



# **Plastic Packaging Management Study Stakeholder Consultation Process**

Prepared for the Washington State Department of Ecology

September 25, 2020

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# Authors

This report was authored by Cascadia Consulting Group and Full Circle Environmental with support from Eunomia Research & Consulting and MORE Recycling. We have taken due care in the preparation of this report to ensure that all facts and analysis presented are as accurate as possible within the scope of the Study. However, no guarantee is provided with respect to the information presented, and Cascadia Consulting Group, Full Circle Environmental, Eunomia Research & Consulting, and MORE Recycling are not responsible for decisions or actions taken based on the content of this report.



# Executive Summary

In 2019, the Washington Legislature passed the Plastic Packaging Evaluation and Assessment law (Chapter [70A.520](#) RCW), which directed the Washington State Department of Ecology (Ecology) to hire an independent third-party consultant team to study how plastic packaging is managed in Washington and assess various policy options to meet the goals of reducing plastic packaging waste. The law directed the assessment to include industry initiative or plastic packaging product stewardship, or both. The law also directed the consultant team to include consultation with packaging and packaged goods producers, providers of solid waste management services, and other stakeholders.

The goals of the consultation process were to:

- Identify key stakeholders
- Consult with stakeholders on research and findings
- Gather data and information
- Keep stakeholders informed
- Provide stakeholders with opportunities to share data and feedback in the development of options to increase recovery and reduce plastic packaging in the waste stream, and in the development of final recommendations.

The consultant team contacted, received input from, or otherwise engaged the following stakeholder sectors:

- Industry (packaging producers, packaged consumer goods companies, brand owners)
- Solid waste management services and collection companies
- Recycling facilities
- Plastics recyclers
- Nonprofit environmental groups and community-based organizations
- Litter and marine debris clean-up programs
- Local government solid waste or recycling personnel
- Academia
- Ecology management and staff
- Other State agencies
- Members of the public and other interested parties

The consultant team established several channels to communicate with stakeholders and solicit input, including:

- [Webpage](#) where all Study documents and deliverables were published
- Opt-in [listserv](#) for all Study-related updates and notifications
- Data requests and interviews during research phases of the Study
- Survey on policy and technology options for managing plastic packaging waste

- Public comment opportunities via website, monitored Study email, and voicemail box
- Feedback form designed to gather targeted input on draft recommendations

Stakeholder sentiments regarding proposed recommendations are summarized below and provide general trends and attitudes toward potential policies and funding mechanisms. However, it is important to emphasize that because the Study recommendations constitute high-level policy options for legislative consideration and are not fully developed policies or bills, these stakeholder positions constitute general feelings and could change for each stakeholder depending on the specifics of future proposed legislation.

- Government and nonprofit stakeholders who provided input indicated strong support for an **extended producer responsibility (EPR) policy framework for all packaging (recommendation 1)**. Several packaging and packaged goods industry stakeholders indicated they could support an EPR policy with specific design considerations. Several other industry stakeholders, as well as waste and recycling service providers, were strongly opposed to an EPR system.
- Support was lower for a **deposit return system (DRS) for beverage containers (recommendation 2)**. Similar to EPR, government and nonprofit stakeholders tended to favor it and think that it should be incorporated into an EPR system, while waste and recycling service providers uniformly opposed it. Industry support was mixed, though two key stakeholders representing the beverage industry indicated they could support a DRS in Washington and outlined specific ideas around policy and program design.
- Support for **recycled content requirements for plastic packaging, beverage containers, and trash bags (recommendations 3, 5, and 6)** was generally much higher and encompassed all sectors, though there were concerns around adequately addressing toxics in recycled content, wanting exemptions for certain packaging (e.g., health and medical products), incorporating lifecycle considerations, and allowing time and flexibility to address supply constraints.
- With a few exceptions, stakeholders generally supported, could support, or took no position on a **standard for customer opt-in for foodservice packaging and accessories (recommendation 8), supporting development and adoption of reusable packaging systems (recommendation 10), and strengthening data collection on final destinations of materials sent for reprocessing (recommendation 9)**.
- Packaging and packaged goods industry stakeholders did not generally support **producer registry and packaging reporting (recommendation 4)**, though other stakeholder groups did. (Relatedly, a number of stakeholders critiqued the overall Plastic Packaging Management Study for not having sufficient data, underscoring the need for expanded data access.)
- Support was very mixed on **banning problematic and unnecessary plastic packaging (recommendation 7)**, with local government and nonprofit stakeholders, as well as

some waste and recycling service providers, indicating support, especially for packaging containing toxics. Industry was generally opposed to bans, and was concerned by the lack of definition of “problematic and unnecessary.”

In general, government, nonprofit and other advocacy groups, and members of the public tended to favor all recommendations and expressed desires for recommended policies to go further by broadening their scope or speeding their timeline.

Waste and recycling service providers tended to support recommendations that would benefit their business and oppose those that they perceived as threatening their business model.

Packaging and packaged goods industry stakeholders generally tended to oppose recommendations that would increase regulation of businesses, citing expected high costs associated with many policies and potential regulation and the potential for unintended consequences. However, several industry stakeholders indicated some level of support for (or lack of opposition to) two key policies, **EPR** and **DRS**, to which they have been heavily opposed in the past.

Several stakeholders expressed concerns about expected costs of many of the recommendations, noting that adding costs and other regulatory burdens to any sectors—especially in the current context of the COVID-19 pandemic—would be unwise.

# Stakeholder Consultation Process Summary

## Background

To implement Chapter [70A.520](#) RCW, the Washington State Department of Ecology (Ecology) hired a consultant team to evaluate and assess the amount and types of plastic packaging used in the state as well as the management and disposal of plastic packaging. The consultant team was tasked with **“making recommendations to meet the goals of reducing plastic packaging waste, including through industry initiative or plastic packaging product stewardship, or both.”** The law also directed the consultant team to include consultation with packaging and packaged goods producers, providers of solid waste management services, and other stakeholders.

The goals of the consultation process were to:

- Identify key stakeholders
- Consult with stakeholders on research and findings
- Gather data and information
- Keep stakeholders informed
- Provide stakeholders with opportunities to share data and feedback in the development of options to increase recovery and reduce plastic packaging in the waste stream, and in the development of final recommendations.

## Stakeholder Sectors

The consultant team developed an initial database of stakeholders and organizations to contact and inform them of the Study. Contacts were encouraged to sign up for the listserv to continue receiving Study updates and communications. This database included representatives from the following sectors:

- Industry (packaging producers, consumer goods companies, brand owners)
- Solid waste management services and collection companies
- Recycling facilities
- Plastics recyclers
- Nonprofit environmental groups and community-based organizations

- Litter and marine debris clean-up programs
- Local government solid waste or recycling personnel
- Academia
- Ecology management and staff
- Other State agencies
- Members of the public and other interested parties

A full list of stakeholders contacted, as well as members of the Study listserv, is included in Appendix B. Stakeholder Organizations Contacted.

## Communication and Input Channels

The consultant team established several options for communication with interested stakeholders. Table 1 below provides a summary of each communication channel and how it was used throughout the Study.

**Table 1 Stakeholder Communication Channels**

Channel	How It Was Used
<a href="#">EZView</a> webpage	<ul style="list-style-type: none"> <li>• Publication of task-level reports and other relevant project documents, including a Study timeline (see Appendix C. Stakeholder Communications) showing Study tasks, phases, input opportunities, deliverable publication dates, and input deadlines.</li> <li>• Links to other relevant pages, including authorizing legislation, Policy &amp; Technology Options Survey, and public comment page.</li> </ul>
Plastic Packaging Study <a href="#">listserv</a>	<ul style="list-style-type: none"> <li>• Main point of contact with stakeholders. Email updates sent throughout the Study period are included in Appendix C. Stakeholder Communications.</li> <li>• After contacting a broad list of stakeholders and organizations (see Appendix B. Stakeholder Organizations Contacted), used an opt-in approach whereby stakeholders had to sign up for the listserv to continue receiving email communications regarding the Study.</li> </ul>
<a href="#">Public comment</a> page	<ul style="list-style-type: none"> <li>• Reviewed comments from stakeholders submitted on all elements of Study, including task-level reports and draft recommendations.</li> <li>• Reviewed and considered articles, studies, and other reference materials submitted by stakeholders throughout the comment process. Where deemed appropriate, the consultant team added references and/or adjusted the Study content in response to submitted materials.</li> </ul>

Channel	How It Was Used
	<ul style="list-style-type: none"> <li>Public comments received are included in Appendix H. Comments Received on Draft Recommendations, Appendix I. Other Public Comments Received and Appendix J. Comments Received via Study Email.</li> </ul>
<b>Study <u>email</u></b>	<ul style="list-style-type: none"> <li>Included in all Study updates and communications.</li> <li>Reviewed comments received via Study email. Responded directly to questions from interested stakeholders.</li> <li>A summary of written comments received via email is included in Appendix I. Other Public Comments Received.</li> </ul>
<b>Study voicemail</b>	<ul style="list-style-type: none"> <li>Included in all Study updates and communications.</li> <li>Responded directly to voicemails from interested stakeholders.</li> </ul>
<b>Phone calls</b>	<ul style="list-style-type: none"> <li>Responded to proactive communication and requests for information and meetings from various stakeholders and groups throughout the process.</li> </ul>
<b>Requests for data and information made through research tasks</b>	<ul style="list-style-type: none"> <li>Asked packaging producers and brand owners for detailed information about sales data and use of recycled content in manufacturing operations.</li> <li>Updated Task 1 report: <a href="#">Plastic Packaging in Washington: Assessing Use, Disposal, and Management</a>, following receipt of additional data related to polystyrene foam recycling quantities submitted by industry association.</li> </ul>
<b>Policy &amp; technology options for managing Plastic Packaging Survey</b>	<ul style="list-style-type: none"> <li>Solicited input on ten specific policy and technology options (identified in Task 3 report: <a href="#">Successful Plastic Packaging Management Programs and Innovations</a>) or expansions to manage plastic packaging in Washington State in accordance with the goals of the Plastic Packaging Evaluation and Assessment law (Chapter <a href="#">70A.520</a> RCW), including benefits and concerns, as well as suggestions for improvements on each option or additional options.</li> <li>Synthesized and summarized quantitative and qualitative results from respondents regarding each policy and technology option. Used the input in the development of draft recommendations.</li> <li>Survey analysis and summary is included in Appendix D. Policy &amp; Technology Options for Managing Plastic Packaging Survey Summary.</li> <li>Survey instrument is included in Appendix E. Policy &amp; Technology Options for Managing Plastic Packaging Survey Instrument.</li> </ul>
<b>Draft recommendations feedback form</b>	<ul style="list-style-type: none"> <li>Developed feedback form (see Appendix G. Draft Recommendations Feedback Form) to solicit specific feedback and suggestions for improvement on <a href="#">draft recommendations</a>,</li> </ul>

Channel	How It Was Used
	<p>distributed to stakeholders via listserv and posted to EZView page.</p> <ul style="list-style-type: none"> <li>All feedback received (including via feedback form, letters, and public comment submissions) was reviewed by team during finalization of recommendations and collated for transmittal to Ecology with other Study documents. Comments are included in Appendix H. Comments Received on Draft Recommendations.</li> </ul>

## Summary of Input on Draft Recommendations

As noted above, the consultant team used numerous channels to solicit input and feedback from stakeholders throughout the course of the Plastic Packaging Management Study. During the research phases (Tasks 1-3), the team used data and information received from stakeholders, as well as survey results (see Appendix D. Policy & Technology Options for Managing Plastic Packaging Survey Summary) to inform interim findings and task-level reports to Ecology.

The team also used the information gathered throughout the course of the Study to inform development of draft recommendations for managing plastic packaging waste. The team shared draft recommendations with stakeholders for review and comment, soliciting targeted input on each recommendation through a customized feedback form. This form asked respondents to select the option that best described their support for each of the ten proposed recommendations. The options included: *support as is*, *could support with the following changes*, or *do not support and suggest the following alternative*. Respondents were allowed to provide open-ended responses to suggest changes or alternatives to the proposed recommendation, as well as a sustainable funding source.

The team requested stakeholders submit feedback on draft recommendations following their publication between August 14 and August 26, and continued to accept general comments through September 4, 2020.<sup>1</sup> They then reviewed all feedback submissions from stakeholders and used comments to revise and refine final recommendations.

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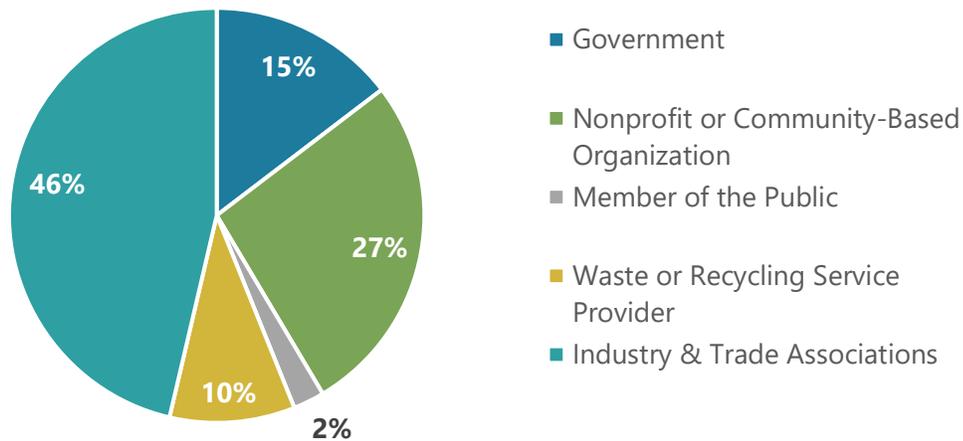
<sup>1</sup> Several stakeholders submitted feedback on the draft recommendations after August 26 through September 4, which the consultant team also reviewed. Stakeholders were also allowed to submit public comments on other elements of the Study between March 6 and September 4, 2020.

The input received on draft recommendations is summarized below. Stakeholder input received via feedback forms, public comment letters, and email is available in Appendix H. Comments Received on Draft Recommendations, and Appendix J. Comments Received via Study Email.

## Respondent Sectors

Overall, 41 respondents across a variety of stakeholder groups provided feedback on the draft recommendations. Respondent sectors are shown in Figure 1. A list of respondents who submitted comments on the draft recommendations, as well as their comments, are included in Appendix H. Comments Received on Draft Recommendations.

**Figure 1 Commentors on Draft Recommendations by Sector**



## Support for Recommendations

The team categorized responses by level of expressed support and reviewed open-ended responses and additional comments submitted. Respondents who declined to select either a position of support or lack of support for a recommendation were coded as “no position” for that recommendation. Several respondents did not use the feedback form but instead submitted comment letters; the team only categorized levels of support for each recommendation if the respondent specifically mentioned a recommendation and an associated position. If the respondent did not address a recommendation specifically or provided general comments, they were coded as “no position” to be conservative and not unintentionally misrepresent the stakeholder’s position.

Given the number of respondents, the varied size of constituencies represented by each stakeholder sector, unrepresented stakeholder groups, and other factors, findings and

percentages presented here are not intended to be statistically significant. They are useful in assessing general trends and attitudes toward potential policies and funding mechanisms. It is also important to emphasize that because the recommendations constitute high-level policy options for legislative consideration and not fully developed policies or bills, these positions constitute general feelings and could change for each stakeholder depending on the specifics of any future proposed legislation.

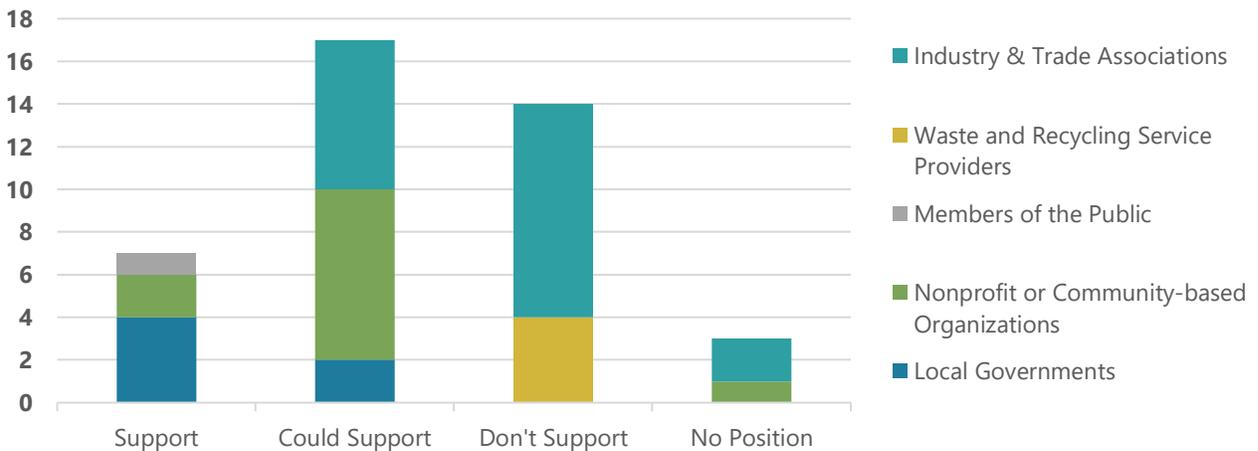
Opinions expressed about proposed recommendations generally aligned with findings from the Policy and Technology Options for Managing Plastic Packaging survey, which were used earlier in the Study process to develop recommendations (see Appendix D. Policy & Technology Options for Managing Plastic Packaging Survey Summary). A summary of levels of support and stakeholder comments are included in the following sections.

## Primary Recommendations

### Recommendation 1: Extended Producer Responsibility Policy Framework for All Packaging

As shown in Figure 2 below, of the primary recommendations, nearly 60 percent of respondents said they supported or could support an extended producer responsibility (EPR) policy framework for all packaging from the residential sector.

**Figure 2 Support for EPR by Sector**



- All local government and nearly all nonprofit respondents<sup>2</sup> indicated that they supported or could support EPR, while about a third of packaging and packaged goods industry

<sup>2</sup> One nonprofit respondent submitted very general comments which did not include positions on EPR or other recommendations and was coded as “no position.”

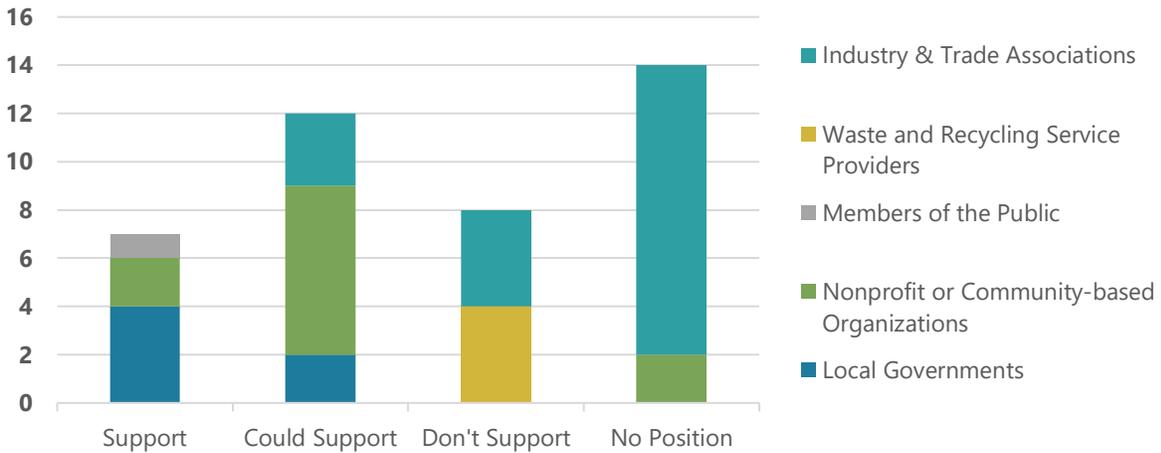
and trade association respondents noted that they could support EPR with certain policy elements that some outlined further in additional comments.

- Several packaging and packaged goods industry and trade association respondents pointed to initiatives underway to establish a framework for EPR in partnership with industry and supply chain stakeholders and expressed interest in engaging further on policy development.
- Waste and recycling service providers uniformly did not support EPR.
- Stakeholders were divided both within and across sectors on whether an EPR framework should include just plastic packaging or all packaging types. Several packaging and packaged goods industry stakeholders expressed concern that the recommendation went beyond the Study's intended scope, while others noted that an EPR policy should include all packaging to avoid market distortions and promote equity among packaging materials and formats.
- In their opposition to EPR, a few stakeholders pointed to a recent publication on British Columbia's Recycle BC EPR program for residential packaging and printed paper and cited concerns raised around increases in costs to consumers for recycling services and packaged goods. (Note: the consultant team reviewed and considered this publication during the recommendations development process.)
- Several other stakeholders, mostly from the government and nonprofit sectors, wanted to expand the recommendation to encompass the commercial, and potentially industrial, sectors as well to achieve efficiencies and economies of scale. Others expressed nuanced support, such as one industry group which felt the residential stream should be kept separate, but suggested leveraging the existing commercial and industrial infrastructure to process the residential stream.

## **Recommendation 2: Deposit Return System for All Beverage Containers**

Fewer respondents expressed a specific position on a deposit return system (DRS) for beverage containers, and just under half (46 percent) said they supported or could support DRS, as shown in Figure 3 below.

**Figure 3 Support for DRS by Sector**

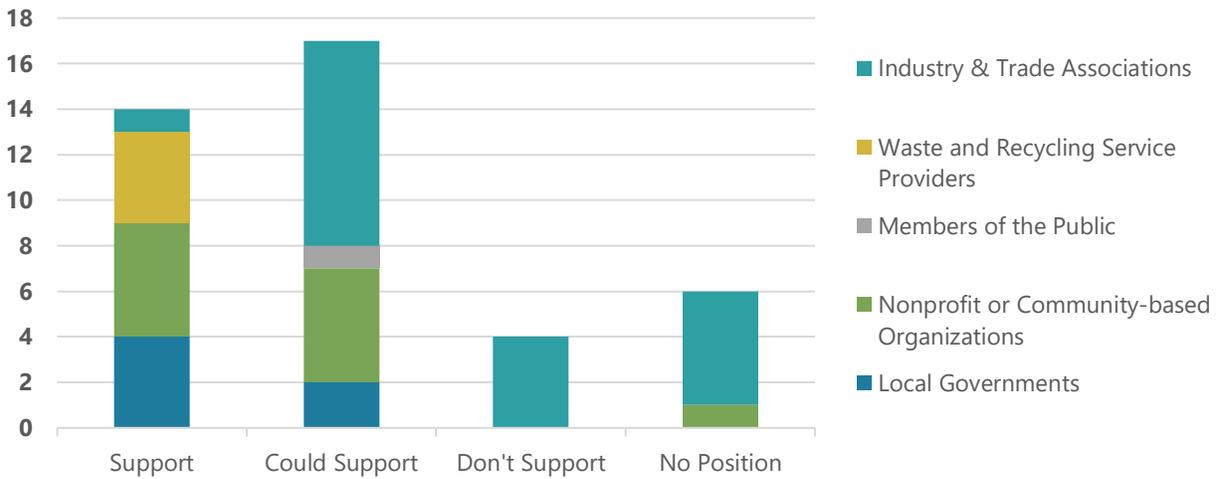


- Similar to EPR, all local government and nearly all nonprofit respondents supported or could support DRS.
- Two key stakeholders representing the beverage industry said they could support a DRS in Washington, and outlined specific ideas around policy and program design in additional comments.
- Waste and recycling service providers were similarly uniform in their lack of support for DRS, along with several other packaging and packaged goods industry groups.
- Across respondents that supported or could support DRS, several thought that a DRS should be integrated into an EPR policy framework rather than deployed as a standalone option. Other stakeholders thought it could be left up to producers, but noted that to achieve stringent material-specific targets set in EPR legislation, a DRS would likely be necessary whether or not it was required.

### **Recommendation 3: Recycled Content Requirements for All Plastic Packaging**

Support for recycled content requirements was generally much higher and encompassed all sectors, as show in Figure 4 below, with three quarters of respondents saying they supported or could support recycled content requirements.

**Figure 4 Support for Mandatory Recycled Content by Sector**



- Waste and recycling service providers were supportive of this recommendation, noting that recycling cannot work without markets for the material.
- Some stakeholders expressed concerns about needing to adequately address toxics in recycled content requirements.
- Many packaging and packaged goods industry and trade association stakeholders noted that they are already pursuing voluntary recycled content commitments, and that any requirements should consider lifecycle impacts of using recycled content resin to ensure net environmental benefits. Several respondents also noted that requirements should allow adequate time and flexibility to meet requirements given current supply and technical limitations.
- For respondents who did not support the recommendation, key opposition centered on wanting exemptions for health and medical product packaging that is already otherwise regulated and could face challenges incorporating recycled content.

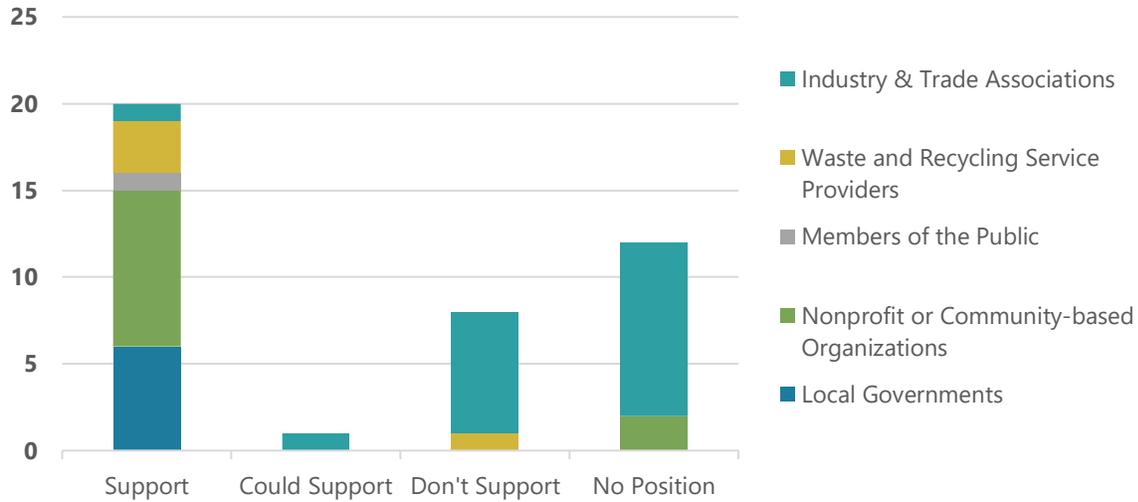
## Interim, Complementary, and Agency Action Recommendations

### Recommendation 4: Producer Registry and Packaging Reporting

Among remaining interim, complementary, and agency action recommendations, only Recommendation 4: Producer Registry and Packaging Reporting, and Recommendation 7: Ban on Problematic and Unnecessary Plastic Packaging had at least 20 percent of respondents that did not support them. Most sectors (between 75 to 100 percent of local government, member of the public, nonprofit, and waste and recycling service provider respondents) supported producer reporting, but only two packaging and packaged goods industry and trade association respondents out of 19 said they supported or could support producer reporting (Figure 5 below). One of the trade associations that opposed producer reporting did still recommended—

if reporting became required—a multi-state coalition to develop uniform standards for data submission to avoid differing state-by-state reporting requirements.

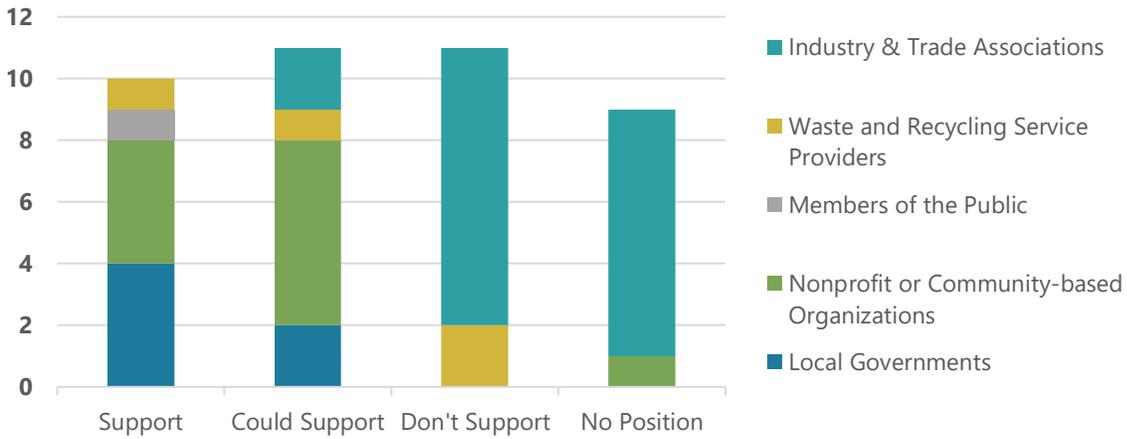
**Figure 5 Support for Producer Registry and Packaging Reporting by Sector**



### Recommendation 7: Ban on Problematic and Unnecessary Plastic Packaging

For banning problematic packaging, support was strong among local government and nonprofit sector respondents, evenly split between waste and recycling service provider respondents, and uniformly lacking among packaging and packaged goods industry and trade association respondents (Figure 6 below). Banning was seen as a useful tool by some in specific situations, such as for packaging containing toxics like PVC. Critics pointed to inefficiencies and potential for unintended consequences of bans, and expressed concern about the lack of definition around “problematic and unnecessary” in terms of packaging in the recommendation.

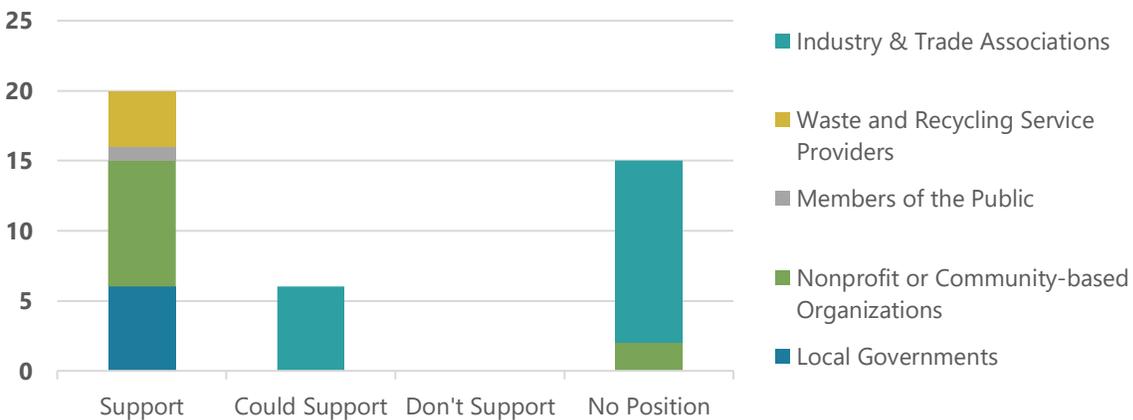
**Figure 6 Support for Banning Problematic and Unnecessary Plastic Packaging by Sector**



**Recommendations 5: Recycled Content Requirements for Plastic Beverage Containers and 6: Recycled Content Requirements for Trash Bags**

All respondents supported, could support, or took no explicit position on Recommendation 5: Recycled Content Requirements for Plastic Beverage Containers (Figure 7 below), though some respondents noted similar concerns to Recommendation 3: Recycled Content Requirements for All Plastic Packaging around the need to address toxics as well as supply and technical constraints.

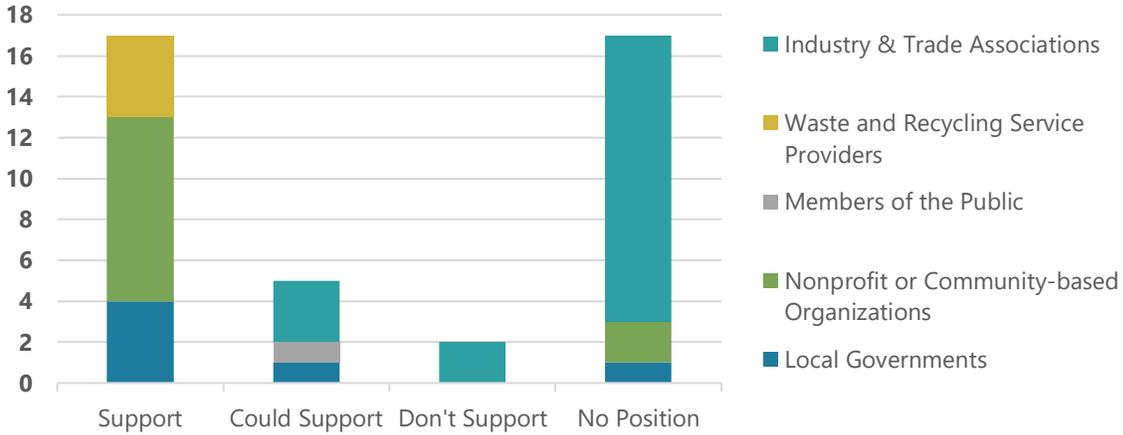
**Figure 7 Support for Recycled Content Requirements in Plastic Beverage Containers by Sector**



Most respondents across sectors also indicated that they supported, could support, or had no position on Recommendation 6: Recycled Content Requirements for Trash Bags (Figure 8 below), though one industry stakeholder submitted clarification and additional considerations

around this recommendation in their comments specifically concerning design and implementation of a similar law in California.

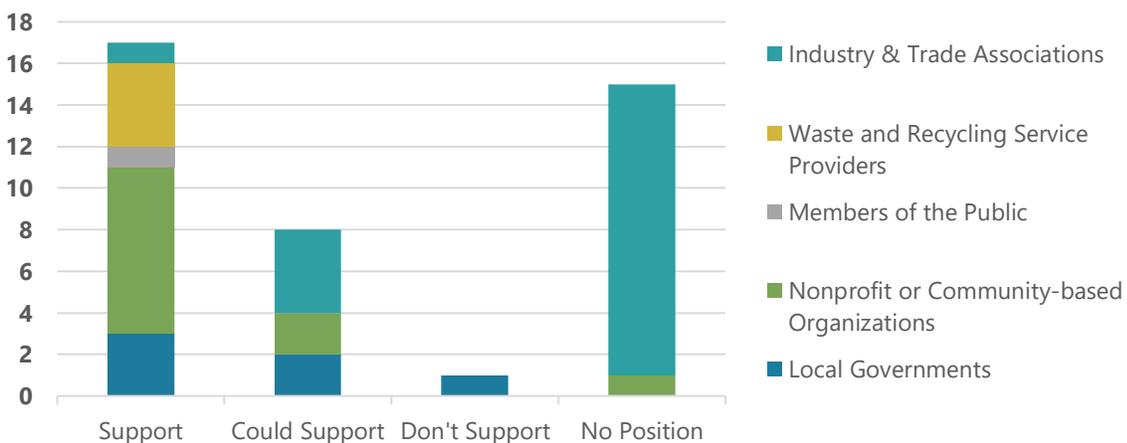
**Figure 8 Support for Recycled Content Requirements in Trash Bags by Sector**



### Recommendation 8: Standard for Customer Opt-in for Foodservice Packaging and Accessories

Respondents across sectors supported, could support, or declined to take a position on Recommendation 8: Standard for Customer Opt-in for Foodservice Packaging and Accessories (Figure 9 below). The one respondent who indicated they did not support this recommendation did so because they opposed offering any plastic at all as part of food service.

