

Solid Waste Advisory Committee Meeting

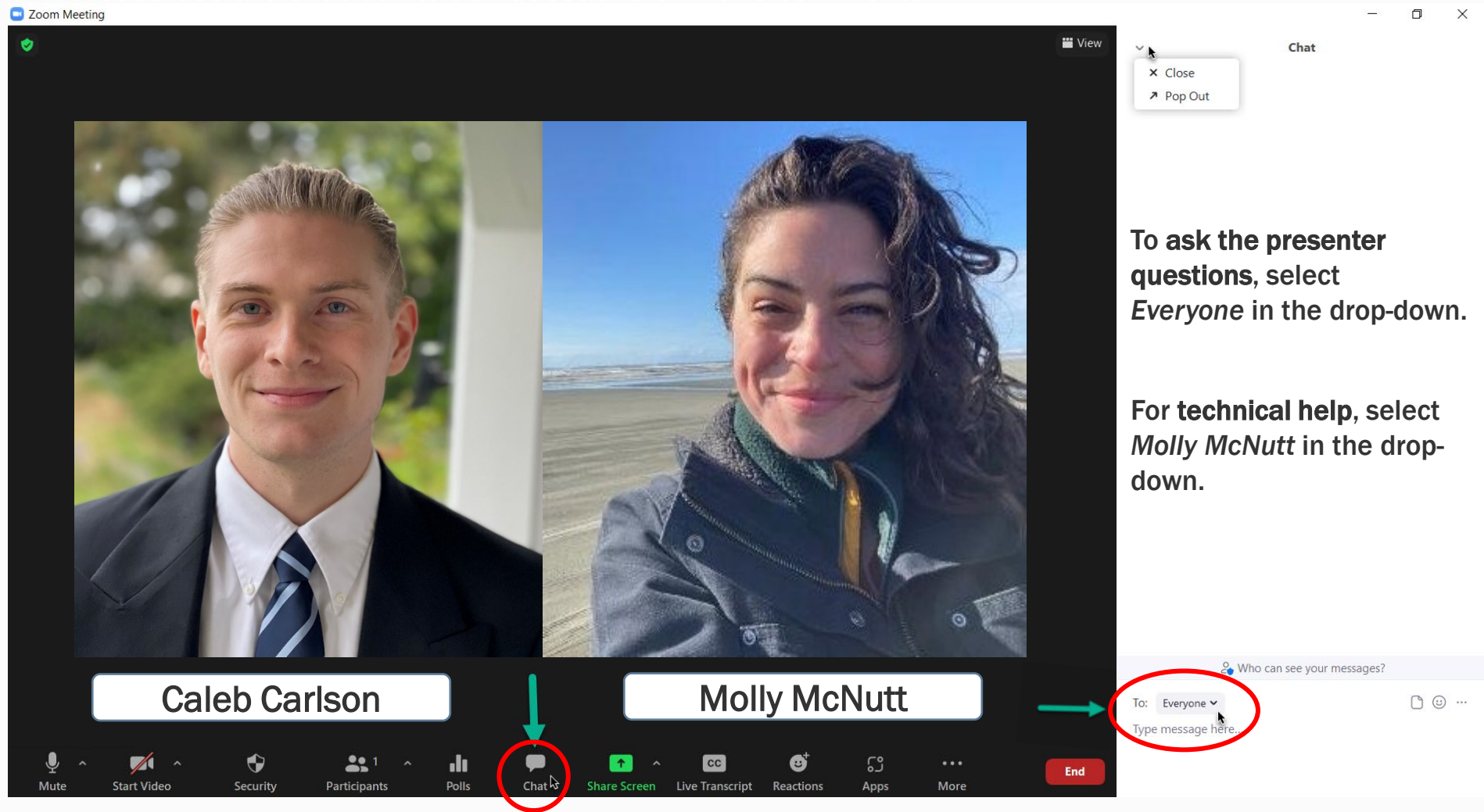
Welcome!

- Please keep your video off unless you are presenting – this will help with internet connectivity.
- We are conducting sound tests before 9:30 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.



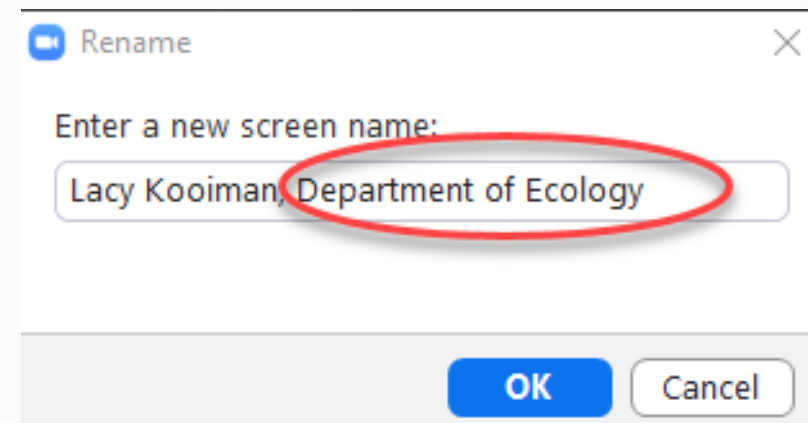
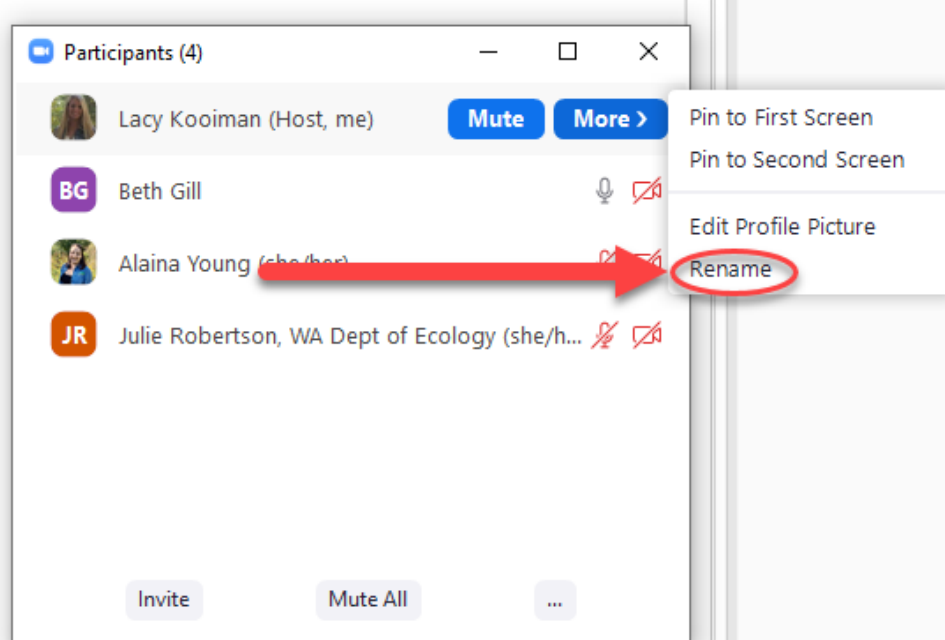
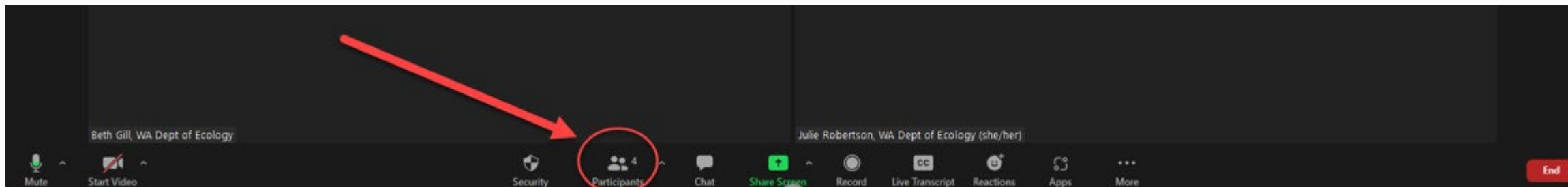
Assisting with this meeting:

Please use the chat box to ask questions or make comments.



The screenshot shows a Zoom meeting window with two participants: Caleb Carlson and Molly McNutt. Below their video feeds are their names in white boxes. At the bottom of the window is a toolbar with icons for Mute, Start Video, Security, Participants, Polls, Chat, Share Screen, Live Transcript, Reactions, Apps, and More. The Chat icon is circled in red, with a green arrow pointing to it from the text "Please use the chat box to ask questions or make comments." To the right of the meeting window is a chat panel titled "Chat". It has a "Close" button and a "Pop Out" button. Below these buttons, there is text: "To ask the presenter questions, select *Everyone* in the drop-down." and "For technical help, select *Molly McNutt* in the drop-down." At the bottom of the chat panel, there is a "To:" dropdown menu set to "Everyone", which is circled in red. Below the dropdown is a text input field labeled "Type message here..." and a "Who can see your messages?" link.

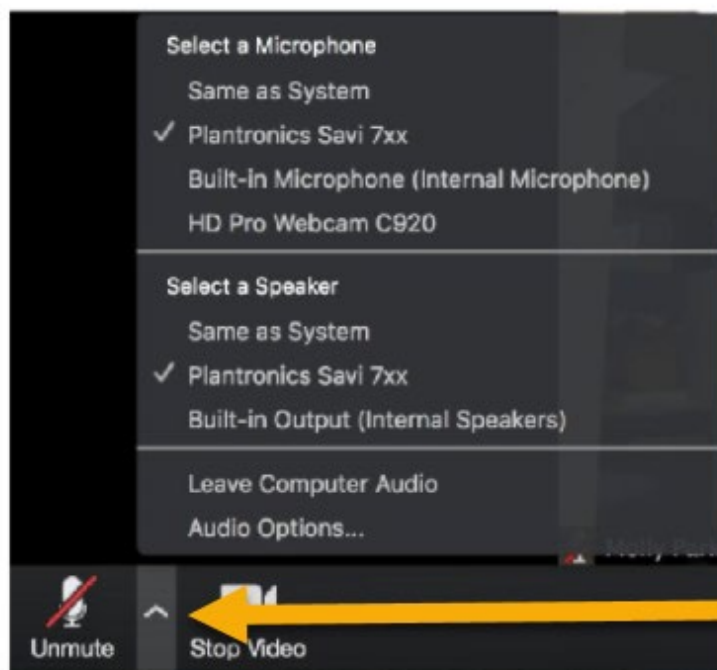
Zoom Functions: Rename to Add Your Affiliation



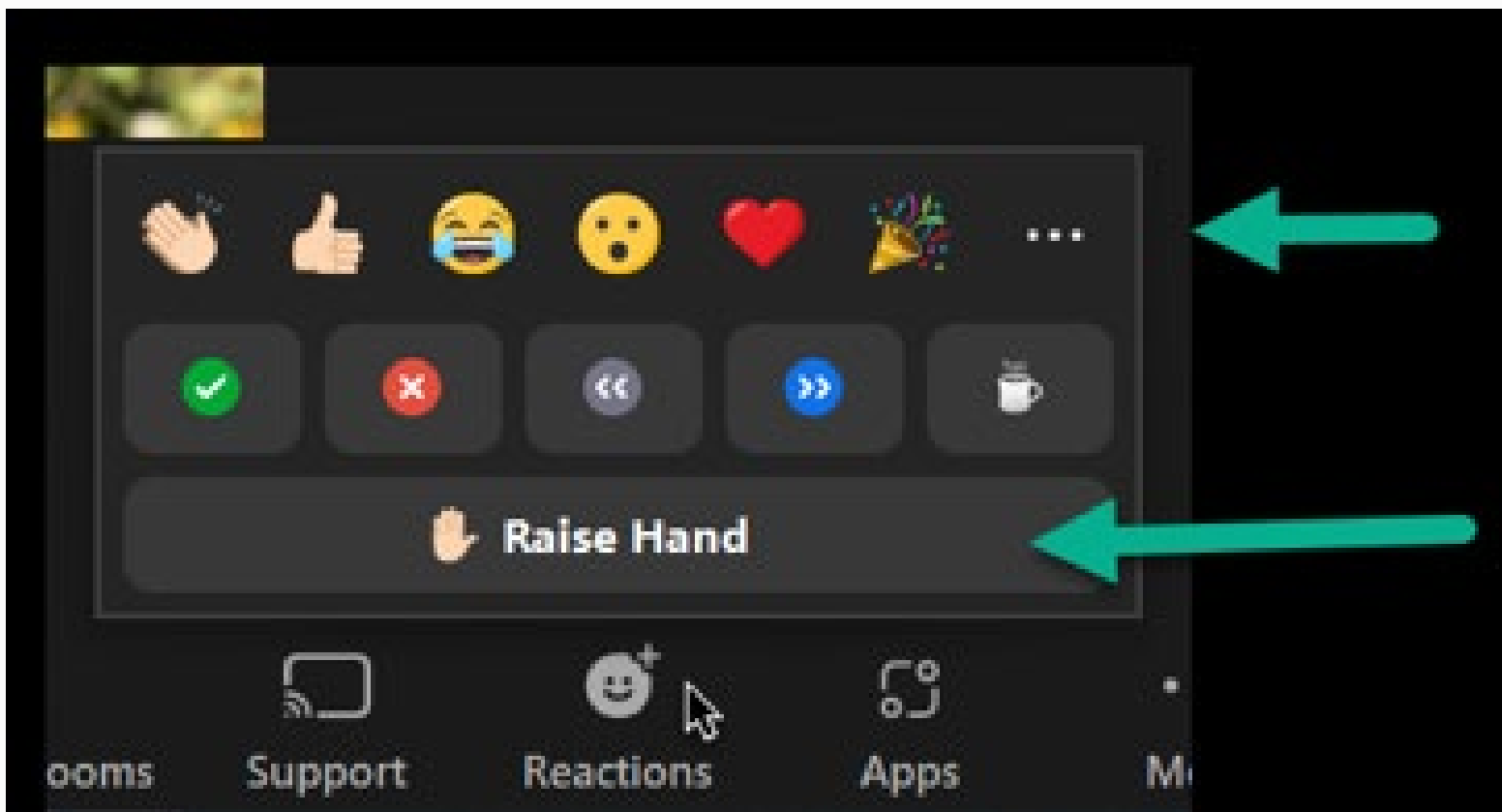
Zoom Functions: Audio Settings

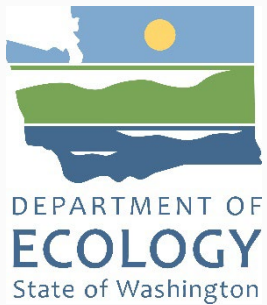
Mute/Unmute & Audio Settings

You can mute and unmute your microphone. If you click on the arrow next to the mute button (bottom left main Zoom screen), you have additional options for audio settings. You can change your microphone, leave the computer audio or access the audio options.



Zoom Functions: Raising Your Hand





Solid Waste Advisory Committee Meeting

July 17, 2024

Agenda

Solid Waste Advisory Committee Meeting
July 17, 2024 | 9:30 a.m. – 11:10 a.m.

Call to Order & Zoom Meeting Instructions

9:30 a.m. | 5 minutes | Troy Lautenbach (Chair)

SWAC Update

9:35 a.m. | 5 minutes | Troy Lautenbach (Chair), Jay Blazey (Vice Chair)

Ecology Updates

9:40 a.m. | 10 minutes | Peter Lyon, Dept. of Ecology SWM

State Plan Update

9:50 a.m. | 15 minutes | Janine Bogar, Dept. of Ecology SWM

Washington Secure Your Load for Safer Roads Campaign

10:05 a.m. | 20 minutes | Amber Smith, Dept. of Ecology SWM

Recycling Organics Characterization Study

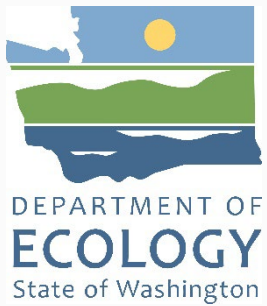
10:25 a.m. | 30 minutes | Dan Weston & Cullen Naumoff, Dept. of Ecology SWM

Member Updates & Roundtable

10:55 a.m. | 15 minutes | Troy Lautenbach (Chair)

Adjourn

11:10 a.m.



