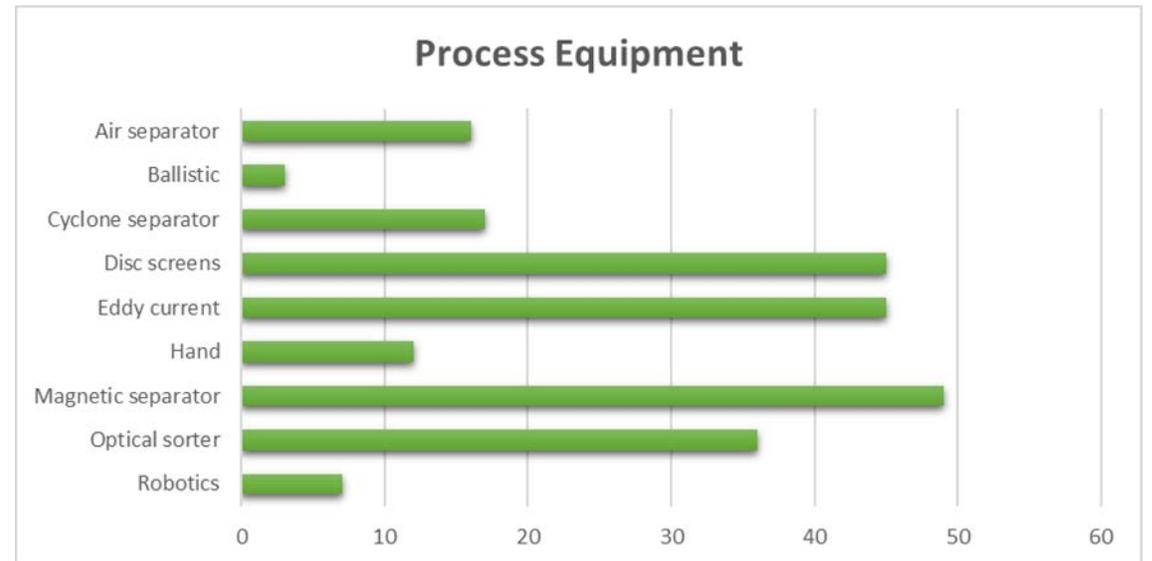


MRF Study

Excess capacity available



Robotics on a rapid rise



SERDC Communicating Cost Reduction

- More for Same or Same for Less in:
 - Collection
 - PAYT
 - Reduce collection frequency
 - Increase participation
 - Invest in automation
 - Service price increase, modest increase usually sufficient
 - Processing & Market Quality
 - Narrow materials collected
 - Consider dual stream, may or may not provide cost reduction
 - Clean up the stream
 - Film fees
 - Review processing contracts
 - Expand dropoff options
- Outreach / Education
 - Film fees
 - Provide feedback, Oops, etc.
 - Increase social marketing
 - Use TRP resources
 - Coordinate with common suit

Recycle Right Tennessee

Standardized images and messaging for State, Community and County websites

- Balance of text and images
- Option for grid and maps for convenience centers
- Printed versions provided as a pdf for downloading/printing



YES

●Clean ●Empty ●Dry

Place recyclables loose in bin, never in bags



NO

Cannot be recycled at this time

If you are not sure, please throw it away



CHECK LOCAL

Not all places take these, check your community recycling website

Recycle Right Guide for Modern City

Use this guide here for proper recycling. Information on how to get a bin can be obtained by calling 123-456-7890.

YES •Clean •Empty •Dry
Place recyclables loose in bin, never in bags



NO Cannot be recycled at this time
If you are not sure, please throw it away



Also Please No:

Recycle Right Tennessee



guía de reciclaje en español próximamente



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YES •Clean •Empty •Dry
Place recyclables loose in bin, never in bags



Paper

Cardboard
Newspaper
Magazines
Office Paper
Mail
Paperboard

Plastic

Bottles with Lids
Containers with Caps
Jars with Lids
Tubs
Buckets
Produce Containers
To-Go Cups
To-Go Lids

Metal

Aluminum Cans
Steel Containers

Glass

Jars
Bottles
Containers

NO Cannot be recycled at this time
If you are not sure, please throw it away



Paper

To-Go Containers
Cartons
Cups

Metal

Foil
Aluminum Trays
Aerosol Cans
Metal Items

Plastic

Straws
Hangers
Lids
Pouches

Plastic

Shopping Bags
Bottle Case Wrap
Toilet Paper Wrap
Film

Also Please No:

Diapers
Glass Cups/Dishes
Light Bulbs
Medical Supplies
Needles
Paper Towels
Sharp Objects
Shrink Wrap
Tissues
Toys

Recycle Right Tennessee



Curbside

guía de reciclaje en español próximamente

What Communities Need to Keep Recycling as an Essential Service



Cities must see Cost-Benefit



The Public must view Recycling as Essential



Coordinated Effort to increase exposure of industry impact, opportunities, and benefits