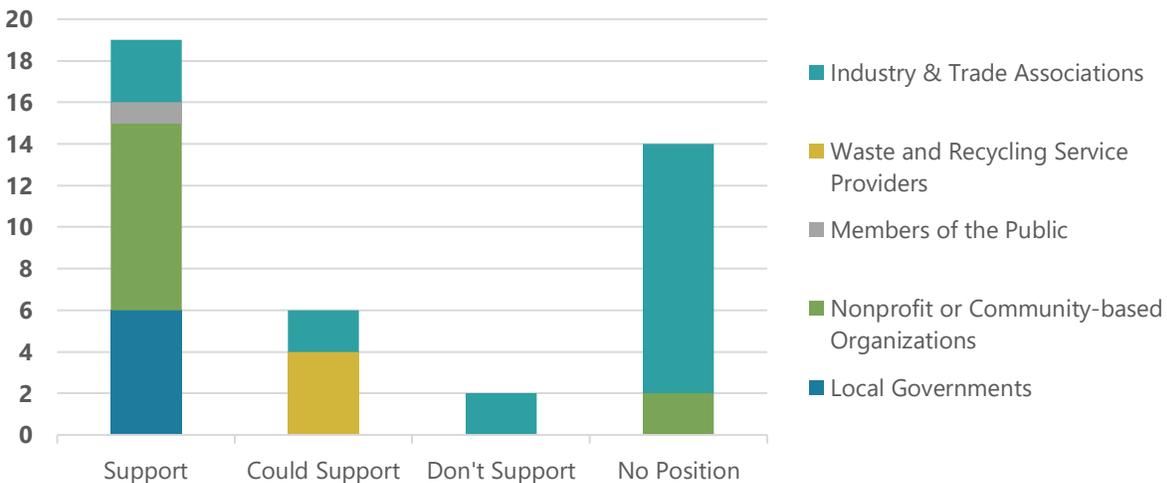
**Figure 9 Support for Customer Opt-in for Foodservice Packaging and Accessories by Sector**



## Recommendation 9: Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing

Respondents across sectors also tended to support or take no position on Recommendation 9: Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing and agree that more transparency around recycling data would be beneficial (Figure 10 below). Relatedly, a number of respondents critiqued the overall Plastic Packaging Management Study process for not having sufficient data, and for drawing conclusions without sufficient data. Though perhaps unintentional, this critique underscores the importance of recommendations to expand data access, increase producer and other reporting, and strengthen data collection on material destinations.

**Figure 10 Support for Strengthening Data Collection on Final Destinations of Materials Sent for Reprocessing by Sector**



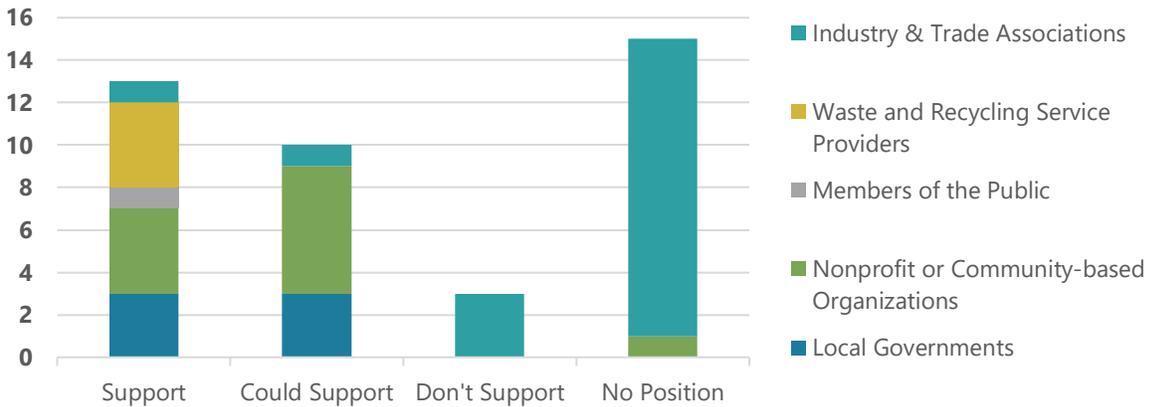
Respondents from the waste and recycling service provider sector, whom this recommendation would primarily impact, indicated that they could support this recommendation as long as any policy ensured confidentiality of sensitive or proprietary business information.

## Recommendation 10: Support Development and Adoption of Reusable Packaging Systems

Respondents from local government, nonprofit, members of the public, and waste and recycling service provider sectors, as well as a couple packaging and packaged goods industry and trade association sector respondents, indicated that they supported or could support development of reusable packaging systems (Figure 11 below). Three quarters of industry and trade association stakeholders took no position on reusables, though a few industry and trade association

respondents expressed opposition to any reusable models where consumers brought their own containers.

**Figure 11 Support for Development and Adoption of Reusable Packaging Systems by Sector**



## General Comments

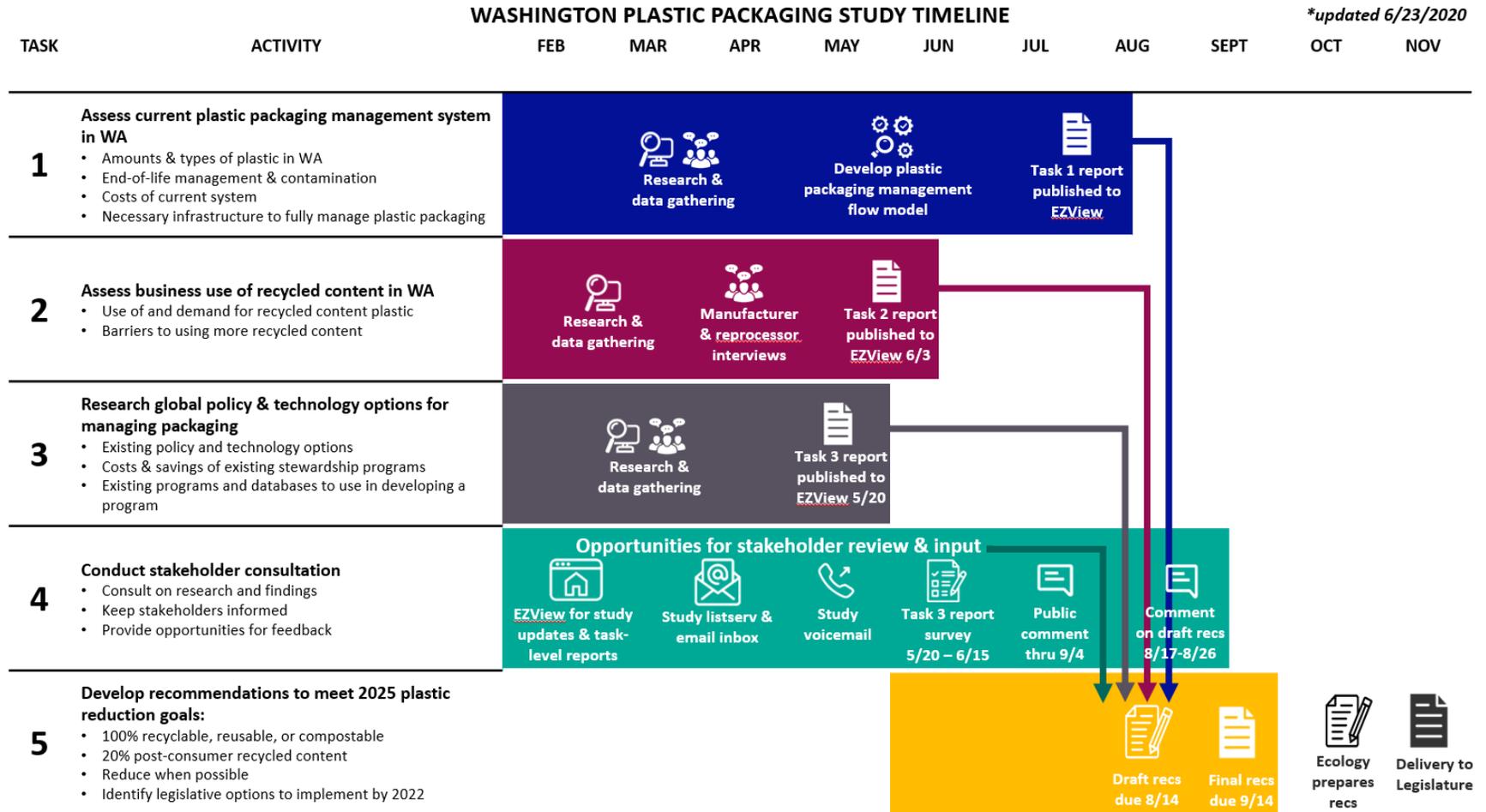
In general, government, nonprofit and other advocacy groups, and members of the public tended to favor all recommendations and expressed desires for recommended policies to go further by broadening their scope or speeding their timeline. Waste and recycling service providers tended to support recommendations that would benefit their business and oppose those that they perceived as threatening their business model. Packaging and packaged goods industry stakeholders generally tended to oppose recommendations that would increase regulation of businesses, citing expected high costs associated with many policies and potential regulation and the potential for unintended consequences. However, several packaging and packaged goods industry stakeholders indicated some level of support for (or lack of opposition to) two key policies, **EPR** and **DRS**, to which they have been heavily opposed in the past.

Multiple stakeholders expressed concerns about expected costs of many of the recommendations, noting that adding costs and other regulatory burdens to any sectors—especially in the current context of the COVID-19 pandemic—would be unwise.

Generally, concerns expressed with “don’t support” stances for a given recommendation tended, understandably, to come from self-interest specific to the stakeholder’s position and role related to plastic packaging. Such input was often quite detailed and arose from a position of experience and expertise, and should be considered in any policy making process. However, sector-specific concerns that were not shared by a plurality of stakeholders were not given undue weight by the consultant team in crafting recommendations for policies to address plastic packaging waste and achieve the Legislature’s stated goals.

# Appendix A. Study Timeline

Figure 12 Study Graphic Timeline



# Appendix B. Stakeholder Organizations Contacted

**Table 2** Individuals and Organizations Contacted in Initial Study Communication Prompting Interested Parties to Join the Study Listserv

#	Organization/Affiliation	Name
1	11th Legislative District	Bob Hasegawa
2	22nd Legislative District	Sam Hunt
3	23rd Legislative District	Christine Rolfes
4	27th Legislative District	Jeannie Darneille
5	36th Legislative District	Rueven Carlyle
6	37th Legislative District	Rebecca Saldana
7	48th Legislative District	Patty Kuderer
8	Adams County Public Works	Anthony Dailey
9	Adams County Public Works	Jennifer Saunders
10	Adams County Public Works	Todd O'Brien
11	AGEISS / JBLM DPW	Tammy Shoop
12	AGEISS INC/Earthworks JBLM Public Works	Cathy Hamilton-Wissmer
13	Air-Conditioning, Heating, and Refrigeration Institute	Allison Maginot
14	American Beverage Association	Kevin Keane
15	American Chemistry Council	Grant Nelson
16	American Chemistry Council	Tim Shestek
17	AMERIPEN	Andy Hackman
18	AMERIPEN	Kyla Fisher
19	Asotin County Public Works	Matt Lynch
20	Asotin County Public Works	Steve Becker
21	Association of Medical Device Reprocessors	Daniel J. Vukelich
22	Association of Oregon Recyclers	Amy Roth
23	Association of Plastic Recyclers	Sandi Childs
24	Association of Plastic Recyclers	Steve Alexander
25	Association of Washington Cities	Shannon McClelland
26	Benton County Public Works	Blanca Parham
27	Blue Marble Environmental	Jack Harris
28	Boeing	Stephanie Leeper
29	Bradford White Corporation	Bob Wolfer

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation	Name
30	California Resource Recovery Association	Tracie Bills
31	CalRecycle	
32	Carney Badley Spellman PS	Cliff Webster
33	Carney Badley Spellman PS	Tanner Hockley
34	Cedar Grove	Jay Blazey
35	Cedar Grove	Karen Dawson
36	Chelan County Public Works	Brenda Blanchfield
37	Christophersen Inc. Government Affairs	Vicki Christophersen
38	Circular Matters LLC	Susan Bush
39	Cities of Edmonds & Lynnwood	Steve Fisher
40	City of Algona	Diana Quinn
41	City of Auburn	Joan Nelson
42	City of Auburn	Kathleen Edman
43	City of Beaux Arts	Sue Ann Spens
44	City of Bellevue	Erin Hislop
45	City of Bellevue	Lucy Liu
46	City of Bellevue	Stephanie Schwenger
47	City of Bothell	Emily Warnock
48	City of Bothell	Sabrina Combs
49	City of Burien	Mary Eidmann
50	City of Carnation	Becky Buelna
51	City of Cheney	Daryce Hoffman
52	City of Cheney	Todd Ableman
53	City of Clyde Hill	Courtney Benjamin
54	City of Covington	Shellie Bates
55	City of Des Moines	Laura Techico
56	City of Duvall	Cheri James
57	City of Enumclaw	Chris Searcy
58	City of Enumclaw	Dianna Billingsley
59	City of Enumclaw	Jim Flisrand
60	City of Everett	Erika Frost
61	City of Federal Way	Jeanette Brizendine
62	City of Federal Way	Rob Van Orsow
63	City of Issaquah	David Fujimoto
64	City of Issaquah	Joanne Bisquera
65	City of Issaquah	Mary Joe De Beck

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation	Name
66	City of Issaquah	Micah Bonkowski
67	City of Kenmore	Jennifer Gordon
68	City of Kent	Tony Donati
69	City of Kirkland	Jenna McInnis
70	City of Kirkland	John MacGillivray
71	City of Kirkland	Tracy Durnell
72	City of Liberty Lake	Ann Swenson
73	City of Liberty Lake	Katy Allen
74	City of Liberty Lake	R.J. Stevenson
75	City of Liberty Lake	Wendy Van Orman
76	City of Longview	Gregg Hannon
77	City of Maple Valley	Diana Pistoll
78	City of Medina	Ryan Osada
79	City of Mercer Island	Jason Kintner
80	City of Milton	Brent Thompson
81	City of Monroe	Jakeh Roberts
82	City of Newcastle	Wendy Kirchner
83	City of Normandy Park & City of Burien	Amanda Leon
84	City of North Bend	Carrie Smith
85	City of Olympia	Dan Daniels
86	City of Olympia	Kim Johnson
87	City of Olympia	Spencer Orman
88	City of Pacific	Jim Morgan
89	City of Redmond	Eberley Barragan
90	City of Redmond	Jerome Jin
91	City of Redmond	Stacey Auer
92	City of Renton	Jina Kim
93	City of Renton	Meara Heubach
94	City of Renton	Julie Pursell
95	City of Renton	Linda Knight
96	City of Richland	Valerie Suarez
97	City of Sammamish	Maia Knox
98	City of SeaTac	Mason Giem
99	City of Seattle	Katie Kennedy
100	City of Sedro-Woolley	Leo Jacobs
101	City of Sequim	Ann Soule

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation	Name
102	City of Shelton	Craig Gregory
103	City of Shelton	Jason Dose
104	City of Shoreline	Cameron Reed
105	City of Shoreline	Autumn Salamack
106	City of Spokane	Ron Dowers
107	City of Spokane	Scott Windsor
108	City of Spokane Valley	Henry Allen
109	City of Spokane Valley	John Hohman
110	City of Sultan	Nate Morgan
111	City of Tacoma	Andrea Boyes
112	City of Tacoma	Daniel Corum
113	City of Tacoma	Preston Peck
114	City of Tacoma	Jeanne Walter
115	City of Tacoma	Lewis Griffith
116	City of Tukwila	Lynn Miranda
117	City of Vancouver	Julie Gilbertson
118	City of Vancouver	Tanya Gray
119	City of Vancouver	Rich McConaghy
120	City of Walla Walla	Mori Struve
121	City of Woodinville	Amy Ensminger
122	Clallam County	Meggan Uecker
123	Clark County	Sarah Keirns
124	Clark County	Travis Dutton
125	Clark County Environmental Services	Kim Harless
126	Clark County Public Works	Bob Patterson
127	Clark County Public Works	Sally Fisher
128	Clark County Solid Waste	Pete DuBois
129	Closed Loop Fund/Partnership	Bridget Croke
130	Coca-Cola	George Allen
131	Columbia County	Charles Eaton
132	Columbia County Public Works	Wayne Tate
133	Columbia Springs Master Composter/Recycler Program	Jo Anne Dolan
134	Colville Confederated Tribes	Danny Joe Stensgar
135	Consumer Brands Association	Meghan Stasz
136	Container Recycling Institute	Susan Collins
137	Costco	

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation	Name
138	Cowlitz County Department of Public Works	Ron Junker
139	Denton Plastics Inc.	Nicole Janssen
140	Department of Commerce	Brian Young
141	Department of Commerce	Michele Ko
142	Department of Commerce	Peter Moulton
143	Department of Ecology	Alli Kingfisher
144	Department of Ecology	Christine Haun
145	Department of Ecology	Diana Wadley
146	Department of Ecology	Jacob Berkey
147	Department of Ecology	Janine Bogar
148	Department of Ecology	Joshua Weide
149	Department of Ecology	Julie Robertson
150	Department of Ecology	Kara Steward
151	Department of Ecology	Laurie Davies
152	Department of Ecology	Martha Hankins
153	Department of Ecology	P Hervieux
154	Department of Ecology	Peter Christiansen
155	Department of Ecology	Ryan Summerlin
156	Department of Ecology	Shannon Jones
157	Department of Ecology	Stacey Callaway
158	Department of Ecology	Tina Simcich
159	Department of Ecology Community Litter Clean-Up Program	Amber Smith
160	Douglas County	Becci Piepel
161	Douglas County Solid Waste Program	Lavonne Ramey
162	DTG Recycling Group	Brian Thompson
163	Encorp Pacific - Return It	Allen Langdon
164	Energy and Environment LLC	Cal Palmer
165	EPA Region 10	Domenic Calabro
166	EPS Industry Alliance	Walter Reiter
167	Ferry County Public Works	Leanne Hill
168	Flexible Packaging Association	
169	Flexible Packaging Association	Alison Keane
170	FMI EPS LLC.	Steven Nelson
171	Franklin County Public Works	Sally McKenzie
172	Garfield County Public Works	Grant Morgan

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation	Name
173	Garfield County Public Works	Lillian Heytvelt
174	Grant County Solid Waste	Joan Sieverkropp
175	Grays Harbor Department of Public Services	Mark Cox
176	International Bottled Water Association	James Toner
177	Island County	Gene Clark
178	Island County	Joantha Guthrie
179	Island County	Maurace Clark
180	Island County Public Health	Andrea Krohn
181	Jefferson County	Tom Locke
182	Jefferson County Public Health	Laura Tucker
183	Jefferson County Public Health	Mike Dawson
184	Jefferson County Public Works	Jerry Mingo
185	Jefferson County Public Works	Monte Reinders
186	Jefferson County Public Works	Tom Boatman
187	King County	Bob Bernhard
188	King County Solid Waste Division	Alexander Rist
189	King County Solid Waste Division	Andrew Smith
190	King County Solid Waste Division	Jeff Gaisford
191	King County Solid Waste Division	Josh Marx
192	King County Solid Waste Division	Kinley Deller
193	King County Solid Waste Division	Lisa Sepanski
194	King County Solid Waste Division	Lucy Auster
195	King County Solid Waste Division	Morgan John
196	King County Solid Waste Division	Pat McLaughlin
197	King County Solid Waste Divison	Dale Alekel
198	Kitsap County Public Works	Christopher Piercy
199	Kitsap County Public Works	Marshon Coppinger
200	Kitsap County Public Works	Pat Campbell
201	Kitsap County Public Works	Toni Fuller
202	Kitsap Public Health District	Bryan McKinnon
203	Kittitas County	Bryan Nass
204	Kittitas County Solid Waste	Patti Johnson
205	Klickitat County Solid Waste	Averie Morgan
206	L&E Bottling	Grant Charneski
207	Lautenbach Industries	Troy Lautenbach
208	Lewis County Department of Public Works	Melanie Case

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation	Name
209	Lewis County Solid Waste	Steve Skinner
210	Lincoln County Public Works	Rory Wintersteen
211	Lopez Solid Waste Disposal District	Nikyta Palmisani
212	Lopez Solid Waste Disposal District	Paul Andersson
213	Mason County	Bart Stepp
214	Merlin Plastics Alberta Inc.	Tony Moucachen
215	National Grocers Association	
216	NORPAC	Jay Simmons
217	Northeast Tri-County Health District	Bryan Hunt
218	Northwest Grocery Association and Institute of Scrap Metal Recyclers	Holly Chisa
219	Northwest Polymers	Mark Shuholm
220	Northwest Recycling, Inc.	Kevin Moore
221	Ocean Conservancy - Trash Free Seas Program	Nick Mallos
222	Okanogan County Public Works	Kent Kovalenko
223	Orcas Recycling Services dba The Exchange	Pete Moe
224	Oregon Department of Environmental Quality	David Allaway
225	Other Interested Party	Adam Gravley
226	Other Interested Party	Aislin Gallagher
227	Other Interested Party	Darren Wilson
228	Other Interested Party	David Bader
229	Other Interested Party	DJ Dean
230	Other Interested Party	Doug Probstfeld
231	Other Interested Party	Eileen Macoll
232	Other Interested Party	Eric Pace
233	Other Interested Party	Garth Hickle
234	Other Interested Party	Heidi Baxter
235	Other Interested Party	Jaimie Wharton
236	Other Interested Party	Janine Baker
237	Other Interested Party	Jeff Epstein
238	Other Interested Party	Katie Reilly
239	Other Interested Party	Kim Clauson
240	Other Interested Party	Kim Kaminski
241	Other Interested Party	Laura Dobroski
242	Other Interested Party	Light Associates
243	Other Interested Party	Lisa Lawrence

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation	Name
244	Other Interested Party	Michelle Ross
245	Other Interested Party	Nicholas DiBartolo
246	Other Interested Party	Norman Nicholson
247	Other Interested Party	Paula Wesch
248	Other Interested Party	Phil Bresee
249	Other Interested Party	Rachel Novak
250	Other Interested Party	Sandra Cannon
251	Other Interested Party	Scott Farling
252	Other Interested Party	Sharon Hlavka
253	Other Interested Party	Shawn Schollmeyer
254	Other Interested Party	Tia Harris Dalton
255	Other Interested Party	Tim Prusa
256	Other Interested Party	Tonilee Hanson
257	Other Interested Party	William Campbell
258	Pacific County	Shawn Humphreys
259	Pacific County DCD	Tim Crose
260	Pacific Northwest National Laboratory	Corinne Drennan
261	Pend Oreille County Public Works	Amanda Griesemer
262	Pend Oreille County Public Works	Craig Jackson
263	Pierce County	Ryan Dicks
264	Pierce County Department of Public Works	Sheryl Rhinehart
265	Pierce County Department of Public Works	Stephanie Leisle
266	Pierce County Planning and Public Works	Kirsten Miller
267	Pierce County Planning and Public Works	Karen Hultgren
268	Pierce County Public Works and Utilities	Rick Johnston
269	Pioneer Recycling	Dave Claugus
270	Port of Seattle	Jeremy Webb
271	Pride Polymers LLC	Joe O'Malley
272	Product Stewardship Institute	Scott Cassel
273	Public Health-Seattle & King County	Yolanda Pon
274	Public Health-Seattle & King County	Eyasu Ayalew
275	Pullman Disposal	Devon Felsted
276	Rainier Plastics Inc.	Willam Shields
277	Recology	Derek Ruckman
278	Recology	Kevin Kelly
279	Recology	Quinn Apuzzo

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation	Name
280	Recology	Quinn Schweizer
281	Recology	Wafa Tafesh
282	Republic Services	Natalie Caulkins
283	Republic Services	Steven Gilmore
284	Republic Services	Wendy Weiker
285	Resource Synergy	Erik Makinson
286	Retail Packaging Association	Molly Alton Mullins
287	San Juan County Public Works	Mark Ingman
288	Sanitary Service Company Inc.	Rodd Pemble
289	Seattle Public Utilities	Angela Wallis
290	Seattle Public Utilities	Becca Fong
291	Seattle Public Utilities	Julie Vorhes
292	Seattle Public Utilities	Pat Kaufman
293	Seattle Public Utilities	Sego Jackson
294	Seattle Public Utilities	Socorro Medina
295	Seattle Public Utilities	Veronica Fincher
296	Seattle Public Utilities	Sheryl Anayas
297	Serlin Haley LLC	Lauren Aguilar
298	Sigmon Public Affairs	Scott Sigmon
299	Skagit County	Britt Pfaff Dunton
300	Skagit County	Callie Martin
301	Skagit County Public Works Department	Callie Martin
302	Skagit County Public Works Department	Elena Pritchard
303	Skagit County Public Works Department	Margo Gillaspay
304	Skamania County Public Works	Brad Uhlig
305	Snohomish County PUD	Colleen Murphy
306	Snohomish County Solid Waste Management Division	Linda Rhoades Clarke
307	Snohomish County Solid Waste Management Division	Matt Zybas
308	Snohomish County Solid Waste Management Division	Polagaya McLaughlin
309	Spokane County	Danette Dobbins
310	Spokane County	Kari Grytdal
311	Spokane County	Lindsay Chapman
312	Spokane County Solid Waste	Deb Geiger
313	Spokane Regional Health District	Ray Byrne
314	Spokane Regional Solid Waste System	Diane Clavel
315	Spokane Regional Solid Waste System	Kristine Major

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation	Name
316	Spokane Regional Solid Waste System	Rose Copell
317	Stevens County Public Works	Kevin Dionas
318	Stevens County Public Works	Jason Hart Vacancy
319	Sunrise Disposal	Darby Mcneil
320	Sunshine Disposal	Marc Rickey
321	Sunshine Disposal	Steve Wulf
322	Surfrider Foundation	Gus Gates
323	Sustainable Packaging Coalition	Nina Goodrich
324	Tacoma-Pierce County Health Department	Esther Beaumier
325	Target	Kim Carswell
326	The Evergreen State College	Scott Morgan
327	The Recycling Partnership	Cody Marshall
328	The Recycling Partnership	Dylan de Thomas
329	Thurston County	Amanda Romero
330	Thurston County	Robert Pudner
331	Thurston County Environmental Health	Mark Koster
332	Thurston County Public Works	Allyson Ruppenthal
333	Thurston County Public Works	Monica Gorman
334	Thurston County Public Works	Colleen Minion
335	Thurston County Solid Waste	Rob Pudner
336	Town of Friday Harbor	Duncan Wilson
337	Town of Skykomish	Deborah Allegri
338	Toxic-Free Future	Laurie Valeriano
339	Tribal Solid Waste Advisory Network	Bobbi Anne Barnowsky
340	Tribal Solid Waste Advisory Network	Kami Snowden
341	TVI Inc./Savers/Value Village	James Allen
342	University of Washington	Liz Gignilliat
343	University of Washington	Stephanie Schwenger
344	Utilities and Transportation Commission	Jason Lewis
345	Versar/JBLM	Shelia Martin
346	VW	
347	Wahkiakum Building and Planning	Charles Beyer
348	Wahkiakum County Public Works	Michelle Collupy
349	Washington Beverage Association & Waste Management of Washington, Inc.	Brad Boswell
350	Washington Department of Agriculture	Brad White

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation	Name
351	Washington Food Industry Association	Cat Holm
352	Washington Food Industry Association	Jan Gee
353	Washington Food Industry Association	Rebecca Reule
354	Washington Organic Recycling Council	
355	Washington Refuse & Recycling Association	Brad Lovaas
356	Washington Refuse & Recycling Association	Rod Whittaker
357	Washington Retail Association	Renee Sunde
358	Washington State Association of Counties	Paul Jewell
359	Washington State Department of Health	Kristen Schwab
360	Washington State Department of Transportation Adopt-a-Highway Program	Jeffrey Gibson
361	Washington State Housing Finance Commission	Rodney Wendt
362	Washington State Recycling Association	Megan Smothers
363	Washington State Recycling Association/City of Olympia	Ron Jones
364	Washington State University	Karl Englund
365	Washington State University -Cooperative Extension Island County	Sarah Bergquist
366	Washington Utilities and Transportation Commission	Danny Kermode
367	Washington Utilities and Transportation Commission	Ann LaRue
368	Waste Connections, Inc.	Beth Simon
369	Waste Connections, Inc.	Danielle Womble
370	Waste Connections, Inc.	Eddie Westmoreland
371	Waste Connections, Inc.	Ellen Ives
372	Waste Connections, Inc.	Josy Wright
373	Waste Connections, Inc.	Mark Gingrich
374	Waste Connections, Inc.	Megan Johnson
375	Waste Connections, Inc.	Stefan Granmo
376	Waste Management, Inc.	Emily Newcomer
377	Waste Management, Inc.	John Chelminiak
378	Waste Management, Inc.	Mary Evans
379	Waste Management, Inc.	Matt Stern
380	Waste Management, Inc.	Michael Range
381	Waste Management, Inc.	Mindy Rostami
382	Western Plastics Association	Laurie Hansen Sheets
383	Whatcom County Health Department	Jeff Hegedus
384	Whitman County	Mark Storey
385	Whitman County Public Works	David Nails

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation	Name
386	Yakama Nation	Derald Orloff
387	Yakima County Solid Waste	Marci Venable
388	Yakima County Solid Waste	Mikal Heintz
389	Yakima County Solid Waste Division	Karma Suchan
390	Zero Waste Washington	Heather Trim

**Table 3 Plastic Packaging Study Listserv Members as of September 8**

#	Organization/Affiliation (If Known)	Name
1	Alliances Northwest	Kim Clauson
2	American Beverage Association	David Thorp
3	American Beverage Association	Kevin Keane
4	American Beverage Association	Megan Daum
5	American Chemistry Council	Andrew Fasoli
6	American Chemistry Council	Grant Nelson
7	American Chemistry Council	Omar Terrie
8	American Chemistry Council	Shari Jackson
9	American Chemistry Council	Tim Shestek
10	American Forest & Paper Association	Josie Cummings
11	AMERIPEN	Dan Felton
12	AMERIPEN	Kyla Fisher
13	Anchor Packaging	Bruce Stein
14	Association of Oregon Recyclers	Amy Roth
15	Association of Washington Business	Peter Godlewski
16	Association of Washington Cities	Shannon McClelland
17	BASF Corporation	Jeanette Hanna
18	Benton County	Blanca Parham
19	Bradford White	Bob Wolfer
20	Cadena Consulting	Lyset Cadena
21	Carney Badley Spellman PS	Cliff Webster
22	Carney Badley Spellman PS	Tanner Hockley
23	Cascade Government Affairs	Charlie Brown
24	Cascade Government Affairs	Margaret Brown
25	Christophersen Inc. Government Affairs	Brooke Davies
26	Christophersen Inc. Government Affairs	Vicki Christophersen
27	Circular Matters	Susan Bush
28	City of Bellevue	Erin Hislop

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation (If Known)	Name
29	City of Bothell	Emily Warnock
30	City of Gig Harbor	Jeni Woock
31	City of Olympia	Ron Jones
32	City of Olympia	Spencer Orman
33	City of Redmond	Ken Waldo
34	City of Redmond	Stacey Auer
35	City of Renton	Jina Kim
36	City of Renton	Julie Pursell
37	City of Renton	Linda Knight
38	City of Renton	Olivia Scott
39	City of SeaTac	Mason Giem
40	City of Sedro Woolley	Leo Jacobs
41	City of Shoreline	Autumn Salamack
42	City of Shoreline	Cameron Reed
43	City of Spokane Valley	Henry Allen
44	City of Tacoma	Josh Christy
45	City of Tacoma	Maria Teresa Gamez
46	City of Tacoma	Preston Peck
47	Clallam County	Meggan Uecker
48	Clark County	Peter Dubois
49	Clark County	Sally Fisher
50	Coca-Cola	George Allen
51	Cogent Environmental Consulting	Janice Gedlund
52	Consumer Brands Association	Marissa Golison
53	Consumer Technology Association	Katie Reilly
54	Coyne, Jesernig, LLC	Dan Coyne
55	Dell	Erica Logan
56	Denton Plastics	Nicole Janssen
57	Department of Commerce	Brian Young
58	Department of Commerce	Peter Moulton
59	Department of Ecology	Alli Kingfisher
60	Department of Ecology	Amy Correa
61	Department of Ecology	Christine Haun
62	Department of Ecology	Dan Weston
63	Department of Ecology	Gretchen Newman
64	Department of Ecology	Janine Bogar

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation (If Known)	Name
65	Department of Ecology	Julie Robertson
66	Department of Ecology	Kara Steward
67	Department of Ecology	Kari Trumbull
68	Department of Ecology	Megan Warfield
69	Department of Ecology	Peter Guttchen
70	Department of Ecology	Shannon Jones
71	EPS Industry Alliance	Walter Reiter
72	Flexible Packaging Association	Alison Keane
73	FMI-EPS	Tony Bremer
74	Food Northwest	Craig Smith
75	Food Northwest	Pam Barrow
76	Hewlett-Packard	Jacob Sanchez
77	Household & Commercial Products Association	Nicholas Georges
78	International Bottled Water Association	Cory Martin
79	International Bottled Water Association	James Toner
80	Johnson & Johnson	Eric Lohnes
81	Keurig Dr. Pepper	Gina Mordeaux
82	Kimberly-Clark Corporation	Branch Sinkule
83	King County	Adrian Tan
84	King County	Andrea Lai
85	King County	Andy Smith
86	King County	Lisa Sepanski
87	Kitsap County	Caitlin Newman
88	Kitsap County	Christopher Piercy
89	Kitsap County	Lauren Liming
90	Klickitat County	Michelle Mulrony
91	Klickitat County	Ruby Irving-Hewey
92	Lenovo	Kim Fox
93	LG	Madeline Smith
94	Lincoln County	Rory Wintersteen
95	Lopez Solid Waste	Laurie Bullock
96	Maverik Inc	Holly Robb
97	McBride Public Affairs LLC	Intisar Surur
98	McBride Public Affairs LLC	Tom McBride
99	National Institute of Standards and Technology	Kelsea Schumacher
100	NB Environmental	Bree Dietly

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation (If Known)	Name
101	Nike	Melissa Vaillancourt
102	Nintendo	joe Conklin
103	NORPAC	Jay Simmons
104	Northwest Grocery Association	Holly Chisa
105	Orcas Island Exchange	Pete Moe
106	Oregon Department of Environmental Quality	David Allaway
107	Other Interested Parties	Amber Carter
108	Other Interested Parties	Brent Ludeman
109	Other Interested Parties	Carolyn Logue
110	Other Interested Parties	Chris Grantham
111	Other Interested Parties	Cynthia Foley
112	Other Interested Parties	Dar Christopherson
113	Other Interested Parties	Michelle Ross
114	Other Interested Parties	Fritz Feiten
115	Other Interested Parties	Garth Hickle
116	Other Interested Parties	George Allen
117	Other Interested Parties	Jenni Heerink
118	Other Interested Parties	Joyce Cox
119	Other Interested Parties	Melissa Gombosky
120	Other Interested Parties	Melissa Nadeau
121	Other Interested Parties	Mary Vihstadt
122	Other Interested Parties	Preston Horne-Brine
123	Other Interested Parties	Arthur (R.D.) Grunbaum
124	Other Interested Parties	Scott Sigmon
125	Other Interested Parties	Suzanne Tresko
126	Other Interested Parties	Suellen Mele
127	Other Interested Parties	Tim Prusa
128	Other Interested Parties	Valerie Brown
129	Pactiv	Lynn Dyer
130	PepsiCo	Jim Nam
131	Person Care Products Council	Thomas Myers
132	Pierce County	Karen Hultgren
133	Plastics Industry Association	Shannon Crawford
134	Port of Seattle	Jeremy Webb
135	Proctor & Gamble	Beth Percynski
136	Puget Soundkeeper	Alyssa Barton

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation (If Known)	Name
137	Recology	Derek Ruckman
138	Recology	Kevin Kelly
139	Republic Services	Steve Gilmore
140	Republic Services	Wendy Weiker
141	Ridwell	Ryan Metzger
142	RIE Consultants	Mizan Rashid
143	Rogue Disposal	Denise Barnes
144	Rogue Disposal	Laura Leebrick
145	RRS	Laura Dobroski
146	RRS	Resa Dimino
147	Rubatino	Ed Rubatino
148	Sally Beauty	Laurie Pan
149	Sally Beauty Supply	Allison David
150	SC Johnson	Heather Berlinski
151	SCS Engineers	Greg Helland
152	Seattle Aquarium	Nora Nickum
153	Seattle Public Utilities	Sego Jackson
154	Serlin Haley, LLC	Andrew Hackman
155	Serlin Haley, LLC	Lauren Aguilar
156	Skagit County	Margo Gillaspay
157	Skagit Publishing	Kimberly Cauvel
158	Snohomish County	Kevin Ruuhela
159	Sound Disposal, Inc.	Norman Nicholson
160	Squire Patton Boggs	Ken Huestebeck
161	SSC-Inc	Rodd Pemble
162	SSC-Inc	Ted Carlson
163	Stericycle	Katey Potter
164	Strategic Partners Group	Laurie Hansen
165	StyroRecycle	Marilyn Lauderdale
166	Surfrider Foundation	Gus Gates
167	Sustainable Packaging Coalition	Olga Kachook
168	Swire CC	Mike Bernier
169	TCL	Cynthia Mendoza
170	The Evergreen State College	Scott Morgan
171	The Recycling Partnership	Lily Schwartz
172	Thurston County	Amanda Romero

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation (If Known)	Name
173	Thurston County	Robert Pudner
174	U.S. EPA	Angel Ip
175	U.S. EPA	Margaret McCauley
176	U.S. EPA	Rick McMonagle
177	University of Buffalo	Michael Shelly
178	Vesicus Inc.	Krishna Nadella
179	VW	Reg Affairs
180	WaferTech	Bryan Mirick
181	Washington Food Industry Association	Catherine Holm
182	Washington Food Industry Association	Jan Gee
183	Washington Food Industry Association	Rebecca Reule
184	Washington Food Industry Association	Tammie Hetrick
185	Washington Friends of Farms & Forests	Heather Hansen
186	Washington Legislature House Environment & Energy Committee	Jacob Lipson
187	Washington Legislature Senate Environment, Energy & Technology Committee	Jan Odano
188	Washington Refuse & Recycling Association	Brad Lovaas
189	Washington Refuse & Recycling Association	Rod Whittaker
190	Washington Retail Association	Renee Sunde
191	Washington State Department of Transportation	Matt Cox
192	Washington State Library	Lillian Heytvelt
193	Washington State Recycling Association	Megan Smothers
194	Waste Management	Andrew Kenefick
195	Waste Management	Hannah Scholes
196	Waste Management	John Chelminiak
197	Waste Management	Michael Range
198	Waste Management	Matt Stern
199	Waste Management	Susan Robinson
200	Whatcom County	Jennifer Hayden
201	Whatcom County	Jeff Hegedus
202	Zero Waste Washington	Heather Trim

# Appendix C. Stakeholder Communications

## Initial Stakeholder Communication – March 4

EMAIL SENT MARCH 4, 2020

Greetings Plastic Packaging Study Stakeholders and Interested Parties,

We are writing with an update on the Plastic Packaging Evaluation and Assessment Law, passed by the Washington Legislature in 2019, and to invite you to join the email listserv. Signing up for the [listserv](#) will allow you to continue receiving project updates, see project documents, and learn how to provide public comment.