SWAC Update

Troy Lautenbach (Chair)



Ecology Updates

Peter Lyon, SWM Program Manager

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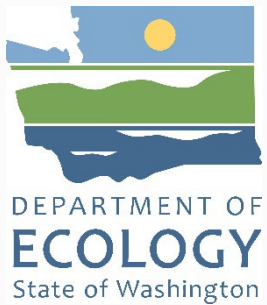
Washington State Plan Update



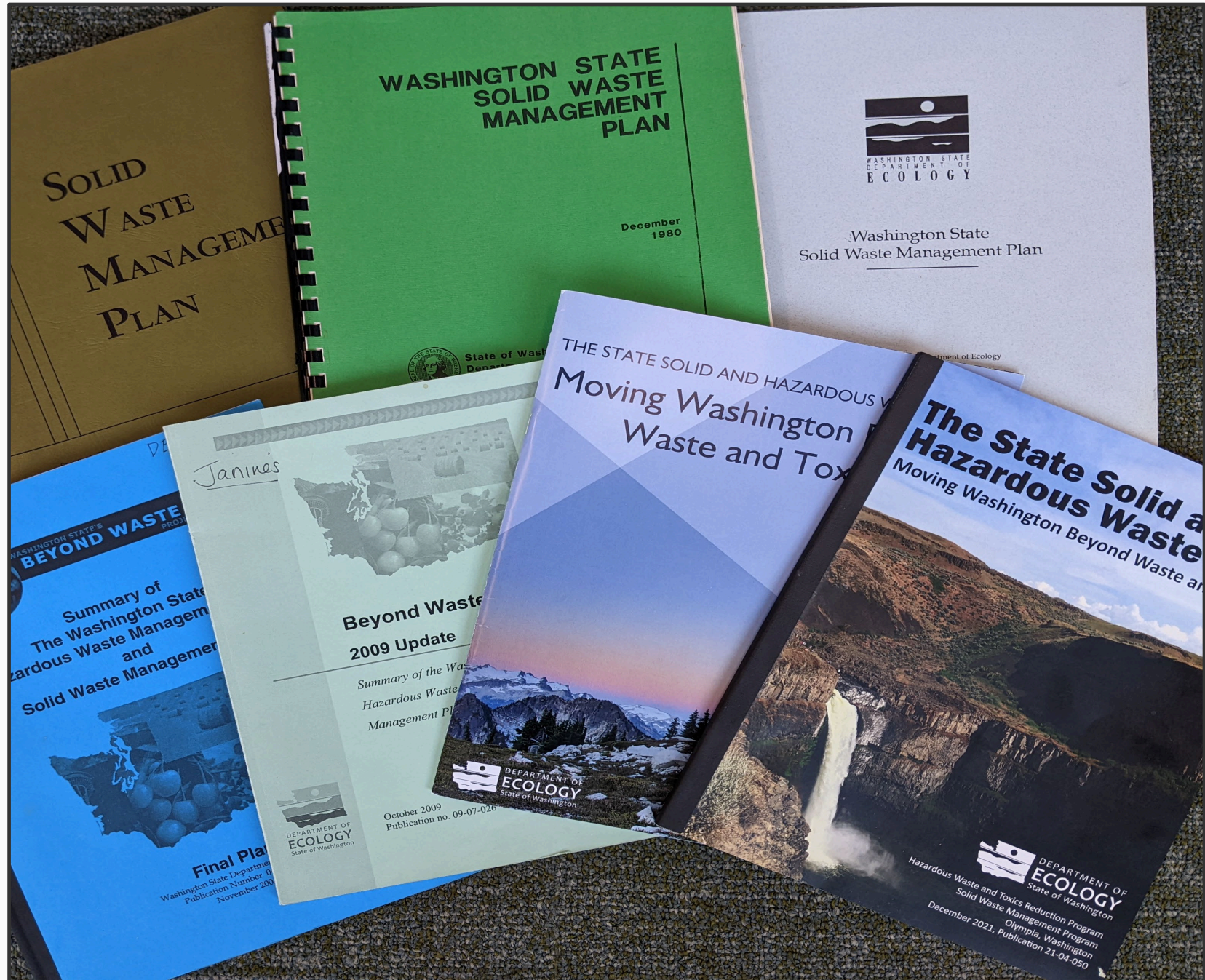
Janine Bogar, SWM Lead Program Planner
Dept. of Ecology SWM
July 17, 2024



State Solid Waste Plan Update



Janine Bogar
July 17, 2024



State Plan Update: Due 2025 (ish)

- What's new:
 - For first time since 2004, we will not be co-planning w/ the Hazardous Waste & Toxics Reduction program
 - Many new laws and increased attention on waste-related issues





Research and Direction

- Research:
 - Reviewed current and past plans
 - Many common plan elements since 1972
 - Current plan is still relevant
 - Direction:
 - Do a simple update; keep the vision
 - Contents will be similar, with additions /edits as needed
 - Remove work of Hazardous Waste & Toxics Reduction program
-

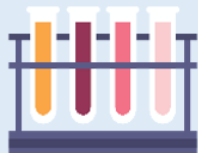
Moving “Beyond Waste” to upstream with Sustainable Materials Management

Vision and Priorities of the State Plan

We can transition to a society where waste is viewed as inefficient, and where most wastes and toxic substances have been eliminated. This will contribute to economic, social, and environmental vitality.



Increase our focus on manufacturing and use phases, not just on end-of-life issues.



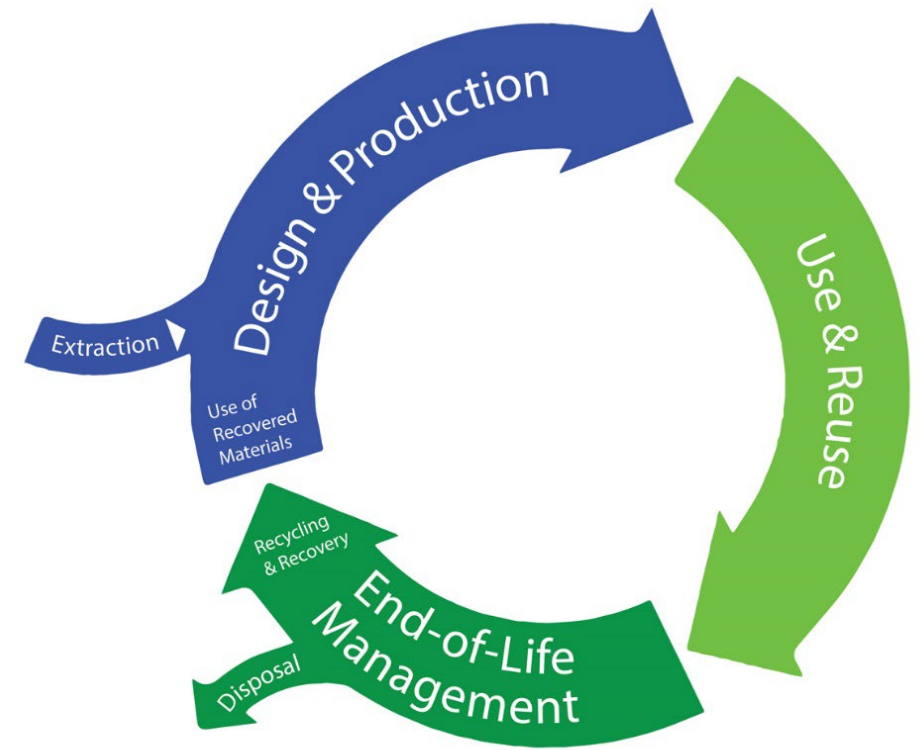
Reduce toxic threats in products and industrial processes



Maximize effectiveness of recycling and organic processing systems.



Mitigate climate change through waste reduction, reuse, and recycling.

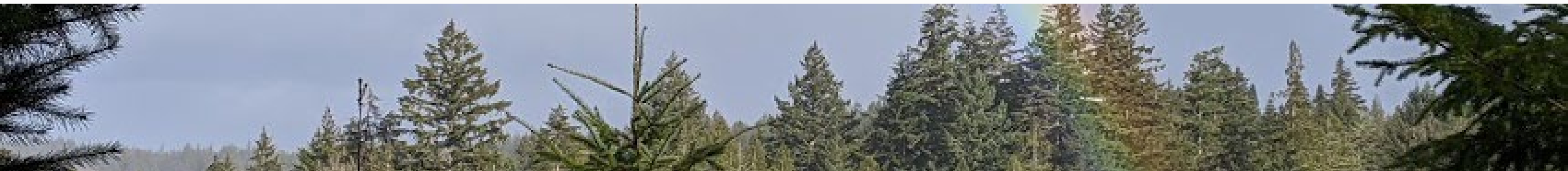


Plan Elements: SWMPs 1 - 7

Plan Element	# Plans	Plan Element	# Plans	Plan Element	# Plans
Finance/Local funding	7	Product Stewardship	4	Recycled content /mandate	2
Local Plans/guidance	7	Construction & Demo waste	3	Recycling contamination	2
Public Education	7	Climate connection	3	Sustainable Materials Management	2
Recycling	7	Facility Standards	3	Waste collection/ transport	2
State Gvt lead by example	7	Food waste	3	Waste storage	2
Data / Measures	6	Permit/enforce. authority	3	Auto hulks	1
Environmentally preferred purchasing	6	Closed/ abandoned landfills	2	Covered loads	1
Waste Reduction	6	Environmental Justice	2	Flow control, bidding	1
Laws update	5	Life-cycle analysis	2	Info clearinghouse	1
Litter	5	Operator training	2	Oil recycling	1
Organics	5	Packaging Bans	2	Wood waste / sewage sludge	1
HHW	4	Plastics	2		

State Plan Contents

- Organics & Food Waste
- Recycling Commodity Market Development
- Waste Reduction, Reuse, Repair
- Plastics
- Product Stewardship
- Moderate Risk Waste
- Environmentally Preferred Purchasing
- Environmental Justice
- Waste & Climate Connection
- Local Grants & Planning
- Facility Management
- Litter
- Recycling Contamination
- Data & Measurement
- Outreach & Information



State Plan Contents - Framework

- Vision
- Sustainable Materials Management
- Progress on Past Plan
- Current Trends
- Environmental Justice
- Authorizing Framework
- Implementation & Issues
- Future Directions: Looking Ahead





State Plan Update Process

- ✓ Update ~ every five years
- ✓ Assess progress on current plan
- ✓ Create rough draft update
- ✓ Get public input on draft update
- ✓ Use input to create final draft
- ✓ Program management team review
- ✓ Deputy director review and approval

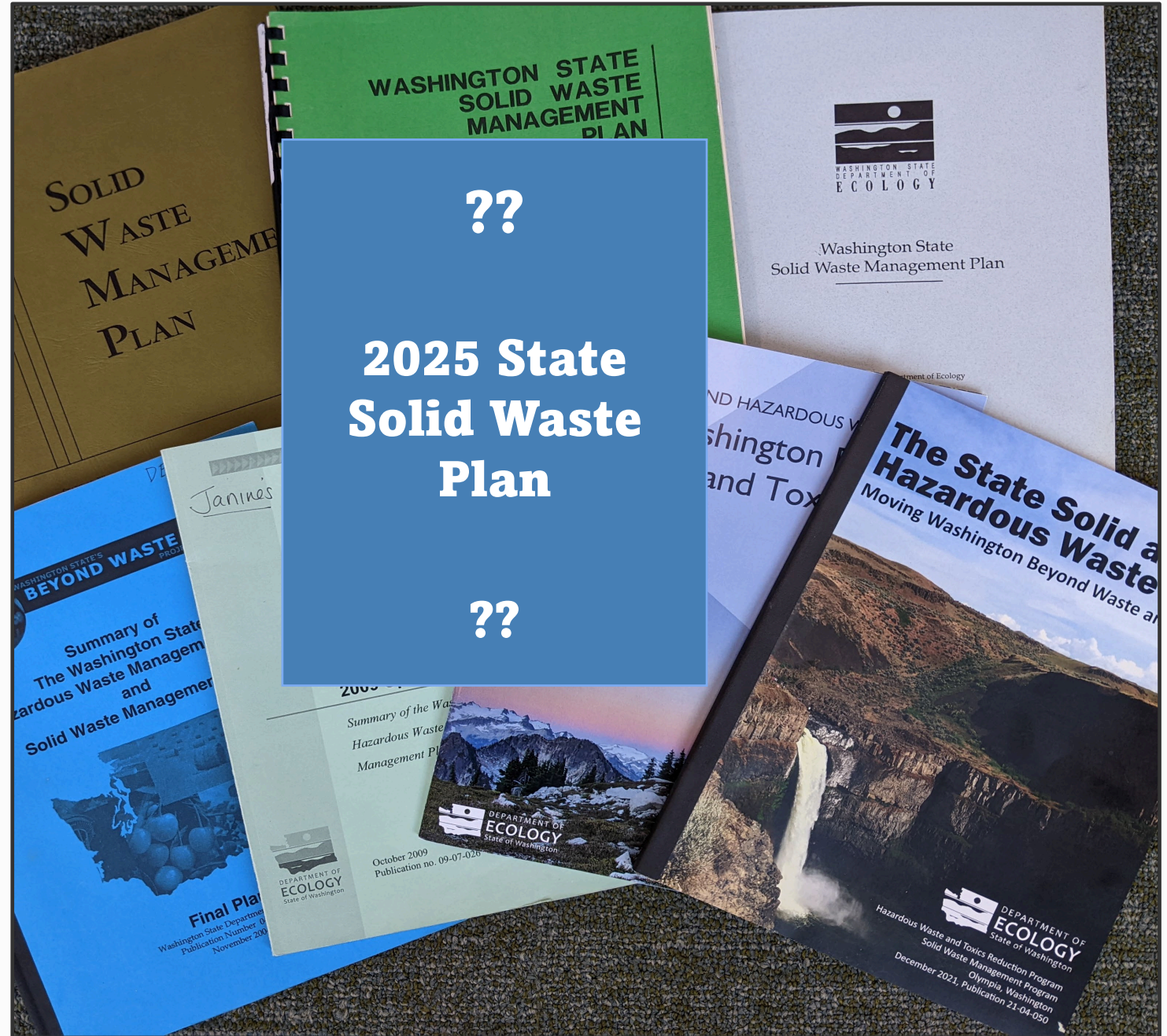
Thank You

Janine Bogar
Washington State
Dept. of Ecology

janine.bogar@ecy.wa.gov

State Plan Website:

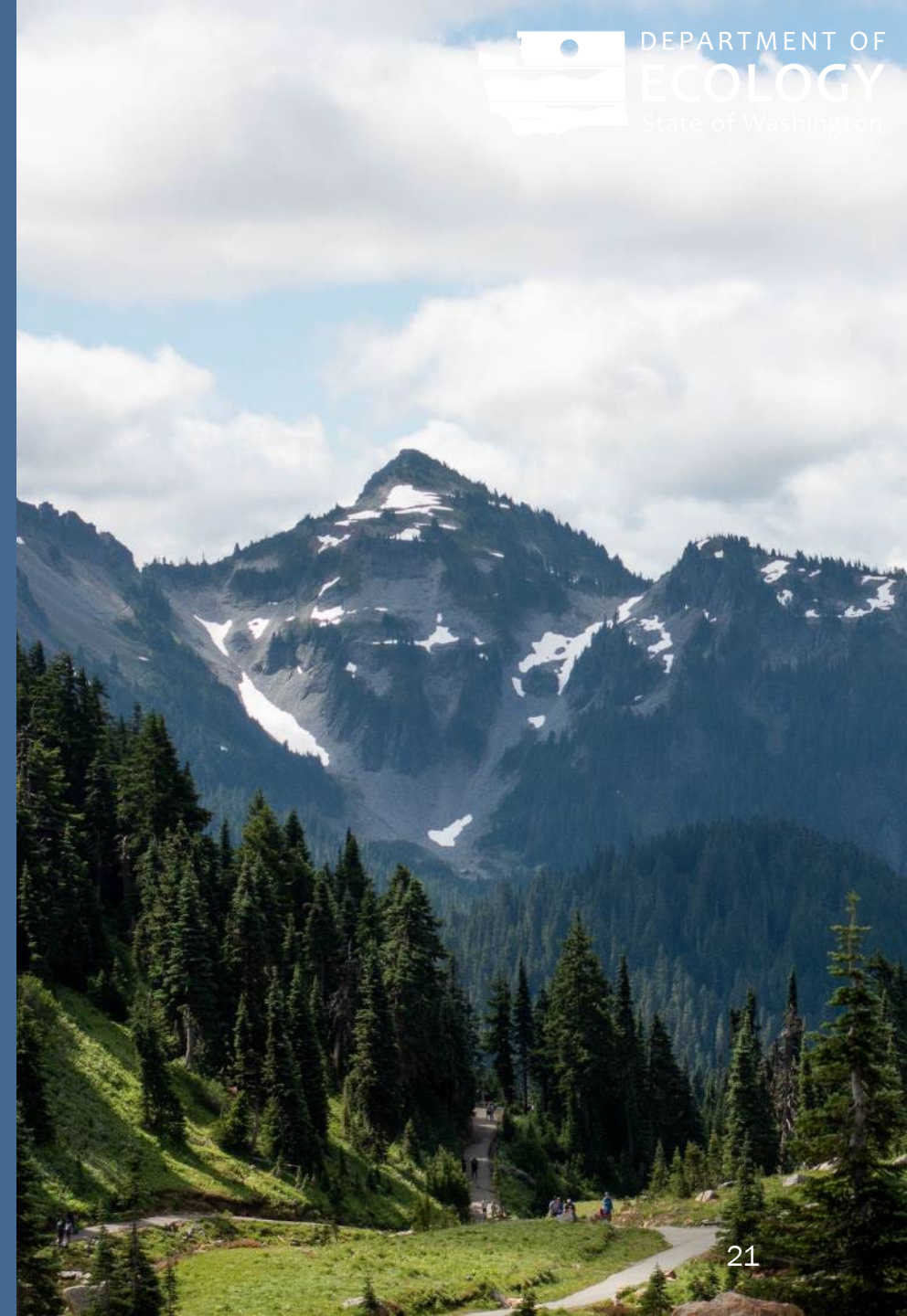
<https://ecology.wa.gov/Regulations-Permits/Plans-policies/Washington-state-waste-plan>