Form Coalitions



**Recycling Infrastructure
Grant Program Open**

Southeastern communities can
get funding for household
recycling investments

SERDC
Southeast Recycling Development Council

**THE RECYCLING
PARTNERSHIP**

**THE
Coca-Cola
FOUNDATION**

Will Sagar
Executive Director
will.sagar@serdc.org
(828) 507-0123



WE ARE TAKING A SHORT BREAK

AGENDA

Recycling Development Center Advisory Board Meeting
September 3, 2020 | 9 am – 12 pm (Pacific time)

9:00 am	Welcome & review meeting goals
9:10 am	Updates
9:40 am	Market development presentations
11:00 am	Presentation debrief
11:20 am	Board work
11:50 am	Wrap up
12:00 pm	Meeting adjourned

Visit the Advisory Board EZview website at:

www.ezview.wa.gov/site/alias__1962/37596/recycling_development_center_advisory_board.aspx



Presentation debrief:

- Did you hear anything from Matt, Anna, or Will that resonated with you?
- What lessons can we learn in Washington?
- What are some challenges unique to Washington State?

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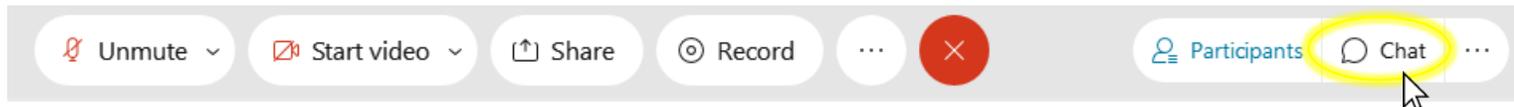
www.ezview.wa.gov/site/alias__1962/37596/recycling_development_center_advisory_board.aspx

Comments from attendees:



We want to hear from you!

If you would like to comment, **please write your name in the chat:**



We will unmute you to speak in the order that we see names in the chat.

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Please keep your comment to under 2 minutes.



Board work:

- Center Charter
- Discussion of additional board representation
- Questions or comments from other attendees

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Center Charter:



Background

For decades, Washington State has relied on China (and other countries) to recycle the majority of the paper and plastic waste generated by residents and businesses. Over the years, China has implemented ongoing policies to manage domestic pollution and recycling. ~~that~~ These have threatened the systemic viability and resiliency of Washington State recycling programs. In 2008, recycling markets were severely impacted by the closure of paper mills in preparation for the Olympic games. In 2013, China implemented the regulations that were enacted in 2011. Termed “Operation Green Fence”, enforcement program to police contamination limits were enforced. The response in the U.S. was to innovate – leading to cleaner export streams. In 2018, China implemented the “National Sword” policy that banned the import of certain plastic and paper materials and set a stringent contaminant limit for recyclables (0.5 percent by weight). Shortly thereafter, imports of mixed paper were banned and import quotas were drastically reduced. In 2020, China announced a complete ban on all imported scrap material in 2021. And, while the U.S. is not a party to the Basel Convention, 187 countries agreed to amend the Basel Convention to restrict imports of contaminated, mixed or unrecyclable plastic waste. These changes have disrupted global recycling systems, including Washington’s, by eliminating the largest market for these materials. Recently, other international markets, such as Malaysia, Indonesia and Vietnam, have followed with similar bans or strict contamination limits.

Discussion of additional board representation:



RCW 70A.240.040

Advisory board—Duties—Membership.

(3) Except as otherwise provided, advisory board members must be appointed by the director in consultation with the department of commerce as follows:

- (a) One member to represent cities;
- (b) One member appointed by the Washington association of county solid waste managers to represent counties east of the crest of the Cascade mountains;
- (c) One member appointed by the Washington association of county solid waste managers to represent counties west of the crest of the Cascade mountains;
- (d) One member to represent public interest groups;
- (e) Three members from universities or state and federal research institutions;
- (f) Up to seven private sector members to represent all aspects of the recycling materials system, including but not limited to manufacturing and packaging, solid waste management, and at least one not-for-profit organization familiar with innovative recycling solutions that are being used internationally in Scandinavia, China, and other countries;
- (g) The chair of the utilities and transportation commission or the chair's designee as a nonvoting member; and
- (h) Nonvoting, temporary appointments to the board may be made by the chair of the advisory board where specific expertise is needed.

ADVISORY BOARD CHARTER

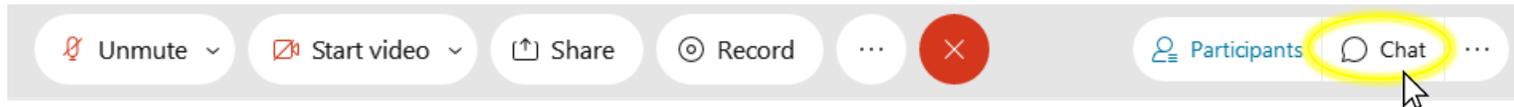
“The chair and cochair of the advisory board, Scott Morgan, chair and Karl Englund, cochair, were elected from among the members by a simple majority vote. Additional temporary appointments may be made by the chair of the Board, with agreement among the members, where specific expertise is needed. Board members may substitute an alternate to attend meetings on their behalf.”

Comments from attendees:



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Wrap up:

- Board feedback on Legislative report due Oct 23
- Next meeting: December 9, 2020

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