As you likely know, the law states that producers of plastic packaging should consider the design and management of their packaging in a manner that ensures minimal environmental impact. Per the law, the Washington State Department of Ecology has hired an independent third-party consultant team to study how plastic packaging is managed in Washington and assess various policy options to meet the goals and timeline of the law.

The [below] letter describes the upcoming work in more detail, lets you know where to find more information, and explains how you can track progress and provide input. It begins by signing up for the [listserv](#). Thanks for your time and interest. We look forward to keeping you apprised of this important initiative.

Amity Lumper, Co-President, Cascadia Consulting Group, Inc.

## Plastic Packaging Management Study Stakeholder Consultation Process

ATTACHMENT TO EMAIL

Greetings Plastic Packaging Study Stakeholders and Interested Parties,

In 2019, the Washington Legislature passed the [Plastic Packaging Evaluation and Assessment law](#), which states that producers of plastic packaging should consider the design and management of their packaging in a manner that ensures minimal environmental impact. It positions Washington State to take the next strategic step toward a responsible and resilient plastic packaging management system that protects Washington's environment and the health of state residents and supports businesses responsible for managing recovered plastic packaging.

Per the law, the Washington State Department of Ecology (Ecology) has hired an independent third-party consultant team to study how plastic packaging is managed in Washington and assess various policy options to meet the goals and timeline of the law. The consultant team includes Washington-based firms that have been actively engaged in the state's solid waste and recycling industry since the early 1990s, as well as national and global plastics and recycling experts:

- [Cascadia Consulting Group](#) (prime contractor)
- [Full Circle Environmental](#)
- [Eunomia Research & Consulting](#)
- [MORE Recycling](#)

**Implementation of the [Plastic Packaging Evaluation and Assessment law](#) is underway. Sign up for the [email listserv](#) to receive project updates, see project documents, and learn how to provide public comment. Visit the project [EZView page](#) or the project [factsheet](#).**

The consultant team will conduct research in spring 2020 to inform the development of options for legislative consideration to meet the plastic packaging reduction goals. The team's research will inform the report and recommendations that are due to the Legislature by October 31, 2020. As part of the study, the team will be collecting information about:

- The amount and types of plastic packaging produced in or entering the state.
- The costs of managing plastic packaging waste, including costs to ratepayers, businesses, and local governments.
- Where plastic packaging waste goes at the end of its lifecycle.
- Future infrastructure needed to manage plastic packaging.
- Domestic and international efforts and methods to reduce, reuse, and recycle plastic packaging.
- Proposals to meet the goals of reducing plastic packaging in Washington.

## Plastic Packaging Management Study Stakeholder Consultation Process

The team will be consulting with a wide variety of public, private, and nonprofit stakeholders between March and June 2020 to gather available data and input on options and recommendations.

Due to the accelerated timeline of the study, the team will use the project's [email listserv](#) as the primary means of stakeholder communication. If you haven't already done so, please sign up for the [email listserv](#) to be notified of input opportunities when project documents are posted to the project [EZView page](#), and to be kept informed of project progress. You can also reach out to the consultant team directly by emailing [WAPlasticPkgStudy@cascadiaconsulting.com](mailto:WAPlasticPkgStudy@cascadiaconsulting.com).

Thank you for your interest and participation. We look forward to engaging with you throughout the course of this study.

Best,

Amity Lumper, Cascadia Consulting Group

## Study Timeline Update – April 27

EMAIL SENT TO LISTSERV APRIL 27, 2020

Greetings Plastic Packaging Study Stakeholders & Interested Parties,

We hope this email finds you healthy and well during these challenging times. We are writing with a brief update on the plastic packaging study. Like many organizations, our team has had reduced capacity in March and April due to the COVID-19 pandemic, but we are making good progress.

While the timelines for a few interim project deliverables have shifted back slightly, we will be publishing our first report in the next 4-6 weeks on the [EZView page](#), and will send an email notification as soon as it is posted. This report will include an overview of policy and technology approaches and innovations for managing plastic packaging from around the world. Accompanying the report, we will provide a link to a brief survey to allow stakeholders to provide targeted input on potential approaches. The policy and technology report and other documents produced throughout the project, as well as all input received from stakeholders, will inform the final recommendations due to the Legislature by October 31, 2020.

In addition to policy and technology research, the team has been compiling and analyzing data on plastic packaging types and quantities in Washington, as well as the costs of their end-of-life management. We have also been engaging with various industries, including plastics recyclers and packaging manufacturers and related trade organizations, to collect specific information about their operations and to inform our research, particularly regarding material flows and processing capacity.

We want to note that given the research focus of the Legislature's direction, there will not be a multi-party steering committee or formally convened stakeholder advisory group for the study. The consultant team has established several ongoing opportunities for any interested party to stay current with the study's progress and provide input along the way. Input can also be offered at any time on the study's [public comment page](#), and you can contact us at any time at [WAPlasticPkgStudy@cascadiaconsulting.com](mailto:WAPlasticPkgStudy@cascadiaconsulting.com) or (206) 312-6055.

Thank you for your ongoing interest in the study. Please stay healthy.

Washington Plastic Packaging Study Team

**Washington Plastic Packaging Study Team**

**Cascadia Consulting Group**

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## Task 3 Report Publication Update – May 20

EMAIL SENT TO LISTSERV APRIL 27, 2020

Greetings Plastic Packaging Study Stakeholders & Interested Parties,

We are writing to let you know that the first task-level sub-report in the Plastic Packaging Study is available for download on the [EZView page](#). This report compiles research on policy and technology options and innovations for managing plastic packaging waste and highlights several examples from programs and companies in Europe and North America.

While this task-level report is considered final, we have developed a survey to gather feedback on the options identified in the report and encourage suggestions for additional strategies to manage plastic packaging. The full report, executive summary, and a link to the survey are all available on the [EZView page](#). The survey will close at midnight on Monday, June 15 (note that the survey site will be down for maintenance on Saturday, May 23 from 9 am to 5 pm PDT). Survey responses and public comments will be considered in the development of final recommendations to the Legislature for reducing plastic packaging in the waste stream.

We will soon be publishing the next task-level sub-report on recycled content use and demand in Washington and will send another email when that report is available for download. We will also be updating the [EZView page](#) with a project timeline and an FAQ document addressing common questions we have received about the study. We will update these documents regularly so please keep an eye on the [EZView page](#) for the latest information.

We encourage you to review this report and share via the survey your thoughts about the best options for Washington to manage plastic packaging waste. Input can also be offered on the study's [public comment page](#), and you can contact us at any time at [WAPlasticPkgStudy@cascadiaconsulting.com](mailto:WAPlasticPkgStudy@cascadiaconsulting.com) or (206) 312-6055.

Thank you for your ongoing interest in the study.

Best,

Washington Plastic Packaging Study Team

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## Task 2 Report Publication Update – June 4

EMAIL SENT TO LISTSERV JUNE 3, 2020

Greetings Plastic Packaging Study Stakeholders & Interested Parties,

We have several updates to share regarding the Plastic Packaging Study:

1. The Task 2 report [\*Recycled Content Use in Washington: Assessing Demand, Barriers, and Opportunities\*](#) is now available. This report summarizes research on plastic manufacturers in Washington and their use of recycled content, as well as barriers and opportunities for expanding use of post-consumer resin (PCR) in products and packaging.
2. **We need your input: Please complete [this survey](#)** to share your thoughts on potential options for managing and reducing plastic packaging in the waste stream. The survey includes options identified in the Task 3 report [\*Successful Plastic Packaging Management Programs and Innovations\*](#). The [full report](#), [executive summary](#), and a [link to the survey](#) are also all available on the [EZView page](#). The **survey will close at midnight on Monday, June 15**. Survey responses and public comments will be considered in the development of final recommendations to the Legislature.
3. Our next task-level report (Task 1) will address plastic packaging material quantities, flows, and disposal in Washington. Work is currently underway, and we will send another email when that report is available for download. Please continue to keep an eye on the EZView page for the latest information.

We encourage you to review both Task 2 and 3 reports and share your thoughts via the survey about the best options for Washington to manage plastic packaging waste. You can also offer input on the study's [public comment page](#), and you can contact us at any time at [WAPlasticPkgStudy@cascadiaconsulting.com](mailto:WAPlasticPkgStudy@cascadiaconsulting.com) or (206) 312-6055.

Thank you for your ongoing interest in the study.

Best,

Washington Plastic Packaging Study Team

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## Study Update – June 24

EMAIL SENT TO LISTSERV JUNE 24, 2020

Greetings Plastic Packaging Study Stakeholders & Interested Parties,

We are writing with a brief update on the timeline for the Plastic Packaging Study. The next task-level report (Task 1) will address plastic packaging material quantities, flows, and disposal in Washington. Work is currently underway, and we will send another email when that report is available for download.

We will be submitting the Study's draft recommendations to the Department of Ecology by **Friday, August 14** and final recommendations by **Monday, September 14**. You will receive another email notification once the draft recommendations have been submitted to Ecology. Stakeholders will then have an opportunity to review and provide targeted input on the draft recommendations between **August 17 and 26**. This input will be transmitted to Ecology along with other stakeholder input received throughout the course of the Study. We will also continue to accept public comments via the Study's [public comment page](#) through **September 4**.

These dates are reflected in the [project timeline](#) available on the [EZView page](#). Please continue to keep an eye on the [EZView page](#) for the latest information. You can also contact us at [WAPlasticPkgStudy@cascadiaconsulting.com](mailto:WAPlasticPkgStudy@cascadiaconsulting.com) or (206) 312-6055.

Thank you for your ongoing interest in the Study.

Best,

Washington Plastic Packaging Study Team

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**Cascadia Consulting Group**

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## Task 1 Report Publication Update – August 6

EMAIL SENT TO LISTSERV AUGUST 6, 2020

Greetings Plastic Packaging Study Stakeholders and Interested Parties,

The next task-level sub-report (Task 1) in the Washington State Plastic Packaging Study is available for download [here](#) and posted on the [EZView page](#). This report includes research and analysis on plastic packaging material quantities, flows, and disposal in Washington State, as well as current programs and costs for managing plastic packaging. While this task-level report is considered final, we encourage you to review and provide comments through the Study's [public comment page](#).

We are also drafting recommendations for managing plastic packaging waste using findings from all task-level reports and stakeholder input. Draft recommendations will be posted to the [EZView page](#) by the end of the day on **August 14** and we will send a notification email to the [listserv](#). Below are key dates to provide feedback.

- Stakeholders will be able to provide specific input on the recommendations using a feedback form until **COB on August 26**.
- We will also continue to accept general public comments via the Study's [public comment page](#) through **September 4**.
- We will submit final recommendations to Ecology on **September 14**.

These dates and the overall Plastic Packaging Study process are reflected in the [project timeline](#) available on the [EZView page](#). Please continue to monitor the [EZView page](#) for the latest information and documents. You can also contact us at [WAPlasticPkgStudy@cascadiaconsulting.com](mailto:WAPlasticPkgStudy@cascadiaconsulting.com) or (206) 312-6055.

Thank you for your ongoing interest in the Study.

Best,

Washington Plastic Packaging Study Team

**Washington Plastic Packaging Study Team**

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## Draft Recommendations Publication Update – August 14

EMAIL SENT TO LISTSERV AUGUST 14, 2020

*\*\*\*This email is being sent to stakeholders twice. The first email contains the feedback form directly attached to the email, but to minimize the risk of message rejection or quarantine, this second email only contains links to access the feedback form via the EZView page. Both emails and feedback forms contain the same information.*

Greetings Plastic Packaging Study Stakeholders and Interested Parties,

The draft recommendations for managing plastic packaging waste in Washington are **now available for download [here](#)** and posted on the [EZView page](#). We have developed these recommendations using findings from all task-level reports and stakeholder input received so far. **We invite stakeholders to provide specific feedback on recommendations by August 26 using the attached form** (also available for download [here](#) and posted on the [EZView page](#)).

The consultant team will accept and review all feedback on the draft recommendations received by **11:59 pm PT on Wednesday, August 26** and use it to refine and finalize recommendations. We will also continue to accept general public comments via the Study's [public comment page](#) through **September 4**. These public comments, and all other input received, will become part of the public record and be included in the task-level report summarizing the stakeholder consultation process. However, any comments or forms received after August 26 on the draft recommendations may not be specifically considered by the consultant team as they finalize recommendations. The final recommendations and the report summarizing the stakeholder consultation process will be submitted to Ecology on September 14.

These dates and the overall Plastic Packaging Study process are reflected in the [project timeline](#) available on the [EZView page](#). You can also contact us at [WAPlasticPkgStudy@cascadiaconsulting.com](mailto:WAPlasticPkgStudy@cascadiaconsulting.com) or (206) 312-6055.

Thank you for your continued interest in the Study.

Best,

Washington Plastic Packaging Study Team

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## Final Recommendations Publication Update – September 14

EMAIL SENT TO LISTSERV SEPTEMBER 14, 2020

Greetings Plastic Packaging Study Stakeholders and Interested Parties,

Thank you to all who submitted feedback and comments on the draft recommendations for managing plastic packaging waste in Washington. We have used this feedback to finalize our recommendations to Ecology, which are **available for download [here](#)** and posted on the [EZView page](#). Ecology will now use these recommendations to submit their report to the Legislature in response to Chapter [70A.520](#) RCW).

We have also developed a report summarizing the Study's stakeholder consultation process and will publish it to the [EZView page](#) once it has been accepted by Ecology in the next few weeks. This report appendices will include all input received through the recommendations feedback form and public comments, as well as responses from the survey conducted in May and June regarding policy and technology options for managing plastic packaging waste.

Thank you for your engagement in the Study.

Best,

Washington Plastic Packaging Study Team

**Washington Plastic Packaging Study Team**

**Cascadia Consulting Group**

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## Task 4 Report Publication Update – September 29

EMAIL SENT TO LISTSERV SEPTEMBER 29, 2020

Greetings Plastic Packaging Study Stakeholders and Interested Parties,

The final task-level report in the Plastic Packaging Study is **available for download here** and posted on the [EZView page](#). This report summarizes the stakeholder consultation process, including all communications to stakeholders, stakeholder comments, and other input received throughout the Study.

Moving forward, any communication regarding the Study should be directed to Alli Kingfisher at the Department of Ecology. You can reach Alli at [Alli.Kingfisher@ecy.wa.gov](mailto:Alli.Kingfisher@ecy.wa.gov) or (509) 960-1290.

We sincerely appreciate the opportunity to work on this important issue in our state and thank you for your interest, input, and engagement throughout the Study.

Best,

Washington Plastic Packaging Study Team

**Washington Plastic Packaging Study Team**

**Cascadia Consulting Group**

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# Appendix D. Policy & Technology Options for Managing Plastic Packaging Survey Summary

Cascadia engaged solid waste system and packaging stakeholders through a web-based survey conducted May 20-June 15, 2020.<sup>3</sup> The Department of Ecology sent invitation emails to the Plastic Packaging Study listserv, local jurisdiction recycling coordinators, Recycling Development Center listserv, solid waste directors, environmental health directors, and moderate risk waste coordinators, members of the Solid Waste Advisory Committee (SWAC); and Ecology Solid Waste Management staff members. In addition, the Washington State Recycling Association (WSRA) included a notice of the survey in its email newsletter. The Association of Washington Cities also distributed the survey to its members.

The survey asked respondents for their input on potential policy and technology options for managing plastic packaging in the waste stream in Washington. The technology and policy options were identified in the task-level report [Successful Plastic Packaging Management Programs and Innovations](#) and are listed in Table 4 below. Details about each option and examples from around the world can be found in the report.

**Table 4 List of Policy and Technology Options**

Policy Options	Technology Options
Material/disposal bans	Expanded mechanical recycling for additional resin types
Fees, taxes, charges, and levies	Polymer-to-monomer chemical recycling
Extended producer responsibility (EPR)	Polymer-to-fuel chemical recycling
Deposit return system (DRS) for beverage containers	
Minimum recycled content requirements	
Reusables programs	
Multifaceted measures	

<sup>3</sup> Upon request, Cascadia reopened the survey to allow for one survey response to be updated. The last survey response was received July 22.

Overall, 75 respondents<sup>4</sup> participated in the survey. Cascadia included demographic questions to assess the range of solid waste system stakeholders that participated. A summary of survey results is provided below. The survey instrument is included in Appendix E. Policy & Technology Options for Managing Plastic Packaging Survey Instrument, and the verbatim summary responses exported from the online survey software platform are provided in Appendix F. Policy and Technology Options Survey Raw Responses.

## Respondent Demographics

Respondents were asked to provide information about what sector they represented, their organization and title, and which geography best represented where they worked.

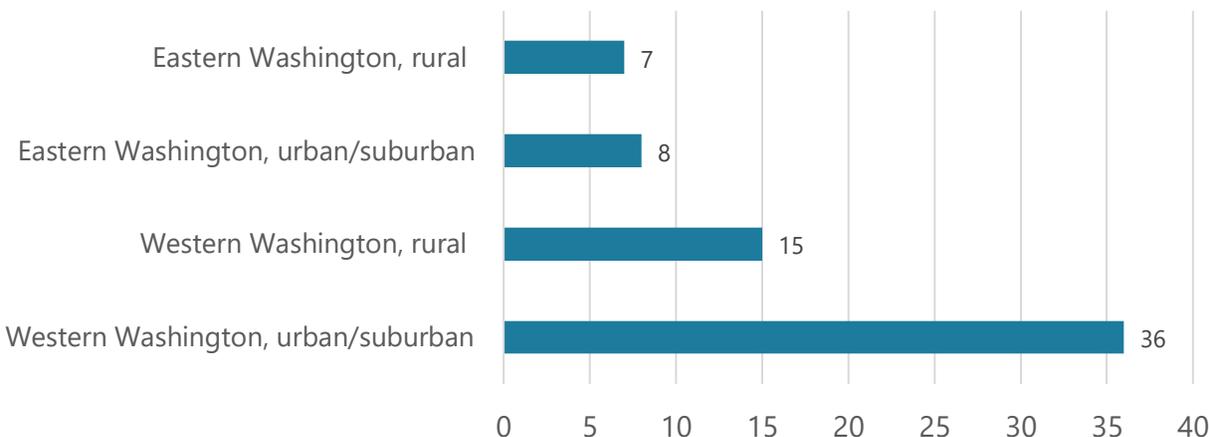
Respondents represented various organizations, geographies, and sector groups. A full list of respondent organizations for those who provided them are listed in Appendix D-1. Detailed Demographics. The total number of responses sum to more than the total number of respondents because respondents were invited to select all options that applied to them.

Figure 13 and Figure 14 below shows the geographic distribution of survey respondents within Washington as well as outside Washington with additional urban/suburban and rural area designations. Nearly half the respondents (36 respondents) said they worked (or lived, for members of the public) in an urban/suburban area of Western Washington while 15 respondents worked or lived in a rural area of Western Washington. Eight respondents reported that they worked in an urban/suburban area of Eastern Washington, and seven said they worked in rural Eastern Washington. Approximately a third said that their work spanned the country. Respondents who selected "Other" indicated that they worked in all areas of the state, out of state, or internationally. In total, 73 respondents replied (two respondents skipped this question), some of whom selected multiple areas.

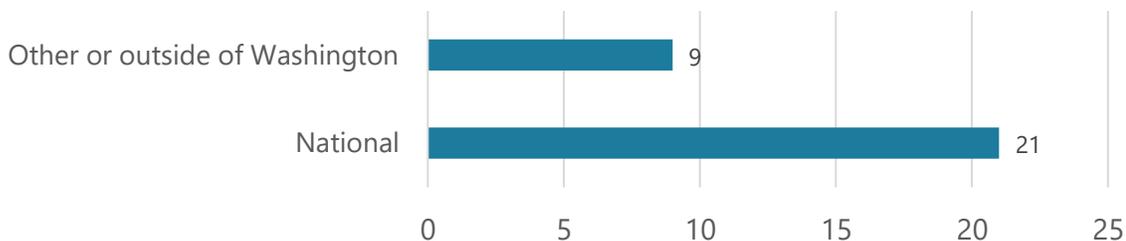
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<sup>4</sup> This total excludes the respondents that only answered demographic questions and left all questions relating to the policy and technology options blank.

**Figure 13 Survey Respondents' Area of Work in Washington by Geography and Population Density**



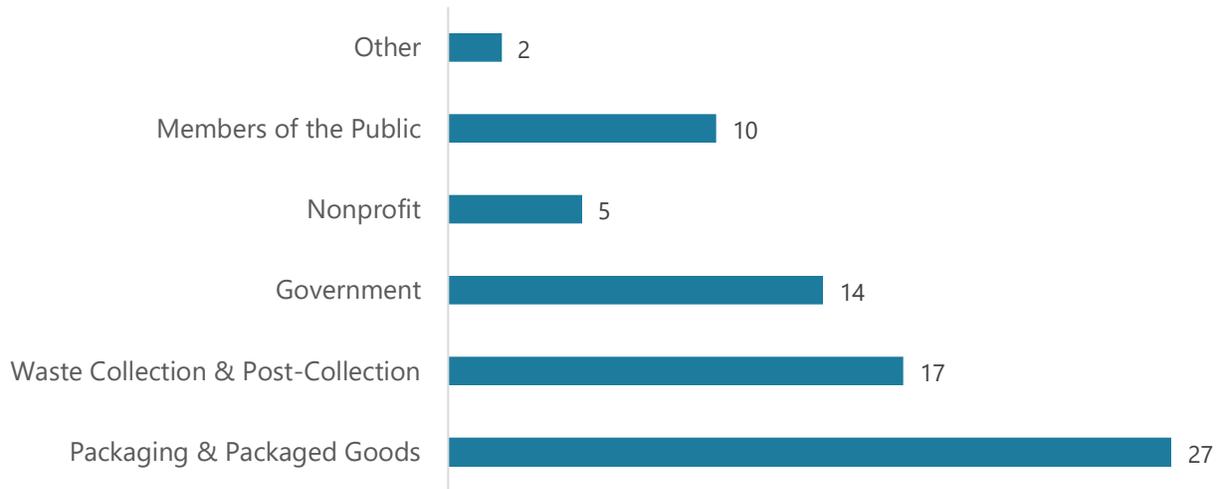
**Figure 14 Survey Respondents' Area of Work by Geography Outside Washington**



Survey respondent sectors are shown in Figure 15. Twenty-seven respondents reported that they worked for the **packaging and packaged goods producer sector** (including trade associations representing packaging or packaged goods producers), and 17 respondents worked in the **waste collection and post-collection service provider sector** (including trade associations representing waste collection and post-collection service providers). The third largest participant group was from the **government** sector (14 respondents). Five respondents represented the **nonprofit** sector. Respondents who selected “Other” described themselves as members of academia or a solid waste advisory committee. Remaining respondents identified, or were categorized<sup>5</sup>, as **members of the public** (10 respondents).

<sup>5</sup> Some respondents selected multiple sector groupings or selected “Other.” Whenever possible, we recategorized these respondents into a sector based on the organizations they represented or their explanations in the “Other” question.

**Figure 15 Sectors Represented by Respondents**



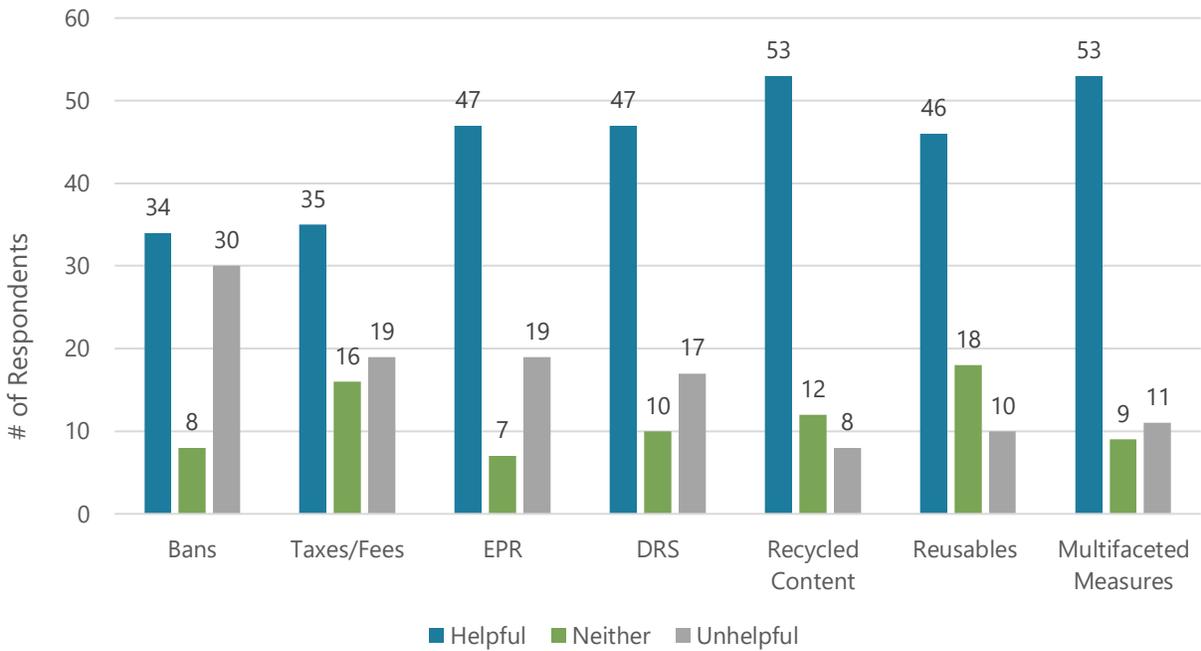
## Respondent Evaluation of Policy and Technology Options

The survey pointed respondents to the Task 3 report [Successful Plastic Packaging Management Programs and Innovations](#), and provided a summary of each option preceding the survey questions. Respondents were then asked to evaluate how helpful they thought each of the seven policy and three technology options (see Table 4) would be in reducing plastic packaging in the waste stream.

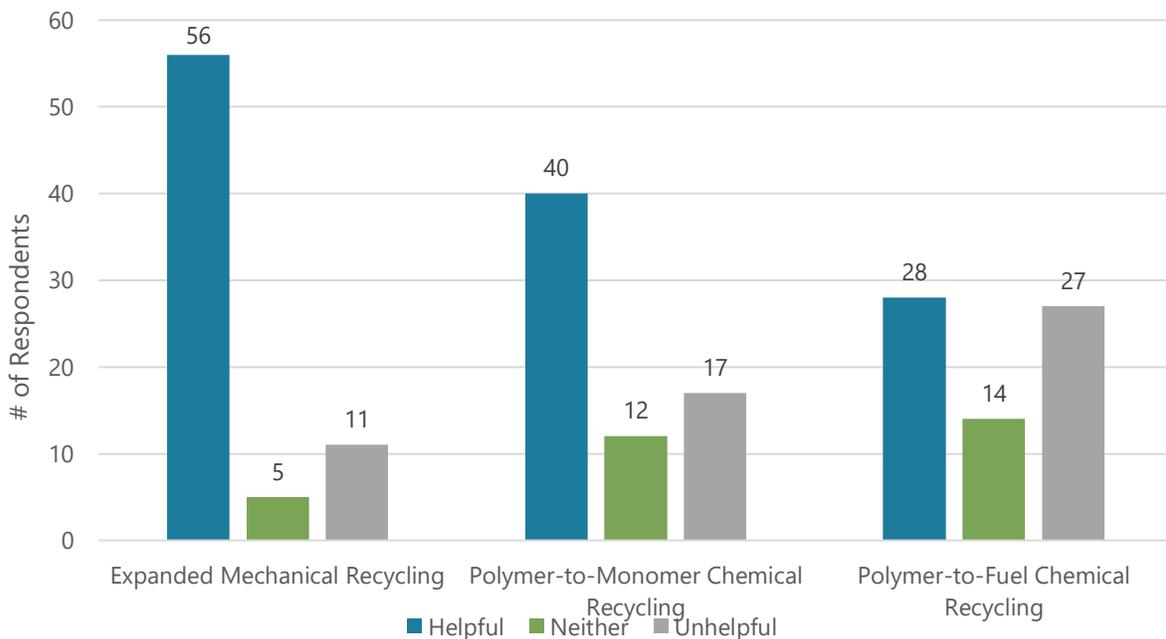
### Respondent Ratings of Each Option

Figure 16 and Figure 17 below illustrate respondents’ ratings of the helpfulness of each policy and technology option. These figures provide the number of respondents rather than the percentage since not all survey respondents rated every option. On average, 97 percent of survey participants responded to each option-rating question.

**Figure 16 Overall Ratings of Policy Options**



**Figure 17 Overall Ratings of Technology Options**



After rating policy and technology options, respondents were asked the following open-ended questions about each option:

## Plastic Packaging Management Study Stakeholder Consultation Process

- What do you like most about this policy or technology option? (*if rated option as “somewhat helpful” or “very helpful”*)
- Do you have any concerns about this policy or technology option? Do you have any suggestions for how these concerns could be addressed? (*all ratings*)
- Are there any elements of this option that you think could be helpful for managing plastic packaging waste? (*if rated option as “somewhat unhelpful,” “very unhelpful,” or “neither helpful or unhelpful”*)

All respondents were also asked:

- Are there any options that you think would work particularly well in combination with other options?
- Are there any options not listed that you think are important to consider?

A summary of open-ended survey responses for each option is provided in the following sections. The survey instrument is included in Appendix E. Policy & Technology Options for Managing Plastic Packaging Survey Instrument. Full, verbatim responses are included in Appendix F. Policy and Technology Options Survey Raw Responses.

### Opinion Summaries for Policy Options

Overall, in terms of policy options, respondents favored **multifaceted measures** (such as the European Union’s Single-Use Plastics Directive) and **minimum recycled content requirements** most, though extended producer responsibility (EPR), a deposit return system (DRS) for beverage containers, and reusables programs were also popular options. Several respondents noted that most policies as standalone options were not comprehensive enough and would not be able to fully address the issue of plastic packaging waste and meet the goals stated in the law.

Common areas of support for policies by sector included the following:

- Packaging and packaged goods producers tended to favor EPR, minimum recycled content requirements, and multifaceted measures.
- Waste collection and post-collection service providers tended to favor minimum recycled content requirements and reusables programs.
- Government respondents expressed support for all policy options, but unanimously favored EPR and DRS programs, and also expressed high support for multifaceted measures.

## Plastic Packaging Management Study Stakeholder Consultation Process

Across policy options, the most commonly stated **benefits** were:

- Potential to address upstream issues and advance circularity
- Provision of incentives for people or producers to change behavior
- Revenue to fund future waste and recycling system improvements
- Potential for market development and supporting a circular economy

The most commonly cited **concerns** were:

- The need for lifecycle analyses to inform policies to ensure environmental benefit
- Economic burdens to various sectors and stakeholders (consumers, producers, waste service providers, etc.)
- Implementation challenges to design, fund, administer, and enforce new policies
- Potential for unintended and inequitable consequences (e.g., social inequity, environmental impacts, sanitation and health concerns, illegal dumping, etc.)
- Harmful human and environmental impacts from substitute products or materials if policy directly or indirectly shifted away from plastic use
- Availability or suitability of alternative materials, either as a substitute for plastic, or in the case of minimum recycled content requirements, of recycled content resin
- Inability of some policy options to address waste generation and instead serve only as downstream solutions

In terms of technology options, **expanded mechanical recycling** was the most preferred option, although many respondents questioned whether this would distract from addressing the upstream issue of reducing plastic packaging generation. Generally, respondents from the waste collection and post-collection service sector had a less favorable view of all the technology options presented compared to respondents from other sectors.

## Opinion Summaries for Technology Options

Across all technology options, the most commonly stated **benefit** was the provision of new or expanded outlets to manage plastic packaging waste, especially resins that are difficult to recycle.

The most commonly shared **concerns** were:

- Failure to address or reduce plastic waste generation
- High costs
- Potential for greater environmental harm, especially for polymer-to-fuel chemical recycling

# Respondent Views on Policy and Technology Options

Open-ended question responses were categorized by general themes. The following section provides a more detailed summary of themes of benefits and concerns expressed about each policy and technology option. Full, verbatim responses are included in Appendix F. Policy and Technology Options Survey Raw Responses.

## Policy Options for Managing Plastic Packaging Waste

### Material/Disposal Bans

The most commonly cited **benefits** of material/disposal bans included the following:

- *Effectiveness* – material bans can end the use of a targeted material and force a shift to alternatives. Disposal bans can help increase material recovery.
- *Simplicity* – bans are simple to understand and easy to explain.
- *Consistency* – bans create the same expectations for all and a level playing field.

Several respondents had **concerns** about material and/or disposal bans, noting that they were a relatively blunt policy instrument with the potential for many negative unintended consequences. The most commonly cited concerns included the following:

- *Unintended consequences from substitution* – shifts to other materials may have unknown or negative environmental and human health impacts.
- *Enforcement* – bans can be difficult and costly to enforce, and sometimes go unenforced.
- *Lack of comprehensiveness* – focusing on specific materials can lead to market distortions.
- *Undesirable disposal alternatives* – a disposal ban could lead to more illegal dumping, contamination in other waste streams, or private burning or burying of waste.

### Fees, Taxes, Charges, and Levies

The most commonly stated **benefits** of fees, taxes, charges, and levies included the following:

- *Incentives* – fees, taxes, charges, and levies provide economic incentives for both consumers and producers to change behavior while still allowing choice.
- *Pricing externalities* – fees, taxes, charges, and levies can help internalize—and make explicit—the true costs of material use and waste management.