Washington Secure Your Load for Safer Roads Campaign



Amber Smith, Statewide Litter Prevention Coordinator
Dept. of Ecology SWM
July 17, 2024





DEPARTMENT OF
ECOLOGY
State of Washington

Secure Your Load for Safer Roads Campaign

Amber Smith, Statewide Litter Prevention Coordinator

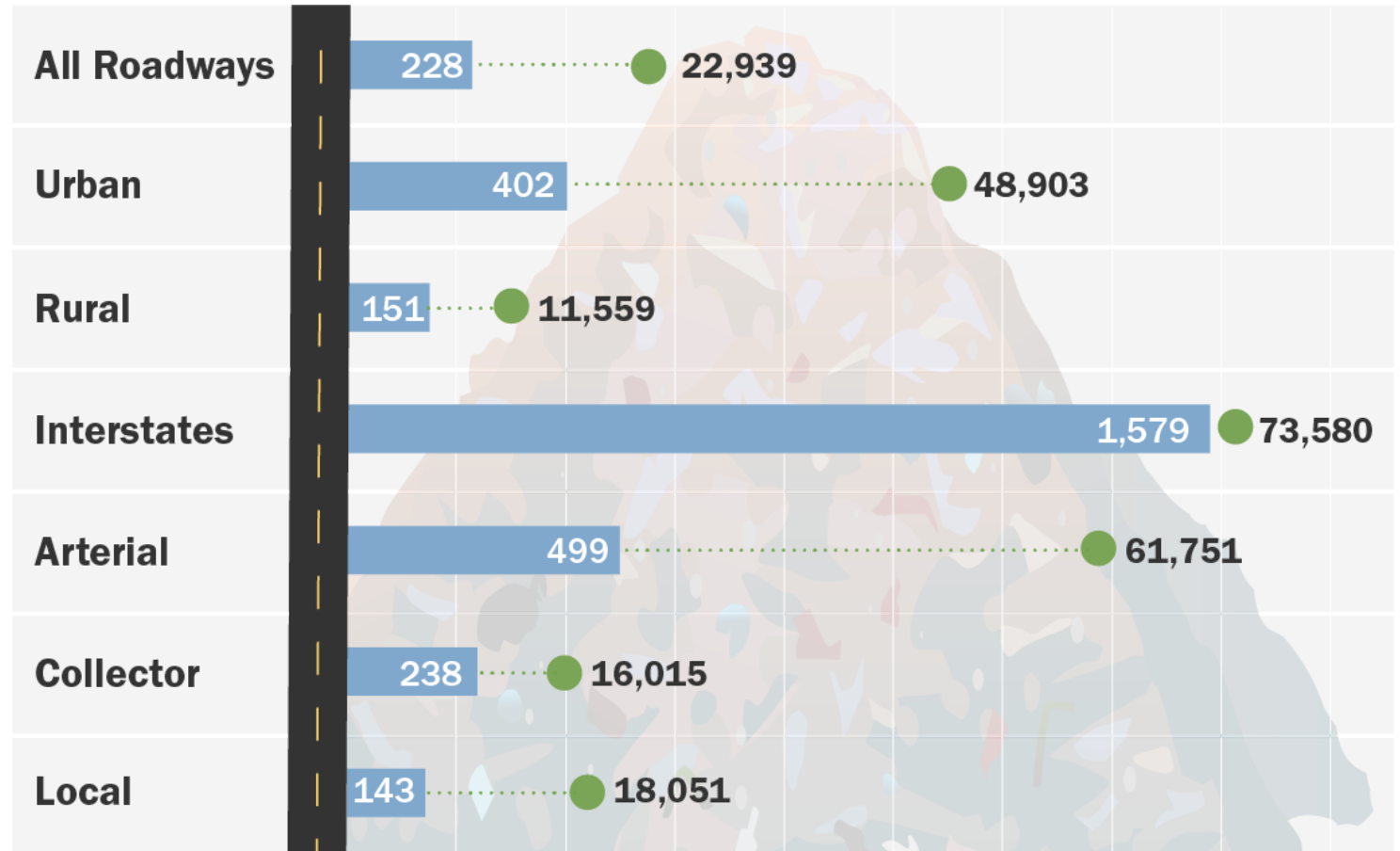
Social Marketing Framework



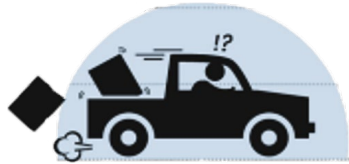
The Problem: 37.8 Million lbs Litter Per Year



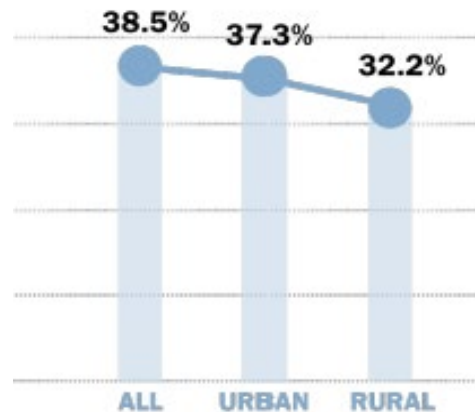
Litter accumulation along roadways (pounds and pieces per mile per year)



Yearly Litter Accumulation due to Unsecured Loads



32.2 – 38.5%
of littered pounds
likely from unsecured loads



The Problem: \$12 Million Spent on Clean Up & 300 Traffic Crashes Per Year



Campaign Overview & Results



Campaign Landing Pages

SecureLoadsWA.org

SujetaTuCargaWA.org

English

The screenshot shows the English version of the SecureLoadsWA.org landing page. At the top is the Department of Ecology logo and navigation links. The main header features the 'WE KEEP WA LITTER FREE' logo and the title 'Secure Your Load for Safer Roads'. The body text explains the importance of securing loads to prevent accidents and litter. A 'Download the Partner Toolkit' button is visible. At the bottom, a 'Stock Up' section lists items like cargo nets, tarps, and ropes. A green starburst graphic is overlaid on the left side of the page.

Spanish

The screenshot shows the Spanish version of the SujetaTuCargaWA.org landing page. It mirrors the English version but with Spanish text. The main header features the 'POR UN WA IMPECABLE' logo and the title 'CARGAS BIEN SUJETADAS, CAMINOS MÁS SEGUROS'. The body text explains the importance of securing loads in Spanish. A 'Descarga la guía de consejos' button is visible. At the bottom, a 'Prepárate' section lists items like cargo nets, tarps, and ropes. A green starburst graphic is overlaid on the right side of the page.

Landing Page Activity

Page	Total Views	Unique Views	Average Engagement Time*	Top Referral Sources
SecureLoadsWA.org	17,515	13,626	4s	Meta Ads
SujetaTuCargaWA.org	2,979	1,937	7s	Meta Ads

2023 – 2024 Comparison

SecureLoadsWA.org

- Page views up 38.05%

SujetaTuCargaWA.org

- Page views up 39.40%

Litter Prevention Partner Toolkit

Page activity from 10/9/23 - 6/23/24:

- Total visits: 505
- Unique visitors: 173
- Average time on page: 43s

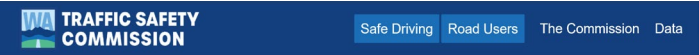
Litter Prevention Partner Toolkit

Secure Your Load for Safer Roads Resources

- June 2024 campaign press release
 - [English](#)
 - [Spanish](#)
- June 2024 campaign key messages
 - [English](#)
 - [Spanish](#)
- June 2024 fact sheet
 - [English](#)
 - [Spanish](#)
- Social Media
 - [English](#) (zipped)
 - [Spanish](#) (zipped)
- [Social marketing plan](#)
- Print materials: We provide print-ready PDFs, as well as the native design file packages. The "co-branded" version of the brochure has a place to add your organization's logo. Please **do not make changes** to any of the material's messaging or design elements.
 - Tri-fold brochure
 - [English](#) (zipped)
 - [Spanish](#) (zipped)
 - [Teardrop](#) (zipped) Two-sided with English and Spanish
- Billboard ads
 - [Standard size](#) (zipped)
 - [Poster size](#) (zipped)
- [Cargo net giveaway event materials](#) (zipped)
- [Resources for retail outreach](#) (zipped)
- [Solid waste facility signage](#) (zipped)
- [Poster](#)
- [Video ads](#) (English & Spanish zipped)
- Radio ads
 - [English](#) (zipped)
 - [Spanish](#) (zipped)
- Web graphics
 - [English](#) (zipped)
 - [Spanish](#) (zipped)



Government Agency Partnerships



Washington campaign reminds motorists that securing their load leads to safer travels for everyone

State agencies ramp up patrols and outreach to curb littering and improve safety

For Immediate Release
June 3, 2024

OLYMPIA, Wash. — A coalition of state agencies are coming together to launch a statewide campaign timed with National Secure Your Load Day on June 6. The campaign raises public awareness about the need to properly secure cargo while honoring and remembering individuals whose lives have been lost or affected by objects falling from an unsecured vehicle load.

The coalition includes the Washington State Patrol, WSP, the Washington Traffic





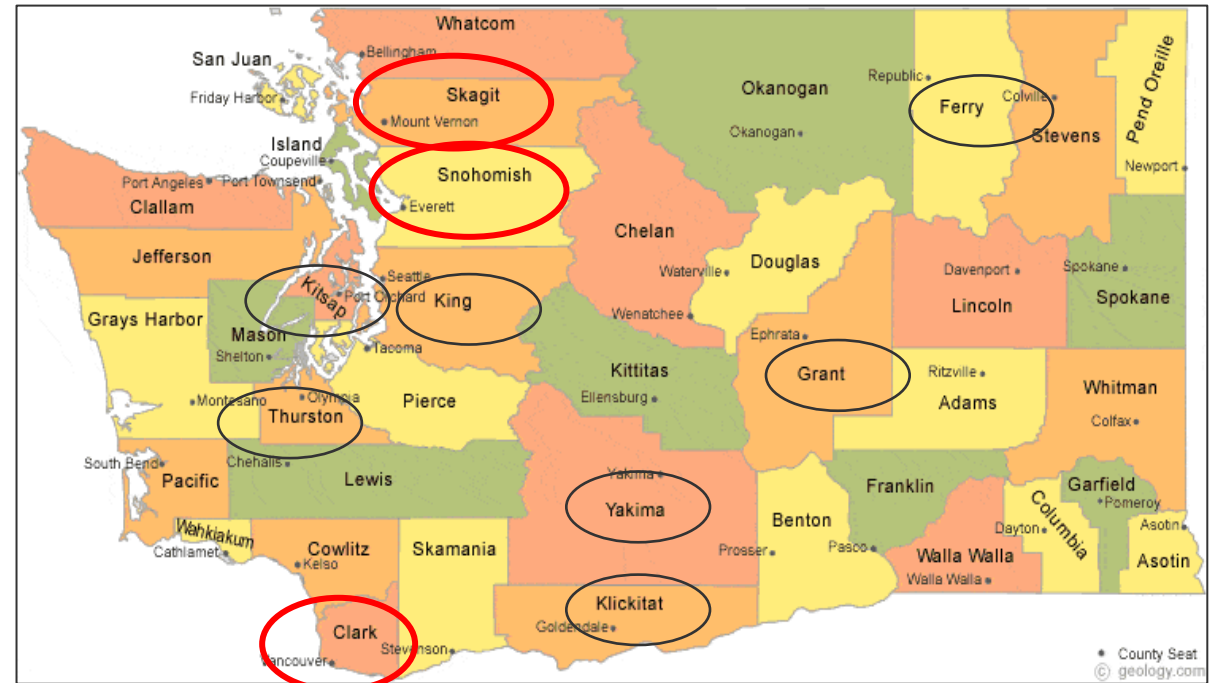
King County



Local Government Partnerships

2024 Equipment Giveaway Details

County	Locations
Clark	<ul style="list-style-type: none">West Van Materials Recovery CenterCentral Transfer & Recycling CenterWashougal Transfer Station
Skagit	<ul style="list-style-type: none">Skagit County Recycling & Transfer StationSauk Transfer Station
Snohomish	<ul style="list-style-type: none">Airport Road Recycling & Transfer StationSultan Dropbox



Past Cargo Net Giveaway Events

- Collected unsecured load data for 2 weeks pre- and post-campaign
Same time following year
 - Giveaway events in community, used pledge, distributed educational brochure and window cling
 - Ongoing education through solid waste facilities & events
 - Follow up survey with participants a few months later
- Most recent results:
- 16.6% response rate
 - 44% were not always securing their load
 - 47% now secure their load more often
 - 88% are likely/extremely likely to talk with others
 - 86% said the campaign made it easier to secure their load



2024 Equipment Giveaways

- Followed slightly different approach:
 - Collected data pre- and post-campaign
 - Handed out equipment to unsecured customers during regular operating hours
 - Used pledge, distributed educational brochure & cling
- Follow up survey with participants in a couple months



2024 Unsecured Load Data

Location	Pre-Event Total Loads	Pre-Event % Unsecured Loads	Post-Event Total Loads	Post-Event % Unsecured Loads	Pre to Post % Point Change
Snohomish-Airport Rd*	977	18%	X	X	X
Snohomish-Sultan*	281	20%	X	X	X
Skagit-County Site	961	38%	X	X	X
Skagit- Sauk	208	38%	X	X	X
Clark- West Van	1277	38%	X	X	X
Clark- Central	3188	28%	X	X	X
All Counties	6,892	30%	X	XX	X

*Snohomish County charges a \$5-\$10 unsecured load fee so has lower unsecured rates. This has been a consistent finding across the last 4 years of data collection with both counties who do and do not enforce fees.

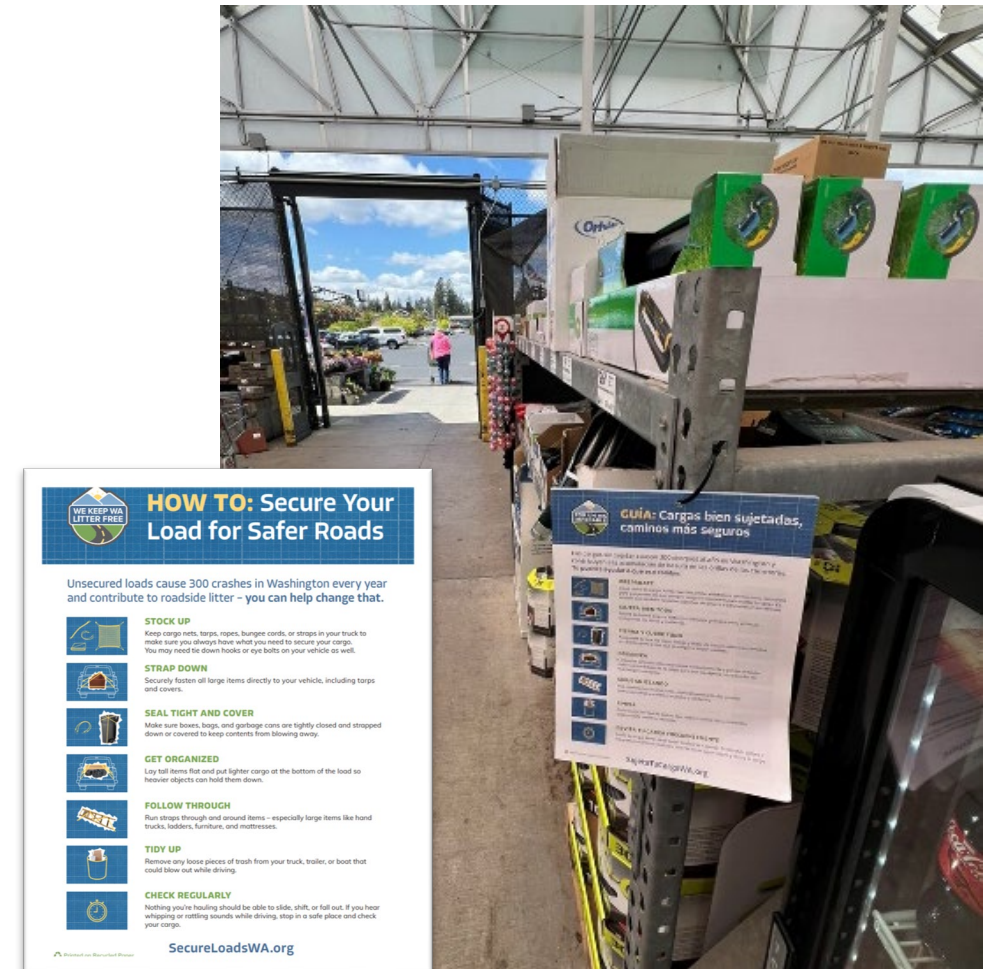


Retail Partnerships



Retail Promotion Results

- Partnered with 40 hardware stores statewide across 13 WA counties
- Trained 40 store staff
- Placed 160 bilingual tear pads in stores
- Secured 6 end cap displays promoting load securing products