## Plastic Packaging Management Study Stakeholder Consultation Process

- *Revenue* – revenue generation from fees, taxes, charges, and levies could fund future investments in waste management and recycling.

Several respondents had **concerns** about fees, taxes, charges, and levies. The most commonly cited concerns included the following:

- *Cost burdens and regressiveness* – fees, taxes, charges, and levies will add costs to consumers, producers, and other stakeholders in the packaging supply chain. These could disproportionately impact low income and other vulnerable individuals and communities.
- *Enforcement* – fees, taxes, charges, and levies can be complicated and costly to administer and enforce.
- *Fund diversion* – revenue generated from fees, taxes, charges, and levies could be diverted to other, unrelated programs or uses.
- *Unpopularity* – fees, taxes, charges, and levies are generally unpopular.

### Extended Producer Responsibility (EPR)

The most commonly mentioned **benefits** of EPR included the following:

- *Accountability* – EPR appropriately shifts responsibility for managing plastic packaging from ratepayers and government to producers who put it on the market.
- *Incentives for circularity* – EPR can incentivize producers to redesign packaging for reduced environmental harm and circularity.
- *Effectiveness* – with careful design and strong performance requirements, EPR can help meet recycling and other goals.
- *Funding mechanism* – EPR provides a funding mechanism for investment in collection, sortation, and processing infrastructure, as well as education.

Several respondents in favor of an EPR system felt that such a system should include **all packaging materials**, not just plastic, to be comprehensive and avoid causing market distortions. Some other respondents were only in favor of EPR for certain targeted materials, such as hazardous chemicals or sharps.

The most commonly cited **concerns** about EPR included the following:

- *Design complexity and implementation challenges* – an EPR program could be very challenging to design and administer. Existing EPR programs in other jurisdictions have issues with transparency, oversight, and enforcement.
- *Higher prices* – under an EPR system, producers will likely pass additional costs on to consumers, raising prices of packaged goods and acting as a regressive tax.

## Plastic Packaging Management Study Stakeholder Consultation Process

- *Limited geographic scope* – a state-level EPR system would be inefficient and create patchwork legislation which is difficult and burdensome for producers.
- *Fund diversion* – revenue generated from producer fees could be diverted to other, unrelated programs or uses.

### Deposit Return System (DRS) for Beverage Containers

The most commonly stated **benefits** of a DRS for beverage containers included the following:

- *Increased material quantity and quality* – DRS has proven effective in increasing container recovery and provides cleaner material streams in jurisdictions where they exist.
- *Incentives* – a DRS provides direct economic incentives for material recovery, and gives cash-earning opportunities for vulnerable populations such as people experiencing homelessness.

The most commonly cited **concerns** about DRS included the following:

- *Program design complexity and implementation challenges* – depending on design, return system infrastructure and financing could be complex and costly.
- *Removal of valuable materials from the recycling stream* – removing beverage containers from the curbside recycling stream would remove much of the little remaining material of value and divert funding from the existing recycling system.
- *Limited material scope* – a DRS would only address beverage containers and not all plastic packaging.

### Minimum Recycled Content Requirements

The most commonly mentioned **benefits** of minimum recycled content requirements included the following:

- *Market development* – requiring use of post-consumer resin (PCR) will drive the market for recyclable material and can stimulate the economy.
- *Circularity* – requiring producers to use recycled content material will help “close the loop” and ensure that recycled material actually makes it into new products.

The most commonly stated **concerns** about minimum recycled content requirements included the following:

- *Lack of supply* – there is not currently an adequate supply of high quality PCR, especially food-grade resin, to meet high content requirements. The price premium for PCR could raise prices and be passed on to consumers.

- *Production and design adjustments* – plastic recycling and production technology and processes will need to be adjusted to accommodate recycled content, especially for resins which are not currently easily recycled. Requirements should be phased in and also allow flexibility and exemptions for packaging uses where recycled content might pose health and safety risks.
- *Verification and oversight* – requirements will need to develop a vetted definition for recycled content and include enforcement, data verification, and inspection to ensure compliance.

### Reusables Programs

The most commonly mentioned **benefits** of reusables programs included the following:

- *Prevention or reduction of waste generation* – reuse is higher than recycling in the waste management hierarchy and reduces waste generation.
- *Single-use attitude shift* – increasing awareness and use of reusables can help move away from a culture of disposability, and reduce reliance on single-use products, especially plastic.

The most commonly stated **concerns** about reusables programs included the following:

- *Sanitation and public health* – especially in the context of a pandemic, reusables programs would require robust sanitation protocols that do not rely on consumers to bring or sanitize containers. Public acceptance of reusable models will take time and could prove challenging.
- *Limited applicability/scalability* – reusable models are usually better suited to products that are not transported long distances, and may not be broadly accessible or scalable.
- *Lifecycle considerations* – reusables require a certain number of uses before they are demonstrated to be environmentally preferable to a disposable alternative. Lifecycle analyses should be conducted to ensure reusables would provide environmental benefits in a given context.

### Multifaceted Measures

Along with minimum recycled content requirements, multifaceted measures were the most popular policy approach. A majority (58 percent) of respondents who favored multifaceted measures—such as the E.U.’s Single-Use Plastic Directive—thought that such a policy with multiple elements was **more effective than standalone policies**. Respondents suggested various policy and technology combinations that would work well together; the combination of an **EPR and DRS program**, along with varying other policy and technology components, was the most common suggestion.

The most commonly discussed concerns about multifaceted measures centered around **costs** and **complexity**. A system with so many policy elements could be extremely complex to design, difficult to manage, and costly to administer. It could also be challenging to measure cause and effect of any one measure and thus adaptively manage. System development could take years, and program changes could be slow to take effect.

## Technology Options for Managing Plastic Packaging Waste

### Expanded Mechanical Recycling for Additional Resin Types

The most commonly cited **benefits** of expanded mechanical recycling for additional resin types included the following:

- *Most economically and environmentally beneficial method of recycling* – compared to chemical recycling, mechanical recycling is a relatively mature technology. It is much more widespread, and is currently more economically viable and environmentally beneficial than chemical recycling.
- *Reduced disposal and leakage* – the ability to capture and sort more resin types would prevent or reduce material being disposed or leaked into the environment.
- *More marketable materials* – better sortation could help create cleaner, more marketable recyclable material bales and reduce the amount of mixed plastics exported to places with lower environmental and human health standards for recycling.

The most commonly shared **concerns** about expanded mechanical recycling for additional resin types included the following:

- *Downstream focus* – recycling does not address waste generation or other upstream issues around plastic production and use, and also does not necessarily create demand for recycled content resin.
- *Technical limitations* – mechanical recycling cannot be used for all resin types, especially more complex resins, and for most materials cannot occur infinitely. PCR is also usually more difficult and costly to use than virgin resin.
- *Funding* – who will fund the investment in technological improvements necessary to expand and advance mechanical recycling, especially given recycled commodity market volatility?
- *Toxics* – some resins, such as PVC, or materials containing other toxics, should not be recycled into new products.

## Polymer-to-Monomer Chemical Recycling

The most commonly cited **benefits** of polymer-to-monomer chemical recycling included the following:

- *Outlet for difficult-to-recycle plastic* – as mechanical recycling cannot feasibly address all resin types, this technology could complement mechanical recycling, providing another management option and reducing the amount of plastic being disposed, leaked into the environment, or exported to other countries.
- *Promising technology for circularity* – since some technologies can return certain resins to near-virgin quality, this type of recycling could be truly circular and address some of the quality constraints for packaging formats (e.g., medical, food, etc.) where safety and hygiene are a concern.

The most commonly stated **concerns** about polymer-to-monomer chemical recycling included the following:

- *Downstream focus* – recycling does not address waste generation or other upstream issues around plastic production and use.
- *High costs* – this technology is very costly and not currently cost-competitive with low petroleum and natural gas prices.
- *Environmental impacts* – polymer-to-monomer chemical recycling is highly energy intensive and has other negative environmental impacts.
- *Limited applicability* – not all resins are appropriate for polymer-to-monomer chemical recycling.

## Polymer-to-Fuel Chemical Recycling

Of the technology options presented, polymer-to-fuel chemical recycling was the least favored, with 39 percent of respondents who rated the option saying it would be “somewhat unhelpful” or “very unhelpful.” Another 20 percent of respondents who rated the option thought it would be neither helpful nor unhelpful. Several respondents noted that the term “recycling” was a misnomer and the technology should be considered waste-to-energy and not fit within the definition of “recycling.”

The most commonly cited **benefits** of polymer-to-fuel chemical recycling included the following:

- *Option of last resort* – this technology could serve as an option of last resort for low quality, difficult-to-recycle resins.

## Plastic Packaging Management Study Stakeholder Consultation Process

- *New energy source* – polymer-to-fuel chemical recycling could turn waste into a useful product and help offset the need for new fossil fuels.
- *Bridge technology* – this technology could help establish infrastructure for broader chemical recycling and serve as an interim step to full polymer-to-polymer recycling.

The most commonly stated **concerns** about polymer-to-fuel chemical recycling included the following:

- *Downstream focus* – recycling does not address waste generation or other upstream issues around plastic production and use, and turning plastic into fuel to burn does not align with circularity goals.
- *High costs* – this technology is very costly and not currently cost-competitive with low fuel prices.
- *Environmental and climate change impacts* – polymer-to-fuel chemical recycling is highly energy intensive, has other negative environmental impacts, and is inconsistent with actions needed to combat climate change.

## Other Options to Consider

Respondents also suggested a wide range of other options to manage plastic packaging waste, including the following:

### Policy

- Enact a tax on virgin resin.
- Transition from commingled recycling back to dual or multiple streams of source-separated recyclable materials.
- Require compostable food serviceware.
- Establish “on demand” requirements for unnecessary packaging such as straws, utensils, and condiments.
- Develop a statewide accepted materials list linked with viable markets.
- Establish procurement policies to drive demand for products with recycled content.
- Remove the “chasing arrows” symbol from plastic to reduce consumer confusion.
- Develop technical standards and resin labeling requirements.
- Require producer reporting to gather data about plastic production and use.
- Establish statewide MRF performance standards and reporting requirements, including reporting requirements for downstream fate (volume of material, country, vendor, end product i.e., plastic flake, pellet, etc.) of recyclable material commodities.

### Technology

- Pursue polymer-to-oligomer recycling.

### Other

- Conduct consumer and resident education to reduce contamination and littering.
- Use established, widely dispersed networks, such as USPS, to establish a system of “deposit recovery boxes” in conjunction with depots or other hubs for material recovery.
- Pursue additional research into toxics and other additives to plastic to inform policy.

### Other Comments

Respondents offered some of the following additional comments for consideration, paraphrased or summarized below. A full list of all additional comments submitted is included in Appendix F. Policy and Technology Options Survey Raw Responses.

There is a lack of data that exists on quantities of materials recycled (actual recycling, not collection numbers) and end markets. This is vital data that needs to be reported—at least to the State—so that we can determine if our recycling efforts are making a positive environmental impact vs. a detrimental one.

- Review studies related to EPR and DRS from actual data and experiences in other states and provinces, which often demonstrate disappointing results for recycling, and increased costs to consumers and taxpayers.
- Lifecycle analyses should be an integral part of any legislation related to plastics, specifically flexible packaging. Without the lens of product protection and safety, these measures can yield unintended consequences that have long-term implications. These options should also leave open the opportunity to incorporate new, yet-to-be-discovered technologies.
- Expand consideration of options beyond what is currently available, including the entire supply chain and products as well as packaging. Consider technology that accepts food-contaminated packaging technology, new packaging materials, and new recycling, collection, sortation, and processing concepts.
- It is noticeable that there were no policy options explicitly around reduction. Bans and EPR might be seen as reduction, but we would support other policy initiatives to encourage reduction. We encourage policy developers to consider the nuances of their approach, while considering both opportunities and limitations for governments to encourage reduction and prevention.
- Washington State has invested in the development of a recycling market development corporation. The ability to attract, market, and grow demand for recyclables will be key to successfully meet the State’s goals to reduce plastic packaging and therefore should play a key role in any strategies to reduce plastic waste.
- There needs to be high quality and authentic community engagement and education with all of these options, especially to the most impacted communities.

## Appendix D-1. Detailed Demographics

**Table 5** Number of Survey Respondents by Sector

Sector	#
Packaging and Packaged Good Producers	27
Collection and Post-collection Service Providers	17
Government	14
Nonprofits	5
Members of the Public	10
Other	2
Did not provide answer	0
<b>TOTAL RESPONDENTS</b>	<b>75</b>

### Organizations

(62 answered, 6 unspecified, 7 skipped)<sup>6</sup>

#### Packaging and Packaged Goods Producer

- ABC Corp
- American Chemistry Council
- Ag-Chem Equipment Company, Inc.
- Ag Container Recycling Council
- AMERIPEN
- Coca-Cola (2 respondents)
- Consumer Brands Association
- Consumer Technology Association
- Dart Container Corporation
- EFS Plastics
- Ensystem
- EPS Industry Alliance
- Flexible Packaging Association
- FMI-EPS LLC
- International Bottled Water Association
- Kimberly-Clark Corporation
- North Pacific Paper Company LLC
- PepsiCo

<sup>6</sup> Organizations are included verbatim from respondents.

## Plastic Packaging Management Study Stakeholder Consultation Process

- Sealed Air Corporation (4 respondents)
- Washington Beverage Association
- Washington Retail Association

### Collection and Post-collection Service Providers

- Basin Disposal of Yakima
- Consolidated Disposal Service, Inc.
- Northwest Recycling, Inc.
- Nooksack Valley Disposal and Recycling
- Peninsula Sanitation Service
- Pioneer Recycling Services
- SSC, Inc.
- SUM Recycling
- Washington Refuse and Recycling Association (WRRRA) (4 respondents)<sup>7</sup>
- Waste Management

### Government

- City of Kirkland
- City of Olympia
- City of Redmond
- City of Shoreline
- City of Tacoma
- King County (3 respondents)
- Lincoln County
- Pierce County
- San Juan County
- Seattle Public Utilities
- Thurston County

### Nonprofits

- RE Sources
- Seattle Aquarium
- Zero Waste Washington

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<sup>7</sup> One respondent did not select a sector or provide an organization, but the respondent's answers mentioned WRRRA by name and represented the organization's stances.

## Universities

- Seattle University
- Washington State University

## Geography<sup>8</sup>

- Western WA (urban/suburban): 39
- Western WA (rural): 18
- Eastern WA (urban/suburban): 10
- Eastern WA (rural): 10
- National: 25
- Other: 10 (Statewide; Global; Charlotte, NC; Hazelton, PA; Northern Idaho)
- Did not disclose: 15

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<sup>8</sup> Respondents were invited to select all applicable geographies, so the sum of each geography equals more than the number of respondents.

# Appendix E. Policy & Technology Options for Managing Plastic Packaging Survey Instrument

We invite you to provide input on potential options to manage plastic packaging in Washington State. The options in this survey are those that the consultant team identified as potential tools to meet the goals of the Plastic Packaging Evaluation and Assessment law (Chapter [70A.520](#) RCW), which are that:

- 100 percent of packaging in all goods sold into Washington is recyclable, reusable, or compostable by 2025.
- Packaging in all goods contains at least 20 percent post-consumer recycled content by 2025.
- Plastic packaging is reduced when possible, optimizing the use to meet the need.

Part of the research for this study includes identifying policy and technology options from around the world to manage plastic packaging. The Task 3 report [Successful Plastic Packaging Management Programs and Innovations](#) and [executive summary](#) provide detailed information about each identified policy and technology option, its applicability to Washington, and examples of where it has been implemented around the world. Additional information about the plastic packaging study and links to download all study documents are available on the study's [EZView website](#), and the policy and technology options detailed in the report are summarized below.

This survey is part of the stakeholder consultation process for the study. The survey will close at midnight on **Monday, June 15**. Survey responses and public comments will be considered in the development of final recommendations to the Legislature for reducing plastic packaging in the waste stream. Note that all received input will become part of the public record, and may be posted on the web, or otherwise included in reports and output from the study.

The survey can be accessed at the following link:

<https://www.surveymonkey.com/r/WAPlasticPkgStudy>

## Policy Options

The consultant team identified the following policy options and 23 case studies from Europe and North America where policies have been implemented or are under development.

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- **Bans:** Bans can be approached in two ways: they can be used to completely phase out the use of a material for a specific application (**material bans**) or to encourage a different approach to managing a material at the end of its life (**disposal bans**). When implementing a ban, due diligence must be exercised to investigate unintended consequences. When something is banned, alternatives naturally arise and the impacts of these must be considered. Additional regulation may be required to ensure that alternatives do not have the same or greater detrimental impact. For a ban to be successful, there must also be suitable penalties in place to deter non-compliance and sufficient resources to ensure that the ban is enforced. Bans can also spur innovation in packaging and product development, recycling technology, and recycling infrastructure by setting a common market baseline and establishing the terms of competition. Case studies detailed in the full report include Nova Scotia's and Vermont's recyclables landfill ban, Vermont's plastic trifecta ban, and Seattle's plastic bag ban.
- **Fees/Charges/Taxes/Levies:** Fees, charges, taxes, and levies seek to correct market failures by accounting for environmental externalities not fully reflected in current pricing and market dynamics. By placing a per unit monetary charge on pollution emissions or waste, they are designed to create appropriate incentives to change behavior patterns without requiring it. Such instruments can lead to large reductions in undesirable behavior and are often equivalent to or more effective than bans at achieving the same environmental outcomes. They can also raise revenue for government agencies or other entities. They cannot, however, guarantee a specific amount of pollution or waste reduction and may impose a burden on those that are unable to comply. Poorly designed taxes can also lead to market distortions, or accentuate pre-existing distortions, with negative impacts on economic activity. Case studies detailed in the full report include California's Integrated Waste Management Fee, the United Kingdom's Landfill Tax, and Chicago's bag fees.
- **Extended Producer Responsibility (EPR):** EPR is a policy approach that transfers financial, and sometimes operational, responsibility for end-of-life management (and, in some cases, other impacts) of products and packaging to producers. When carefully crafted (through modulated fee structures and other fiscal and operational tools), EPR systems can also create incentives for producers to incorporate environmental considerations into the design of their products and packaging. EPR can be applied to many product categories, including packaging, and can be used to make producers responsible for the end-of-life care of their products, regardless of where the material ends up (e.g., litter, garbage, recycling, etc.). Case studies detailed in the full report include EPR programs from British Columbia, Ontario, France, Belgium, and Germany's EPR programs, though these programs cover packaging more broadly; none of these programs exclusively manage plastic packaging.
- **Deposit Return Systems (DRS):** DRS programs place a small monetary deposit on a product, paid by the consumer at the time of purchase, which is refunded when the consumer returns the product packaging to a designated return location for reuse

and/or recycling. In the U.S., there are 10 states that have implemented DRS programs for beverage containers. All of these programs, commonly known as ‘bottle bills’ in the U.S., have elements of EPR in that producers are required to financially contribute to the operation of the system. DRSs are an effective mechanism for maximizing the capture of beverage containers and can complement curbside recycling collection systems for other packaging material. Case studies detailed in the full report include Norway and Oregon’s DRS programs.

- **Minimum Recycled Content Requirements:** Recycled content policies seek to stimulate market demand and drive use of recycled feedstocks produced from materials collected for recycling. Minimum recycled content requirements, whether set in legislation or adopted in corporate policies, have been gaining traction across the globe to reduce the reliance on virgin material and create a more robust secondary materials market. Due to their flexibility in implementation and compatibility with current business practices, industry is relatively more supportive of recycled content laws, and many consumer packaged goods (CPG) companies have already announced recycled content commitments as part of their corporate sustainability goals. The case study detailed in the full report is California’s [AB 792](#), and is supplemented with examples of recycled content targets by some of the largest CPG companies.
- **Reusable/Durable Product Programs:** These policy measures seek to support overall reduction of resource consumption and waste generation through reuse of products that would otherwise be recycled or disposed. Reusable and durable product programs and businesses are beginning to proliferate, albeit at a local scale and mostly associated with food and beverage packaging. Businesses or other entities providing durable goods usually partner with local businesses to provide durable alternatives to single-use packaging like to go containers or coffee cups through a rent-return model. Case studies detailed in the full report include Freiburg, Germany’s FreiburgCup Program, Berkeley’s cup loan pilot and Single-Use Disposable Foodware Ordinance, Portland’s GO Box pilot, and California’s refillable sanitation law.
- **Multi-faceted Measures:** These policy measures seek to address multiple challenges posed by plastic packaging simultaneously, through a combination of tools described above. The case study detailed in the full report is the European Union’s Single-Use Plastics Directive, which uses a combination of interventions to tackle commonly littered items.

### Processing Technology Options

The report describes two types of processing technology options—mechanical recycling and chemical recycling—for managing plastic packaging. While not an exhaustive list, the report highlights 34 mechanical recyclers and 20 chemical recyclers in North America using innovative technologies to improve existing recycling processes or develop new ones. Note that we have included examples of both plastics-to-monomer and plastics-to-fuel chemical recycling facilities.

## Plastic Packaging Management Study Stakeholder Consultation Process

There is debate about whether plastics-to-fuel chemical recycling can be truly considered recycling rather than waste-to-energy, however we have included it for the sake of completeness and use the term “chemical recycling” as it is a commonly used and recognized term.

- **Mechanical Recycling:** the washing, grinding, extruding, and pelletizing of post-consumer plastic waste to be used as feedstock for production of new products and packaging. The report highlights 34 mechanical recyclers in North America using innovative technologies or with specialized capacity for handling plastic material, especially related to plastic packaging. It includes a selection of companies who have received letters of non-objection from the U.S. FDA and can produce resin for food-contact applications; companies that are vertically integrated and recycle as well as manufacture plastic products; and those with specialized sorting or processing technology that allows them to achieve higher material quality, such as color sorting ability.
- **Chemical Recycling:** There are two types of chemical recycling processes: one based on the depolymerization of plastic into its constituent monomers (**plastic-to-monomer**), and the other that first turns the plastic into a fuel and then further cracks the fuel into monomers (**plastic-to-fuel**). Only a few methods of chemical recycling types have yet reached commercial maturity.
  - Plastic-to-monomer chemical recycling is limited in terms of what polymers can be processed (PET and PS are the most common resins currently chemically recycled).
  - There is debate about whether plastic-to-fuel chemical recycling, where polyolefins (HDPE, LDPE, PP, PE) are converted into a fuel, can really be classified as recycling. The amount of energy to take the process past the pyrolysis stage through the steam cracking stage to convert the oil to a monomer also prevents this from being a financially viable option (without additional financial support or partnership) at this time.

The report highlights seven plastic-to-monomer and 13 plastic-to-fuel chemical recyclers. While chemical recycling technology is quickly evolving, it is far from being able to take a mixed plastics stream and create monomers that can be used to make new plastic products at a commercial scale.

### About You

1. Which of the following best describes you? (Select all that apply.)
  - a. I work for a packaging producer or manufacturer.
  - b. I work for a consumer goods company.
  - c. I work for a solid waste management service and collection company.

## Plastic Packaging Management Study Stakeholder Consultation Process

- d. I work for a recycling facility.
  - e. I work for a plastic reprocessor.
  - f. I work for a litter or marine debris clean-up program.
  - g. I work for local government.
  - h. I work for a state agency.
  - i. I work for the federal government.
  - j. I am a legislator.
  - k. I work for an industry trade association (e.g., 501c4 or 501c6)
  - l. I work for an advocacy organization (e.g., 501c3)
  - m. I am a member of the public.
  - n. Other (please explain)
2. What organization/agency do you represent?
  3. What is your title?
  4. Which of the following best describes where you work (or live for members of the public)? (Select all that apply.)
    - a. Western Washington, urban or suburban area
    - b. Western Washington, rural area
    - c. Eastern Washington, urban or suburban area
    - d. Eastern Washington, rural area
    - e. National
    - f. Other or outside of Washington (please explain)

### Policy and Technology Options

As part of this phase of research, the consultant team identified the following potential policy and technology options for reducing plastic packaging in the waste stream:

#### Policy Options

- Material/disposal bans
- Fees/charges/taxes/levies
- Extended producer responsibility
- Deposit return systems (also called container deposit systems or “bottle bills”)
- Minimum recycled content requirements
- Reusable/durable product programs
- Multi-faceted measures which use a combination of the above options (an example is the European Union’s Single-Use Plastic Directive)

## Plastic Packaging Management Study Stakeholder Consultation Process

### Technology Options

- Expanded mechanical recycling for additional resin types
  - Polymer-to-monomer chemical recycling
  - Polymer-to-fuel chemical recycling
5. How helpful do you think each **policy option** would be in reducing plastic packaging in the waste stream?

Policy Option	Very helpful	Somewhat helpful	Neither helpful or unhelpful	Somewhat unhelpful	Very unhelpful
<b>Material/disposal bans</b>					
<b>Fees/charges/taxes/levies</b>					
<b>Extended producer responsibility</b>					
<b>Deposit return system for containers</b>					
<b>Minimum recycled content requirements</b>					
<b>Reusables programs</b>					
<b>Multi-faceted measures</b>					

6. How helpful do you think each **technology option** would be in reducing plastic packaging in the waste stream?

Option	Very helpful	Somewhat helpful	Neither helpful or unhelpful	Somewhat unhelpful	Very unhelpful
<b>Expanded mechanical recycling for additional resin types</b>					
<b>Polymer-to-monomer chemical recycling</b>					
<b>Polymer-to-fuel chemical recycling</b>					

You said [options from matrix selected as **somewhat or very helpful**] would be very or somewhat helpful. For each of these selected options:

7. What do you like most about this option(s)?

## Plastic Packaging Management Study Stakeholder Consultation Process

8. Do you have any concerns about this option(s)? If so, please describe them.

You said [options from matrix selected as **somewhat or very unhelpful**] would be somewhat or very unhelpful. For each of these selected options:

9. What concerns do you have about this option(s)?
10. Do you have any suggestions for how these concerns could be addressed?
11. Are there any elements of this option(s) that you think could be helpful for managing plastic packaging waste? If so, please describe them.

You said [options from matrix selected as **neither helpful or unhelpful**] would be neither helpful nor unhelpful, or you did not rate the options. For each of these selected options:

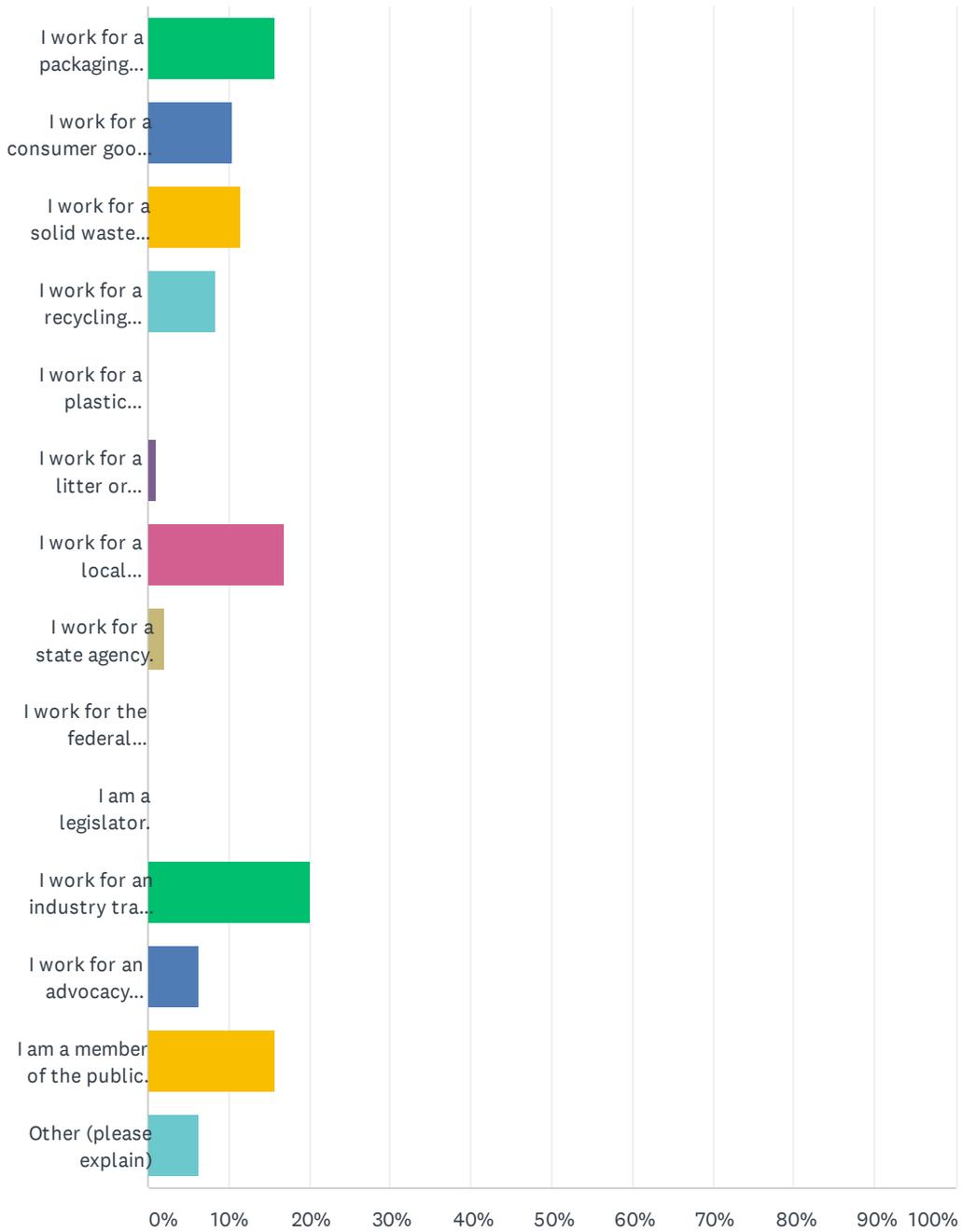
12. Are there any elements of this option(s) that you think could be helpful for managing plastic packaging waste? If so, please describe them.
13. Do you have any concerns about this option(s)? If so, please describe them.
14. Are there any options that you think would work particularly well in combination with other options? If so, please describe how you see them working together.
15. Are there any options not listed that you think are important to consider?
16. Do you have any other comments or suggestions for the consultant team to consider?

Thank you for taking the time to provide input to the study. If you have any questions, please contact [WAPlasticPkgStudy@cascadiaconsulting.com](mailto:WAPlasticPkgStudy@cascadiaconsulting.com). If you have not already done so, please sign up for the study [listserv](#) to receive notification of project updates and visit the study [EZView website](#) for more information.

# **Appendix F. Policy and Technology Options Survey Raw Responses**

### Q1 Which of the following best describes you? (Select all that apply.)

Answered: 95 Skipped: 1



## Appendix F. Policy & Technology Survey Responses

ANSWER CHOICES	RESPONSES	
I work for a packaging producer or manufacturer.	15.79%	15
I work for a consumer goods company.	10.53%	10
I work for a solid waste management service and collection company.	11.58%	11
I work for a recycling facility.	8.42%	8
I work for a plastic reprocessor.	0.00%	0
I work for a litter or marine debris clean-up program.	1.05%	1
I work for a local government.	16.84%	16
I work for a state agency.	2.11%	2
I work for the federal government.	0.00%	0
I am a legislator.	0.00%	0
I work for an industry trade association (e.g., 501c4 or 501c6)	20.00%	19
I work for an advocacy organization (e.g., 501c3)	6.32%	6
I am a member of the public.	15.79%	15
Other (please explain)	6.32%	6
Total Respondents: 95		

#	OTHER (PLEASE EXPLAIN)	DATE
1	Member of Pierce County SWAC	6/15/2020 9:48 PM
2	Retiree from Plastics industry, community recycling volunteer	6/15/2020 11:01 AM
3	Paper manufacturing	6/15/2020 7:50 AM
4	Ag Chemical distributor	6/12/2020 1:14 PM
5	I work in resource conservation for a university.	6/9/2020 3:11 PM
6	biopolymer manufacturer	6/4/2020 10:36 AM

## Q2 What organization/agency do you represent?

Answered: 67    Skipped: 29

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	EPS Industry Alliance	6/18/2020 7:29 AM
2	City of Redmond	6/16/2020 3:39 PM
3	Consolidated Disposal Service, Inc.	6/16/2020 1:36 PM
4	Coca-Cola North America	6/16/2020 11:51 AM
5	SUM Recycling	6/15/2020 9:51 PM
6	Zero Waste Washington	6/15/2020 9:36 PM
7	Washington Beverage Association	6/15/2020 6:44 PM
8	Garbage, Recycle and Compost	6/15/2020 6:39 PM
9	City of Shoreline	6/15/2020 5:43 PM
10	City of Tacoma Solid Waste Management	6/15/2020 5:40 PM
11	Kimberly-Clark Corporation	6/15/2020 5:28 PM
12	King County	6/15/2020 4:50 PM
13	Swire Coca-Cola, USA	6/15/2020 4:37 PM
14	International Bottled Water Association	6/15/2020 4:11 PM
15	PepsiCo	6/15/2020 4:04 PM
16	ACC	6/15/2020 3:04 PM
17	Consumer Brands Association	6/15/2020 2:08 PM
18	I do not formally represent any agency or organization	6/15/2020 1:54 PM
19	Sealed Air Corporation	6/15/2020 1:21 PM
20	Dart Container Corporation	6/15/2020 1:20 PM
21	Sealed Air Corporation	6/15/2020 1:16 PM
22	Sealed Air Corporation	6/15/2020 1:14 PM
23	Sealed Air Corporation	6/15/2020 1:13 PM
24	King County Solid Waste Division	6/15/2020 11:52 AM
25	Consumer Technology Association	6/15/2020 8:09 AM
26	AMERIPEN	6/15/2020 7:59 AM
27	North Pacific Paper Company LLC	6/15/2020 7:51 AM
28	Ensystem	6/15/2020 6:29 AM
29	Ag Container Recycling Council	6/15/2020 6:16 AM
30	Washington Department of Ecology	6/12/2020 4:32 PM
31	Revolution	6/12/2020 4:08 PM
32	Washington Retail Association	6/12/2020 2:39 PM
33	Waste Management	6/12/2020 2:37 PM
34	EFS Plastics	6/12/2020 1:49 PM
35	WRRRA	6/12/2020 1:32 PM
36	WRRRA	6/12/2020 1:27 PM
37	Ag Chem	6/12/2020 1:15 PM

## Appendix F. Policy & Technology Survey Responses

38	Association of Washington Business	6/12/2020 11:42 AM
39	Retail grocery	6/12/2020 11:06 AM
40	My comments are as a private citizen	6/12/2020 10:28 AM
41	Flexible Packaging Association	6/12/2020 9:13 AM
42	Seattle Public Utilities	6/11/2020 4:29 PM
43	Northwest Recycling, Inc.	6/11/2020 10:57 AM
44	Washington Refuse & Recycling Association	6/11/2020 10:12 AM
45	Peninsula Sanitation service	6/11/2020 9:08 AM
46	CPG company	6/10/2020 7:03 PM
47	BASIN DISPOSAL OF YAKIMA	6/10/2020 2:36 PM
48	Waste Management	6/10/2020 2:00 PM
49	Nooksack Valley Disposal and Recycling	6/10/2020 1:43 PM
50	Lincoln County	6/10/2020 12:56 PM
51	Seattle University	6/9/2020 3:12 PM
52	Pioneer Recycling Services	6/9/2020 12:39 PM
53	RE Sources	6/8/2020 5:10 PM
54	City of Kirkland Solid Waste	6/8/2020 2:56 PM
55	Hauler and Recycler	6/6/2020 4:00 PM
56	ABC Corp	6/5/2020 12:17 PM
57	Washington State University	6/5/2020 11:00 AM
58	Seattle Aquarium	6/5/2020 10:20 AM
59	San Juan County	6/4/2020 2:51 PM
60	SSC, Inc.	6/4/2020 2:44 PM
61	The Western Plastics Association	6/4/2020 10:37 AM
62	City of Olympia	6/4/2020 8:17 AM
63	Pierce County	6/1/2020 6:52 PM
64	King County	5/29/2020 10:45 AM
65	Thurston County	5/26/2020 9:08 AM
66	FMI-EPS llc	5/21/2020 4:24 PM
67	Myself	5/21/2020 2:26 PM

### Q3 What is your title?

Answered: 68    Skipped: 28

Policy & Technology Options for Managing Plastic Packaging Waste Survey  
 Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Advocacy & Regulatory Affairs	6/18/2020 7:29 AM
2	Solid Waste Programs Administrator	6/16/2020 3:39 PM
3	General Manager	6/16/2020 1:36 PM
4	Vice President, Sustainability, Coca-Cola North America	6/16/2020 11:51 AM
5	Change Facilitator	6/15/2020 9:51 PM
6	Executive Director	6/15/2020 9:36 PM
7	Executive Director	6/15/2020 6:44 PM
8	Operations Manager	6/15/2020 6:39 PM
9	Environmental Programs Specialist	6/15/2020 5:43 PM
10	Solid Waste Management Education and Outreach Team	6/15/2020 5:40 PM
11	Senior Director, Government Relations	6/15/2020 5:28 PM
12	Policy & Market Development Manager	6/15/2020 4:50 PM
13	Director, Sustainability, Swire Coca-Cola, USA	6/15/2020 4:37 PM
14	Director of Government Relations	6/15/2020 4:11 PM
15	Senior Manager, Environmental Policy	6/15/2020 4:04 PM
16	Senior Director	6/15/2020 3:04 PM
17	Senior Director, State Affairs	6/15/2020 2:08 PM
18	solid Waste advisory volutneer board member	6/15/2020 1:54 PM
19	Regional Director Sustainability	6/15/2020 1:21 PM
20	Regional Manager, Government Affairs	6/15/2020 1:20 PM
21	Vice President, Innovation and Sustainability	6/15/2020 1:16 PM
22	Executive Director Sustainability	6/15/2020 1:14 PM
23	Global Director, Sustainability	6/15/2020 1:13 PM
24	Program/Project Manager	6/15/2020 11:52 AM
25	Director, Environmental and Sustainability Policy	6/15/2020 8:09 AM
26	Executive Director	6/15/2020 7:59 AM
27	New Product Development	6/15/2020 7:51 AM
28	VP, Sustainability	6/15/2020 7:01 AM
29	V.P. Technical Services & Governmental Affairs	6/15/2020 6:29 AM
30	Executive Director	6/15/2020 6:16 AM
31	Environmental Specialist	6/12/2020 4:32 PM
32	VP, Sustainability	6/12/2020 4:08 PM
33	Senior VP of Policy and Government Affairs	6/12/2020 2:39 PM
34	Recycling Director	6/12/2020 2:37 PM
35	Purchasing	6/12/2020 1:49 PM
36	Associate Counsel	6/12/2020 1:32 PM
37	Associate Counsel	6/12/2020 1:27 PM

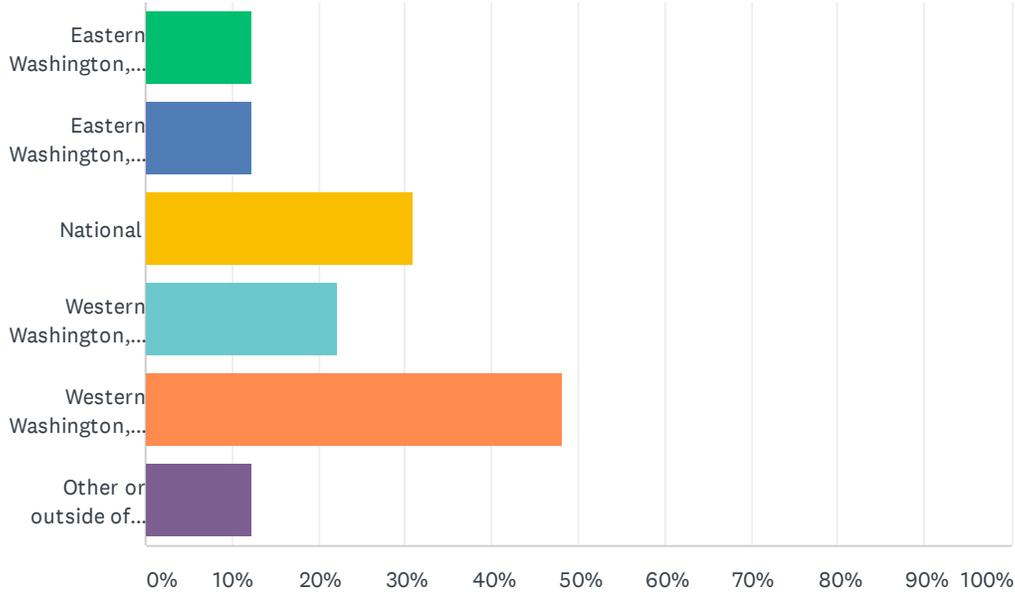
## Appendix F. Policy & Technology Survey Responses

38	Technical Product Manager	6/12/2020 1:15 PM
39	Government Affairs Director	6/12/2020 11:42 AM
40	Government relations/lobbyist	6/12/2020 11:06 AM
41	President & CEO	6/12/2020 9:13 AM
42	Strategic Advisor Waste Prevention and Product Stewardship	6/11/2020 4:29 PM
43	General Manager	6/11/2020 10:57 AM
44	Executive Director	6/11/2020 10:12 AM
45	President	6/11/2020 9:08 AM
46	Marketing manager	6/10/2020 7:03 PM
47	GENERAL MANAGER	6/10/2020 2:36 PM
48	Recycling Director	6/10/2020 2:00 PM
49	General Manager	6/10/2020 1:43 PM
50	Solid Waste Supervisor	6/10/2020 12:56 PM
51	Resource Conservation Manager	6/9/2020 3:12 PM
52	Owner CEO	6/9/2020 12:39 PM
53	Pollution Prevention Specialist	6/8/2020 5:10 PM
54	Solid Waste Programs Supervisor	6/8/2020 2:56 PM
55	owner	6/6/2020 4:00 PM
56	General Manager	6/5/2020 12:17 PM
57	Associate Research Professor	6/5/2020 11:00 AM
58	Ocean Policy Manager	6/5/2020 10:20 AM
59	Solid Waste Coordinator	6/4/2020 2:51 PM
60	Recycling Manager	6/4/2020 2:44 PM
61	Circular Economy Specialist	6/4/2020 10:38 AM
62	Executive Director	6/4/2020 10:37 AM
63	Senior Planner	6/4/2020 8:17 AM
64	Environmental Educator	6/1/2020 6:52 PM
65	Project Manager	5/29/2020 10:45 AM
66	Education and Outreach Specialist	5/26/2020 9:08 AM
67	Marketing and Sales Manager	5/21/2020 4:24 PM
68	N/A	5/21/2020 2:26 PM

**Q4 Which of the following best describes where you work (or live for members of the public)? (Select all that apply.)**

Answered: 81 Skipped: 15

Policy & Technology Options for Managing Plastic Packaging Waste Survey  
 Appendix F. Policy & Technology Survey Responses



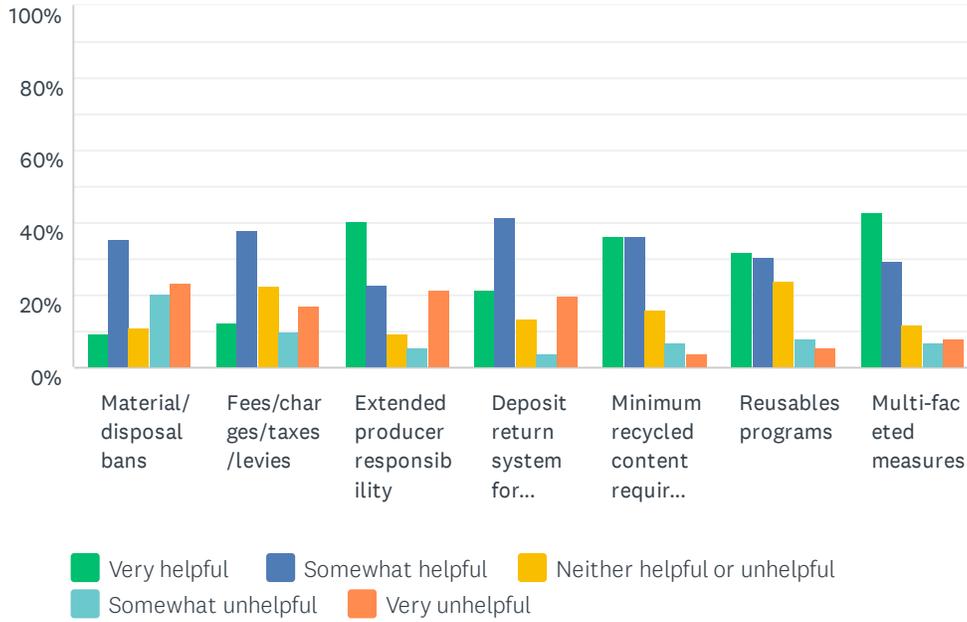
ANSWER CHOICES	RESPONSES
Eastern Washington, rural area	12.35% 10
Eastern Washington, urban or suburban area	12.35% 10
National	30.86% 25
Western Washington, rural area	22.22% 18
Western Washington, urban or suburban area	48.15% 39
Other or outside of Washington (please explain)	12.35% 10
Total Respondents: 81	

#	OTHER OR OUTSIDE OF WASHINGTON (PLEASE EXPLAIN)	DATE
1	Member manufacturers in 43 US States and 9 Canadian Provinces	6/18/2020 7:29 AM
2	Coca-Cola is a global company	6/16/2020 11:51 AM
3	statewide	6/15/2020 9:36 PM
4	Swire Coca-Cola, USA operate in all or parts of 13 western states.	6/15/2020 4:37 PM
5	Global packaging supplier	6/15/2020 1:16 PM
6	Charlotte, NC	6/15/2020 1:14 PM
7	Charlotte NC	6/15/2020 1:13 PM
8	Across US but recycling and producing on West Coast	6/12/2020 4:08 PM
9	Hazelton, Pennsylvania	6/12/2020 1:49 PM
10	North Idaho	5/21/2020 4:24 PM

Q5 How helpful do you think each policy option would be in reducing plastic packaging in the waste stream?

Answered: 75 Skipped: 21

Appendix F. Policy & Technology Survey Responses

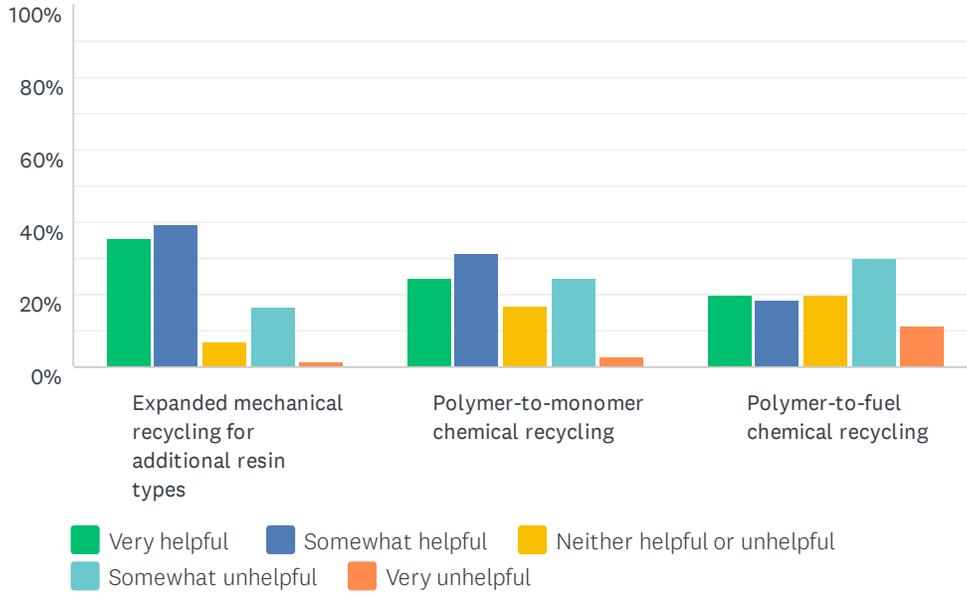


	VERY HELPFUL	SOMEWHAT HELPFUL	NEITHER HELPFUL OR UNHELPFUL	SOMEWHAT UNHELPFUL	VERY UNHELPFUL	TOTAL	WEIGHTED AVERAGE
Material/disposal bans	9.59% 7	35.62% 26	10.96% 8	20.55% 15	23.29% 17	73	2.88
Fees/charges/taxes/levies	12.68% 9	38.03% 27	22.54% 16	9.86% 7	16.90% 12	71	3.20
Extended producer responsibility	40.54% 30	22.97% 17	9.46% 7	5.41% 4	21.62% 16	74	3.55
Deposit return system for containers	21.33% 16	41.33% 31	13.33% 10	4.00% 3	20.00% 15	75	3.40
Minimum recycled content requirements	36.49% 27	36.49% 27	16.22% 12	6.76% 5	4.05% 3	74	3.95
Reusables programs	32.00% 24	30.67% 23	24.00% 18	8.00% 6	5.33% 4	75	3.76
Multi-faceted measures	43.24% 32	29.73% 22	12.16% 9	6.76% 5	8.11% 6	74	3.93

Q6 How helpful do you think each technology option would be in reducing plastic packaging in the waste stream?

Answered: 74 Skipped: 22

## Appendix F. Policy & Technology Survey Responses



	VERY HELPFUL	SOMEWHAT HELPFUL	NEITHER HELPFUL OR UNHELPFUL	SOMEWHAT UNHELPFUL	VERY UNHELPFUL	TOTAL	WEIGHTED AVERAGE
Expanded mechanical recycling for additional resin types	35.62% 26	39.73% 29	6.85% 5	16.44% 12	1.37% 1	73	3.92
Polymer-to-monomer chemical recycling	24.29% 17	31.43% 22	17.14% 12	24.29% 17	2.86% 2	70	3.50
Polymer-to-fuel chemical recycling	20.00% 14	18.57% 13	20.00% 14	30.00% 21	11.43% 8	70	3.06

### Q7 What do you like most about material/disposal bans?

Answered: 25 Skipped: 71

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Landfill bans on recyclable commodities can enhance collection opportunities for recyclables by encouraging beneficial consumer behavior and add incrementally to measures to attempt to keep recyclable material out of landfills.	6/16/2020 11:51 AM
2	It forces a rethinking of plastic uses	6/16/2020 2:53 AM
3	Holds producers responsible. No, you can't "unknowingly" pollute and continue to suffocate our planet in plastic.	6/15/2020 11:05 PM
4	I want to clarify. and I hope you can make this a bit clearer in your summary report. I favor bans - like plastic bag bans, but not necessarily disposal bans, because it would depend on the specific item category (in particular, don't want a disposal ban that leads to incineration). But overall, I favor waste reduction in the first place - i.e., item is banned from use (or sale/distribution)	6/15/2020 9:50 PM
5	Used in conjunction with enhanced collection access for a standard set of recyclables, bans can reinforce desired consumer, municipal, and hauler behavior and thereby provide environmental benefits	6/15/2020 6:47 PM
6	Can be effective for particular materials, ie plastic bags/cutlery, and a good way to force a shift to alternative materials.	6/15/2020 6:05 PM
7	It is a relatively simple way to remove some of the worst sources of contamination. It is one policy, but it can reach a large amount of materials.	6/15/2020 5:42 PM
8	Good to get rid of the worst types of materials / hard to recycle, e.g. PVC, EPS, etc.	6/15/2020 5:02 PM
9	: Bans can help mitigate the challenges associated with the improper disposal of certain products.	6/15/2020 4:14 PM
10	These bans can be used to get rid of the worst types of packaging materials and those hard to recycle such as PVC, EPS, etc.	6/15/2020 12:18 PM
11	Banning recyclable materials from landfill can boost recovery rates and such an approach should be supported if there is strategy to redirect the material toward recovery.	6/15/2020 8:16 AM
12	Eliminate complex packaging designs using multi resins and not recyclable	6/15/2020 8:12 AM
13	- Helpful if used with mandatory participation in recycling programs. - Encourages people to look for approved alternatives.	6/15/2020 6:46 AM
14	There are a lot of plastics that are out there that recyclers can do nothing with. For instance, polystyrene and PVC may be recyclable at a post industrial level, but there are almost no takers from a post consumer level. Such plastics should be banned from being designed from a consumer goods standpoint.	6/12/2020 2:52 PM
15	Simple to understand. Easy to explain to consumers	6/12/2020 11:09 AM
16	For materials to become manufacturing feedstock we have to stay committed to processing them in good and bad economic times. Disposal bans help eliminate relying on disposal when commodity markets fall. Landfilling is cheaper than recycling so we have to create barriers for the easy out.	6/12/2020 10:57 AM
17	There are some materials that are simply so problematic that they should be banned. Other policy instruments to nudge them away from use are a waste of time and resources. Statewide bans will minimize the enforcement needed, as can be understood through the experience with the City of Seattle ban on EPS foodservice packaging. While banned for use by food service businesses, retailers, wholesalers and suppliers could still sell within the city, for use by others and for their "out of Seattle food service business customers" who come into the city to buy supplies, and are from areas without the same ban in place. This has created a lot of confusion that a statewide EPS ban would solve. It would be applied at all levels (use, retail sale, wholesale sale, internet sale, etc.) It would apply to all users all parts of the state – so non-compliance would be obvious and easily dealt with. EPS food service products (trays, clamshells, cups, plates, etc.) should be banned, along with PVC packaging of all types. Bans implemented state-wide, with retailers, distributors, suppliers AND manufacturers responsible for compliance, will ensure implementation costs will be minimized by using upstream points of intervention. Consideration should be given for addressing unnecessary plastic items or	6/11/2020 4:39 PM

## Appendix F. Policy & Technology Survey Responses

wasteful distribution methods. For instance, a state-wide ban on plastic straws might be warranted, with a requirement that food service businesses that provide any form of straw must keep bendable compostable or non-compostable straws on hand for customers who have physical or medical need for such straws. While a ban on plastic straws would have a minor impact on the overall flow of plastics in the disposal stream, it would be significant for addressing litter. Addressing this at the state-level (though not preempting local authority) would make streamline attaining compliance, create new social norms, and address other issues stated above. Not exactly a ban, but related, would be state-wide requirement that single-use straws, utensils, and condiment packets be provided only on request to customers by food service businesses. This would eliminate a significant portion of these items that are unneeded and unwanted by customers – eliminating the need to further manage that portion in the waste and litter stream. The Vermont Plastics Trifecta Ban is a good example of this blended approach.

18	Banning is clear and easy to implement, one of if not the best option.	6/9/2020 3:17 PM
19	Bans recognize some materials are short-sited. We are in the middle of a delicate marine ecosystem (archipelago) and plastic and plastic products are a steady stream into our islands. Our waterways are becoming a toxic soup of plastic.	6/4/2020 2:59 PM
20	When alternatives are available and economical, a level playing field of a ban can be helpful.	6/4/2020 2:51 PM
21	Disposal bans target in individual item. I think they are highly successful when implemented, e.g., banning single-use disposable shopping bags. In my city, they've all but been eliminated and anecdotally, I stopped seeing them as litter almost everywhere I went.	6/4/2020 9:23 AM
22	It gets hard/impossible to recycle materials out of the stream, reduces overall waste and shifts materials to those that our waste streams can handle.	5/29/2020 11:28 AM
23	1	5/26/2020 11:31 AM
24	relatively simple	5/26/2020 10:22 AM
25	I don't necessarily like it. However, if a material is banned, it will have a strong direct impact on reducing plastic waste. Hence why I tagged it as very helpful at reducing waste.	5/26/2020 9:20 AM

### Q8 Do you have any concerns about material/disposal bans?

Answered: 25 Skipped: 71

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Landfill bans ultimately would be more effective if not limited to specific elements in the waste-stream and instead include all recyclable packaging materials. Also need to explore how effectively such bans can be enforced.	6/16/2020 11:51 AM
2	The transition period may be rough and see kickback, but I want #AWorldWorthLivingIn, fresh air and clean water.	6/15/2020 11:05 PM
3	Strongly opposed to incineration (which could be an outcome, unless prohibited)	6/15/2020 9:50 PM
4	Bans alone will not achieve desired outcomes; should be multi-material, not plastics only	6/15/2020 6:47 PM
5	Its not enough and leaves the packaging producers off the hook for any management of the quality, impact, and recyclability of the packaging they produce. It does not incentivize better packaging.	6/15/2020 6:05 PM
6	Some bans can have inequitable consequences during implementation. For instance, plastic bag bans are difficult for people who ride buses. Equity needs to be included in the design of these policies and not as an add-on later. It can also have unintended and unpredictable consequences on the market that would result in products being used that are worse for the environment than what was banned. It's a bit of a blunt instrument.	6/15/2020 5:42 PM
7	The alternative materials / disposal methods could be worse	6/15/2020 5:02 PM
8	By themselves, bans will not address the challenge of plastic pollution or address the deficiencies in recycling systems.	6/15/2020 4:14 PM
9	To be effective, bans require enforcement which is costly. Bans can only be implemented in Washington state and thus the materials can still be purchased elsewhere and disposed/littered in WA. Alternatives to the banned materials need to be carefully considered as to avoid negative unintended consequences.	6/15/2020 12:18 PM
10	Recyclable material landfill bans can be difficult to enforce – close review of strategies and resourcing for education and enforcement is warranted. Banning use of certain materials in products is highly questionable in terms of environmental benefits and should be weighed heavily against the entire life cycle of the materials/products and potential unintended consequences.	6/15/2020 8:16 AM
11	- Only can be successful if there are legitimate recycling alternatives to disposal. - Must include bans on private burning or burying of waste.	6/15/2020 6:46 AM
12	The commodity should only be banned if there are absolutely no market for the recycled product.	6/12/2020 2:52 PM
13	Can be too broad and then limit the availability of products to consumers. Difficult to find effective alternatives.	6/12/2020 11:09 AM
14	I believe they should be specific such as listing the materials covered not a blanket ban on recyclables.	6/12/2020 10:57 AM
15	Statewide ban proposals should be not preempt local authority, so long as the local policies are at least as strict as the state ban. Proposed bans may get watered down by passage, harming existing or possible future local legislation. They can also be applied to a smaller list of products/ materials than local policies yet preempt local authority on a wider range of products. That is a concern.	6/11/2020 4:39 PM
16	No, use it!	6/9/2020 3:17 PM
17	Yes what is replacing the banned product.	6/6/2020 4:13 PM
18	They must avoid unintended consequences by noting what the required alternatives are (e.g., post-consumer recycled content paper bags instead of thin plastic bags).	6/5/2020 10:27 AM
19	That there is accompanying outreach to encourage and show consumers how to find alternative products and packaging.	6/4/2020 2:59 PM
20	Noted above.	6/4/2020 2:51 PM
21	The time it takes to implement must be considered. Can't say it's a concern other than each specific item must undergo its own legislative process. That takes time and money, and may	6/4/2020 9:23 AM

## Appendix F. Policy & Technology Survey Responses

not pass. I gave them somewhat effective rating because they only address a singular item and may not pass. But when they do pass and get implemented, it seems they are highly effective.

22	When certain materials are banned, it could shift production to other resin types that are just as, if not more, harmful to the environment. Bans should be thoughtful in how they deal with potential substitute materials.	5/29/2020 11:28 AM
23	1	5/26/2020 11:31 AM
24	reduces momentum to solve trash problem more comprehensively	5/26/2020 10:22 AM
25	The material that is substituted might have a worse environmental impact than the material being banned.	5/26/2020 9:20 AM

### Q9 What do you like most about fees/charges/taxes/levies?

Answered: 26 Skipped: 70

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Full cost of all consumer activity should be reflected in the cost of goods. These fees will eventually be paid by the consumers who use the products. This is more appropriate than spreading these costs among all citizens .	6/18/2020 9:50 AM
2	It forces those who use plastic to take responsibility for it	6/16/2020 2:53 AM
3	Norway's system is clear. I think their model is successful and possible to implement in the US. However, it needs to include more than just beverage containers and certain containers need redesign to become better feedstock.	6/15/2020 11:05 PM
4	Depending on the item category, fees can be effective for reducing generation and waste.	6/15/2020 9:50 PM
5	Same as material bans, these can be a good way to create a wholesale shift away from certain materials. Generates revenue that can be used for management and mitigation of the waste created.	6/15/2020 6:05 PM
6	Economic incentives, if high enough, are market-based instruments that have been proven to be effective	6/15/2020 5:02 PM
7	Producer loads and fees would 1. help diminish the cost advantage of virgin resins. 2. Push the cost of plastic use to the end user stimulating more responsible consumption. 3. fund enhanced education and subsidization of expanded and enhanced recycle recovery systems.	6/15/2020 2:36 PM
8	Potentially imposing a fee on certain products can be exclusively dedicated towards building up the necessary recovery infrastructure to capture those particular materials. Thus, product manufacturers and other producers can potentially finance the proper recycling system to ensure their respective materials are recovered properly at the end of life.	6/15/2020 1:38 PM
9	Bring consumer attention to the problem and possibly changes behavior. Fees can be used to fund necessary infrastructure for hard to currently recycle materials	6/15/2020 1:36 PM
10	These provide market based economic incentives to drive desired behavior. .	6/15/2020 12:18 PM
11	Substantial research indicates that the financial incentives to recycle, rather than throwing away waste that ends up in landfills, results in improved material recycling rates and quality. A good example of this is pay-as-you-throw (PAYT) in which households are charged according to the amount of refuse they throw away. Effective PAYT systems require some level of enforcement to ensure residents do not avoid waste disposal costs by throwing trash in the recycling bin. Fixed or variable Advance Recycling/Disposal Fees (AR/DFs) paid by consumers at the time a product is purchased can provide a steady funding source to pay for recovery programs of specific products. Such a system was implemented successfully, for a time, in Florida in the late 1990's and early 2000's. Funds generated by landfill taxes/surcharges (tipping fees) can go to cover state costs for administering solid waste management regulatory activities/programs and to fund local government recycling initiatives.	6/15/2020 8:16 AM
12	This provides an incentive for producers to reduce and rethink the amount and types of materials used as well as disposal options and overall environmental impacts.	6/12/2020 4:43 PM
13	Can be used to drive behavior and raise funds for education.	6/12/2020 2:53 PM
14	That fees can be used to pay the MRF in separating the plastics and so they are not so hard hit when pricing hits rock bottom, used to help the processor invest in recycling technologies and the product manufacturer in investing on their end to ensure post consumer recycled resin can be used again. Fees should be combined with introducing demand for post consumer resin.	6/12/2020 2:52 PM
15	• WRRRA Response: WRRRA supports the existing state and locally regulated solid waste system. At the local level, programs are typically funded by a combination of these approaches, including tip fees and local taxes. This system has proven resilient and achieved excellent results for Washington. These tools can, and in fact already have, been used to improve recycling in Washington	6/12/2020 1:36 PM
16	Recycling is not free and should be a shared responsibility throughout the supply chain.	6/12/2020 10:57 AM
17	Provides multiple opportunities for shared responsibility for managing end of life of packaging.	6/12/2020 9:23 AM
18	more likely to reflect the true cost of "cheap" plastics	6/11/2020 6:02 PM

## Appendix F. Policy & Technology Survey Responses

19	People still have the option to generate waste so long as they pay its real cost	6/9/2020 3:17 PM
20	incentives people	6/5/2020 11:17 AM
21	The "avoidance principal," because small "taxes" change human behavior in order to avoid them.	6/4/2020 2:59 PM
22	People are more aware of what they pay than of what they save by certain behaviors.	6/4/2020 2:51 PM
23	It can fund innovation and much needed infrastructure.	5/29/2020 11:28 AM
24	1	5/26/2020 11:31 AM
25	reminds people that there are costs to using more	5/26/2020 10:22 AM
26	It encourages innovation.	5/26/2020 9:20 AM

### Q10 Do you have any concerns about fees/charges/taxes/levies?

Answered: 25 Skipped: 71

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	That fees will be determined based upon emotion and not science and the expense of furthering burdening gov't agencies which will eventually fall to taxpayers.	6/18/2020 9:50 AM
2	There would likely be some difficulty in setting up an equitable system .	6/16/2020 2:53 AM
3	It would be best if DRS was nation-wide as to not have freeloaders from other states getting deposits back that were not paid by them.	6/15/2020 11:05 PM
4	Strongly opposed to putting the burden on consumers. The burden should be on producers.	6/15/2020 9:50 PM
5	Does not solve the upstream problem of responsibility among producers for the quality, impact and recyclability of the packaging they produce.	6/15/2020 6:05 PM
6	Administrative costs of monitoring, verifying and enforcing. If they are not high enough, they may not be effective. May burden low-income groups disproportionately.	6/15/2020 5:02 PM
7	No, not if presented as a program to collect and allocate the "true costs" of the targeted packaging/ manufacturing material. I believe the concept can be expressed as" cradle to grave material costing". The challenge is that we are only one state and producer fees work most efficiently at a national level.	6/15/2020 2:36 PM
8	Fees could be imposed at the consumer level which would be very burdensome especially during an uncertain economic time right now. Moreover, taxes are politically challenging in an economic downturn. Fees on producers can sometimes receive little assurance the revenue will be spent on the recycling system to ensure proper recovery.	6/15/2020 1:38 PM
9	They should not be used to fund general government nor to reimburse costs of existing weak recycling system	6/15/2020 1:36 PM
10	They need to be carefully designed and implemented to avoid unintended consequences	6/15/2020 12:18 PM
11	Attention must be paid to how such would be collected, directed and distributed to ensure intended goals are met. Furthermore, consumers may view these fees as an additional tax and be therefore be slow to embrace them – particularly during economic downturns. This may be alleviated to some extent by imposing such fees on more hard-to-recycle materials, as consumers understand better the rationale for subsidizing their recovery. Current low landfill taxes/surcharges (tipping fees) rates in the U.S. are unlikely to have any meaningful impact on increasing packaging disposal and recycling habits and rates.	6/15/2020 8:16 AM
12	No	6/12/2020 4:43 PM
13	Must be applied to recycling program not general fund.	6/12/2020 2:53 PM
14	Many packaging producers have opted to switch to light weight packaging (namely LDPE, PET thermoforms and polystyrene crystal) to minimize the impact of the fee in EPR models in Ontario. This has to be taken into consideration when fees are set.	6/12/2020 2:52 PM
15	The report raises questions about the feasibility of imposing fees on specific materials or their disposal. WRRRA shares concerns about material specific fees at the point of disposal as they are difficult to track, administer, and enforce.	6/12/2020 1:36 PM
16	They shouldn't be imposed on just one part of the supply chain like a resin tax or a recycled resin price support. It needs to be shared throughout the supply chain	6/12/2020 10:57 AM
17	New fees/charges/taxes/levies must go towards advance recycling infrastructure and not status quo	6/12/2020 9:23 AM
18	only concern is that something like this has not happened sooner	6/11/2020 6:02 PM
19	Saying that pollution is fine so long as you're rich enough to pay for it...	6/9/2020 3:17 PM
20	Negative public response	6/5/2020 11:17 AM
21	That there is an exception for SNAP and similar low-income people.	6/4/2020 2:59 PM
22	Don't hide them.	6/4/2020 2:51 PM
23	The fee structure needs to be applied in an equitable manner and needs to ensure that costs do not get passed onto vulnerable communities.	5/29/2020 11:28 AM

24	1	5/26/2020 11:31 AM
25	like bans, they avoid a more comprehensive approach, which I think would be ultimately more effective	5/26/2020 10:22 AM

Q11 What do you like most about extended producer responsibility?