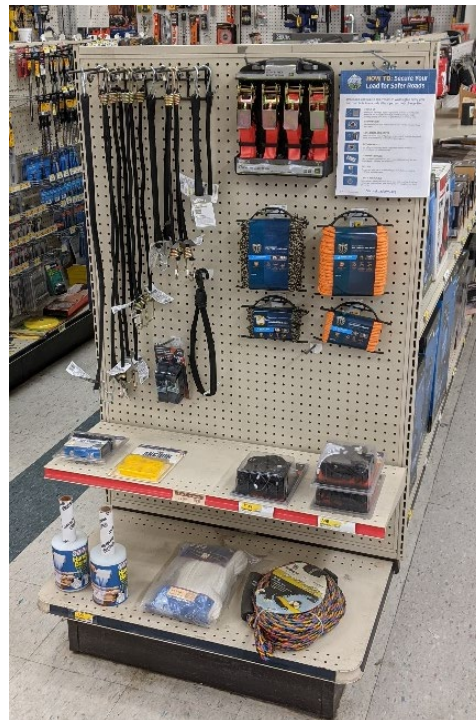
Product End Cap Promotions



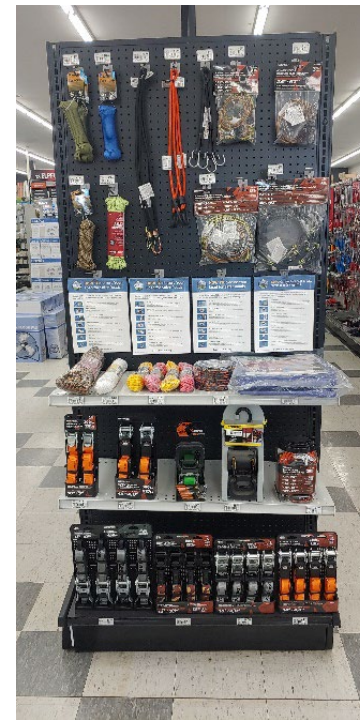
Main Street Hi-School
Ace Hardware
Vancouver 98660



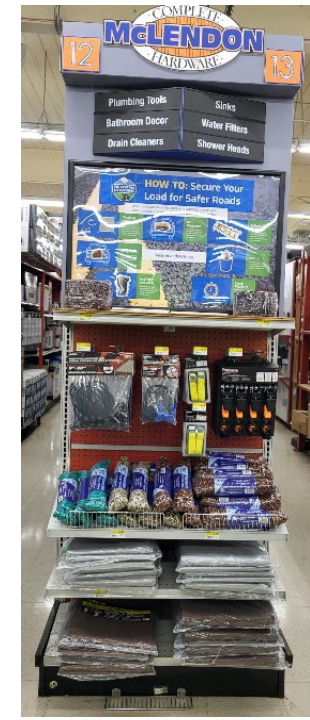
Battle Ground Ace Hardware
Battle Ground 98604



Martin Lumber & Hardware
Everett 98201



Ace Hardware- Kaptein
Mount Vernon 98273



McLendon Hardware
Woodinville 98072



McLendon Hardware
Kent 98031

Advertising Highlights

- 13,134,291 million impressions across all tactics
- 2,995,369 million video views
- 19,491 clicks
- \$59,713 in added value bonus placements (39% of media budget)
- Reached 65% of WA men aged 18-44 an average of 16 times



Cargas bien
sujetadas, caminos
más seguros



Secure Your Load
for Safer Roads

Public Relations Highlights

- Total of 42 pieces of news coverage:
English: 36 | Spanish: 6
- English coverage over 25M impressions
- In-depth television coverage from KCPQ, KIRO, KAPP, KNDO & many other stations
- Hyper-local/regional coverage reached people in less populated areas



Statewide campaign urges drivers to secure their loads, make roads safer for all

Michael LeCompte, NonStop Local Digital Journalist Jun 3, 2024 Updated Jun 8, 2024



Secure Your Load for Safer Roads Results

OUTPUTS

70M advertising impressions

152 pieces of news coverage

4,500 cargo nets distributed

758 drivers talked
to by law enforcement

2.9M impressions and **2.9K**
engagements from social messages
using campaign hashtag

OUTCOMES



127 hardware stores partnered
to conduct staff and customer
outreach

618 Visits to partner toolkit

IMPACT



**1% - 3.5% reduction in
unsecured loads**

Would I feel **my family
is safe** if they were
driving behind me?



Questions?

Amber Smith
Statewide Litter Prevention Coordinator
Amber.Smith@ecy.wa.gov

Recycling & Organics Characterization Study



Dan Weston & Cullen Naumoff
Dept. of Ecology SWM
July 17, 2024





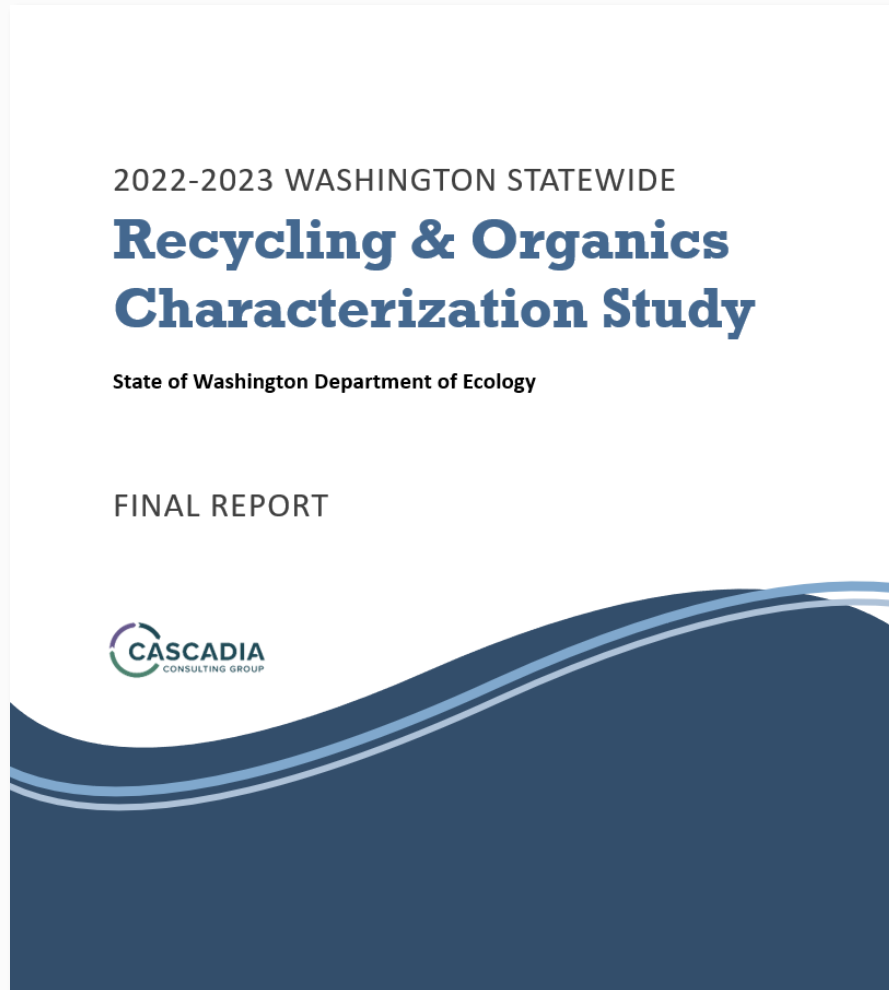
Washington Recycling & Organics Characterization Study

Dan Weston, Statewide Recycling Coordinator

State SWAC | July 17, 2024

ROCS Background

- CROPs
- System performance
- Inform EPR discussions
- Waste characterization cycle
- Organics Management Laws



Methodology



Methodology

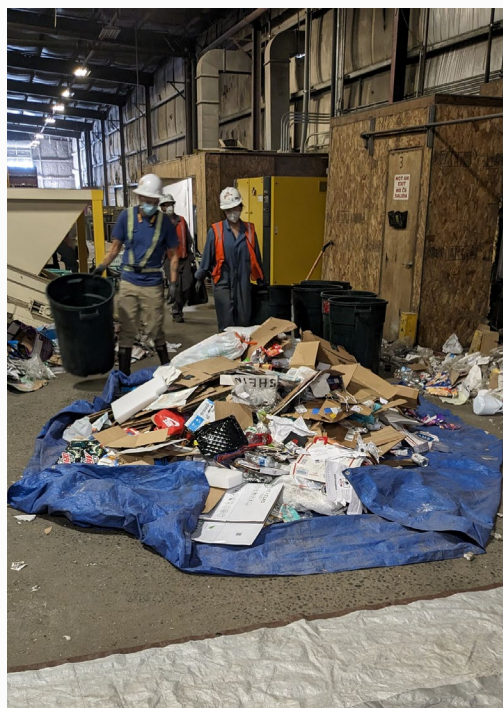
Season	Recycling	Organics
Fall	October 4 – 13, 2022	September 26 – 30, 2022
Winter	February 21 – March 3, 2023	March 2 – 9, 2023
Spring	May 1 – 10, 2023	May 22 – 26, 2023
Summer	August 9 – 18, 2023	August 14 – 18, 2023
Facilities Sampled	SMaRT Center, Spokane Lautenbach, Whatcom Pioneer Recycling, Pierce West Van, Clark	Sudbury Landfill, Walla Walla Kittitas County Compost, Kittitas Spokane County TS, Spokane Green Earth Tech., Whatcom Silver Springs, Thurston Thurston County WARC, Thurston

Inbound Sampling

Region	Samples
Central	23
Eastern	63
Northwest	80
Southwest	49
Total	215

Season	Samples
Fall	63
Winter	52
Spring	55
Summer	45
Total	215

Recycling



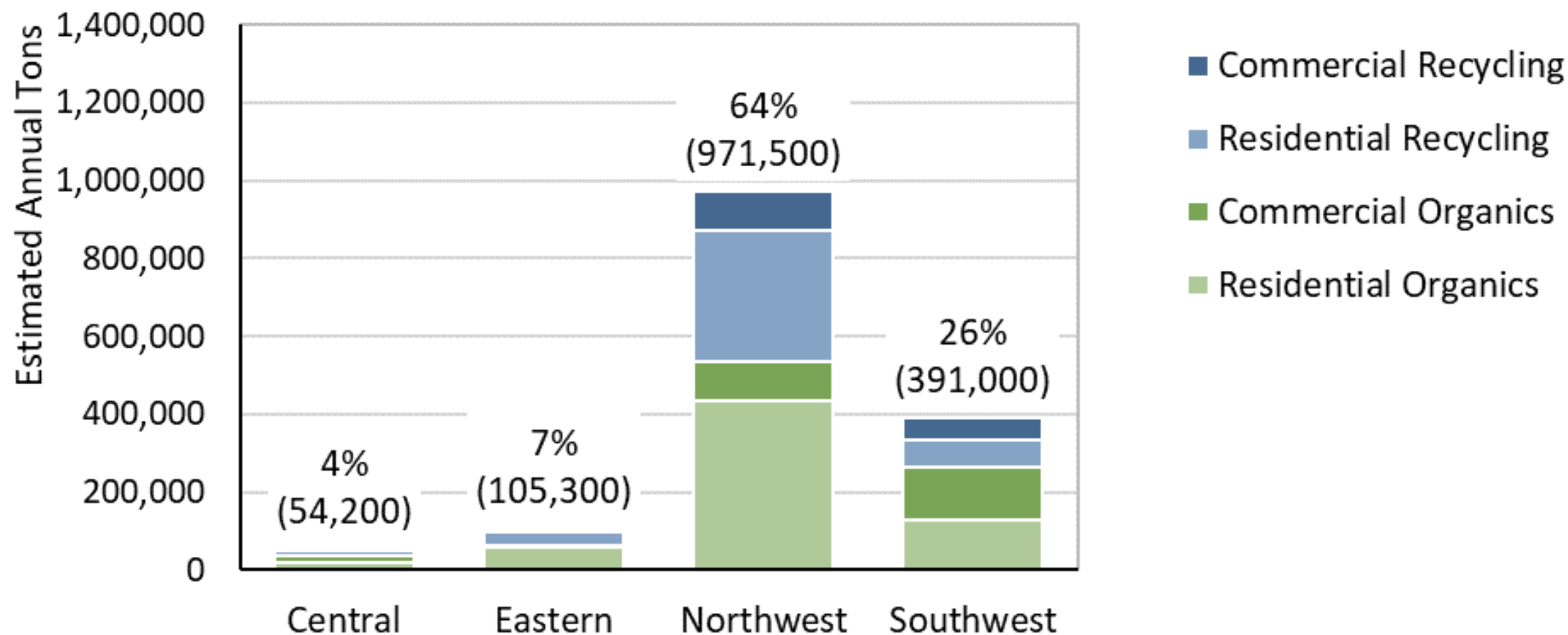
Organics

Region	Samples
Central	37
Eastern	54
Northwest	71
Southwest	40
Total	202

Season	Samples
Fall	40
Winter	51
Spring	60
Summer	51
Total	202



Inbound Stream



ROCS Material Classifications

Widely Accepted

- Cardboard & Kraft Packaging
- Newspaper Products
- Cardboard & Kraft Paper Products
- Magazines
- High-grade Paper Products
- Mixed Paper Packaging
- #1 PETE Bottles
- #1 PETE Non-bottles
- #2 HDPE Natural Bottles
- #2 HDPE Colored Bottles
- #2 HDPE Jars & Tubs
- #1 PETE Products
- #2 HDPE Products
- Aluminum Beverage Cans
- Food Cans-Tinned

Limited Accepted

- Aseptic Containers
- Gable Top Containers
- Other Polycoated Packaging
- Packaging Paper Cups
- Other Groundwood Paper Products
- Mixed Paper Products
- Product Paper Cups
- #3 PVC Packaging
- #4 LDPE Packaging
- #5 PP Packaging
- #6 PS Packaging
- #7 Other/Unknown Packaging
- #3 PVC Products
- #4 LDPE Products
- #5 PP Products
- #6 PS Products
- Bulky Rigid Plastic Products
- Clear Glass Containers
- Green Glass Containers
- Other Colored Glass Containers
- Aluminum Foil/Containers
- Other Aluminum
- Empty Aerosol Cans

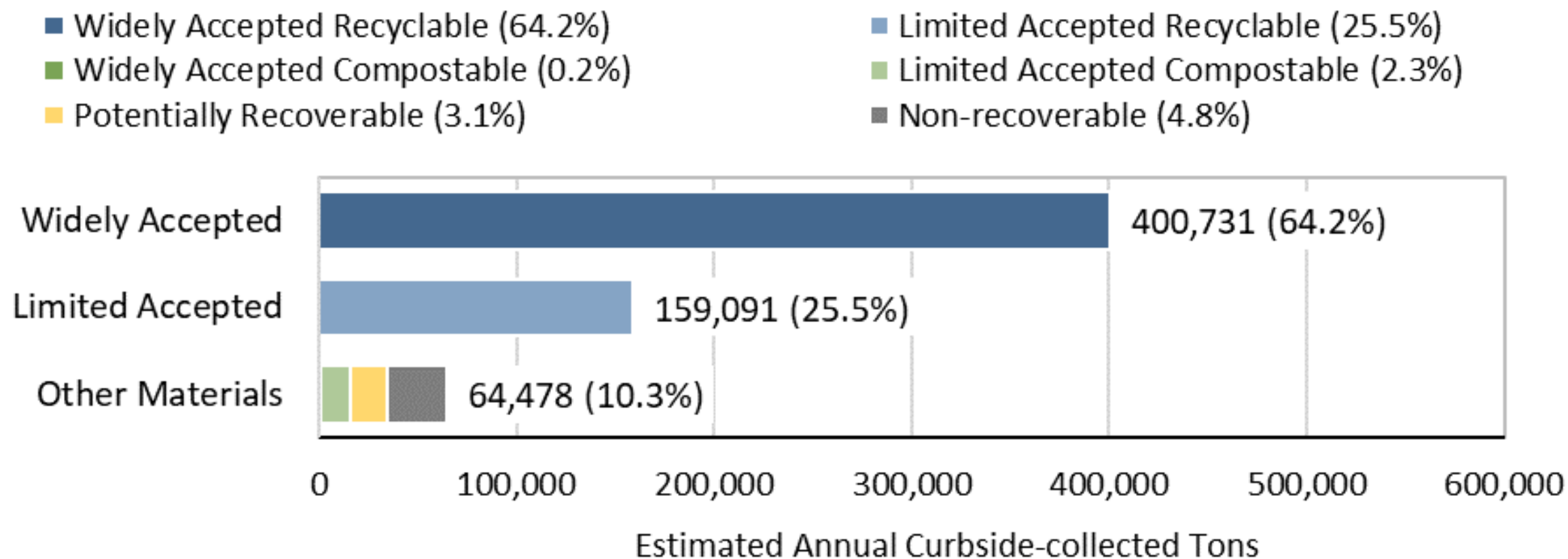
Potentially Recoverable

- Newspaper Packaging
- EPS Expanded Polystyrene Packaging
- Plastic Merchandise Bags
- Transportation Packaging Film Plastic
- Other Metal
- Electronics & Small Appliances
- Textiles (synthetic) & Shoes
- Construction & Demolition Waste

Non-recoverable

- Plate Glass
- Non-glass Ceramics
- Remainder/Composite Glass
- Animal Manure & Litter
- Remainder/Composite Organics
- Tanglers (non-plastic)
- HHW/Special Waste
- Diapers
- Furniture/Bulky
- Mixed Residue
- Remainder/Composite Paper Packaging
- Remainder/Composite Paper Products
- Packaging Film Plastic
- Flexible Plastic Packaging
- Remainder/Composite Plastic
- #7 Other/Unknown Products
- Plastic Garbage Bags
- Plastic Non-bag Film Products
- Remainder/Composite Plastic Products

Inbound Recycling



Inbound Recycling

■ Widely Accepted Recyclable (64.2%) ■ Limited Accepted Recyclable (25.5%) ■ Other Materials (10.3%)

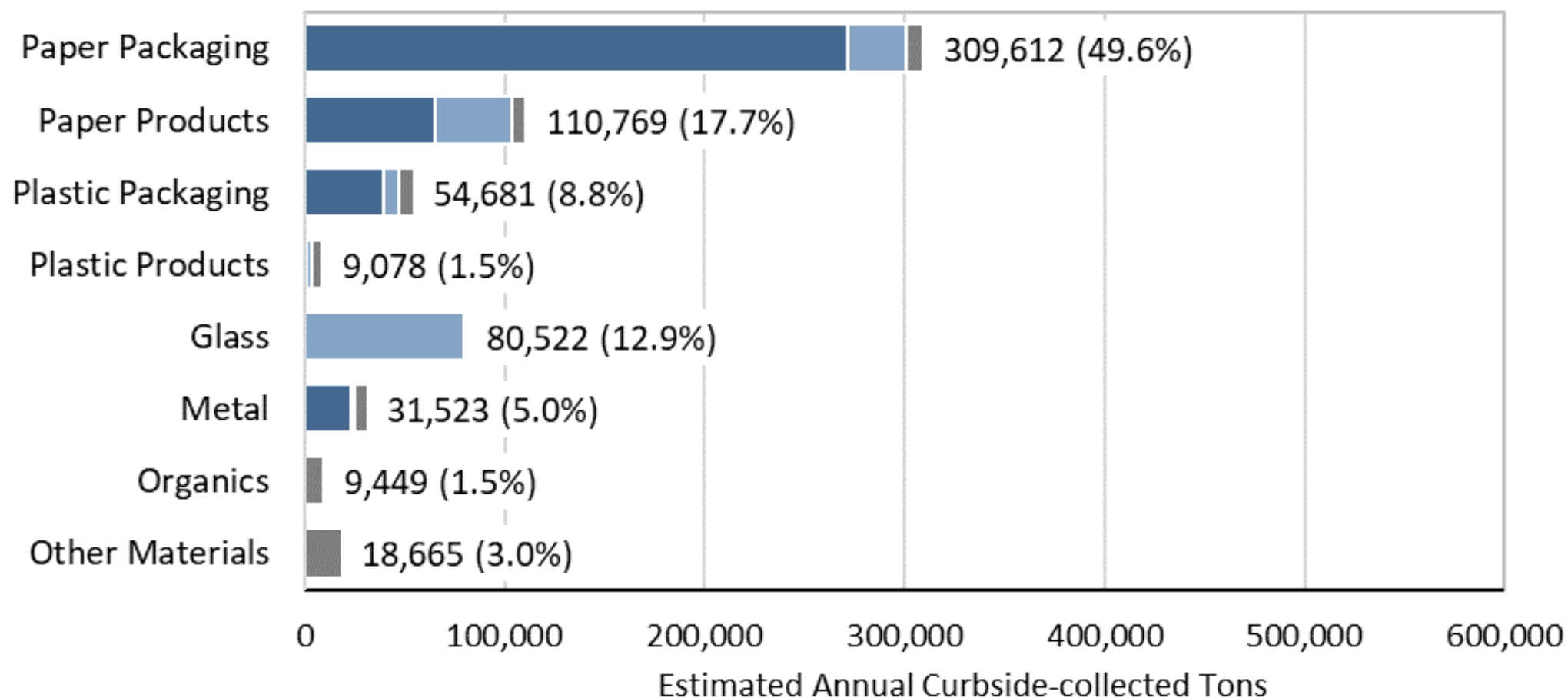




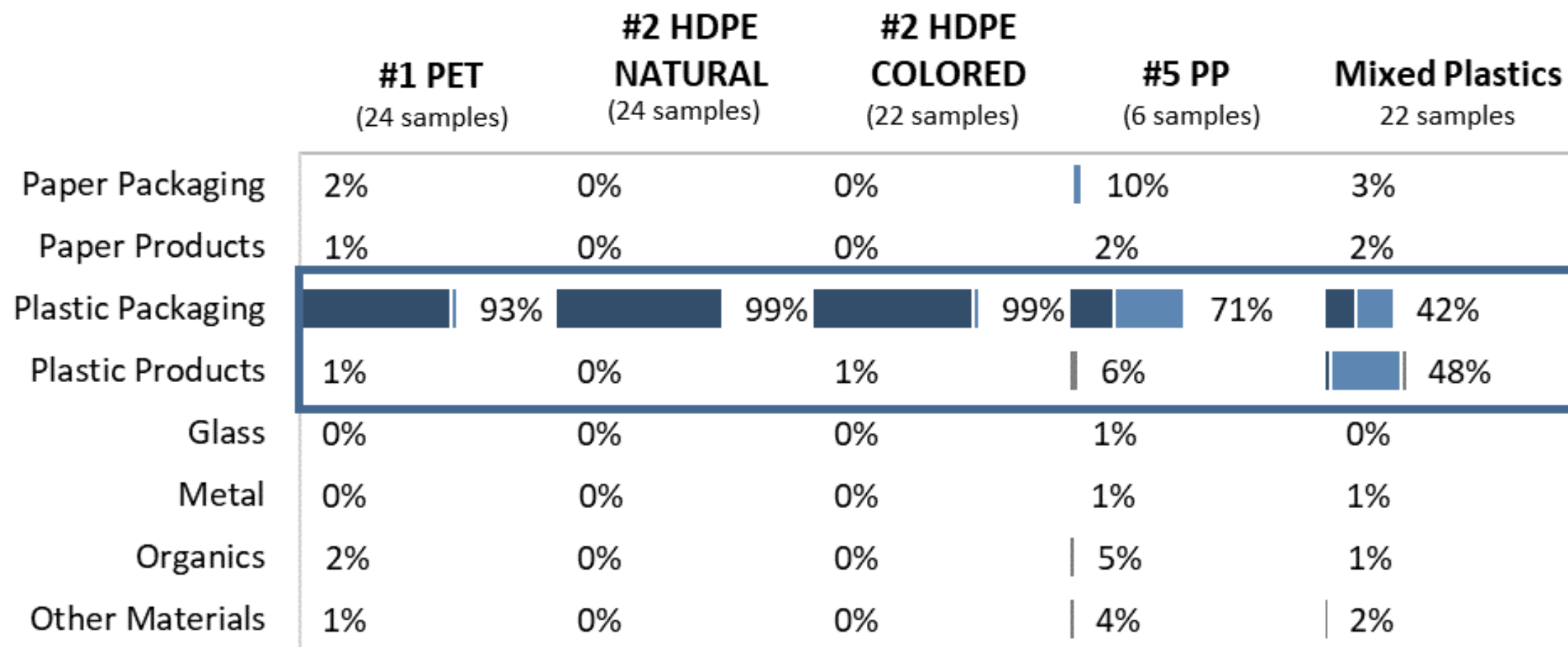
Table 11. Detailed Composition Table: Overall Hauler-collected Inbound Recycling

Material	Est. %	+ / -	Est. Tons	Material	Est. %	+ / -	Est. Tons
Widely Accepted Recyclable	64.2%	2.9%	400,731	Paper Products	17.7%	2.9%	110,769
Limited Accepted Recyclable	25.5%	2.9%	159,091	Newspaper Products	2.8%	0.6%	17,470
Widely Accepted Compostable	0.2%	0.1%	970	Cardboard & Kraft Paper Products	1.1%	1.0%	7,124
Limited Accepted Compostable	2.3%	0.4%	14,598	Magazines	4.6%	0.9%	28,481
Potentially Recoverable	3.1%	0.6%	19,139	High-grade Paper Products	1.9%	0.4%	11,993
Non-recoverable	4.8%	0.6%	29,772	Other Groundwood Paper Products	0.7%	0.2%	4,320
				Mixed Paper Products	5.5%	1.0%	34,534
Paper Packaging	49.6%	4.3%	309,612	Product Paper Cups	0.0%	0.0%	2
Cardboard & Kraft Packaging	38.7%	4.1%	241,497	Compostable Paper Products	0.4%	0.1%	2,413
Mixed Paper Packaging	4.9%	0.7%	30,358	Remainder/Composite Paper Products	0.7%	0.2%	4,431
Packaging Paper Cups	0.0%	0.0%	70	Plastic Products	1.5%	0.2%	9,078
Aseptic Containers	0.2%	0.0%	1,066	#1 PETE Products	0.1%	0.1%	670
Gable Top Containers	0.4%	0.1%	2,667	#2 HDPE Products	0.0%	0.0%	68
Other Polycoated Packaging	4.0%	1.0%	24,774	#3 PVC Products	0.0%	0.0%	13
Single-use Food Service Compostable Paper	0.7%	0.2%	4,072	#4 LDPE Products	-	-	-
Other Compostable Paper Packaging	0.1%	0.0%	464	#5 PP Products	0.0%	0.0%	163
Newspaper Packaging	0.4%	0.3%	2,248	#6 PS Products	0.0%	0.0%	33
Remainder/Composite Paper Packaging	0.4%	0.1%	2,397	Bulky Rigid Plastic Products	0.4%	0.2%	2,228
Plastic Packaging	8.8%	1.5%	54,681	PLA Compostable Plastic Bags & Film	0.0%	0.0%	30
#1 PETE Bottles	3.0%	0.5%	18,773	PLA Compostable Plastic Utensils	0.0%	0.0%	18
#1 PETE Non-bottles	1.2%	0.3%	7,798	#7 Other/Unknown Products	0.4%	0.1%	2,400
#2 HDPE Natural Bottles	1.0%	0.3%	6,238	Plastic Garbage Bags	0.2%	0.1%	1,355
#2 HDPE Colored Bottles	0.8%	0.2%	4,853	Plastic Non-bag Film Products	0.1%	0.0%	366
#2 HDPE Jars & Tubs	0.4%	0.1%	2,219	Remainder/Composite Plastic Products	0.3%	0.1%	1,734
#3 PVC Packaging	0.0%	0.0%	60	Organics	1.5%	0.4%	9,449
#4 LDPE Packaging	0.0%	0.0%	67	Yard Debris	0.1%	0.1%	463
#5 PP Packaging	0.7%	0.1%	4,598	Food Processing Wastes	0.0%	0.0%	10
#6 PS Packaging	0.1%	0.0%	371	Other Compostables	0.0%	0.0%	104
#7 Other/Unknown Packaging	0.4%	0.1%	2,292	Clean Wood	0.1%	0.0%	393
PLA Compostable Food Packaging	0.0%	0.0%	41	Fruits & Vegetables, Edible	0.1%	0.1%	769
EPS Expanded Polystyrene Packaging	0.1%	0.0%	651	Fruits & Vegetables, Non-edible	0.0%	0.0%	302
Plastic Merchandise Bags	0.2%	0.0%	1,165	Homegrown Fruits & Vegetables	-	-	-
Transportation Packaging Film Plastic	0.3%	0.1%	1,778	Meat, Edible	0.1%	0.0%	357
Packaging Film Plastic	0.5%	0.1%	2,894	Meat, Non-edible	0.1%	0.1%	426
Flexible Plastic Packaging	0.1%	0.0%	370	Mixed/Other Food Waste, Edible	0.7%	0.2%	4,629
Remainder/Composite Plastic	0.1%	0.0%	513	Mixed/Other Food Waste, Non-edible	0.2%	0.2%	1,078
Metal	5.0%	0.8%	31,523	Animal Manure & Litter	0.0%	0.0%	71
Aluminum Beverage Cans	2.1%	0.4%	13,017	Remainder/Composite Organics	0.1%	0.1%	848
Food Cans-Tinned	1.6%	0.3%	10,170	Other Materials	3.0%	0.5%	18,665
Aluminum Foil/Containers	0.1%	0.0%	435	Electronics & Small Appliances	0.2%	0.1%	1,489
Other Aluminum	0.2%	0.1%	1,020	Textiles (synthetic) & Shoes	0.7%	0.4%	4,593
Empty Aerosol Cans	0.1%	0.0%	315	Construction & Demolition Waste	0.1%	0.1%	651
Other Metal	1.1%	0.3%	6,565	Tanglers (non-plastic)	0.1%	0.0%	412
Glass	12.9%	2.8%	80,522	HHW/Special Waste	0.1%	0.1%	809
Clear Glass Containers	6.0%	1.5%	37,656	Diapers	0.2%	0.1%	1,214
Green Glass Containers	4.5%	1.0%	28,121	Furniture/Bulky	0.0%	0.0%	17
Other Colored Glass Containers	2.3%	0.6%	14,285	Mixed Residue	1.5%	0.3%	9,480
Plate Glass	0.0%	0.0%	27				
Non-glass Ceramics	0.0%	0.1%	301	Estimate d Tons	100%		624,300
Remainder/Composite Glass	0.0%	0.0%	132	Sample Count			215