Answered: 40 Skipped: 56

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Prevents costs of consumption to be externalized to all citizens. Costs should be paid by the consumers who consume.	6/18/2020 9:50 AM
2	EPR is a policy option with which the State has more experience, and there are also many examples to learn from.	6/16/2020 3:41 PM
3	A well-designed EPR system for Washington state that captures all packaging, provides convenient opportunities for consumers to dispose of products and incentivizes packaging innovation—including the use of post-consumer recycled content—can be an effective system for reducing the use of virgin plastic and other virgin materials, reducing litter in the environment, and establishing a model for the development or improvement of other systems.	6/16/2020 11:51 AM
4	I like it a lot because producers should take responsibility for creating and using plastics. I have great hopes for something like this being implemented nationally. It would be great if we could lead the way.	6/16/2020 2:53 AM
5	It makes the polluter and profiteer responsible. The producer is best suited and motivated to design a packaging that is reusable and end-use recyclable when they incur the environmental cost.	6/15/2020 11:05 PM
6	Shifts both cost and motivation (to reduce waste and fix recycling) to producer from ratepayers.	6/15/2020 9:50 PM
7	can provide an integrated framework to efficiently increase packaging recovery but only under certain conditions. Properly designed EPR can generate strong, multi-material environmental outcomes in an efficient and accountable manner, provide convenient service to consumers, create a financially sustainable model, and offer producers access to recovered material for closed loop recycling.	6/15/2020 6:47 PM
8	EPR run by producers and Packaging Recovery Organization is vital to building the critical mass for cost-effective collection and recycling of select packaging materials.	6/15/2020 6:40 PM
9	This is the most comprehensive solution that actually addresses the source of the problem in a substantial way. Even a model where the producers are only partial fiscally responsible would provide more adequate funding for an ethical, efficient recycling system. It also incentivizes more responsible, practical, and ethical packaging design, and promotes creation of more local, circular economies. In my mind, there is no other truly responsible option.	6/15/2020 6:05 PM
10	This is the option we most strongly favored. Often, the responsibility for waste is put on the individual purchaser or the municipality and this approach would bring the producers of the materials into the conversation on those who are financially responsible for waste management. Manufacturers need to take responsibility for the entire cost of their products and packaging, and this can cause incentive for producers to adapt to create more eco-friendly packaging materials in order to be more competitive. EPR is also a more responsive approach where things can be changed and adapted. It is a less blunt instrument than fees and bans.	6/15/2020 5:42 PM
11	by far the best option, if designed and implemented right	6/15/2020 5:02 PM
12	A well-designed EPR system for Washington State that captures all packaging, provides convenient opportunities for consumers to dispose of products and incentivizes packaging innovation—including the use of post-consumer recycled content—can be an effective system for reducing the use of virgin plastic and other virgin materials, and reducing litter in the environment.	6/15/2020 4:40 PM
13	EPR systems are simple, cost effective, and apply to all materials in the waste stream. If structured correctly, EPR can generate high recycling rates for all materials and have strong environmental outcomes. EPR also promotes consumer education and makes disposal easier. Governance structures in EPR systems are more streamlined and friendly to both governments and industry.	6/15/2020 4:14 PM
14	When managed properly, EPR can be used to fund needed recycling infrastructure, collection and consumer education.	6/15/2020 4:13 PM
15	It should not dis incent the manufactures as they will pass the price on to the consumer.	6/15/2020 2:36 PM
16	If managed properly, EPR fees can help fund the necessary infrastructure needed to support the circular economy for packaging.	6/15/2020 1:40 PM

## Appendix F. Policy & Technology Survey Responses

17	It allows for shared responsibility in the entire eco-system of disposal and recovery. Moreover, it may enable producers to further incentive the proper disposal and recovery of their products since there will be a heightened accountability.	6/15/2020 1:38 PM
18	It could help pay for needed collection, sortation and processing infrastructure.	6/15/2020 1:36 PM
19	One mechanism to help fund the development of necessary infrastructure to expand range of materials collected and recycled.	6/15/2020 1:33 PM
20	EPR – involves the producer in the full life cycle of the product and has the following benefits: <ul style="list-style-type: none"> <li>• EPR provides a sustainable funding source and can stimulate infrastructure investments and innovation. Washington’s recycling system needs investments and rapid deployment of technologies and equipment to meet the stringent quality standards demanded by the remaining end markets for recyclable materials. Washington’s local reprocessing infrastructure for mixed paper and plastics is insufficient to make up for the lack of Asian markets. Efforts in Canada and parts of Europe—catalyzed and required by EPR policies—have resulted in major investments in new technologies and new end markets that have led to increased recycling rates, reduced greenhouse gas emissions, and local “green” jobs.</li> <li>• EPR policies that mandate producers achieve statewide residential recycling rate requirements for each specific material type (such as paper and cardboard, rigid plastic, film plastic, glass, aluminum, and steel) put the legal obligation on producers. Producers are incentivized to ensure that materials are sorted into marketable commodities that have reliable end markets and transfers the risk associated with commodity price fluctuations to the PRO/producers.</li> <li>• EPR provides the resources and coordination needed to modernize Washington’s recycling programs. External factors including the closure of Asian markets, competition for responsible domestic end markets is intense, contamination rates are up, and difficult-to-recycle materials entering the recycling stream, have increased recycling costs for local governments/rate payers, causing programs to reduce the materials they accept or dismantle programs entirely. EPR creates a recycling “system” that will harmonize the recyclable materials list, achieve economies of scale and improve system efficiencies.</li> <li>• EPR engages consumer product companies that have set voluntary circular economy goals. Many major brand owners have publicly announced the adoption of circular economy goals, including goals to increase recycling and the use of recycled content in packaging. An EPR policy that includes recycled content standards provides a clear path forward to meeting these goals.</li> <li>• EPR is a proven, successful recycling policy approach. EPR for packaging and printed paper already exists or is under development in most European countries and Canadian provinces and is being rapidly adopted by nations around the globe. Washington can learn from and improve upon these policies and customize them for Washington state.</li> </ul>	6/15/2020 12:18 PM
21	Requiring packaging producers to be financially responsible for their products at the end of life may be one viable tool within the toolbox to manage packaging waste, but ideally not alone and only if the underlying policies are reliable, efficient and effective, and equitable and fair. Without these core principles, EPR systems for packaging will not be successful. To effectively increase packaging recovery through EPR, objectives should leverage best practices and innovation to fill gaps and strengthen (not compete with or duplicate) current recycling processes and programs. But EPR programs must be directly linked to actual improvements to the recycling system in a state, not just support or reimburse the existing system. Recycling funding via EPR should be designed to create system change, not subsidize or transfer the costs of the system from one entity to another. Identifying system gaps, investing in innovation and end market development, and providing for infrastructure and education investment to help reduce contamination are all system needs that could be supported through an EPR program. Investing in these areas should improve the quality of post-consumer material, thereby increasing demand and improving economics and system efficiencies.	6/15/2020 8:16 AM
22	This requires the manufacturers to take responsibility for the amount and types of materials used in their products as well as playing a role in how they will be disposed, instead of pushing all the impacts onto consumers and governments.	6/12/2020 4:43 PM
23	You made it you deal with it at the end of life.	6/12/2020 4:08 PM
24	That the producer has to take into the account the end of life of the product before they sell it.	6/12/2020 2:52 PM
25	It is a financing mechanism that will help improve our recycling infrastructure	6/12/2020 10:57 AM
26	Opportunity for sustainable funding for advanced recycling infrastructure	6/12/2020 9:23 AM

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27	properly places the burden of responsibility plastic packaging waste where it belongs rather than on the consumer	6/11/2020 6:02 PM
28	EPR is the most effective approach if well designed and with strong performance requirements. It will create a connected, cohesive system that can accomplish much that the many individual local programs across the state cannot. It will provide the financing and system improvements to (in part): <ul style="list-style-type: none"> <li>• Create an expanded and universal list of materials, including plastics, collected throughout all parts of Washington.</li> <li>• Ensure that all parts of Washington have equitable access to plastics collection services, processing and markets and related outreach and educational efforts.</li> <li>• Increase the amount and types of plastics responsibly recycled, including by requiring strong plastic resin specific recycling rates and meeting strong performance standards.</li> <li>• Provide financing for system improvements, MRF upgrades, new technologies, improved existing facilities and new facilities, etc.</li> <li>• Provide a portion of operating costs for market development.</li> <li>• Provide consistent state-wide messaging, including that that is culturally and linguistically relevant and accurate.</li> <li>• Incorporate post-consumer recycled content requirements.</li> <li>• Drive upstream design changes that improve plastic recycling.</li> <li>• Address plastic litter issues and plastic contamination of the organics processing stream. It puts the responsibility for system costs and improvements on the producers of plastic packaging, rather than on local governments, state government, and rate and taxpayers.</li> </ul>	6/11/2020 4:39 PM
29	It takes some of the burden off local governments by offering some financial or collection help like the E-waste and the soon to be paint programs.	6/10/2020 1:04 PM
30	Works in other developed nations and requires producers to take responsibility for their products. One of the best options.	6/9/2020 3:17 PM
31	puts the root of the problem back into the recycling equation	6/5/2020 11:17 AM
32	Most comprehensive approach. Can reduce costs to government and consumers and increase access to recycling. Incentivizes changes at the start of the supply chain to make products more environmentally-friendly and more easily recycled. Helps to reduce contamination and develop markets for difficult-to-recycle materials.	6/5/2020 10:27 AM
33	It starts with accountability in manufacturing and even if the costs are passed to consumers, it remains an option to participate in the monetary value of an item packaged in, say, plastic versus glass. Plus, not everyone can afford to recycle. In my area, if you don't drive, you don't recycle because we have no curbside pickup (except trash).	6/4/2020 10:18 PM
34	It assigns a more honest and upfront price on products and packaging later incur costs to our society.	6/4/2020 2:59 PM
35	EPR puts the onus back on the producer and imbeds the overall cost across the entire targeted packaging stream. As I understand, EPR has a potential to drive change in packaging design.	6/4/2020 9:23 AM
36	It encourages producers to design out waste, and ensure their products and packaging will flow properly through the waste system. It requires the social cost of disposal to be incorporated into the design/cost of product.	5/29/2020 11:28 AM
37	It takes the burden off consumers and make producers responsible for their products and the waste they generate	5/26/2020 11:31 AM
38	I like that this shifts costs to the creators of the materials and provides a clear incentive to consider material life cycle	5/26/2020 10:22 AM
39	It increases innovation.	5/26/2020 9:20 AM
40	It all starts with producers and they can influence product users more than they claim they can.	5/22/2020 9:33 AM

### Q12 Do you have any concerns about extended producer responsibility?

Answered: 40    Skipped: 56

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Non-scientific determination of costs and fees.	6/18/2020 9:50 AM
2	EPR is a complex policy tool that needs careful implementation.	6/16/2020 3:41 PM
3	EPR systems are most effective and maximize cost efficiencies when they encompass all packaging, not just plastics, and ensure that revenue generated stays within the system to improve operations.	6/16/2020 11:51 AM
4	Again, implementing a program like that would be difficult, especially as it involves multiple producers from around the world. How to we get the Chinese to join in?	6/16/2020 2:53 AM
5	My concern is that it will not go far enough. There are always alternatives, the market is ripening to all-things-enviro-friendly, we just need to run with it, be consistent, be firm, and have an open idea on what zero-waste could ultimately look like.	6/15/2020 11:05 PM
6	Needs to be carefully structured including transparency, oversight, etc. also needs to drive to less generation/waste.	6/15/2020 9:50 PM
7	program should be multi-material and not plastics only; funding should be provided to cover the net cost of recycling only (not disposal); program must be centrally managed by a non-profit entity; transparent principles used to measure costs and set fees; clearly defined role for government; fees cover program costs and government oversight – no additional revenue to government.	6/15/2020 6:47 PM
8	Broad EPR mandates may divert resources from progress on select material types/groups for which infrastructure and market development are most badly needed.	6/15/2020 6:40 PM
9	Producers will protest. It will be a long process to figure out the particularities of implementation. Will take some trial and error. Also some concerns about implementing on a state level vs national scale needed.	6/15/2020 6:05 PM
10	We fear that the manufacturer would unfairly pass the cost on to the consumer. This would act as a regressive tax and impact those who can least afford it the most. Some estimates referenced in the report of EPR costs per customer seems that it might not be that expensive though.	6/15/2020 5:42 PM
11	If not designed and implemented correctly	6/15/2020 5:02 PM
12	EPR systems are most effective and maximize cost efficiencies when they encompass all packaging, not just plastics, and ensure the revenue generated stays within the system to improve operations.	6/15/2020 4:40 PM
13	Without meaningful industry involvement in the governance structure, ideally through a Producer Responsibility Organization, EPR systems can be managed poorly and performance will suffer. All materials should be included. EPR systems work best if materials sorting happens on the front end.	6/15/2020 4:14 PM
14	Properly managing the fees will be challenging. There is a risk to this system in that the funds will be used for programs other than recycling or reducing the environmental impact of packaging. Costs will be passed on to consumers.	6/15/2020 4:13 PM
15	Yes, there is an expensive component to this model as the manufactures forced to embrace this model need to be protected from competitive industry that are not paying the "environmental load fee". I.E imports. This is best done at a national level.	6/15/2020 2:36 PM
16	My biggest concern is that revenue generated from EPR are not used to fund the vitally important new infrastructure needed to address packaging. If funds are used to support existing infrastructure or go to a general fund that does not support new infrastructure, they don't deliver on the intended purposes.	6/15/2020 1:40 PM
17	Yes, if there is not an appropriate balance of how to manage the EPR program and how to spend the money in a manner where it receives the most public benefit towards that product recovery, then the program will more than likely fail. EPR must be properly managed by those who are paying into the system or the resources could be allocated in a manner that doesn't ensure success.	6/15/2020 1:38 PM
18	Fees being diverted to other purposes. Fees being used to penalize specific packaging.	6/15/2020 1:36 PM

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19	Funds should not be diverted to general funds or penalize material types that don't yet have infrastructure for collection and processing.	6/15/2020 1:33 PM
20	EPR policies must address the structure of the stewardship organization(s) to require transparency and reporting to allow effective oversight and enforcement. Individual producers must be made responsible for the obligations in the law - rather than the stewardship organization. There must be adequate funding for oversight/enforcement or the program will not be effective.	6/15/2020 12:18 PM
21	EPR has primarily been used as a funding mechanism in the U.S. to implement end-of-life materials management programs for hard-to-handle materials such as paint and rechargeable batteries. Where EPR programs for packaging have been implemented outside the U.S., traditional recycling funding, infrastructure and systems have often not existed. There are already systems in place throughout the U.S. to handle traditional recyclables, including for packaging, and it may be impossible to fully understand all the impacts EPR programs for packaging in the U.S. might have on those existing systems. If done incorrectly, EPR for packaging may undermine effective recycling market approaches and lead to unintended consequences. Additionally, EPR systems have not been shown to be administratively efficient and typically add administrative burdens while simply shifting costs.	6/15/2020 8:16 AM
22	EPR was not a hot topic until the commodity market for plastics into China crashed. Until that time municipalities were reaping the windfall of "throw everything in the cart and send it to China". Shifting the cost of collection & processing will not change the expanded use of plastics	6/15/2020 8:12 AM
23	No	6/12/2020 4:43 PM
24	The cost of recycling/disposal must be in the price of the product. No advanced recovery fees or point of sale fees/taxes.	6/12/2020 4:08 PM
25	Many packaging producers have opted to switch to light weight packaging (namely LDPE, PET thermoforms and polystyrene crystal) to minimize the impact of the fee- this needs to be looked into and there should be no loopholes.	6/12/2020 2:52 PM
26	It depends on how it is managed. If producers pay they should manage the system. It also doesn't really help improve design so EPR alone will not make materials more recyclable.	6/12/2020 10:57 AM
27	If not done properly, it is just more money collected from the consumer that does not end up creating more recycling opportunities	6/12/2020 9:23 AM
28	in the short run it will increase cost of packaged goods, in the long run producers will create sustainable solutions that better meet the needs of all	6/11/2020 6:02 PM
29	EPR policies need to be comprehensive with strong and clear performance requirements, assured enforcement, and transparency. Concern is that, as a new approach for packaging in Washington, legislation is weak and might not include key elements to an effective program.	6/11/2020 4:39 PM
30	Yes the e-waste program is very performs very well unlike the light bulb program	6/10/2020 1:04 PM
31	Nope - do it!	6/9/2020 3:17 PM
32	holding manufacturers to a fair and reasonable task. Might stifle or improve small manufacturers	6/5/2020 11:17 AM
33	An EPR program should cover many material types, not just plastic.	6/5/2020 10:27 AM
34	Not really	6/4/2020 10:18 PM
35	That its not being done.	6/4/2020 2:59 PM
36	If the penalty for not redesigning packaging is not great enough, the cost just gets passed to the consumer and nothing might happen. The best penalty would not be a financial one, but the inability to actually use the packaging. It's not clear how the financing works throughout the system from collection to processing. The cost of collection, transload and hauling to MRFs is not insignificant. Is the financing to completely offset collection or only partial? Does it establish a separate collection model?	6/4/2020 9:23 AM
37	Like my concerns with fees, this could lead to costs getting passed onto consumers who cannot afford them. Costs should not harm vulnerable communities ability to purchase necessities.	5/29/2020 11:28 AM

38	1	5/26/2020 11:31 AM
39	nope	5/26/2020 10:22 AM
40	Power/politics	5/22/2020 9:33 AM

Q13 What do you like most about deposit return system for containers?

Answered: 36 Skipped: 60

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Increases the value of materials with low post-consumer value.	6/18/2020 9:50 AM
2	Deposit systems have proven high recovery rates.	6/16/2020 3:41 PM
3	Coca-Cola has set ambitious goals to collect the equivalent of a bottle or can for every one we sell by 2030 as part of our World Without Waste initiative. To meet these goals, we are open to considering all options – including well-designed regional deposit systems – for collecting bottles and cans. Based on our experience in participating in deposit systems around the world, we believe well-designed collection systems must be managed by the industry and retailers, should include all types of packaging, should be consumer focused and have good governance.	6/16/2020 11:51 AM
4	People understand it in general which might mean it would be more likely successful.	6/16/2020 2:53 AM
5	Key to recycling success is in implementing state-wide (if not nation-wide) use of deposit return systems (DRS) for recycle and reuse containers/packaging to ensure material is recovered from consumers and the environment. A full-loop system will not work without this measure.	6/15/2020 11:05 PM
6	Very effective for desired outcomes of cleaner streams and increased recycling.	6/15/2020 9:50 PM
7	Jurisdictions providing incentives for consumers to return materials generally enjoy higher collection rates than jurisdictions that don't.	6/15/2020 6:40 PM
8	The numbers are clear - these programs work to increase diversion, and reduce contamination! Effective.	6/15/2020 6:05 PM
9	Deposit return systems can create incentive for valuable, accepted materials to be returned. The states that have these programs tend to have higher recovery rates. It creates incentive for people to be concerned with returning some of the most important materials like aluminum cans. It can also serve a social function for some populations (e.g. people experiencing homelessness) to earn some money while cleaning up communities.	6/15/2020 5:42 PM
10	good for recreating clean waste streams for beverage containers	6/15/2020 5:02 PM
11	The Coca-Cola system has set ambitious goals to collect the equivalent of a bottle or can for every one we sell by 2030 as part of our World Without Waste initiative. To meet these goals, we are open to considering all options – including a well-designed regional deposit system – for collecting bottles and cans. We believe a well-designed collection system must be managed by the industry and retailers, should include all types of beverage packaging, should be consumer focused and have good governance.	6/15/2020 4:40 PM
12	It is a time tested concept that seems at this point to be working in for instance Oregon and other foreign more progressive countries.	6/15/2020 2:36 PM
13	If managed properly, they can encourage consumers to recycle containers where the necessary infrastructure exists.	6/15/2020 1:40 PM
14	Provides direct incentive for consumers to return the product for recovery and recycling.	6/15/2020 1:38 PM
15	These collection mechanisms have to been shown to increase the amount of clean containers and reduce contamination. DRS can be used in combination with EPR systems to meet the producer's mandated recycling rates. The remaining materials collected at the curbside or elsewhere will be funded by the producers and the loss of revenue from the containers, that used to be collected curbside, could be made up via the producers.	6/15/2020 12:18 PM
16	Container deposit programs generate consistently high beverage container recycling rates and high-quality recyclables.	6/15/2020 8:16 AM
17	There will be more incentive for certain sectors of society to keep selected items from curbside collection	6/15/2020 8:12 AM
18	- Encourages users to return containers for recycling. - Done correctly, could help provide funding for existing recycling programs - Done correctly, could help fund local infrastructure for collection of containers.	6/15/2020 6:46 AM
19	This could help increase the amount and cleanliness of the materials that are making it to recycling programs.	6/12/2020 4:43 PM

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20	That the collected material is much cleaner and doesn't have to be separated as much. That it creates an incentive to separate them.	6/12/2020 2:52 PM
21	Availability	6/12/2020 11:49 AM
22	It is the only way to get a high rate of return. Materials with high value like aluminum and PET have low return rates without deposits. Brands that have committed to using recycle content rely on material from deposit states because it is much better than other material. If we want to use it again we have to create an incentive to get it back.	6/12/2020 10:57 AM
23	it places a value on the package	6/11/2020 6:02 PM
24	DRS would provide a means for attaining a high recovery rate for the containers covered in the system. Those products covered would provide a high-quality stream for remanufacturing and likely would separate them from commingled recycling to keep them from contaminating or being contaminated by other collected materials. Deposit/return should be a tool required or allowed for in an EPR system.	6/11/2020 4:39 PM
25	it may give some consumers an incentive to use the system	6/10/2020 1:04 PM
26	Places a value on recyclables	6/9/2020 3:17 PM
27	Good for some applications	6/5/2020 11:17 AM
28	It seems to be working well in other states.	6/5/2020 10:27 AM
29	I have lived in three states where deposit returns are part of living there. When I moved to Washington it shocked and appalled me when I saw people putting recyclable cans and bottles in with trash. Poor, including homeless individuals have a ready-made opportunity to gather a few returnables and get cash. Like people who glean farmer's fields, they create value where others can't be bothered.	6/4/2020 10:18 PM
30	That it recovers material that might be trashed.	6/4/2020 2:59 PM
31	Like material bans, deposit return systems typically target a singular item or type of container such as beverage containers. Again, as long as the deposit is significant enough, I think history has shown they are effective. Oregon's model in the 1970s was to address roadside litter as I understand. It did a good job and leveled a playing field. The system, when done right, makes returns easy.	6/4/2020 9:23 AM
32	Glass is a problematic material to have in the single stream system, and can reduce the quality of the paper stream. Pulling glass out could also improve the its real recycling rates.	5/29/2020 11:28 AM
33	1	5/26/2020 11:31 AM
34	demonstrated effectiveness over time	5/26/2020 10:22 AM
35	It encourages residents to view empty containers as resources.	5/26/2020 9:20 AM
36	Money still speaks and depending on how much money is involved, a deposit return system would mean something to a lot of people	5/22/2020 9:33 AM

### Q14 Do you have any concerns about deposit return system for containers?

Answered: 34   Skipped: 62

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#	RESPONSES	DATE
1	Inability to quickly adjust to reflect volatile commodity markets.	6/18/2020 9:50 AM
2	Deposit systems may still be politically infeasible.	6/16/2020 3:41 PM
3	Each state is unique. A system for Washington would have to be designed specific to the needs of the state and its residents. Importantly, deposit systems are more effective and efficient when producers and distributors manage the system and revenue generated by the system returns to the system to further improve efficiencies and reduce operational costs. An added benefit to ensure a fully closed loop system would be to provide opportunities for producers of plastic bottles to make sure that local "feed stock" produced by the deposit system can be used in the production of future bottles.	6/16/2020 11:51 AM
4	How many producers would be forced out of business and getting cooperation from sales/exchange sites might be difficult.	6/16/2020 2:53 AM
5	Implement and expand deposit return systems (DRS) for more than just beverage containers. Make recovery of deposits and recovery of materials simpler thru depots, hubs, drop-off stores/recovery sites. Created with local community involvement, employment and ownership. (Maybe we can engage the down-and-outs and allow fresh chances to emerge within the population of our poorest citizens!) Have depot locations based on population densities and leave no interested community behind. Create the system foreseeing recyclable deposits and for durable/reusable deposits.	6/15/2020 11:05 PM
6	Perpetuates plastic. Doesn't move us to less (generation).	6/15/2020 9:50 PM
7	The potential for material choices to rule out non-container packaging such as flexible films so prevalent for hygiene and beverage products and grocery stores as a dropoff/redemption point.	6/15/2020 6:40 PM
8	Does not shift responsibility onto producers for the quality, environmental impact, and recyclability of the packing they produce. Does not solve the upstream problem.	6/15/2020 6:05 PM
9	The return system can be very complex. Requiring small businesses to accept returned materials can be difficult and costly in regard to adequate space and material management on small operations. Also, we do not want to divide up the market too much. We are worried about there being too many return locations, too much infrastructure, and not enough product being returned to justify cost of collections.	6/15/2020 5:42 PM
10	the environmental impacts of collecting and cleaning	6/15/2020 5:02 PM
11	Each state is unique, a system for Washington would have to be designed specific to the needs of the State and its residents. Deposit systems are more effective and efficient when producers and distributors manage the system and revenue generated by the system returns to the system to further improve efficiencies and reduce operational costs. An added benefit to ensure a fully closed loop system would be to provide opportunities for producers of plastic bottles to make sure that local "feed stock" produced by the deposit system can be used in the production of future bottles.	6/15/2020 4:40 PM
12	It is fairly limited and specific in scope. However, this problem will most likely be attacked by many approaches both sweeping and small in scope. "a journey of a 1000miles" requires many small steps. (I changed that quote a little).	6/15/2020 2:36 PM
13	It is important that these schemes be used to continue to support the existing infrastructure.	6/15/2020 1:40 PM
14	Past direct deposit programs were mismanaged due to staff overhead and administrative costs that took resources away from the actual program's intent of recovery.	6/15/2020 1:38 PM
15	If required without an EPR system, will have issues with financing curbside recycling programs. Must be done in coordination with an EPR system.	6/15/2020 12:18 PM
16	Container deposit programs target only a small portion of the total packaging materials generated. There are also concerns regarding administrative costs and the impact on removing financially valuable material from curbside recycling programs, further reducing revenue opportunities for local municipalities. While deposit programs are generally self-sustaining, directing funds back into subsidizing administrative or collection and recycling costs may be dependent on the unclaimed deposits. While there will be some economies of scale in terms of decreased costs due to a higher return rate on bottles, this type of program does not necessarily address long-term financing needs. Furthermore, if unclaimed deposits are used to	6/15/2020 8:16 AM

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fund education or other related activities, high recovery rates may financially disadvantage the program. Deposit programs also exist outside of curbside recycling collection programs and are therefore not as convenient. If a deposit system is contemplated for plastic packaging, it would likely compete with curbside collection system and could erode the economic viability of that system. Also, it is unlikely that it would work for hard to recycle plastics like flexibles or certain rigids (i.e., yogurt containers) because of storage issues (smell, space) and volume.

17	Not all income brackets will pursue redemption efforts and program will have minimal or no effect. Looking at the number of plastic packaged items on the shelf, a meaningful deposit per container may be unreasonable.	6/15/2020 8:12 AM
18	- Funds not being properly spent on supporting EXISTING recycling programs. - Funds not being spent to support local infrastructure for collection of containers. - Government waste and bureaucracy	6/15/2020 6:46 AM
19	No.	6/12/2020 4:43 PM
20	None.	6/12/2020 2:52 PM
21	Ease of access - location placement	6/12/2020 11:49 AM
22	An often cited concern is the effect it has taking value out of the MRF. EPR fees can help materials left to be sorted at the MRF. MRF value used to rely on paper. Deposits on some materials could potentially provide a cleaner paper stream. (Glass needs to be collected on the side for clean paper)	6/12/2020 10:57 AM
23	consumers who fail to return containers and simply throw them away	6/11/2020 6:02 PM
24	Concern is that DRS legislation is done independent of or outside EPR system and is thought to be an adequate replacement for EPR (it is not). As a stand-alone policy, it would not be effective at addressing a wide range of plastic packaging. Significant concern that a stand-alone policy might create a state-run program, with all the issues that we have seen in other state-run DRS programs, such as California. A stand-alone policy should be similar to and improve upon the OR or BC approach.	6/11/2020 4:39 PM
25	Has to be high enough to make people care	6/9/2020 3:17 PM
26	Container being banned are not designed to be returned and need to be strengthen.	6/6/2020 4:13 PM
27	Will not always work in many applications	6/5/2020 11:17 AM
28	Expense of rolling out the program. But, since emissions test centers recently shut down, I think that using places like that as well as locations like large Fred Meyer stores (like in Oregon metro areas) could serve communities well.	6/4/2020 10:18 PM
29	The deposit amount needs to scale with cos to goods. In other words, too small of an amount and people will just pay and not worry about the return. It has the potential to remove highly valuable materials from curbside programs, and thus might drive down the aggregate value of curbside materials collected and thereby increase the overall cost of collection for low value items.	6/4/2020 9:23 AM
30	Pulling plastic bottles out of the stream could reduce the value of the general recycling stream and drive the costs up to residents.	5/29/2020 11:28 AM
31	1	5/26/2020 11:31 AM
32	not reall	5/26/2020 10:22 AM
33	The logistics may be difficult to implement.	5/26/2020 9:20 AM
34	Return locations and ease of returns for users	5/22/2020 9:33 AM

### Q15 What do you like most about minimum recycled content requirements?

Answered: 43    Skipped: 53

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Minimum recycled content requirements can help close the recycling loop	6/16/2020 3:41 PM
2	Coca-Cola is committed to continually reducing the amount of virgin plastic used in our packaging and increasing the amount of post-consumer recycled content we use. As part of our World Without Waste goals, we aim to use 50% recycled content on average by 2030. It is important that a minimum content goal is seen by recyclers as a demand signal to the recycling and resin industries to boost investment in essential processing infrastructure. In Washington State, Coca-Cola worked closely with beverage industry colleagues and legislators to mutually develop minimum content legislation that was passed by the House and Senate but unfortunately, due to budget impacts of COVID-19, was vetoed.	6/16/2020 11:51 AM
3	I like the effort put forth in incorporating minimum recycled content and that it will help close the loop once recovering clean material is feasible.	6/15/2020 11:05 PM
4	Helps drive market/improve value for recycling.	6/15/2020 9:50 PM
5	We support voluntary and required Post-Consumer Recycled (PCR) in plastics packaging to promote recycling market development. More so than any other policy, to develop strong markets in Washington recycling to ensure the long term environmental and economic sustainability of Washington's excellent recycling system. PCR will create markets for recyclables. Recycling requires markets. Real recycling requires that recyclable material replace virgin feedstock in manufacturing. Without markets' there can be no recycling.	6/15/2020 7:44 PM
6	A 20% rate for recycled content could prove reasonable depending on definitions.	6/15/2020 6:40 PM
7	Has proven somewhat effective at boosting recovery rates, increasing demand for recycled content, therefore supporting the whole system. A good way to stimulate a local, circular economy.	6/15/2020 6:05 PM
8	Creating policies such as this is an approach that government agencies are generally good at doing. It would also be particularly useful right now given the dip in some virgin material (e.g. oil for plastic) prices means that producing these virgin materials is cheap, which could gain support from manufacturers in the current context.	6/15/2020 5:42 PM
9	Swire Coca-Cola, USA is committed to continually reducing the amount of virgin plastic used in our bottles and packaging, as well as increasing the amount of post-consumer recycled content we use. As part of our World Without Waste goals, we aim to use 50% recycled content by 2030. It is important that a minimum content goal is seen by recyclers as a demand signal to the recycling and resin industries to boost investment in essential processing infrastructure. In Washington State, Swire Coca-Cola, USA worked closely with beverage industry colleagues and legislators to mutually develop minimum content legislation that was passed by the House and Senate but unfortunately, due to impacts of COVID-19, was vetoed.	6/15/2020 4:40 PM
10	This would encourage companies to incorporate recycle content in their products.	6/15/2020 4:13 PM
11	Are there any elements of minimum recycled content requirements that you think could be helpful for managing plastic packaging waste? If so, please describe them. Yes, a system well-thought-out system could help create increase demand for PCR.	6/15/2020 3:26 PM
12	It drives demand and innovation. Without it, human nature will most likely default to just buying virgin resin and going home early.	6/15/2020 2:36 PM
13	If managed properly, recycle content requirements can encourage brand owners and material producers/converters to develop innovations to address material circularity.	6/15/2020 1:40 PM
14	Provides incentive for a constant supply of post-consumer recycled material.	6/15/2020 1:38 PM
15	Might help the post consumer recycled raw material industry gain enough profitability to be sustainable.	6/15/2020 1:36 PM
16	Can help to drive demand for recycled content, and is necessary to expand infrastructure.	6/15/2020 1:33 PM
17	These are necessary to close the recycling loop and promote a "circular economy" for recycled materials. Without requirements to use the materials that are generated by collection programs, markets will be lacking and recycling (collection) programs will fail.	6/15/2020 12:18 PM
18	There is currently and historically been no economic incentive for recycle content. The only way recycling large volumes of resins back into products will happen on a large enough scale	6/15/2020 8:12 AM

## Appendix F. Policy & Technology Survey Responses

	is mandated content.	
19	- Encourages producers to use more recycled plastics. - Helps provide outlets for our plastic usage.	6/15/2020 6:46 AM
20	This will create more market demand pull for the recycled materials, making it more viable to recycle more and help with the sustainability of the recycling system.	6/12/2020 4:43 PM
21	Way to drive demand for recycling content.	6/12/2020 2:53 PM
22	If there is any legislation that can ensure that a circular loop be established, it is this. It will create jobs, create value for what was once waste, reduce emissions and landfill space. This is by far the best legislation that can happen.	6/12/2020 2:52 PM
23	Post-Consumer Recycled (PCR) in plastics packaging will promote recycling market development. More so than any other policy, developing strong markets for Washington's recyclables will ensure the long term environmental and economic sustainability of Washington's excellent recycling system. PCR will create markets for recyclables. Recycling requires markets. Real recycling requires that recyclable materials replace virgin feedstocks in manufacturing. Without markets, there can be no recycling.	6/12/2020 1:36 PM
24	Easy to implement - standards are clear for manufacturers	6/12/2020 11:09 AM
25	They provide market pull for recycled resin. Virgin resin fluctuates and is linked to the price of Oil and gas. We need to create market demand through minimum content legislation to help level the playing field for those companies doing the right thing and using recycled content. Legislation can also create financing opportunities for recyclers to expand given the predictable demand.	6/12/2020 10:57 AM
26	May drive market development	6/12/2020 9:23 AM
27	it is a pathway to circularity	6/11/2020 6:02 PM
28	Minimum recycled content requirements would create strong market pull and a level playing field between plastic product manufacturers. Voluntary efforts and government procurement policies have failed to create the needed markets – as evidenced by the current situation. That would eliminate one problem – competition with virgin plastics that are subsidized and externalize production environmental and health impacts. It would drive innovation and research for increased recycled content. It would make producers address issues (toxicity, additives, etc.) that would threaten their ability to meet their recycled content requirements. Recycled content requirements must be for post-consumer recycled content, not post-industrial.	6/11/2020 4:39 PM
29	It would drive demand. Currently only a small percentage of plastics containers resins #1's&2's are recycled back into bottles. Typically they are recycled into carpet and clothing. PCR in plastics would provide an opportunity for more plastic bottles to be recycled into plastic bottles. WRRRA supports voluntary and required Post-Consumer Recycled (PCR) in plastics packaging to promote recycling market development. More so than any other policy, developing strong markets for Washington's recyclables will ensure the long term environmental and economic sustainability of Washington's excellent recycling system. PCR will create markets for recyclables. Recycling requires markets. Real recycling requires that recyclable materials replace virgin feedstocks in manufacturing. Without markets, there can be no recycling.	6/11/2020 12:05 PM
30	Creates demand for the recycled material	6/11/2020 11:36 AM
31	It encourages recycling, and the use of recycled materials in new products.	6/11/2020 11:02 AM
32	It may help establish markets for plastic	6/11/2020 9:30 AM
33	Creates demand for recycling to close the loop	6/10/2020 1:47 PM
34	possibly help create a market for plastics	6/10/2020 1:04 PM
35	stimulates markets for recyclable materials	6/9/2020 3:17 PM
36	Helps start up manufacturers provide reliable markets for potential investors.	6/5/2020 11:17 AM
37	It helps to create a market for recycled content.	6/5/2020 10:27 AM
38	Forcing manufacturers to take responsibility for putting so much trash out into the world	6/4/2020 10:18 PM

## Appendix F. Policy & Technology Survey Responses

without another thought, like they do now.