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

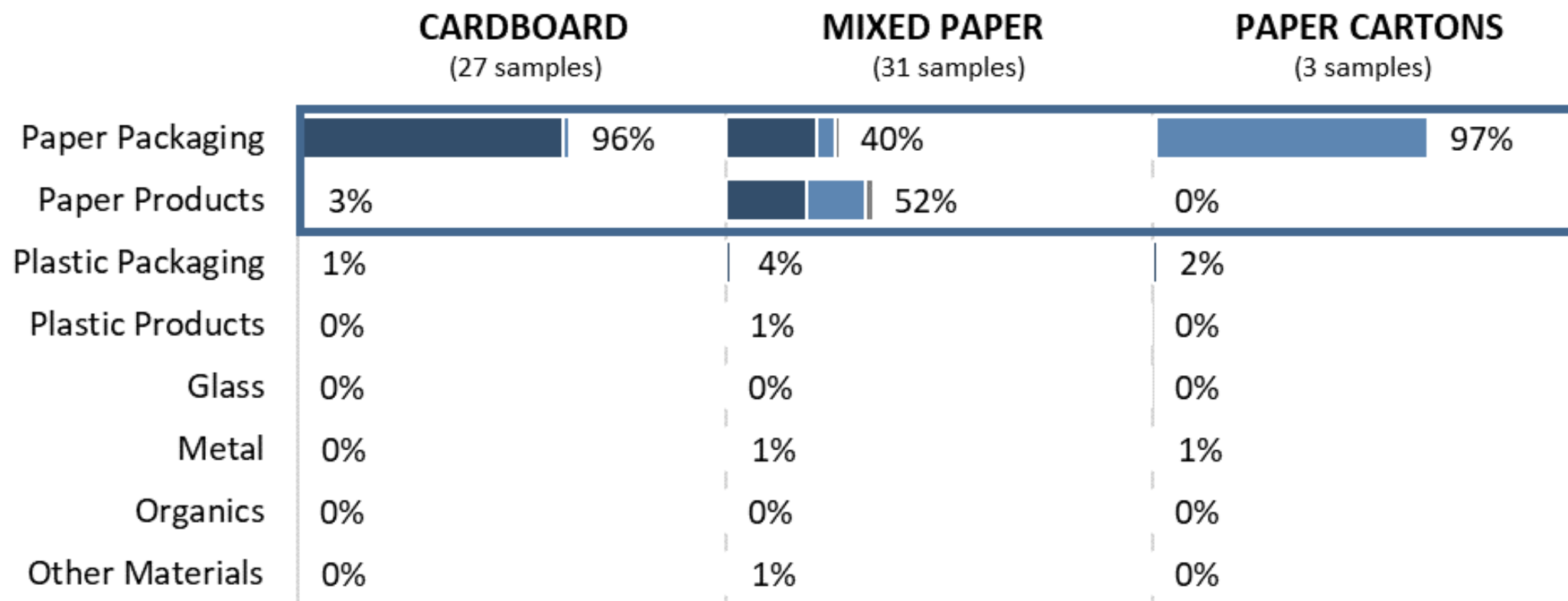


Outbound Commodities



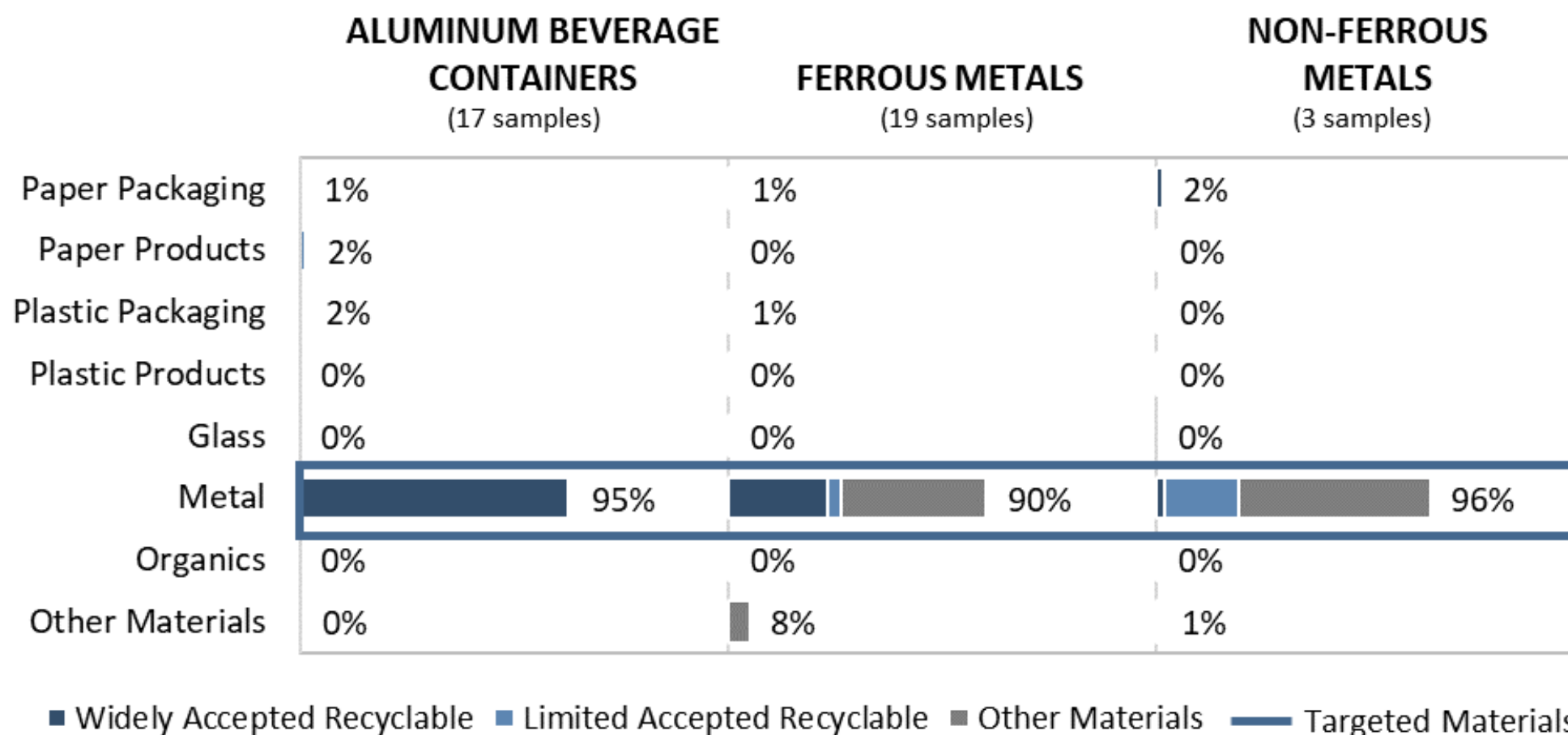
■ Widely Accepted Recyclable
 ■ Limited Accepted Recyclable
 ■ Other Materials
 — Targeted Materials

Outbound Commodities



■ Widely Accepted Recyclable
 ■ Limited Accepted Recyclable
 ■ Other Materials
 — Targeted Materials

Outbound Commodities



Outbound Commodities



	#1 PET PLASTICS		#2 HDPE NATURAL PLASTICS		#2 HDPE COLORED PLASTICS		#5 PP PLASTICS		MIXED PLASTICS	
Material	Est. %	+ / -	Est. %	+ / -	Est. %	+ / -	Est. %	+ / -	Est. %	+ / -
Widely Accepted Recyclable	90.4%	4.2%	98.8%	0.6%	95.1%	1.6%	31.1%	5.4%	25.4%	11.6%
Limited Accepted Recyclable	5.4%	2.2%	0.8%	0.4%	3.8%	1.6%	48.3%	7.5%	65.7%	12.2%
Widely Accepted Compostable	1.9%	1.6%	0.0%	0.0%	0.1%	0.1%	4.7%	6.8%	1.5%	2.0%
Limited Accepted Compostable	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.1%	0.1%
Potentially Recoverable	0.7%	0.4%	0.2%	0.2%	0.1%	0.1%	4.0%	4.3%	1.4%	1.0%
Non-recoverable	1.5%	0.9%	0.3%	0.1%	1.0%	0.4%	11.6%	2.5%	5.9%	3.1%
Paper Packaging	2.0%	0.8%	0.3%	0.1%	0.2%	0.1%	10.2%	3.9%	2.8%	1.8%
Paper Products	1.2%	0.4%	0.2%	0.1%	0.1%	0.1%	2.4%	1.6%	2.4%	1.7%
Plastic Packaging	93.0%	3.1%	99.0%	0.7%	98.6%	0.4%	70.6%	10.7%	42.1%	13.0%
#1 PETE Bottles	73.1%	5.7%	0.8%	0.5%	0.9%	0.4%	15.4%	4.1%	4.6%	4.5%
#1 PETE Non-bottles	14.4%	2.4%	0.4%	0.3%	0.1%	0.1%	7.7%	4.8%	10.4%	8.7%
#2 HDPE Natural Bottles	0.3%	0.1%	94.3%	2.3%	2.8%	1.0%	0.8%	0.3%	0.1%	0.1%
#2 HDPE Colored Bottles	0.5%	0.2%	0.8%	0.4%	72.1%	4.9%	1.5%	0.6%	0.6%	0.5%
#2 HDPE Jars & Tubs	0.2%	0.2%	2.0%	0.8%	18.9%	2.6%	1.4%	1.2%	3.0%	2.6%
#3 PVC Packaging	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.1%
#4 LDPE Packaging	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.1%	0.1%
#5 PP Packaging	2.7%	1.8%	0.4%	0.2%	1.7%	0.9%	33.3%	8.6%	19.2%	8.5%
#6 PS Packaging	0.3%	0.3%	0.0%	0.0%	0.1%	0.1%	1.1%	0.6%	0.3%	0.3%
#7 Other/Unknown Packaging	0.8%	0.3%	0.1%	0.1%	1.6%	0.8%	6.7%	3.9%	2.4%	1.6%
PLA Compostable Food Packaging	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.1%	0.0%	0.0%
EPS Expanded Polystyrene Packaging	0.2%	0.1%	0.1%	0.1%	0.0%	0.0%	1.0%	0.5%	0.1%	0.0%
Plastic Merchandise Bags	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%
Transportation Packaging Film Plastic	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.2%	0.1%	0.1%	0.1%
Packaging Film Plastic	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	1.0%	1.0%	0.9%	1.2%
Flexible Plastic Packaging	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Remainder/Composite Plastic	0.1%	0.1%	0.0%	0.0%	0.3%	0.2%	0.0%	0.0%	0.2%	0.2%
Plastic Products	0.9%	0.6%	0.1%	0.1%	0.7%	0.2%	6.2%	1.2%	48.5%	13.8%
#1 PETE Products	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
#2 HDPE Products	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	3.7%	5.0%
#3 PVC Products	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
#4 LDPE Products	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
#5 PP Products	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%	0.1%	1.6%	1.6%
#6 PS Products	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bulky Rigid Plastic Products	0.2%	0.2%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	39.9%	12.9%
PLA Compostable Plastic Bags & Film	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
PLA Compostable Plastic Utensils	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
#7 Other/Unknown Products	0.6%	0.5%	0.0%	0.0%	0.2%	0.1%	3.4%	1.2%	2.1%	1.0%
Plastic Garbage Bags	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.5%	0.8%
Plastic Non-bag Film Products	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Remainder/Composite Plastic Products	0.1%	0.1%	0.0%	0.0%	0.2%	0.2%	2.7%	1.9%	0.6%	0.5%
Glass	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	1.3%	1.3%	0.0%	0.0%
Metal	0.3%	0.1%	0.5%	0.4%	0.2%	0.1%	0.7%	0.2%	0.6%	0.3%
Organics	2.0%	1.7%	0.0%	0.0%	0.1%	0.1%	4.7%	7.1%	1.4%	2.0%
Other Materials	0.5%	0.4%	0.1%	0.1%	0.1%	0.1%	3.9%	3.8%	2.3%	1.7%
Estimated Total	100.0%		100.0%		100.0%		100.0%		100.0%	
Sample Count		24		24		22		6		22

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

Outbound Commodities



	CARDBOARD		MIXED PAPER		PAPER CARTONS	
Material	Est. %	+ / -	Est. %	+ / -	Est. %	+ / -
Widely Accepted Recyclable	94.8%	1.5%	63.9%	3.8%	3.6%	0.9%
Limited Accepted Recyclable	3.0%	1.1%	28.2%	3.7%	96.0%	1.1%
Widely Accepted Compostable	0.0%	0.0%	0.1%	0.1%	-	-
Limited Accepted Compostable	0.8%	0.5%	1.9%	0.5%	0.1%	0.2%
Potentially Recoverable	0.5%	0.5%	1.0%	0.3%	0.1%	0.1%
Non-recoverable	0.9%	0.4%	4.9%	1.3%	0.2%	0.0%
Paper Packaging	95.9%	1.4%	40.0%	6.2%	96.9%	1.9%
Cardboard & Kraft Packaging	89.7%	2.8%	23.3%	6.5%	0.8%	0.5%
Mixed Paper Packaging	3.1%	1.0%	8.9%	1.7%	0.5%	0.3%
Packaging Paper Cups	0.0%	0.0%	0.0%	0.0%	-	-
Aseptic Containers	0.1%	0.1%	0.2%	0.1%	17.1%	12.5%
Gable Top Containers	0.1%	0.0%	0.6%	0.2%	78.3%	12.1%
Other Polycoated Packaging	2.1%	0.8%	5.7%	1.2%	0.1%	0.1%
Single-use Food Service Compostable Paper	0.5%	0.4%	0.7%	0.2%	-	-
Other Compostable Paper Packaging	0.3%	0.4%	0.1%	0.1%	-	-
Newspaper Packaging	-	-	-	-	-	-
Remainder/Composite Paper Packaging	0.1%	0.0%	0.4%	0.1%	-	-
Paper Products	2.6%	1.0%	52.0%	6.3%	0.1%	0.1%
Newspaper Products	0.5%	0.3%	9.2%	2.7%	-	-
Cardboard & Kraft Paper Products	0.1%	0.1%	1.3%	1.8%	-	-
Magazines	0.7%	0.4%	11.5%	2.0%	-	-
High-grade Paper Products	0.2%	0.1%	6.7%	2.1%	-	-
Other Groundwood Paper Products	0.2%	0.2%	2.4%	1.1%	-	-
Mixed Paper Products	0.6%	0.3%	18.3%	3.0%	0.0%	0.0%
Product Paper Cups	-	-	-	-	-	-
Compostable Paper Products	0.0%	0.0%	1.0%	0.3%	-	-
Remainder/Composite Paper Products	0.4%	0.3%	1.6%	0.4%	0.0%	0.0%
Plastic Packaging	0.7%	0.2%	3.9%	1.1%	1.8%	1.8%
Plastic Products	0.0%	0.0%	1.0%	0.4%	-	-
Glass	0.0%	0.0%	0.2%	0.1%	-	-
Metal	0.3%	0.3%	1.3%	0.4%	1.0%	1.2%
Organics	0.1%	0.1%	0.3%	0.1%	0.1%	0.2%
Other Materials	0.3%	0.2%	1.4%	0.6%	0.1%	0.0%
Estimated Total	100%		100%		100%	
Sample Count		27		31		3