39	It makes a market and should in the long run be less carbon footprint, at least in the case of recycled paper.	6/4/2020 2:59 PM
40	Incentivizes smart manufacturers to be even smarter and more creative, and rewards those that do.	6/4/2020 2:51 PM
41	Recycling doesn't work without markets. With low fuel costs/low virgin material costs, there will need to be polices to help support secondary markets. This would help drive much needed demand and increase the price of recycled material, and help balance the lack of the social costs added to virgin materials.	5/29/2020 11:28 AM
42	1	5/26/2020 11:31 AM
43	Need more post consumer materials to be used in products	5/22/2020 9:33 AM

### Q16 Do you have any concerns about minimum recycled content requirements?

Answered: 40 Skipped: 56

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#	RESPONSES	DATE
1	Minimum recycled content requirements may be difficult to verify and enforce.	6/16/2020 3:41 PM
2	Effective and workable minimum content provisions define goals but also recognize that the current supply of locally sourced post-consumer recycled plastic is limited and creates challenges to achieving goals. In addition, shipping and transporting plastic from sources a great distance away from Washington defeats the ultimate goal of reducing dependence and use of petroleum when factoring in the burning of fossil fuels needed for transportation purposes. Finally, it is important that minimum content requirements are paired with other collection solutions – such as EPR – to ensure that more recycled content is available in the local market to help producers achieve their post-consumer content usage goals.	6/16/2020 11:51 AM
3	It may be hard to keep contaminants out AT FIRST. But once a core recycle system is established we'll be well on our way!	6/15/2020 11:05 PM
4	Perpetuates plastic. Doesn't move us to less (generation).	6/15/2020 9:50 PM
5	Minimum recycled content requirement or otherwise, must include a enforcement program. Verification of report data, site visits and inspections.	6/15/2020 7:44 PM
6	Market for "post-consumer" content is trending in direction where virgin resins are price advantaged. A sensible hedge against this is adopting the ISO 14201 definition that qualifies post-consumer AND pre-consumer or post-industrial materials - as the UK Plastics Pact does - allows for fuller utilization of materials that cannot be reclaimed within the manufacturing process that generated it.	6/15/2020 6:40 PM
7	Does not solve the upstream problem! Does not shift any responsibility to producers for the packaging they produce.	6/15/2020 6:05 PM
8	This requirement would be most effective if connected with life cycle analysis. A life cycle analysis would reveal some items where recycling is not the most environmentally or economically advantageous option.	6/15/2020 5:42 PM
9	Effective and workable minimum content provisions define goals but also recognize that the current supply of locally sourced post-consumer recycled plastic is very limited and creates challenges to achieving goals. In addition, transporting resin from sources a great distance away from Washington will likely cause an unintended consequence of negatively impacting the carbon emission of packaging produced in Washington. Finally, it would be beneficial if minimum content requirements, is paired with other collection solutions – such as EPR – to ensure that more recycled content is available in the local market to help producers achieve their post-consumer content usage goals.	6/15/2020 4:40 PM
10	There is no system currently available to track or verify recycle content in any material. There is not enough recycle material to satisfy the need. Recycle material commands a significant price premium that will be passed on to consumers.	6/15/2020 4:13 PM
11	Do you have any concerns about minimum recycled content requirements? If so, please describe them. Yes, sufficient supply exists. Incentives be created instead of mandates. Flexibility on how requirements may be met. And sufficient exemptions created, for example, medical, infant, toxic substances, etc.	6/15/2020 3:26 PM
12	I feel it may need to be delayed until other initial recycling stimulations are enacted and have started to settle out. A government sponsored reserve may be necessary to initially stabilize the supply and quality. This should be temporary. Again, I am not sure this can be accomplished at a state level without penalizing our in state manufactures.	6/15/2020 2:36 PM
13	Without the necessary infrastructure, there is a limited supply of recycle content available to the market, particularly for food and medical packaging applications. Such a minimum requirement would then become a financial burder to manufacturers and ultimately end consumers.	6/15/2020 1:40 PM
14	Mandatory thresholds of percentages need to be realistic especially in this current climate of recycling and economics.	6/15/2020 1:38 PM
15	Should not be used as a "condition of sale" since it depends on a robust market that might not be available for the quality necessary.	6/15/2020 1:36 PM
16	Should not be mandated for all packaging types, especially food and medical packaging, where	6/15/2020 1:33 PM

## Appendix F. Policy & Technology Survey Responses

	safety regulations must be followed, especially for flexible plastics.	
17	They must be enforced and a tracking mechanism established to verify that recycled materials are actually being used in the products/packaging.	6/15/2020 12:18 PM
18	No	6/15/2020 8:12 AM
19	- Targets set too high too fast - Need for proper standards of what can be safely recycled.	6/15/2020 6:46 AM
20	This will need to be a phased in approach. It may cost more for some manufacturers to retool and there also may not be enough (clean) material to implement too much of this at once.	6/12/2020 4:43 PM
21	Must include enforcement program.	6/12/2020 2:53 PM
22	No. If such a legislation were to happen, it would allow recyclers and collectors to invest in the necessary technology required to better collect and separate. We now know that there is an end market for our recycled resin, and we can 'go out on a limb' to invest in technology that will help us sell a better product. The only reason firms bought recycled resin in the first place was because of its low cost. But with the kinds of inventory levels that virgin plastics has- prices are expected to be super low for atleast the next 5 years- unless we see a demand in recycled resin. Manufacturers can also safely invest in tweaking their blow moulding and injection moulding machines to work with recycled content. This is the best option we have.	6/12/2020 2:52 PM
23	Any solid waste regulation, minimum recycled content requirements or otherwise, must include a robust enforcement program. This includes inspections, site visits, and verification of report data.	6/12/2020 1:36 PM
24	Work with other states to create a national standard	6/12/2020 11:09 AM
25	It will not work for all materials. PET is easier to recycle than PP and HDPE. Food contact for HDPE and PP will be much harder to achieve through mechanical recycling. Levels need to be set by category and chemical recycling needs to be an accepted part of the options.	6/12/2020 10:57 AM
26	If unrealistic, could result in under performing packaging and/or defacto bans	6/12/2020 9:23 AM
27	it will take years to create a success (meaning all plastics are recycled)	6/11/2020 6:02 PM
28	Concern that State is put in a position that would be hard to administer, monitoring compliance, rather than keeping that within the private sector or a separate oversight entity. Concern that policy might not be clear that minimum recycled content requirements are for post-consumer recycled content and not postindustrial.	6/11/2020 4:39 PM
29	Any solid waste regulation, minimum recycled content requirements or otherwise, must include a robust enforcement program. This includes inspections, site visits, and verification and transparency of report data.	6/11/2020 12:05 PM
30	None	6/11/2020 11:36 AM
31	Costs	6/11/2020 11:02 AM
32	No as long as it truly is an accurate amount	6/11/2020 9:30 AM
33	Needs broad based cooperation with other states	6/10/2020 1:47 PM
34	We should be moving away from recycling (eventually) and focusing more on reuse...	6/9/2020 3:17 PM
35	Abuse of the system by what exactly recycled means	6/5/2020 11:17 AM
36	Loopholes. There is always a gigantic hole in new laws that allow the people (companies) with the most lawyers on staff to find a way to wriggle out of compliance. *cough* Boeing *cough*	6/4/2020 10:18 PM
37	The %'s required won't rise fast enough to reach their true potential.	6/4/2020 2:51 PM
38	The minimums will need to balance current product performance requirements with pushing industry to innovate and increase the amount of recycled content that can work in their products/packaging.	5/29/2020 11:28 AM
39	1	5/26/2020 11:31 AM
40	that it is not POST CONSUMER materials and instead wording is so ambiguous that companies are allowed to continue to "green wash" consumers	5/22/2020 9:33 AM

## Q17 What do you like most about reusables programs?

Answered: 32 Skipped: 64

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	If applied scientifically. Reusables will have greater environmental impact. Must assure environmental benefit.	6/18/2020 9:50 AM
2	Reduces total amount of plastic out there.	6/16/2020 2:53 AM
3	I am completely on board with reusable programs and think Portland's Go Box and Terracycle's Loop project are key components to reducing waste. Also, I would like to suggest addressing this to Fast-Food cups and packaging (their lack of recycling compliance and contribution to road litter is unacceptable). Switch beverage cups to a deposit durable-reusable or deposit recyclable cup. Either cup would have a backyard compostable lid or build in or tethered recyclable/reusable lid (straws are backyard compostable or consumer responsibility).	6/15/2020 11:05 PM
4	Love this best, as it reduces generation most effectively.	6/15/2020 9:50 PM
5	The benefits from reuse are generally higher than recycling. Reduce, reuse, recycle. We support community reusable programs	6/15/2020 7:44 PM
6	Higher environmental gains than recycling. They are an effective way to actually reduce the amount of waste in the first place. Addresses the upstream problem, but from the demand side only.	6/15/2020 6:05 PM
7	potential to expand to cover refillable beverage containers	6/15/2020 5:02 PM
8	Are there any elements of reusables programs that you think could be helpful for managing plastic packaging waste? If so, please describe them. Yes, reusable programs could reduce the amount of material that's required to deliver products to consumers.	6/15/2020 3:26 PM
9	Everything helps, reuse is a powerful initial reduction in waste stream and should be encouraged where it is possible and has no hidden ramifications.	6/15/2020 2:36 PM
10	Reuse is higher on the waste hierarchy than recycling. Flexible packaging offers the unique benefit to allowing for the reduction of raw material needed to provide product protection. In many instances these solutions are not amenable to re-usability in the same way that rigid containers are.	6/15/2020 1:40 PM
11	Effective for a very small portion of the market.	6/15/2020 1:36 PM
12	Further commercialization of reusable programs at an industrial scale is merited and could provide good economic growth opportunities. The risks of relying on consumer cleaning practices and viral transmission through multiple hands will be decreased through this approach.	6/15/2020 8:16 AM
13	Less waste, less in the landfill, makes sense.	6/12/2020 4:08 PM
14	Best environmental solution for reducing environmental impacts.	6/12/2020 2:53 PM
15	WRRRA supports community reusables program. Reduce, reuse, recycle. The environmental benefits from reuse are generally higher than recycling.	6/12/2020 1:36 PM
16	Less waste	6/12/2020 11:49 AM
17	Reuse is more sustainable where it works. It is limited in it's applicability.	6/12/2020 10:57 AM
18	reduces the production of packaging sourced principally from non-renewable resources	6/11/2020 6:02 PM
19	Reusables programs, if scaled, can replace many single use plastic products and packaging, which reduces environmental impacts, litter impacts and will reduce the need to create collection, processing and end of life management systems for these, often low value and food contaminated, products. Refill programs can bring multiple use, rather than single use, to more typical plastic bottles and containers too, also providing environmental and social benefits	6/11/2020 4:39 PM
20	We support reduce, reuse and recycle programs that are convenient as well as economically and environmentally sustainable. WRRRA supports community reusables program. Reduce, reuse, recycle. The environmental benefits from reuse are generally higher than recycling.	6/11/2020 12:05 PM
21	nothing	6/11/2020 11:36 AM
22	Encourages recycling	6/11/2020 11:02 AM

## Appendix F. Policy & Technology Survey Responses

23	Reuse is a better use than recycling	6/11/2020 9:30 AM
24	Re-use is the most environmentally friendly option	6/10/2020 1:47 PM
25	This is where we ought to be, generates a circular economy and makes the best highest use of our materials.	6/9/2020 3:17 PM
26	Most efficient method to reuse something	6/5/2020 11:17 AM
27	They can reduce the use of vast amounts of single-use plastics. They can encourage a culture of reuse and help us all get accustomed again to the habit of buying and using things that are reusable.	6/5/2020 10:27 AM
28	It eliminates "one and done" mindlessness, which is rampant in US.	6/4/2020 10:18 PM
29	We should have glass bottles reusable for things like beverage bottles, such as how is done for milk, and how beverage containers are reused thousands of times in European countries.	6/4/2020 2:59 PM
30	It hits the highest part of the waste hierarchy and will need to be a big part of our path to a circular economy. Recycling cannot be the only or main solution. We need to find ways to move to support more reusable items.	5/29/2020 11:28 AM
31	Reusable's are an effective way of reducing waste over all	5/26/2020 11:31 AM
32	less trash created, fewer concerns about non-edible materials dissolving in my food and drink	5/26/2020 10:22 AM

### Q18 Do you have any concerns about reusables programs?

Answered: 27 Skipped: 69

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#	RESPONSES	DATE
1	That reusables will have net negative impact.	6/18/2020 9:50 AM
2	No, I think we need to open-up more to reusable in places like fairs and amusement parks. Have traveling food-truck like sanitation stations to service festivals etc. Single-use is not okay and not needed!	6/15/2020 11:05 PM
3	Plastics (and thus toxic migration into food and beverage) are used for many programs	6/15/2020 9:50 PM
4	COVID-19 should be considered.	6/15/2020 7:44 PM
5	Only implementation concerns. Need to educate industry and public, figure out details of implementation with health codes, etc. Creating a new norm. Does create any responsibility among producers for the packaging they produce, which is needed.	6/15/2020 6:05 PM
6	will only have a small and limited effect on plastic packaging	6/15/2020 5:02 PM
7	Do you have any concerns about reusables programs? If so, please describe them. Reusable programs may only be feasible at scale (large institutions) or highly urban settings. There's also public health concerns, especially in light of the pandemic. Lastly, this may require a significant change in consumer behavior.	6/15/2020 3:26 PM
8	This step helps, but we need to recognize that it is only a delay to some items getting to their "grave". There are also some environmental costs to sanitizing and preparing for reuse.	6/15/2020 2:36 PM
9	Flexible packaging offers the unique benefit to allowing for the reduction of raw materials needed to provide product protection. In many instances these solutions are not amenable to re-usability in the same way that rigid containers are. In many cases, reusability is not a viable option for food and medical applications where hygiene and safety are of utmost importance.	6/15/2020 1:40 PM
10	Not very practical for food or medical products that require sterility or traceability.	6/15/2020 1:36 PM
11	Reusable programs do not necessarily have to be viewed as tool strictly for managing packaging waste. Packaging and reusables can and should co-exist. This reality was amplified most recently during the COVID-19 pandemic when concerns about potential viral transmission led to restrictions on reusables in some locations (i.e., stores and restaurants) and some packaging formats were re-emphasized and proven to be essential.	6/15/2020 8:16 AM
12	no.	6/12/2020 4:08 PM
13	The scope of the report was determined before the new paradigm introduced by COVID-19. The conversation around single-use plastics, reusables, and essential services must consider new concerns raised by the pandemic on these issues.	6/12/2020 1:36 PM
14	Sanitation	6/12/2020 11:49 AM
15	it is more of a "half-way" solution rather than a complete circular solution	6/11/2020 6:02 PM
16	Concern that reusable programs will not be adequately financed and scaled to make a difference. Reusables should be the default, with recyclable, compostable or disposable food service packaging and some other packaging the anomaly.	6/11/2020 4:39 PM
17	The scope of the report was determined before the new paradigm introduced by COVID-19. The conversation around single-use plastics, reusables, and essential services must consider new concerns raised by the pandemic on these issues.	6/11/2020 12:05 PM
18	limited help	6/11/2020 11:36 AM
19	costs	6/11/2020 11:02 AM
20	Mandated issues that don't work in real life	6/10/2020 1:47 PM
21	Nope, do it, please please!	6/9/2020 3:17 PM
22	Cleaning and contaminate removal costs (environmental and economic) and effect on materials being reused	6/5/2020 11:17 AM
23	There are a lot of situations that would make them difficult to apply (e.g., a small restaurant without enough room for a large dishwasher) and so there would probably have to be various exceptions that might dilute the scale of the impact/benefits.	6/5/2020 10:27 AM

## Appendix F. Policy & Technology Survey Responses

24	Sterilization of food-based packages, I guess. Not so much with others.	6/4/2020 10:18 PM
25	With the current pandemic, there will be pushback and health concerns about reusables. All programs will need to counteract that with effective process/implementation and data regarding the possibility of disease spread.	5/29/2020 11:28 AM
26	1	5/26/2020 11:31 AM
27	no	5/26/2020 10:22 AM

### Q19 What do you like most about multi-faceted measures?

Answered: 39 Skipped: 57

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#	RESPONSES	DATE
1	Pretty vague, but how can you oppose multi-faceted?	6/18/2020 9:50 AM
2	Multi-faceted measures for capturing a wide variety of materials and with revenue secured to support the system can be beneficial.	6/16/2020 11:51 AM
3	Will most likely be necessary.	6/16/2020 2:53 AM
4	Could be effective for some commodities.	6/15/2020 9:50 PM
5	As long as they can be adopted within the existing regulatory system, I like PCR in products and packaging, recycling market development, contamination reduction, simplified recycling program material lists and public education.	6/15/2020 7:44 PM
6	integrated approaches provide the scale and portfolio of approaches required tying together improved recycling access (e.g., through an optimized EPR funding system), outreach, incentives, and funding; integrated approaches can also combine supply focused initiatives like EPR with minimum content requirements which, by themselves do not address supply constraints.	6/15/2020 6:47 PM
7	Multiple strategies is advisable to account for varying types of materials and challenges inherent in creating and maintaining a circular economy for them. EPR coupled with recycled content (post-consumer, pre-consumer and post-industrial sources) would be ideal.	6/15/2020 6:40 PM
8	Seem more effective than solitary material bans. Depending on how comprehensive, could help solve the upstream problem.	6/15/2020 6:05 PM
9	The complex nature of the problem probably needs to be approached from multiple ways. This acknowledges how complex this issue is.	6/15/2020 5:42 PM
10	best approach to implement policy, e.g. prevent the worst, encourage the better and reward the best	6/15/2020 5:02 PM
11	Multi-faceted measures for capturing a wide variety of materials and with revenue secured to support the system can be beneficial.	6/15/2020 4:40 PM
12	If managed properly, can combine the benefits of other systems.	6/15/2020 4:14 PM
13	Are there any elements of multi-faceted measures that you think could be helpful for managing plastic packaging waste? If so, please describe them. Each of these suggestions has a role in helping and the "solution" is likely a combination of many of them. Communities will likely need the flexibility to choose options that meet its own needs and situations.	6/15/2020 3:26 PM
14	If they are well researched and balanced in approach they can be very effective. It can allow revenue generation to fund the oversight and management of the controls being applied.	6/15/2020 2:36 PM
15	The plastics issue is a complex problem that requires complex solutions. A multi-faceted measure allows for flexibility across the entire value chain, making it more resilient.	6/15/2020 2:26 PM
16	Provides flexibility where one size definitely does not fit all without deselecting certain products. Thus, provides a fair and equitable playing field for all products to compete in the marketplace for recovery.	6/15/2020 1:38 PM
17	A combination of policy measures are needed to steer the market in the right direction. EPR is a multifaceted approach in itself.	6/15/2020 12:18 PM
18	Multi-faceted measures that develop comprehensive materials management strategies and focus on the full lifecycle of packaging will be the most effective approach to successfully divert packaging waste. Funding should come from multiple sources and all stakeholders (consumers, government, industry) should be engaged at some level to leverage a variety of tools to help strengthen where systems are weak and advance where they are strong. Policies should be combined with financing and programs to provide comprehensive strategies towards goal realization.	6/15/2020 8:16 AM
19	The plastic packaging products have been changing faster than any one approach/technology can address so a number of approaches will be best approach to reaching a goal.	6/15/2020 8:12 AM
20	Recognizes there is no one silver bullet.	6/15/2020 7:03 AM
21	- For maximum success in recycling programs, multiple components will be necessary. -	6/15/2020 6:46 AM

## Appendix F. Policy & Technology Survey Responses

Provides needed mix of policy, technology and involvement from industry and private enterprise

22	No one strategy will fix everything, but many of them at once will help provide a robust institutionalized system that shows this issue needs to be taken seriously.	6/12/2020 4:43 PM
23	I am a strong believer that it is rare only one prong of attack is the best approach.	6/12/2020 4:08 PM
24	a lot more options for the manufacturer	6/12/2020 2:52 PM
25	WRRRA supports multi-faceted measures that can be adopted within the existing regulatory system. Policies WRRRA supports include, PCR in products and packaging, recycling market development, contamination reduction, simplified recycling program material lists, and public education.	6/12/2020 1:36 PM
26	Voluntary efforts, awareness and education combined with new recycling technologies	6/12/2020 11:49 AM
27	There is no one solution. The whole supply chain needs to be involved which will require many nudges in the right direction. Single points of intervention are not effective on their own.	6/12/2020 10:57 AM
28	There is no one size fits all approach and multi-faceted options can account for the the needs of the current system as well as future systems.	6/12/2020 9:23 AM
29	it tackles the problem from many different approaches and creates the opportunity to uncover findings that are unanticipated	6/11/2020 6:02 PM
30	Multi-faceted measures could combine the above measures into a comprehensive approach and program. There are likely some benefits to that through passing a single policy that includes all might be difficult. However, that is essentially what I think would be most effective, even as separate policies working in tandem together: The key policy/action would be EPR that incorporates recycled content requirements, uses container deposit return as a mechanism for subset of packaging, and exempts reusable packaging, or provides other incentives for reuse/refill. Separately, EPS and PVC packaging and food service products would be banned. Durables and refillable policies would be put in place.	6/11/2020 4:39 PM
31	encourages recycling	6/11/2020 11:02 AM
32	I think the more diverse it is would be better	6/11/2020 9:30 AM
33	All of the above have pros & cons, make the most of each.	6/9/2020 3:17 PM
34	Probably the best way to go, one size does not fit all in the world of recycling	6/5/2020 11:17 AM
35	No problem is ever solved with the flip of a switch. It takes a whole system of solutions to deliver results.	6/4/2020 10:18 PM
36	Problems are complex, and then you throw people into the mix - complex creative solutions are fostered by approaching the challenge from multiple perspectives.	6/4/2020 2:51 PM
37	I really don't know all the specifics but I from what I do understand, it makes the most sense to come at any issue with multiple measures. Where and when appropriate, use bans, deposits and some EPR.	6/4/2020 9:23 AM
38	There is no silver bullet for this problem. To solve our plastics problem, we will need to attack it from many angles and approach every plastic type and product category differently.	5/29/2020 11:28 AM
39	the ability to make sure we don't just endlessly move from one problem material to another, as in the bisphenol-A situation	5/26/2020 10:22 AM

## Q20 Do you have any concerns about multi-faceted measures?

Answered: 34 Skipped: 62

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#	RESPONSES	DATE
1	If it is multi-faceted, then the approaches would probably apply to all of us, which is good.	6/18/2020 9:50 AM
2	Most effective if measures are multi-material.	6/16/2020 11:51 AM
3	We have concern with any proposal that delegates control of an essential public health service to stewardship organization.	6/15/2020 7:44 PM
4	coordination of effort; protect against funds being diverted to other purposes by the state; should be multi-material, not plastics only	6/15/2020 6:47 PM
5	none	6/15/2020 6:40 PM
6	May not comprehensively address the upstream problem - producers are benefiting from creating and marketing materials that are not recyclable and drive pollution globally and in vulnerable communities.	6/15/2020 6:05 PM
7	This approach is reliant on how effective the individual measures are. It was difficult to say it would be very helpful without knowing what the individual approaches are.	6/15/2020 5:42 PM
8	no, if developed and implemented right	6/15/2020 5:02 PM
9	Most effective if measures are multi-material.	6/15/2020 4:40 PM
10	Difficult to manage, expensive, and may be needlessly complex.	6/15/2020 4:14 PM
11	Do you have any concerns about multi-faceted measures? If so, please describe them. Not in particular other than nearly any solution will require a sustained effort.	6/15/2020 3:26 PM
12	It can be complex and difficult to measure cause and effect of any one measure when multiple measures are put in place on a large scale. .	6/15/2020 2:36 PM
13	Our concern about multi-faceted measures is that policymakers may not provide enough time to establish implementation.	6/15/2020 2:26 PM
14	Needs to be able to have some flexibility and nimbleness to adjust the rapidly changing economic conditions our state is currently facing.	6/15/2020 1:38 PM
15	They need to send the correct, complementary signals.	6/15/2020 12:18 PM
16	Currently no concerns.	6/15/2020 8:16 AM
17	Depends on which levers are pulled.	6/15/2020 7:03 AM
18	- Lack of government understanding of CORRECT multi-facets. - Government assumption that this means multiple policies - Failure to understand or recognize EXISTING programs.	6/15/2020 6:46 AM
19	It will probably work best to phase in the approaches.	6/12/2020 4:43 PM
20	Some rare times a focused singular approach is best.	6/12/2020 4:08 PM
21	None	6/12/2020 2:52 PM
22	WRRRA is concerned with any proposal that delegates control of an essential public health service to a stewardship organization. See WRRRA's attached comments for more detail.	6/12/2020 1:36 PM
23	Funding to kick start recycling technology and expanded access ie styrofoam drop off locations	6/12/2020 11:49 AM
24	N/A	6/12/2020 9:23 AM
25	costly and time consuming which, in turn, creates years before focus on a definitive solution	6/11/2020 6:02 PM
26	Concern is that a truly comprehensive approach would be difficult to pass and that certain components would be used to justify weakening other components, for example, thinking that some material bans and a DRS would eliminate the need for EPR – which it wouldn't.	6/11/2020 4:39 PM
27	costs	6/11/2020 11:02 AM
28	All of the above have pros & cons, let's avoid the cons where possible.	6/9/2020 3:17 PM
29	Managing the details....	6/5/2020 11:17 AM

## Appendix F. Policy & Technology Survey Responses

30	Pick the right ones. Which are those? Balancing the lowest barriers to implementation with greatest outcomes (getting the biggest bang for your buck)	6/4/2020 10:18 PM
31	Have to track the aggregate carefully to make sure a bunch of small gains really do add up.	6/4/2020 2:51 PM
32	Just don't really know enough honestly. Is the multi-faceted approach fully strategic, or a patchwork?	6/4/2020 9:23 AM
33	The different approaches need to work in harmony and not be disjointed or duplicate efforts.	5/29/2020 11:28 AM
34	no	5/26/2020 10:22 AM

### Q21 What do you like most about expanded mechanical recycling for additional resin types?

Answered: 39 Skipped: 57

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	#6 expanded is recyclable and is being recycled. There is no good reason, other than financial concerns overriding environmental concerns, that EPS is not widely recycled.	6/18/2020 9:50 AM
2	Expanded mechanical recycling, which allocates costs fairly and captures far more resins than PET, can help ensure the ability to capture and process a wide variety of waste that otherwise would head for landfills or end up in the environment where it doesn't belong.	6/16/2020 11:51 AM
3	Makes sense	6/16/2020 2:53 AM
4	If EPR and consumer education was done correctly we could move forward with little need for extensive new sort technologies. Watermarking, QR coding and compliance with standards, cutting out the riffraff, applying more compostables to do the job of film plastics and making clear distinctions for consumers. Getting food-wastes and contaminants out of the recycle stream will be important education, backed by compost/yardwaste pickup.	6/15/2020 11:05 PM
5	We need more options	6/15/2020 9:50 PM
6	current recovery systems manage only a small fraction of plastics in the waste stream	6/15/2020 6:47 PM
7	They work for plastic flexible films that are the prevalent packaging format for our company.	6/15/2020 6:40 PM
8	This is probably a needed investment in our recycling system. Would reduce contamination, which means less pollution exported to the global poor.	6/15/2020 6:05 PM
9	mature technology	6/15/2020 5:02 PM
10	Expanded mechanical recycling, which allocates costs fairly and captures far more resins beyond PET can help ensure the ability to capture and process a wide variety of waste that otherwise would head for landfills or end up in the environment where it doesn't belong.	6/15/2020 4:40 PM
11	Recycling infrastructure is dated and insufficient to manage waste stream.	6/15/2020 4:14 PM
12	This offers the most options for consumers and is most likely to have the biggest impact on reducing plastic waste leaking into the environment.	6/15/2020 4:13 PM
13	Are there any elements of expanded mechanical recycling for additional resin types that you think could be helpful for managing plastic packaging waste? If so, please describe them. Yes, expanding resins recycled will help reduce waste.	6/15/2020 3:26 PM
14	The initial stages of mechanical recycling (gathering, sorting, compressing or shredding) are simple in concept and may be localized in low tech community centers.	6/15/2020 2:36 PM
15	It improves and protects our existing infrastructure which is quicker and more cost effective than starting over.	6/15/2020 2:26 PM
16	Expanded mechanical recycling infrastructure would be extremely helpful in addressing the need to collect, sort and recycle flexible packaging. Without the additional infrastructure, flexible packaging of all types will be excluded from the circular economy.	6/15/2020 1:40 PM
17	Explores new technologies and secondary markets for past resins that may not have been so easily collected and recycled. In this current environment, we should be open-minded and flexible to recover as many products as possible to further stimulate the post-consumer marketplace.	6/15/2020 1:38 PM
18	So much of the equipment is already in place. Just need the market to make it profitable to process.	6/15/2020 1:36 PM
19	Can create additional supply of recycled materials and expand the collection to flexible plastics.	6/15/2020 1:33 PM
20	Better mechanical sortation is needed to address mixed bales of plastics being sent to locations that are unable to properly sort them. Additional sorting ability must occur in combination with requirements for producers to used the sorted resin types in their products and packaging . If the are no legal requirements, there is no mechanism for ensuring that the materials will be collected and sent to the MRF for sorting.	6/15/2020 12:18 PM
21	All forms of recycling – including mechanical recycling – should be considered when developing and implementing systems to assist with recycling needs and goals to capture additional resin types.	6/15/2020 8:16 AM

## Appendix F. Policy & Technology Survey Responses

22	Supports innovation; drives demand/supply.	6/15/2020 7:03 AM
23	- Encourages and promotes higher use of recycled content by manufacturers. - Best approach from a carbon footprint perspective. - Recognizes that plastic is not the evil...lack of systems to manage its use is the problem	6/15/2020 6:46 AM
24	Not quiet sure what that is - sounds interesting though.	6/12/2020 4:08 PM
25	Applies to resin like PP with end market and proven demand. Additional equipment feeds supply.	6/12/2020 2:53 PM
26	It is overdue and needed	6/12/2020 11:49 AM
27	Opportunities for business development	6/12/2020 11:09 AM
28	Resins like PET bottles and thermoforms can benefit from expanded mechanical recycling. For other materials like multilayer films it is not an option. Mechanical recycled polyolefins are often not able to go back into food contact applications. We should expand mechanical where we can but also include chemical options.	6/12/2020 10:57 AM
29	We have the infrastructure currently in place for collection and sorting, so good use of these assets to expand upon	6/12/2020 9:23 AM
30	captures many more polymers than current practice	6/11/2020 6:02 PM
31	There are types of plastic packaging that are currently accepted and collected, and some that aren't, that enter the collection system and could and should be sorted by more (all) resin types to ensure marketable materials that can be responsibly recycled in domestic markets. Upgrading existing MRF where able to provide additional sorting, and establishing advanced sorting through a PRF or secondary MRFs would capture this material for recycling, expand what could be collected for recycling, and keep mixed loads from being exported and creating environmental, health and social justice harm elsewhere. Mechanical recycling should be maximized before any chemical recycling options are considered.	6/11/2020 4:39 PM
32	Can be the best (economical and environmental) method of recycling	6/5/2020 11:17 AM
33	We all know that Amazon's item picking machines and package shipping system is a more efficient way of delivering goods to consumers than having humans picking, packing and shipping dog toys and VR headsets to people. That technology should be replicated for this purpose. Doesn't everything have a barcode these days?	6/4/2020 10:18 PM
34	Lowering processing costs and creating cleaner commodities can only help the markets.	6/4/2020 2:51 PM
35	Is a basic process of washing, grinding and extruding. Its the most simplistic and widely adopted for a reason. Why not drive more of its use when and where possible.	6/4/2020 9:23 AM
36	This could help solve the problem of #3-7, which continues to reduce the quality and value of the recycling stream.	5/29/2020 11:28 AM
37	combined with EPR, this seems like a good plan	5/26/2020 10:22 AM
38	It would increase the ability to recycle more plastics.	5/26/2020 9:20 AM
39	If #6 PS were to be differentiated between foamed plastics and rigid plastics, EPS processors in Washington and Idaho would be able to take this material and reprocess it with minimal energy input into reusable products.	5/21/2020 5:06 PM

### Q22 Do you have any concerns about expanded mechanical recycling for additional resin types?

Answered: 36    Skipped: 60

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Citizens reluctance or unwillingness to participate.	6/18/2020 9:50 AM
2	When building out mechanical recycling, much improved sorting technologies should be integrated to allow operators to handle a wide range of post-consumer items.	6/16/2020 11:51 AM
3	That it will be over-thought and overshadowed. With EPR and PROs we can turn the problem off at the tap. Demand that only a recyclable or reusable product is sold, buy it back from the consumer and put it back into the system for reprocessing. Not just grab a mop while the virgin-resin faucet is still full-on. Plastics are now inside each human, continent and waterway. Let us heal and shut off the tap. Don't let worse alternatives deceive us, like WTE.	6/15/2020 11:05 PM
4	allocating costs fairly; considering other materials which may be more cost-effective to target	6/15/2020 6:47 PM
5	Ensuring cleanliness of the output is important for use for personal hygiene products.	6/15/2020 6:40 PM
6	Should occur as part of an EPR system to create investment and responsibility from producers.	6/15/2020 6:05 PM
7	Will not reduce the generation of plastic packaging waste. The costs and environmental impacts could be worse.	6/15/2020 5:02 PM
8	When building out mechanical recycling, much improved sorting technologies should be integrated to allow operators to handle a wide range of items.	6/15/2020 4:40 PM
9	cost allocation; limited material focus	6/15/2020 4:14 PM
10	Some materials may not be economically viable. There will need to be a significant investment in the technology and infrastructure to support this effort. Availability of processing sites as well as large differences between locations.	6/15/2020 4:13 PM
11	Do you have any concerns about expanded mechanical recycling for additional resin types? If so, please describe them. Like all expansion incentives will need to be created to increase demand for the additional resin types.	6/15/2020 3:26 PM
12	It is a messy business and in our current environment the cradle to grave costing is not in place to subsidize it. When we get the true costing straightened out it will be a piece of the solution.	6/15/2020 2:36 PM
13	It's not a one-size-fits all solution.	6/15/2020 2:26 PM
14	A primary concern is the lack of funding for infrastructure to be allocated toward expanding mechanically recycling to address flexible packaging.	6/15/2020 1:40 PM
15	No, but there needs to be dedicated and constant funding to ensure a fair opportunity.	6/15/2020 1:38 PM
16	There might not be a large enough market for the output resin to make it financially sustainable. Output resin quality is often not of high enough quality to use for the original purpose.	6/15/2020 1:36 PM
17	The quality of mechanically recycled materials is not sufficient to substitute for virgin resins, especially for food contact applications and for use in flexible plastic packaging.	6/15/2020 1:33 PM
18	There are certain resin types that shouldn't be recycled such as PVC. Policies need to recognize this.	6/15/2020 12:18 PM
19	There are limited options for mechanical recycling of plastics and we either need to invest further in end market development or be open to alternative recovery methods. Additionally, we need to consider energy demands and other environmental tradeoffs to ensure we are creating environmental value when recycling – not just recycling for recycling's sake.	6/15/2020 8:16 AM
20	Resin combinations are changing so fast and ability to separate into acceptable markets will be difficult.	6/15/2020 8:12 AM
21	No	6/15/2020 7:03 AM
22	- Lack of funding to help promote, develop or improve mechanical recycling.	6/15/2020 6:46 AM
23	No.	6/12/2020 4:08 PM
24	Bans preventing investment	6/12/2020 11:49 AM

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25	I mentioned polyolefins like PP and HDPE. Food contact quality and volume is very limited.	6/12/2020 10:57 AM
26	It may not be feasible everywhere and may not lead to the best feedstocks for a true circular economy	6/12/2020 9:23 AM
27	it will be extremely expensive and will take years to implement, if ever, as there would be a need for Federal as well as states to come to agreement	6/11/2020 6:02 PM
28	Likely, an EPR system is required to ensure that the costs of the expanded capability and its operational costs will be covered. Additional sorting costs additional money, and the markets are not such that market price (or maybe even avoided disposal cost) will be adequate. Taking mixed materials incapable of being sorted by primary MRFs to a PRF or secondary MRF adds processing expense. We have seen that solid waste companies for the most part have been unwilling to pay these increased costs or will pass those costs on to municipalities and rate payers. With little transparency regarding mixed materials and end markets currently, and with no requirements to ensure domestic processing, "if you build it, they will come" is an unwise strategy. An EPR system would solve these issues	6/11/2020 4:39 PM
29	Cleaning of contaminates issues, market stability	6/5/2020 11:17 AM
30	Like any task where automation replaces humans: the potential for job loss.	6/4/2020 10:18 PM
31	Who will invest the money?	6/4/2020 2:51 PM
32	It can't handle the more complex resins, or all resins as I understand.	6/4/2020 9:23 AM
33	Due to the wide variety of other resins, it may not be the most efficient use of resources to focus on expanding mechanical recycling for these materials. There also needs to be policies to reduce the types of resins and to improve their ability to recycled through upstream measures.	5/29/2020 11:28 AM
34	no, although without EPR to incentive producers, I'm not sure how viable this is, given low petroleum costs	5/26/2020 10:22 AM
35	The costs of the extra equipment might outweigh the benefits compared to other methods.	5/26/2020 9:20 AM
36	Currently Polystyrene PS and all of its forms and more specifically expanded foam, extruded foam or rigid foam have a lower number of facilities that accept PS. There are several producers in the state or in bordering state (Idaho) that can and do accept clean Expanded Polystyrene and are able to reuse the material immediately into products with very low levels of additional energy. The problem is getting the expanded foam segregated from other PS plastics and into the hands of the EPS (Expanded Polystyrene) processors.	5/21/2020 5:06 PM

### Q23 What do you like most about polymer-to-monomer chemical recycling?

Answered: 27    Skipped: 69

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#	RESPONSES	DATE
1	Ability to process a variety of materials.	6/18/2020 9:50 AM
2	Lots of potential as a better way to address plastics. Would result in less pollution being exported to the global poor.	6/15/2020 6:05 PM
3	Could make additional recycled plastic feedstock available, including resins that are difficult to recycle.	6/15/2020 4:14 PM
4	Affords the opportunity to recycle more complex materials or those that would not be reasonably mechanically recycled. More opportunity for value added end products. Allows some materials such as food or medical packaging to be converted back to those same products.	6/15/2020 4:13 PM
5	Are there any elements of polymer-to-monomer chemical recycling that you think could be helpful for managing plastic packaging waste? If so, please describe them. Yes, this will help increase the amount of plastic that's recycled – especially packaging that's mixed materials.	6/15/2020 3:26 PM
6	It takes plastic back to its raw form.	6/15/2020 2:36 PM
7	It creates new recycled feed stock without needing to produce any new virgin materials.	6/15/2020 2:26 PM
8	The quality of the material generated from polymer to monomer chemical recycling is on par of that of virgin material. This is critically important for medical and food packaging where safety and hygiene are of utmost important.	6/15/2020 1:40 PM
9	Allows for post-consumer recycled content on the front end and thus provides incentives to recover more products during the end of life. Closed loop system.	6/15/2020 1:38 PM
10	Sometimes the only way to obtain the quality of resin necessary for performance and quality. Sometimes the only way to create a circular economy for plastics.	6/15/2020 1:36 PM
11	Leverages the use of proven technology to create new materials with identical properties as virgin materials. Especially useful for flexible plastic packaging.	6/15/2020 1:33 PM
12	All forms of recycling – including polymer-to-monomer chemical recycling – should be considered when developing and implementing systems to assist with recycling needs and goals to capture additional resin types. Advanced recycling technologies like polymer-to-monomer can complement mechanical recycling by converting plastics with less market value and potentially destined for the landfill back into feedstocks to manufacture new products, including packaging.	6/15/2020 8:16 AM
13	Bringing plastic resins back to a mid point in their creation cycle will allow for more flexibility in use back into other products	6/15/2020 8:12 AM
14	Supports innovation; drives demand/supply.	6/15/2020 7:03 AM
15	- Allows plastic to be used and then re-used for other purposes. - Helps deal with difficult to recycle plastics.	6/15/2020 6:46 AM
16	hbpobn	6/14/2020 12:44 PM
17	Potential long term solution for HTR plastics.	6/12/2020 2:53 PM
18	Less waste	6/12/2020 11:49 AM
19	PET can be decomposed into its monomers and rebuilt back into PET relatively easily. This is not true for other polymers like PP and HDPE. It's a great solution for PET to get back to virgin type quality.	6/12/2020 10:57 AM
20	True circularity	6/12/2020 9:23 AM
21	a process that is comprehensive in its ability to include virtually plastics	6/11/2020 6:02 PM
22	It is difficult to know how to rate this technology. Due to the many forms of plastic packaging and other product waste that is unlikely to ever be mechanically recyclable, if this option can be made viable and capable of handling mixed plastic polymers it would be somewhat helpful. But that is a big IF.	6/11/2020 4:39 PM
23	It is new and sounds good but not enough info as to costs.	6/6/2020 4:13 PM