Residuals

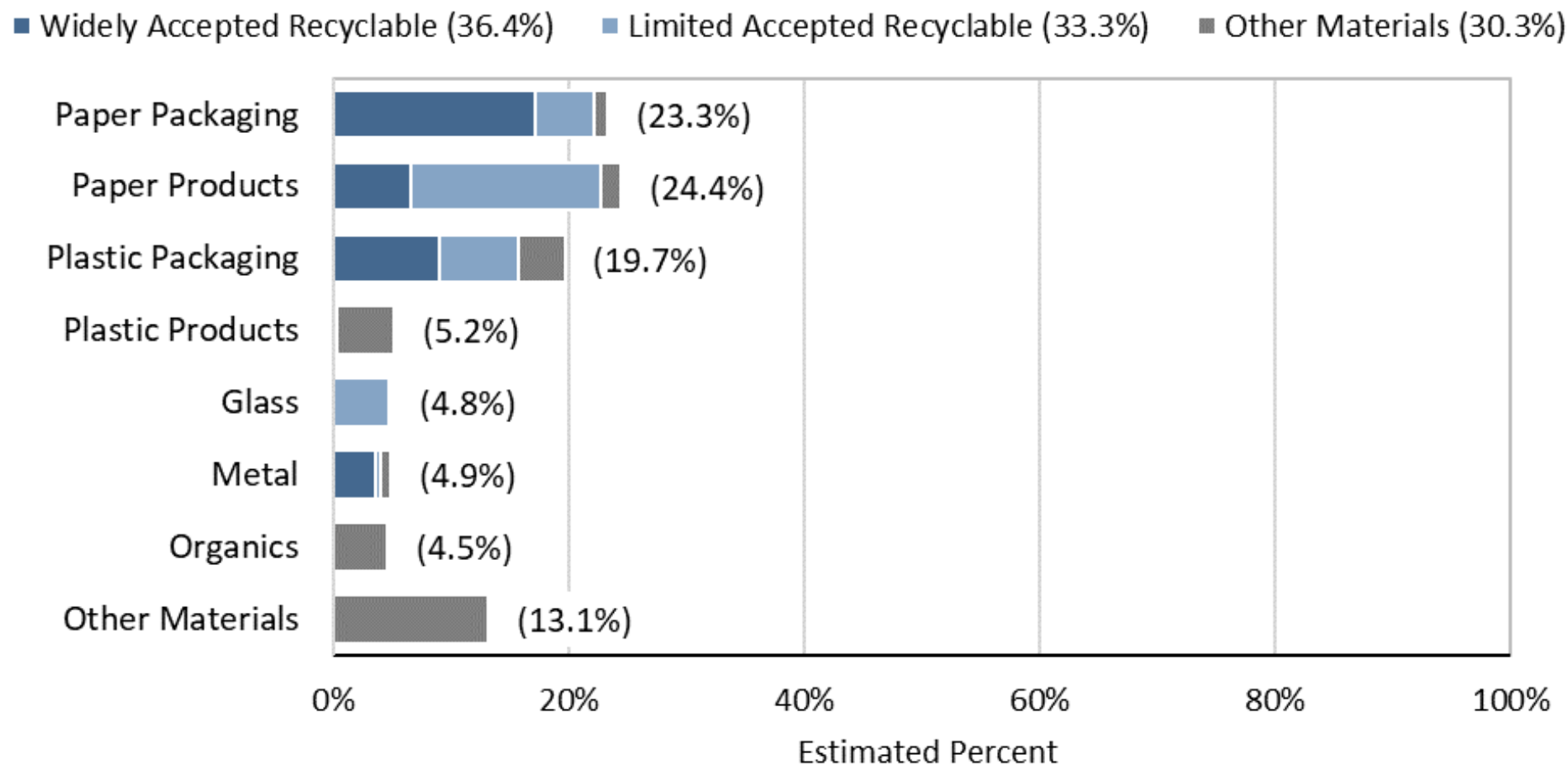




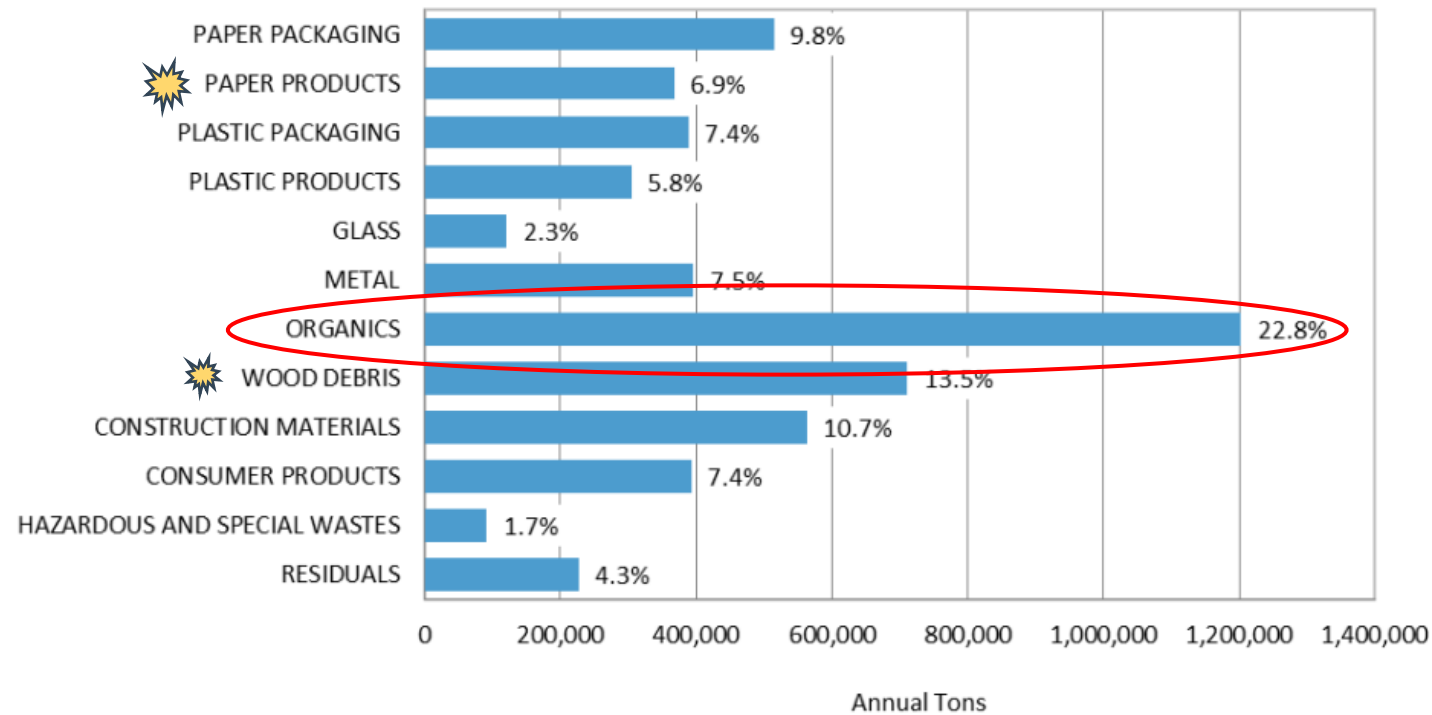
Table 17. Detailed Composition Table: Outbound Residuals

Material	Est. %	+ / -	Material	Est. %	+ / -
Widely Accepted Recyclable	36.4%	4.0%	Paper Products	24.4%	4.4%
Limited Accepted Recyclable	33.3%	4.4%	Newspaper Products	1.7%	0.5%
Widely Accepted Compostable	0.7%	0.4%	Cardboard & Kraft Paper Products	0.6%	0.5%
Limited Accepted Compostable	3.7%	1.1%	Magazines	3.0%	0.8%
Potentially Recoverable	5.1%	1.6%	High-grade Paper Products	1.2%	0.3%
Non-recoverable	20.8%	3.6%	Other Groundwood Paper Products	0.9%	0.6%
			Mixed Paper Products	15.2%	4.5%
			Product Paper Cups	-	-
Paper Packaging	23.3%	3.4%	Compostable Paper Products	0.8%	0.2%
Cardboard & Kraft Packaging	8.6%	2.6%	Remainder/Composite Paper Products	1.0%	0.4%
Mixed Paper Packaging	8.5%	2.5%	Plastic Products	5.2%	0.9%
Packaging Paper Cups	0.1%	0.1%	#1 PETE Products	0.1%	0.1%
Aseptic Containers	1.3%	0.3%	#2 HDPE Products	-	-
Gable Top Containers	2.0%	0.5%	#3 PVC Products	-	-
Other Polycoated Packaging	1.6%	0.6%	#4 LDPE Products	-	-
Single-use Food Service Compostable Paper	0.2%	0.1%	#5 PP Products	0.1%	0.1%
Other Compostable Paper Packaging	0.2%	0.3%	#6 PS Products	0.0%	0.0%
Newspaper Packaging	0.1%	0.1%	Bulky Rigid Plastic Products	0.1%	0.1%
Remainder/Composite Paper Packaging	0.7%	0.3%	PLA Compostable Plastic Bags & Film	0.0%	0.0%
Plastic Packaging	19.7%	2.9%	PLA Compostable Plastic Utensils	0.0%	0.0%
#1 PETE Bottles	4.1%	0.9%	#7 Other/Unknown Products	3.2%	0.7%
#1 PETE Non-bottles	1.7%	0.5%	Plastic Garbage Bags	0.5%	0.2%
#2 HDPE Natural Bottles	1.2%	0.5%	Plastic Non-bag Film Products	0.0%	0.0%
#2 HDPE Colored Bottles	1.3%	0.4%	Remainder/Composite Plastic Products	1.2%	0.4%
#2 HDPE Jars & Tubs	0.7%	0.2%	Organics	4.5%	1.6%
#3 PVC Packaging	0.1%	0.1%	Yard Debris	0.1%	0.1%
#4 LDPE Packaging	0.0%	0.0%	Food Processing Wastes	-	-
#5 PP Packaging	3.6%	0.8%	Other Compostables	0.0%	0.0%
#6 PS Packaging	0.5%	0.3%	Clean Wood	0.6%	0.4%
#7 Other/Unknown Packaging	2.6%	0.6%	Fruits & Vegetables, Edible	0.3%	0.2%
PLA Compostable Food Packaging	0.0%	0.0%	Fruits & Vegetables, Non-edible	0.2%	0.1%
EPS Expanded Polystyrene Packaging	0.5%	0.1%	Homegrown Fruits & Vegetables	-	-
Plastic Merchandise Bags	0.5%	0.2%	Meat, Edible	0.1%	0.2%
Transportation Packaging Film Plastic	0.4%	0.1%	Meat, Non-edible	0.0%	0.0%
Packaging Film Plastic	1.6%	0.4%	Mixed/Other Food Waste, Edible	1.8%	0.9%
Flexible Plastic Packaging	0.1%	0.1%	Mixed/Other Food Waste, Non-edible	0.0%	0.0%
Remainder/Composite Plastic	0.9%	0.6%	Animal Manure & Litter	0.1%	0.1%
Metal	4.9%	1.1%	Remainder/Composite Organics	1.2%	1.1%
Aluminum Beverage Cans	2.4%	0.7%	Other Materials	13.1%	3.7%
Food Cans-Tinned	1.2%	0.4%	Electronics & Small Appliances	0.2%	0.2%
Aluminum Foil/Containers	0.2%	0.1%	Textiles (synthetic) & Shoes	1.0%	0.5%
Other Aluminum	0.2%	0.1%	Construction & Demolition Waste	1.6%	0.9%
Empty Aerosol Cans	0.0%	0.0%	Tanglers (non-plastic)	0.1%	0.0%
Other Metal	0.9%	0.4%	HHW/Special Waste	0.2%	0.1%
Glass	4.8%	1.9%	Diapers	0.7%	0.3%
Clear Glass Containers	2.3%	1.0%	Furniture/Bulky	-	-
Green Glass Containers	1.4%	0.5%	Mixed Residue	9.3%	3.6%
Other Colored Glass Containers	1.1%	0.5%			
Plate Glass	-	-			
Non-glass Ceramics	0.0%	0.0%			
Remainder/Composite Glass	-	-			
			Estimated Tons	100%	
			Sample Count		53

Confidence intervals calculated at the 90% confidence level. Percentages for material types may not total 100% due to rounding.

Recall: Organics is one of the main components of the waste stream

**Figure 3: Overall Statewide Disposed Waste Stream
Composition by Material Class, 2020-2021**



Recall Washington's Bold Goals

By 2030
Reduce food waste by 50%
Reduce organic material in the landfill by 75%.

*Based on 2015 baselines.

Progress Toward Organics Goals

By 2030

Reduce **food waste** to 608,390 tons or less to the landfill annually

*Current status on **food waste**:*

827,515 tons of food waste are disposed of in the landfill (2021)

*For the 2015 baseline, 1.2 million tons of food waste was generated,
830,981 tons went to landfill*

Progress Toward Organics Goals

By 2030

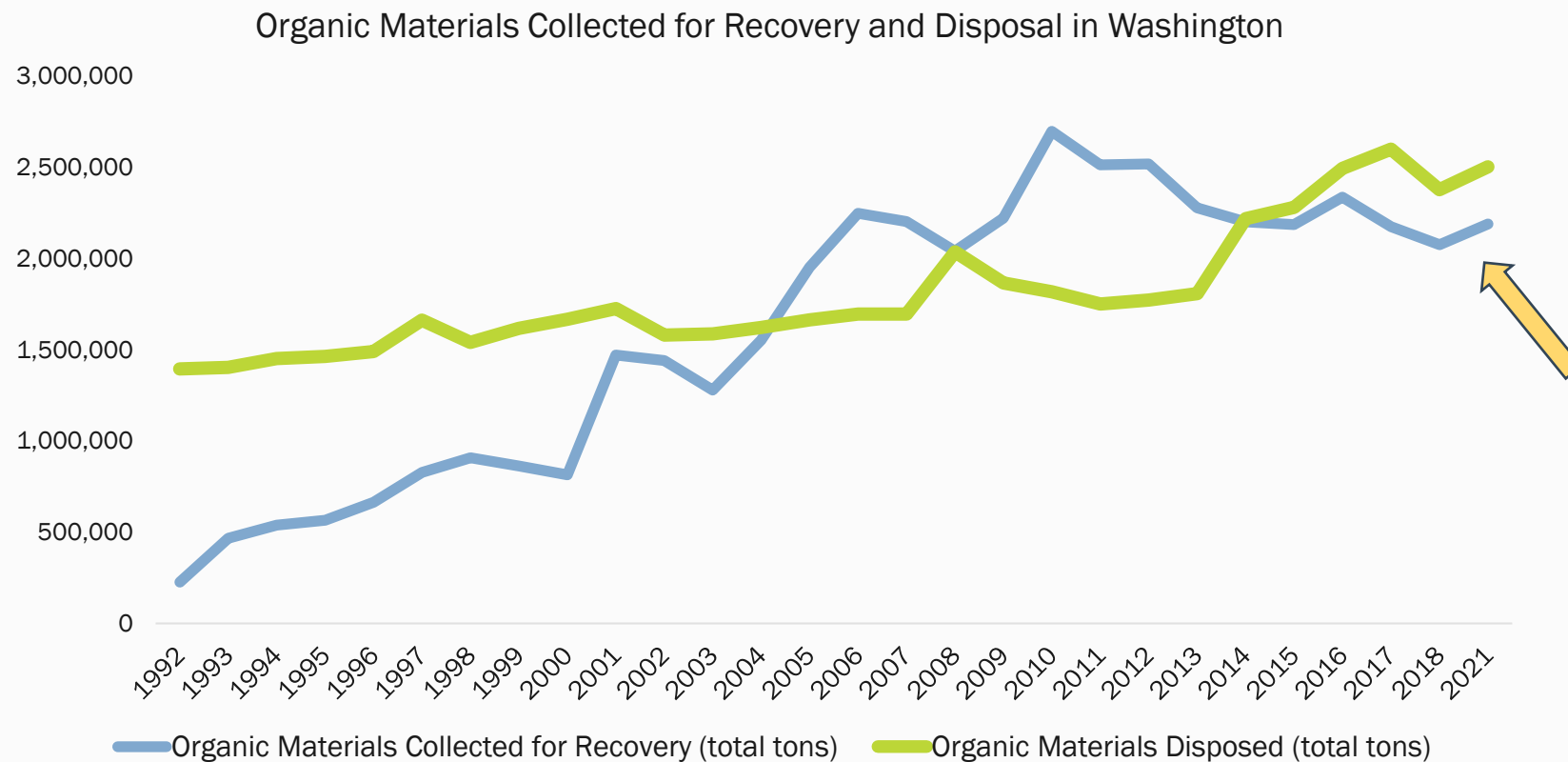
Reduce **organic material** to 570,350 tons or less to the landfill.

*Current status **organic material**:
2.5 million tons go to landfill (2021)*

For the 2015 baseline, 2.3 million tons went to landfill

ROCS: A Focus on the Recovered Stream

47% Recovery Rate *(as of 2021)*



Data Breakout

Recovered Organics Stream

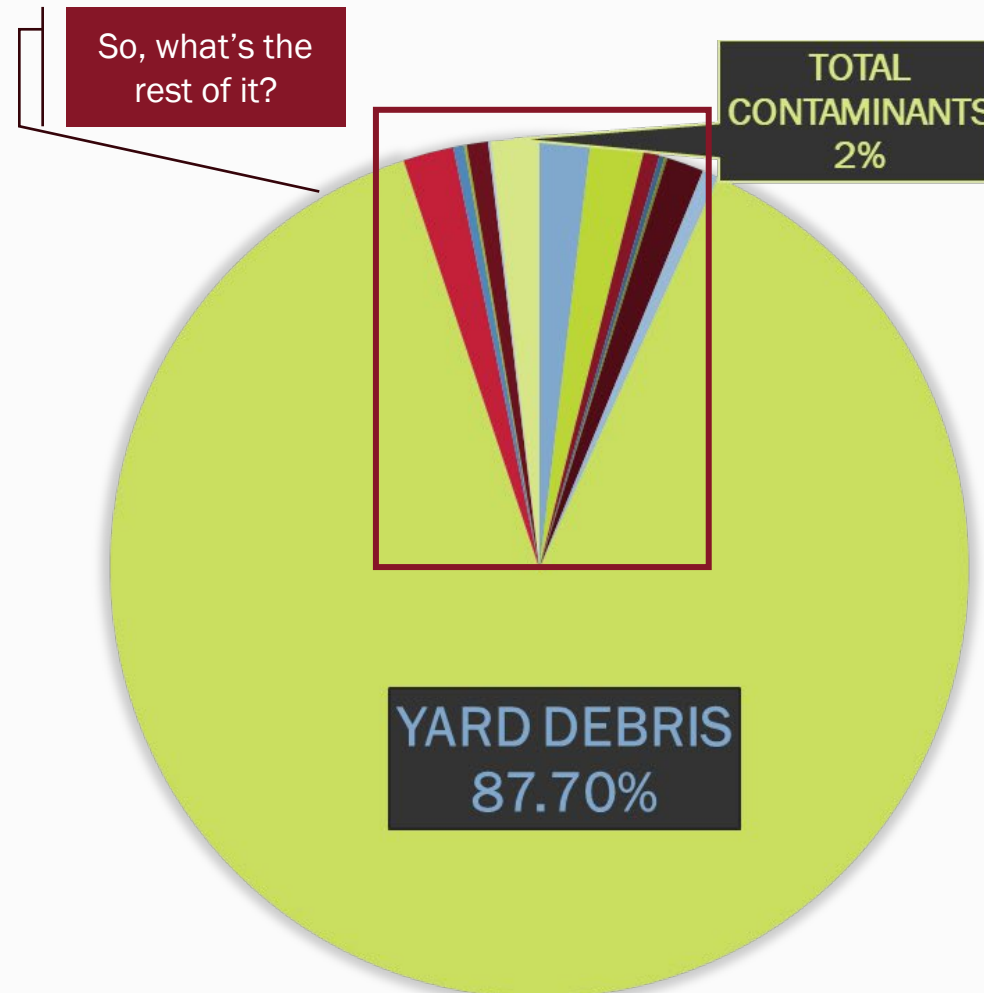
Non-Yard Organic Waste

Contamination

Compostable Products

Composition of Organics Recovered

A characterization of organics that reach organics management facilities



Composition of the Organics Stream

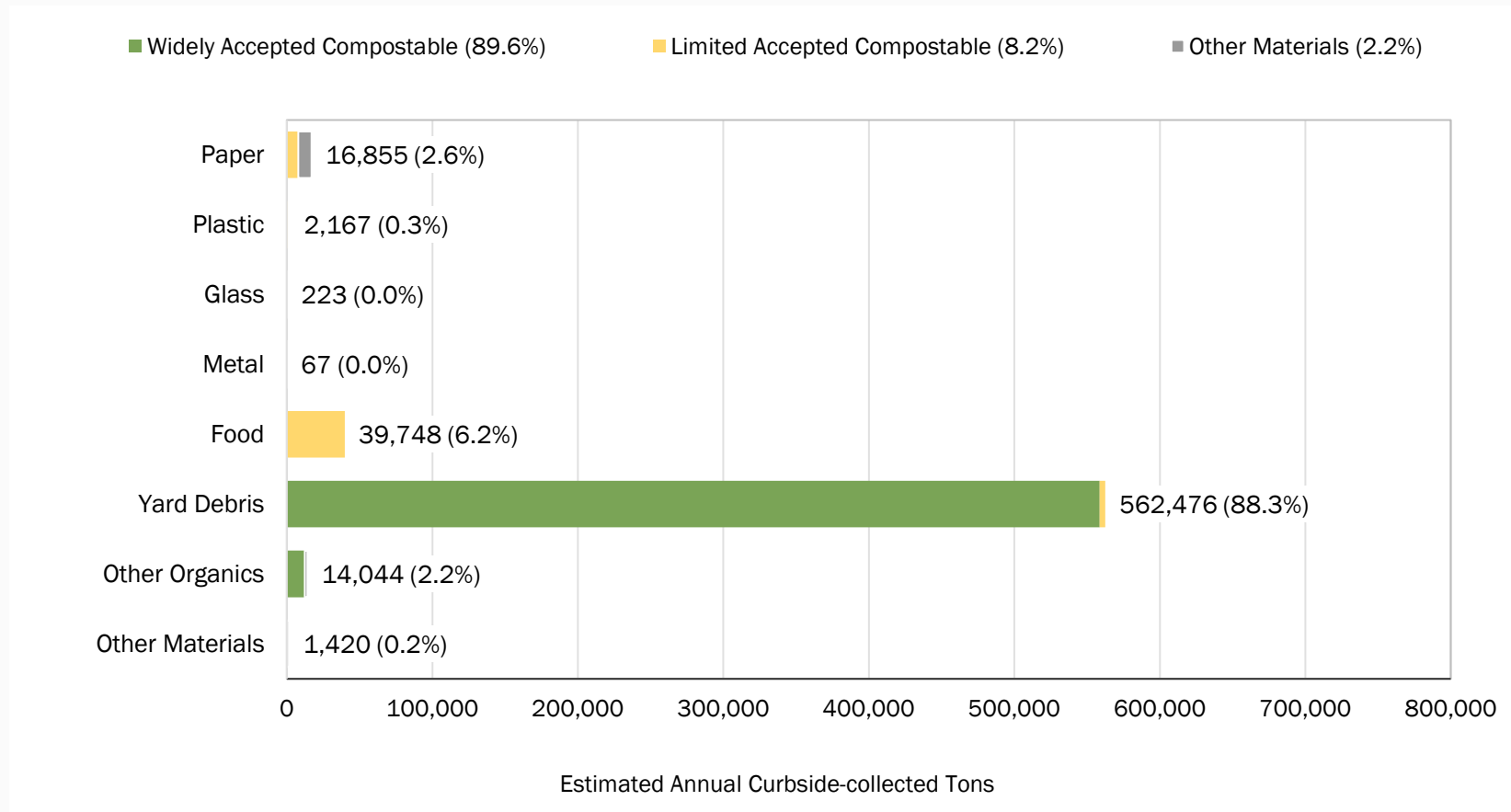
EXCLUDING Yard Waste & Contamination



ROCS Material Classifications

Widely Accepted	Limited Accepted Compostable
<ul style="list-style-type: none"> • Yard Debris (leaves, grass, sod, garden wastes, brush, logs under 6") • Food Processing Wastes • Other Compostables (hair, popsicle sticks, chopsticks, etc) • Clean Wood 	<ul style="list-style-type: none"> • Fruits & Veg, Edible & Non-edible • Homegrown Fruits & Veg • Meat, Edible & Non-Edible • Other Food Waste, Edible & Non-Edible • Other Compostable Paper Packaging • PLA Compostable Food Packaging • PLA Compostable Bags and Film • PLA Compostable Plastic Utensils • Single Use Food Service Compostable Paper • Compostable Paper Products
Non-Recoverable	
<ul style="list-style-type: none"> • Remainder/Composite Organics (organic textiles, candles, grease, etc) 	

Widely vs. Limited Acceptance



Where's the opportunity?

	Collected for Recovery (Tons)	Total Generated (Tons)	Recovery Rates
Yard	1,176,673	1,423,966	83%
Food Waste	306,808	1,134,323	27%
Wood Waste	272,079	1,055,675	26%

Organics Management Laws!



Business Organics
Requirements

Residential Organics
Requirements

Compostable Product
Labeling

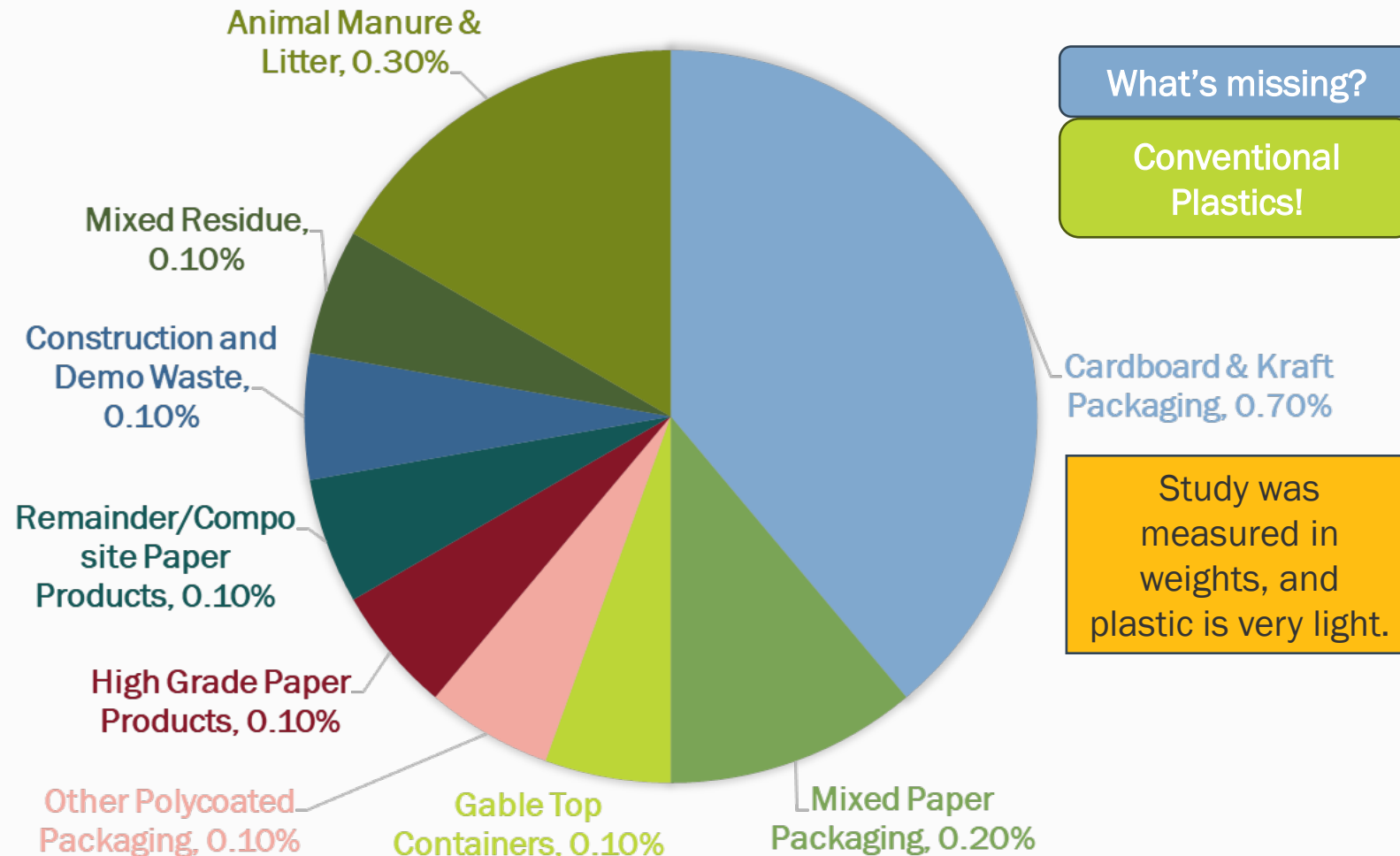
Compost Procurement
Ordinance

Compost Facility Siting
Requirements

Food Waste Recovery
Workgroup

Contaminants Composition

1.8% of the Recovered Organics Stream



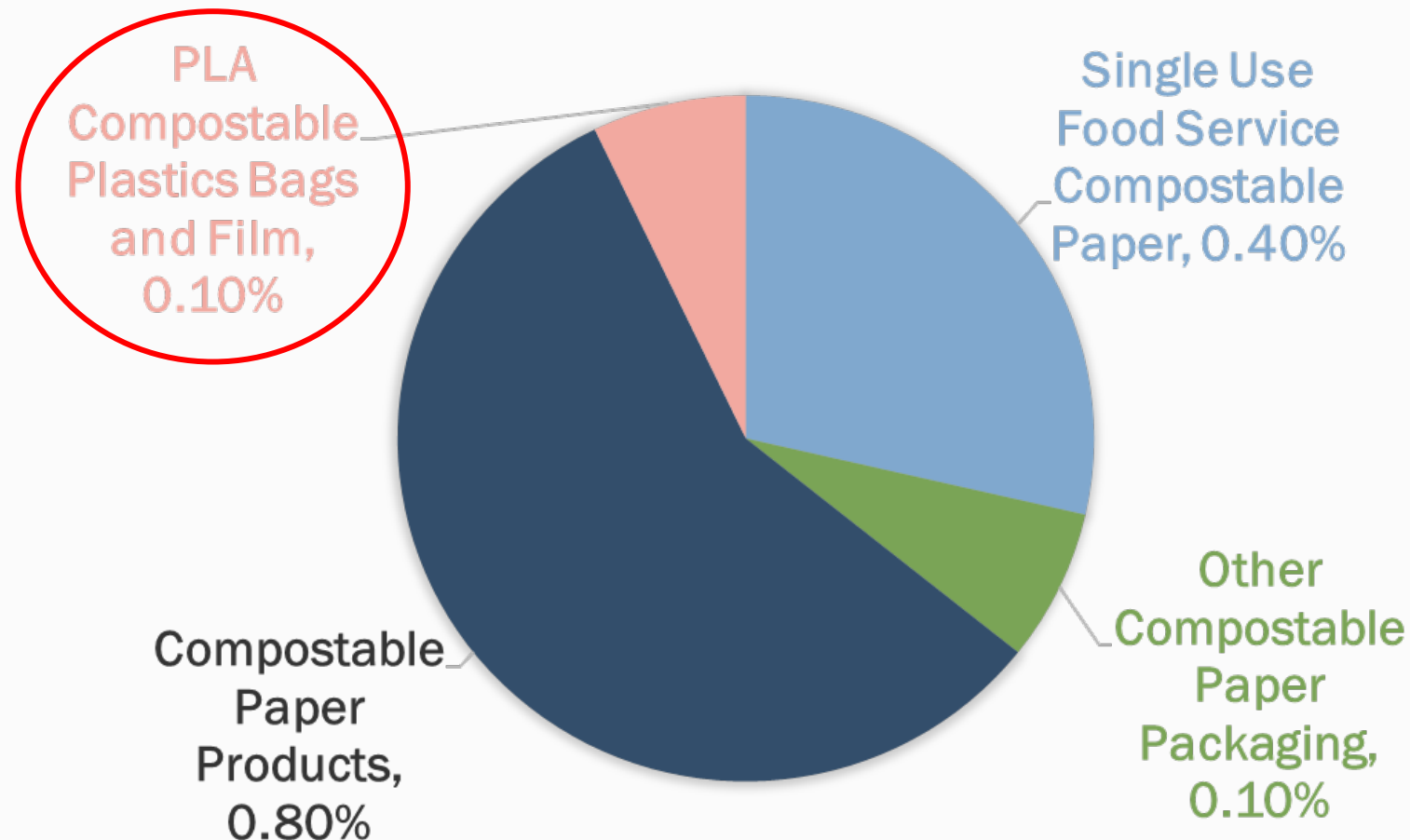
Top Named Contaminants

1. Film Plastic
2. Plastic
3. Dog Toys
4. Metal Glass
5. Garbage
6. Lookalike Compostable Products



Composition of Compostable Products

1.4% of the Recovered Organics Stream



A Note on Compostable Products

Advisory Committee on Compostable Products currently in process

- Compostable products do perform as “advertised.”
 - Fiber based products were those that were showing up in finished compost and in overs vs. PLA products
 - According to WA-based facilities, compostable products comprise a very small amount of incoming feedstock and do not pose visible issues in finished compost*
- In Washington, 25% of compostable products are incorrectly sent to recycling stream
 - Nationally, this number is 33%

*April 2024 WA Facility interviews done by Cascadia

Moving Forward

- Due to OMLs we expect to see total organic tonnages increase, thus we anticipate contamination will as well

Recycling and Organics Characterization Study (ROCS)

- ROCS Methodology may need addressed to better capture lightweight contaminants & commercial data
- Published Study available July 2024



DEPARTMENT OF
ECOLOGY
State of Washington

Thank you

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Washington Department of Ecology

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Agenda

Solid Waste Advisory Committee Meeting
July 17, 2024 | 9:30 a.m. – 11:10 a.m.

~~Call to Order & Zoom Meeting Instructions~~

~~9:30 a.m. | 5 minutes | Troy Lautenbach (Chair)~~

~~SWAC Update~~

~~9:35 a.m. | 5 minutes | Troy Lautenbach (Chair), Jay Blazey (Vice Chair)~~

~~Ecology Updates~~

~~9:40 a.m. | 10 minutes | Peter Lyon, Dept. of Ecology SWM~~

~~State Plan Update~~

~~9:50 a.m. | 15 minutes | Janine Bogar, Dept. of Ecology SWM~~

~~Washington Secure Your Load for Safer Roads Campaign~~

~~10:05 a.m. | 20 minutes | Amber Smith, Dept. of Ecology SWM~~

~~Recycling Organics Characterization Study~~

~~10:25 a.m. | 30 minutes | Dan Weston & Cullen Naumoff, Dept. of Ecology SWM~~

Member Updates & Roundtable

10:55 a.m. | 15 minutes | Troy Lautenbach (Chair)

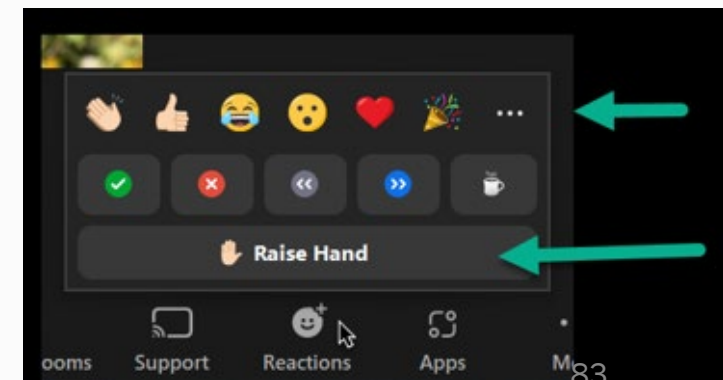
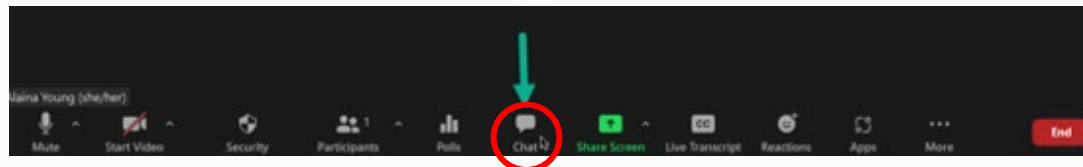
Adjourn

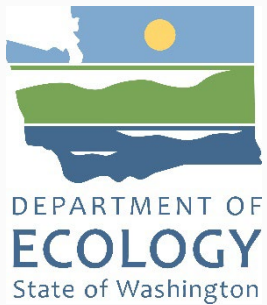
11:10 a.m.

Member Updates & Roundtable

We want to hear from you!

- If you would like to provide comments, **please write your name in the chat or raise your hand.**
- We will call on you to speak in the order that we see names in the chat or hands raised.
- Please turn on your camera and unmute yourself when it's your turn.
- You may also **write your comment in the chat** and we will read it for you.





Thank you for joining us today!