## Appendix F. Policy & Technology Survey Responses

24	Good option for some polymers	6/5/2020 11:17 AM
25	Don't know enough other than my understanding it that you need to get plastics to their most basic of forms in order to truly recycle - use them to make other materials. This seems like a logical approach.	6/4/2020 9:23 AM
26	Offers another market/solution for these materials and could increase the value of these resins.	5/29/2020 11:28 AM
27	For #6 PS there are 3 plastic sub-groups, expanded PS, extruded PS and rigid PS. Chemical recycling enables all types to be recycled regardless of soiling.	5/21/2020 5:06 PM

### Q24 Do you have any concerns about polymer-to-monomer chemical recycling?

Answered: 26 Skipped: 70

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	embodied energy may not justify the process	6/18/2020 9:50 AM
2	Should occur as part of an EPR system to create investment and responsibility from producers.	6/15/2020 6:05 PM
3	Expensive and complex if constructed at scale. Environmental impacts are unknown. Secondary materials markets must be evaluated and directed properly toward circular system.	6/15/2020 4:14 PM
4	The availability of infrastructure is lacking. The availability of enough feedstock to make the process economically viable is questionable at best. Local or regional legislative restrictions may not allow for this technology in some states. The application of this (ie feedstock and variety of materials that can be processed) is much more limited than what most people believe.	6/15/2020 4:13 PM
5	Do you have any concerns about polymer-to-monomer chemical recycling? If so, please describe them. Only that policymakers (and other stakeholders) require additional education. There are misunderstandings of what advanced recycling is and is not. "Polymer-to-monomer chemical recycling" can refer to one of several technologies, that have different processes, take various inputs, and can be used to make different end products.	6/15/2020 3:26 PM
6	It is a costing issue	6/15/2020 2:36 PM
7	A lack of understanding of the technology and the benefits it could provide in creating higher value recycled feed stock.	6/15/2020 2:26 PM
8	There have been a number of reports that have falsely portrayed the benefits of advance recycling technologies. These technologies are vitally important to ensuring the establishment of a circular economy. Misinformation can result in lack of infrastructure which can negatively impact the viability of these technologies for complex, multi-layer materials.	6/15/2020 1:40 PM
9	No	6/15/2020 1:38 PM
10	Some statutes have already limited these technologies based on pollution assumptions that no longer apply.	6/15/2020 1:36 PM
11	With low energy and petroleum pricing, chemical recycled products are not cost competitive in the market. Need for government incentives to fund infrastructure development.	6/15/2020 1:33 PM
12	Existing state recycling law and regulation should be thoroughly reviewed, and amended if necessary, to ensure that polymer-to-monomer chemical recycling is not somehow prohibited or restricted. Misleading negative claims and rhetoric about advanced (chemical) recycling may also need to be refuted via existing scientific data and research.	6/15/2020 8:16 AM
13	Economics	6/15/2020 8:12 AM
14	No	6/15/2020 7:03 AM
15	High cost of infrastructure to accumulate plastic to feed such systems.	6/15/2020 6:46 AM
16	;pn	6/14/2020 12:44 PM
17	Hurdle is collection and separation technology and inherent costs. Also, economics/environmental impacts of chemical process.	6/12/2020 2:53 PM
18	Lack of financing for start up	6/12/2020 11:49 AM
19	It mostly just applies to PET. There are concerns about the amount of energy it takes but as our energy grid becomes greener this will matter less.	6/12/2020 10:57 AM
20	There currently isn't an infrastructure for such, so it is going to take investment and time	6/12/2020 9:23 AM
21	I am not convinced it will be effective or efficient at meeting environmentally acceptable standards	6/11/2020 6:02 PM
22	Any degree that polymer to monomer chemical recycling competes with or sidelines mechanical sorting capacity would be problematic. New work on low temperature catalysts may solve some problems, but at this time it seems that polymer-to-monomer chemical recycling requires high energy inputs and can't process mixed polymers. Nor does it seem to be currently scalable or financially viable. Financial viability would likely need to come via an	6/11/2020 4:39 PM

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EPR system. The recently released Gaia report “Chemical Recycling: Technical Assessment” (<https://www.no-burn.org/reports/>) poses issues that should be addressed regarding any form of chemical recycling. Considerations include: - Which polymers can the process handle? Does it need reconfiguration between batches of different polymers, or can it handle mixed polymers and if so, which ones? What level of contamination can it tolerate? - A complete mass balance for the operation. One of Gaia’s major concerns covered in the report is that >50% of the plastic that goes in emerges as CO2 emissions. - An energy balance for the operation: what external sources of energy does it require and how much of its own products does it burn for energy. - Fate of toxics in the feedstock. Also, an analysis of PAHs in particular in the outputs. - What is the market for the outputs? - Demonstrated scale is important since so many of the technical issues are tractable in the lab but insurmountable at scale.

23	Not a great option for other polymers. You should add another category here with a polymer-oligimer chemical recycling. Breaking down to a monomer is expensive in many commodity plastics. Can we find options (markets and applications) for oligimers or small chain polymers	6/5/2020 11:17 AM
24	From what I understand, it's expensive and still not widely accepted or used. Siting a plant could be a challenge.	6/4/2020 9:23 AM
25	Most current technology calls for these feedstocks to be clean and many of these technology doesn't pull from the problematic #3-7. If it is pulling clean #1-2, it isn't much of a solution to our current set of problems.	5/29/2020 11:28 AM
26	For #6 PS, building materials grade foamed plastics are not able to be processed as easily as the halogen flame retardants are not able to be easily separated and contaminates the final product.	5/21/2020 5:06 PM

### Q25 What do you like most about polymer-to-fuel chemical recycling?

Answered: 20 Skipped: 76

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Least favorable use of post consumer material. Would prefer land-filling at modern facility.	6/18/2020 9:50 AM
2	It is a good interim step to be used to until other technologies can be further developed or the infrastructure installed.	6/15/2020 4:13 PM
3	Are there any elements of polymer-to-fuel chemical recycling that you think could be helpful for managing plastic packaging waste? If so, please describe them. Yes, conversion technologies, including pyrolysis could play a role in diverting waste from landfills and litter. The focus should be on taking plastics and reusing them for their highest and best use, which requires both packaging and fuels.	6/15/2020 3:26 PM
4	It takes the polymer back to its base material.	6/15/2020 2:36 PM
5	This is a critical step to establishing the much needed infrastructure for chemical recycling.	6/15/2020 1:40 PM
6	Good concept and idea but siting facilities is always challenging.	6/15/2020 1:38 PM
7	This is sometimes the only way to divert materials from landfill. This technology might have enough draw to help establish collection and sortation infrastructure that could eventually be used for polymer to monomer recycling.	6/15/2020 1:36 PM
8	Serves as a technology bridge to full polymer-to-polymer recycling. Interim commercial development to help build necessary infrastructure. Offsets use of virgin materials for fuel.	6/15/2020 1:33 PM
9	This technology has been proven to offer unique solutions for hard to recycle materials and can offset environmental impact on other industries.	6/15/2020 8:16 AM
10	Brings resins back to one point in their origination. Re-use for the product could be much broader than resins or monomer state.	6/15/2020 8:12 AM
11	Supports innovation; drives demand/supply.	6/15/2020 7:03 AM
12	- Systems can be smaller and more modular - Fuel is necessary anyway, so why not use plastic "waste" to help make it! Turns a problem into a benefit.	6/15/2020 6:46 AM
13	[o]	6/14/2020 12:44 PM
14	New source of energy. Turn waste into something useful.	6/12/2020 4:08 PM
15	Same as above.	6/12/2020 2:53 PM
16	Less waste	6/12/2020 11:49 AM
17	It is a viable option for multilayer flexible packaging and polyolefins. We still use fuels today and the carbon footprint of these fuels is much less than fossil fuels. This process also can create technical building blocks that can be used to make new materials. There are some materials where there is no other option if we want to recover them.	6/12/2020 10:57 AM
18	Could be used now, in the short term, while waiting for robust polymer to monomer chemical recycling	6/12/2020 9:23 AM
19	Good for a last resort, gasification has promise for the lower quality waste streams. Would need to be coupled with other recycling strategies mentioned above.	6/5/2020 11:17 AM
20	It seems like a good option to deal with low grade plastics. If it can work.	6/4/2020 9:23 AM

### Q26 Do you have any concerns about polymer-to-fuel chemical recycling?

Answered: 20    Skipped: 76

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Inefficient way to make fuel. Policy should minimize burning carbons in any fashion, not create more fuel.	6/18/2020 9:50 AM
2	The availability of infrastructure is lacking. The availability of enough feedstock to make the process economically is questionable. Local or regional legislative restrictions may not allow for this technology in some states. This interim step may end up being a permanent solution even though it is not truly circular.	6/15/2020 4:13 PM
3	Do you have any concerns about polymer-to-fuel chemical recycling? If so, please describe them. Only that the benefits of landfill diversion and using the energy already captured are not fully understood. There have been extensive life cycle analyses (with data from the last 5 years) on the energy and emissions comparisons of polymer-to-fuel advanced recycling processes.	6/15/2020 3:26 PM
4	Very large energy consumption to process. Should we really be using it as a fuel?	6/15/2020 2:36 PM
5	This technology should not be viewed as an end all - be all but as a means to address other technologies such as polymer to monomer.	6/15/2020 1:40 PM
6	Marketplace is thin.	6/15/2020 1:38 PM
7	Some legislators are not sufficiently educated in this technology and seek to ban polymer to fuel. It is often part of an entire polymer to monomer system and should not be removed from consideration.	6/15/2020 1:36 PM
8	The resulting fuels may not be cost competitive without additional incentives to offset costs.	6/15/2020 1:33 PM
9	Existing state recycling law and regulation should be thoroughly reviewed, and amended if necessary, to ensure that polymer-to-monomer chemical recycling is not somehow prohibited or restricted. Misleading negative claims and rhetoric about advanced (chemical) recycling may also need to be refuted via existing scientific data and research.	6/15/2020 8:16 AM
10	Economics have proven favorable only when oil is trading above \$90-95/barrel which is unlikely to occur in the next few years.	6/15/2020 8:12 AM
11	No	6/15/2020 7:03 AM
12	- Needs to be recognized as legitimate form of recycling instead of a bad option.	6/15/2020 6:46 AM
13	o[o]	6/14/2020 12:44 PM
14	Does it increase air pollution carbon emissions?	6/12/2020 4:08 PM
15	Same as above.	6/12/2020 2:53 PM
16	Lack of available funding for start up technology	6/12/2020 11:49 AM
17	The energy required is higher than mechanical recycling but it will get lower as we get more experience with the technology and have less of an impact as our energy grid gets greener.	6/12/2020 10:57 AM
18	N/A	6/12/2020 9:23 AM
19	Depending upon the method, it may not pencil out either economically or environmentally.	6/5/2020 11:17 AM
20	Really don't know enough. Not necessarily a fan of creating fuels, as that isn't truly recycling, just repurposing.	6/4/2020 9:23 AM

### Q27 What concerns do you have about material/disposal bans?

Answered: 23    Skipped: 73

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Just substituting for another material without full life cycle assessment. Replacement materials may not be recyclable. Why do legislators prefer expanded polypropylene or polyurethane or polyisocyanurate over expanded polystyrene?	6/18/2020 9:58 AM
2	Material bans may cause an unintended shift towards an alternative material that may have even more negative environmental impacts.	6/16/2020 3:44 PM
3	These are difficult to enforce and then do not resolve the underlying problem. Disposal bans lead to more illegal dumping because adequate infrastructure and drop off sites for banned material don't exist.	6/16/2020 1:51 PM
4	Bans of materials not based on sound science regarding environmental performance but on natural-synthetic distinctions can actually foreclose innovation of replacement materials.	6/15/2020 6:55 PM
5	It could help level the playing field between recycling and landfilling by considering landfill tipping fees or surcharges to make recycling as economical as landfill. Which will encourage beneficial consumer behavior to keep recyclable material out of landfills.	6/15/2020 4:43 PM
6	Banning the use of PET and HDPE plastics are a concern for a few important reasons. First, bans do not teach people how to recycle properly. For example, just because a local community or state decides to ban the sale of a product made with PET or HDPE packaging material doesn't mean the product won't be available for a consumer to purchase in a neighboring community or state. Once that product is used and needs to be properly disposed of, the local or state system won't be able to correctly process the product and that material loses its value and ends up going to a landfill. Second, many materials used for packaging, especially when made with PET or HDPE, when disposed of properly, are reused in numerous ways. Whether it is to make new packaging or repurposed into a new product, this material is utilized after its initial use. Third, PET and HDPE plastics are a valuable commodity for many communities that rely on the recycling of these materials as a financial resource. Reclaimers and communities that provide recycling services can utilize money earned from recycling programs to better enhance these programs and educate consumers.	6/15/2020 4:24 PM
7	Decisions to ban certain materials may stifle innovation. A short timeline to determine which materials to ban may have unintended consequences. You will need to evaluate the full lifecycle in order to understand the true impact of a material ban.	6/15/2020 4:14 PM
8	Are there any elements of material/disposal bans that you think could be helpful for managing plastic packaging waste? If so, please describe them. No. All material has an environmental impact.	6/15/2020 3:28 PM
9	Material and disposal bans should not be put in a single category. Material bans can have unintended consequences when switching to alternative materials.	6/15/2020 2:49 PM
10	Stifles innovation and rewards inefficient packaging formats that are simpler to recycle but create additional impacts through increased waste of packaging and packaged products.	6/15/2020 2:02 PM
11	The unintended consequences of material bans are my biggest concerns. If the thinnest flexible plastic material is able to keep a food product from spoiling or allow a life saving pharmaceutical to get to an end consumer in the safest and most environmentally beneficial manner, would we ban it because it was plastic and ignore the value of the product inside to feed the world or save a life?	6/15/2020 1:58 PM
12	This approach picks winners and losers without a true assessment of what materials actually work best from start to finish. Meaning what is the life cycle impact of each material, what is the value chain proposition for customers and other end-users in terms of convenience, cost, supply, and of course, what is the actual recovery system in place today to handle each material properly.	6/15/2020 1:44 PM
13	Does not solve the problem - just shifts material usage.	6/15/2020 7:08 AM
14	You can't have a ban alone. There needs to be a strategy in place for reducing or recycling the material being banned. If there are strategies, it could help in the long run.	6/12/2020 5:03 PM
15	they often lead to unintended consequences. What they replace with often turns out to be worse then what they banned.	6/12/2020 4:16 PM
16	WRRRA generally opposes material/disposal bans. WRRRA supported disposal bands for sharps	6/12/2020 1:42 PM

## Appendix F. Policy & Technology Survey Responses

and batteries in the 2020 legislative session because those materials present safety risks. Sharps in recycling cause safety hazards for MRF workers and lithium batteries are highly flammable. Plastic packaging generally does not present similar safety concerns.

17	Doesn't stop pollution	6/12/2020 11:51 AM
18	Has unintended consequences, both on the environmental and health fronts. Also, once you ban the top 3, or 5, or 10, the next top 3, or 5, or 10 rise to the top - it doesn't solve the problem long term.	6/12/2020 9:25 AM
19	my concern is what material(s) is banned; is it non-renewable materials or renewable? I've seen too many advocate bans on materials that are renewable (i.e., fiber-based)	6/11/2020 6:17 PM
20	WRRRA generally opposes material/disposal bans. WRRRA supported the banning of e-waste from landfills over 15 years ago. WRRRA supported disposal bans for sharps and batteries in the 2020 legislative session because those materials present safety risks. Sharps in recycling cause safety hazards for MRF workers and lithium batteries are highly flammable. Plastic packaging generally does not present similar safety concerns. Bans/laws/regulations require enforcement. DOE delegates enforcement to local public health departments. Public Health Departments have not prioritized solid waste enforcement since prior to the I-695 passed the late 1990's and took away funding from the motor vehicle excise tax (MVET).	6/11/2020 12:05 PM
21	Difficult to enforce, therefore they often go un-enforced or they are enforced unfairly. Lead to more illegal dumping which is also rarely monitored and enforced	6/10/2020 2:32 PM
22	People dump stuff by the side of the road or in the woods, or create a healthy/safety hazard by keeping a stockpile of stuff (empties) until they end up on reality tv or die.	6/4/2020 10:25 PM
23	In our industry a Home Depot experimented with banning EPS packaging from the products that they resold. However several of these products that had to use alternative forms of packaging had significant damage increase rates, this leaves the reseller having to either return the product for rework, sell it on the secondary market and order new goods or dispose of the product. All of the above options lead to increased energy consumption and waste of other materials. The point is that all plastics have their advantages and disadvantages and must be weighed carefully to determine the effectiveness of the packaging and the amount of materials used to make the effective packaging. Ban materials in favor of other "less impactful" materials is not necessarily the correct course either, take into account the EPS foam coffee cup vs a paper coffee cup. A study was conducted and provided evidence that the amount of energy and water requirement to produce the foam cup was significantly less than the paper product. The paper cup also contributed significantly more GHG emissions than the foam cup.	5/21/2020 5:22 PM

### Q28 Do you have any suggestions for how your concerns around material/disposal bans could be addressed?

Answered: 17   Skipped: 79

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Mandatory chemistry classes for legislators.	6/18/2020 9:58 AM
2	Use scientific rigor to distinguish materials and weigh unforeseen consequences in the marketplace or waste management when materials are favored.	6/15/2020 6:55 PM
3	Landfill bans ultimately would be more effective if not limited to specific elements in the waste-stream and instead include all recyclable materials.	6/15/2020 4:43 PM
4	This would need to be a methodical and thorough process that also considers potential advancements in recycling technology in order to avoid banning essential materials.	6/15/2020 4:14 PM
5	Do you have any concerns about material/disposal bans? If so, please describe them. Material bans may lead to selecting alternatives with a greater environmental impact.	6/15/2020 3:28 PM
6	Start by separating material and disposal bans.	6/15/2020 2:49 PM
7	Provide incentives to industry to develop materials with lower lifecycle impacts. Expand collection to include all material types and formats.	6/15/2020 2:02 PM
8	Legislation should not be made in isolation. Everyone involved in addressing these issues should have the ability to address misinformation and to provide insights based on science not emotion.	6/15/2020 1:58 PM
9	Through the other alternative avenues we are exploring here including EPR, minimum recycled content, deposit fees, beefing up advanced recycling technologies, etc.	6/15/2020 1:44 PM
10	See the comments I made on the other strategies. The bans could work together with other strategies.	6/12/2020 5:03 PM
11	thorough studies, stake holding, making sure there is a known alternative that will be a safer way to go.	6/12/2020 4:16 PM
12	Greater education and increased fines for pollution	6/12/2020 11:51 AM
13	Do not use them.	6/12/2020 9:25 AM
14	bring the focus exclusively on non-renewable materials	6/11/2020 6:17 PM
15	Stress proper source separation so materials get into the correct collection bin. Quit demonizing proper solid waste disposal, which leads to citizens doing illegal dumping, wishful recycling, etc., all which adds costs and leads ultimately to environmental harm.	6/11/2020 12:05 PM
16	A focus on sham recyclers and illegal dumping - follow the stream	6/10/2020 2:32 PM
17	Use the carrot, not the stick on consumers. Compliance will never be 100% but bans tend to make people defiant and potentially reckless.	6/4/2020 10:25 PM

**Q29 Are there any elements of material/disposal bans that you think could be helpful for managing plastic packaging waste? If so, please describe them.**

Answered: 16    Skipped: 80

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Recognize that packaging does not end up where it is manufactured. It is shipped somewhere else. That is what packaging is.	6/18/2020 9:58 AM
2	Swire Coca-Cola, USA is interested in learning more about what fees, charges, taxes might be considered and how they can encourage consumer incentives and guard against market distortions. Further suggest examination of landfill tipping fees and how adjustments can be made to make recycling at least, if not more economical than landfill.	6/15/2020 4:43 PM
3	IBWA does not believe that banning the use of plastics for packaging, especially PET and HDPE, is either worthwhile or productive. Bans on disposal can be useful as long as they are communicated and enforced properly. Diversion of these materials away from landfills and into correct recycling streams is vital in continuing their reuse. However, contamination of collected waste and recycling materials is a problem and hinders the ability of these collection programs to operate efficiently. Education is a key component to ensure that consumers understand what materials are recyclable, how to properly discard of them, and the benefits of doing so.	6/15/2020 4:24 PM
4	Materials that pose a health risk that can not be mitigated by other means should be banned. Beyond that there should be a reluctance to ban any materials currently serving a positive purpose.	6/15/2020 4:14 PM
5	No. All material has an environmental impact.	6/15/2020 3:28 PM
6	Putting in policies that make is more challenging to landfill recyclable or compostable products are helpful.	6/15/2020 2:49 PM
7	Restrict bans to only those materials that pose a risk to human health or safety.	6/15/2020 2:02 PM
8	No. There are likely to be unintended consequences unless there is imminent risk to public health or safety.	6/15/2020 1:58 PM
9	No due to each material has positives in the marketplace and environment as demonstrated in the current pandemic.	6/15/2020 1:44 PM
10	Can't think of any.	6/12/2020 4:16 PM
11	Material and disposal bans are difficult to enforce, often go unenforced, and do not resolve the underlying problem. Disposal bans also lead to increased illegal dumping, especially when adequate infrastructure and drop-off sites for banned materials are inadequate.	6/12/2020 1:42 PM
12	N/A	6/12/2020 9:25 AM
13	placing something like a Pigouvian tax on non-renewable (plastic) materials would create an incentive that might prove more palatable	6/11/2020 6:17 PM
14	Plastics #1 & #2 have viable post collection markets and should be included in curbside recycling programs. Plastics #3-#7 do not. They pollute the good recyclables. They represent less than 1% of waste stream. They should be omitted from the commingled programs to protect the marketable items. For the reasons stated in Item 11, WRRRA does not believe that plastic packaging does not present similar safety concerns.	6/11/2020 12:05 PM
15	No	6/10/2020 2:32 PM
16	Impose bans on businesses, not consumers.	6/4/2020 10:25 PM

### Q30 What concerns do you have about fees/charges/taxes/levies?

Answered: 16    Skipped: 80

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Mandated fees/taxes can be punitive on the producer or consumer and don't necessarily ensure an sustainable funding source for programming or drive desirable behaviors.	6/15/2020 6:55 PM
2	IBWA opposes any fee placed on a product simply due to its packaging. While any type of fee/charge/tax/levy can be used to support necessary recycling infrastructure, this only works if this is assessed on a broad range of products that promotes equity. IBWA believes that certain principles are essential in addressing tax policy relative to the bottled water industry or any products packaged in plastic. Broad-based taxes, rather than industry or product specific taxes, are a more stable and thus more predictable source of government funding. The purpose of tax policy should be to encourage economic development while raising the revenue necessary to fund necessary government programs and services. The bottled water industry is willing to fund its fair share of taxes, along with the rest of the business community. However, taxes that target only bottled water or a specific type of packaging are unlikely to be a substantial or stable source of revenue for government funding and are inherently unfair. IBWA believes that only through broad based taxes can government establish a stable, predictable source of revenue for funding programs and services for citizens. IBWA supports measures that treat all taxpayers equitably.	6/15/2020 4:24 PM
3	That the fees will be punitive for some products over others. The true cost of the fees will be passed on to the consumers. Those who can least afford the additional expense will be most impacted. Collected fees will not be used to further develop collection or recycling technologies. Managing this process to levee fees commensurate with things such as recycle content will be extremely challenging.	6/15/2020 4:14 PM
4	Our concern is that the funding raised through fees, etc. aren't being used to improve infrastructure.	6/15/2020 2:49 PM
5	Discourages innovation in processes and materials. Funds may be diverted to general budget needs, rather than directed to building infrastructure.	6/15/2020 2:02 PM
6	Fees and taxes are punitive and tend to fund programs that are not aligned with building the infrastructure needed to address plastic packaging waste.	6/15/2020 1:58 PM
7	The money collected should go to support recycling and composting efforts. I fear the money will end up going to other projects.	6/15/2020 7:08 AM
8	- Government waste and inefficiency	6/15/2020 6:50 AM
9	they are regressive to low income consumers. They are administratively hard to collect, keep separate, and remit. Bad choice.	6/12/2020 4:16 PM
10	Causes disparate impacts on areas and populations of state	6/12/2020 11:51 AM
11	Fees will immediately get passed on to consumers. Fees per piece add up fast. Fees on a single solo cup, for example, could add up significantly on a package of 30.	6/12/2020 11:13 AM
12	Many states, including Washington, have a history of passing fees or taxes for one purpose and then diverting those funds for other needs, while largely leaving the initial problem in adequately addressed. Typically (though not always in the case of fees) these funds go to the government to fund government provided programs. Government provided programs are what we have now for addressing plastics and they are unable to get the job done. The problem is systemic, not just financial. The public tends to be concerned about tax increases also. The UK model of a tax on plastic packaging made with virgin plastics is interesting however and I understand that is a model being adopted across Europe or by specific countries. That may warrant a closer look but seems administratively burdensome compared to requiring recycled content.	6/11/2020 4:48 PM
13	adds complexity with little benefit	6/11/2020 11:41 AM
14	Additional fees and levies are unnecessary considers the current fees, taxes, charges that are in place in the current system to support the state, county and cities of Washington	6/10/2020 2:32 PM
15	They effect the low income individuals the most.	6/6/2020 4:24 PM
16	A fee charged on the packaging seems difficult to enforce. Will the fee be assessed on every packaging producer in the world that imports packaged goods to Washington? Will only Washington based companies be charged this fee, if so it will significantly impact their	5/21/2020 5:22 PM

competitiveness and will move out of state, still produce the packaging but Washington will lose jobs.

### Q31 Do you have any suggestions for how your concerns around fees/charges/taxes/levies could be addressed?

Answered: 12 Skipped: 84

#	RESPONSES	DATE
1	Reserve fees for deposit recovery schemes or for industry self-assessment in voluntary EPR programs.	6/15/2020 6:55 PM
2	Fees need to to equitable and applied to accomplish the intended goals.	6/15/2020 4:14 PM
3	Fees, etc. should be designed with the idea of shared responsibility across all stakeholders.	6/15/2020 2:49 PM
4	Don't set fees that disadvantage one material or packaging type vs another.	6/15/2020 2:02 PM
5	Fees and taxes should be done as a last resort and should be earmarked to fund needed infrastructure.	6/15/2020 1:58 PM
6	Mandate how the money can be used.	6/15/2020 7:08 AM
7	- Allow industry and private enterprise to have maximum role in all recycling efforts. - Use government funding to subsidize or provide incentives / grants to industry or private enterprise to develop efficient recycling programs. - Only involve policy to REQUIRE recycling by end users	6/15/2020 6:50 AM
8	Don't charge them.	6/12/2020 4:16 PM
9	Don't do them.	6/12/2020 11:13 AM
10	An EPR approach is the way to go, rather than a fee/tax system. In some cases, fees might be acceptable if the fee stays with the retailer, for instance, or goes to a third party non-profit to manage the program and dispersements.	6/11/2020 4:48 PM
11	don't do iy	6/11/2020 11:41 AM
12	No new taxes or fees	6/10/2020 2:32 PM

### Q32 Are there any elements of fees/charges/taxes/levies that you think could be helpful for managing plastic packaging waste? If so, please describe them.

Answered: 11 Skipped: 85

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	See #21	6/15/2020 6:55 PM
2	IBWA opposes any fee placed on a product simply due to its packaging. While any type of fee/charge/tax/levy can be used to support necessary recycling infrastructure, this only works if this is assessed on a broad range of products that promotes equity.	6/15/2020 4:24 PM
3	If those fees are used for infrastructure or consumer education.	6/15/2020 4:14 PM
4	Infrastructure investments should come from each stakeholder in the value chain.	6/15/2020 2:49 PM
5	Incorporate fees into an EPR scheme that has a level playing field for packaging materials and types.	6/15/2020 2:02 PM
6	Only if they are used to add the necessary infrastructure to address collection, sorting and reprocessing of flexible packaging.	6/15/2020 1:58 PM
7	- Use government funding to subsidize or provide incentives / grants to industry or private enterprise to develop efficient recycling programs.	6/15/2020 6:50 AM
8	No.	6/12/2020 4:16 PM
9	No - again, they increase consumer costs on products that don't have ready available alternatives. Until there is a better marketplace for compostables, we cannot go here.	6/12/2020 11:13 AM
10	An example of what could be an effective fee would be a fee placed on each single use cup and plastic cutlery. The food service business would be directed to use the collected fees to discount costs to those using refillables, to provide discounted refillable cups or packaging to customers, to finance water refill stations and dispensers at their location. Or the fees could be submitted to a third-party NGO to administer grant for water refill stations, distribution of refillables to low income communities, finance dispensers, etc. Though not packaging, a fee on cigarettes could be managed in a similar way to establish a return for cash system to address cigarette butt and other related litter (or a DRS for cigarette butts could be established).	6/11/2020 4:48 PM
11	None	6/11/2020 11:41 AM

### Q33 What concerns do you have about extended producer responsibility?

Answered: 11    Skipped: 85

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#	RESPONSES	DATE
1	No accountability within the program	6/16/2020 1:51 PM
2	IBWA believes that EPR programs for PET and HDPE plastics are unwarranted as these recycled plastics are already in high demand and manufacturers are already using rPET and rHDPE in their products. In addition, any EPR system that places the burden completely on producers will upset the current recycling market and harm industry. No recycling system can function without equal support from consumers, government, and producers.	6/15/2020 4:24 PM
3	EPR was initially designed with the idea it would standardize recycling systems, creating more reliable recycling streams. We have not seen this happen in the way EPR policies are currently implemented.	6/15/2020 2:49 PM
4	Does not address consumer behavior.	6/15/2020 7:08 AM
5	EPR will not measurably improve our recycling programs. Advocates want EPR programs to expand curbside recycling to include more Plastics #3-7. These materials represent less than 1% of the waste stream the materials lack markets in many cases. These materials are also responsible for 0.1% of the greenhouse gas reductions from recycling. Nearly 90% of GHG reduction benefits from recyclables collected through municipal solid waste systems are from fiber (including paper and old corrugated cardboard or OCC). • EPR will not significantly increase Washington's recycling rate. Washington is already a national leader in diverting materials from landfills. The total diversion rate for BC is estimated at 40% in 2016 (Vancity Report). The Department of Ecology estimates that the comparable number for Washington was 47.59% in 2016. Real recycling is much more than diversion, but Washington is already surpassing BC's diversion rate. Recycle BC does not provide transparency about its true recycling rates or the destination of materials. EPR effectively operates as a 5-7% sales tax increase: EPR will not save residents and local governments money. With EPR residents pay twice; first as rate or tax payers, then as consumers. A recent study estimates that 100% EPR program for printed paper and packaging "results in a 5-7% increase in the cost of groceries and packaged products for the average household." These impacts are most acute for lower-income households, increasing the cost of essential goods (York University Study). EPR is not cheaper and the cost is hidden. Program costs for BC's EPR program have increased by approximately 26% from 2015-2018, while diversion rate has increased by 1% despite a 7% increase in service coverage. BC's year over year costs increases exceed Ontario's comparable municipally lead program during the same period. (York University Study). Manufacturers have unlimited ability to recover costs and simply embed the costs of EPR into the price of product. The cost is hidden and passed on to the consumer without notice. Under Washington's current collections system, residents see exactly what they pay on their waste and recycling bill.	6/12/2020 1:42 PM
6	EPR will increase the cost of all goods, even for those goods that don't have an affordable alternative.	6/12/2020 11:13 AM
7	• WRRRA Response: WRRRA will submit separate comments that critique the EPR and other sections of the report in detail. Below is a high level summary of those concerns: • Consumers still pay with EPR, maybe twice: EPR effectively operates as a sales tax increase on essential goods that come in plastics packaging (food, medicine, toilet paper, paper towels). Washington is regularly criticized as having one of the most regressive tax structures in the nation. EPR would place an additional and disproportionate impact on those least able to afford it on essential goods. A recent study estimates that 100% EPR program for printed paper and packaging "results in a 5-7% increase in the cost of groceries and packaged products for the average household" (2020 York University Study). EPR will likely provide additional funds to municipalities, but their residents will still pay. If an EPR program does not require reduced charges, residents may pay twice for the same service under EPR. In most city contracts commercial garbage typically subsidizes residential collection and provide for free commercial recycling. Will business have their garbage collection bills lowered as a PRO will now be paying for those services? • Increased costs: Program costs for BC's EPR program have increased by approximately 26% from 2015-2018, while diversion rate has increased by 1% despite a 7% increase in service coverage. BC's year over year costs increases exceed Ontario's comparable municipally lead program during the same period (2020 York University Study). These costs are ultimately borne by the consumer. • Transparency: With EPR, Manufacturers have unlimited ability to recover costs and simply embed the costs of EPR into the price of product. The cost is hidden and passed on to the consumer without notice. Under Washington's current collection system, residents see exactly what they pay on their waste	6/11/2020 12:05 PM

## Appendix F. Policy & Technology Survey Responses

and recycling bill. • **Accountability & Local Control:** Washington's solid waste collection system provides essential public health service. Solid waste collection is regulated at the state and local level. An EPR system would delegate control of an essential service away from regulators and time tested service providers to a board of industry representatives and consultants. Many EPR programs are exempt from public records disclosures as well. • **Universal Service:** Under our current system, service providers are obligated to provide service to anyone who signs up. Criteria vary, but EPR systems pick and choose the communities they serve. Rural communities are often excluded, but their residents will still pay EPR fees on covered packaging for a program that may not provide service. DOE and other EPR proponents have recommended EPR as a silver bullet to every solid waste problem over the last two decades. It is not. DOE and other EPR proponents have argued for local control. If a PRO is adopted there goes local control. How does replacing Washington-owned business, and our local employees (unionized or not) to lead to local control and accountability? • **EPR will not increase diversion:** EPR will not significantly increase Washington's recycling rate. Washington is already a national leader in diverting materials from landfills. The total diversion rate for BC is estimated at 40% in 2016. The Department of Ecology estimates that the comparable number for Washington was 47.59% in 2016. Real recycling is much more than diversion, but Washington is already surpassing BC's diversion rate. Recycle BC does not provide transparency about its true recycling rates or the destination of materials. • **WRRRA's** attached comments include additional concerns with EPR programs not raised in the report.

8	Does not increase recycling rates, does not save money and moves recycling management to producers which is a very bad idea	6/11/2020 11:41 AM
9	It has shown over and over to be expensive and ineffective. It attempts to re-create a transportation system that is already in place, leading to more trucks and greenhouse gases to pick up the same material. Consumers end up paying more since producers will pass costs of an extra program onto the price of goods.	6/10/2020 2:32 PM
10	They sound good and add cost on to the product and requires layers of controls and regulation	6/6/2020 4:24 PM
11	This essentially has the same affect as adding fees to the user.	5/21/2020 5:22 PM

### Q34 Do you have any suggestions for how your concerns around extended producer responsibility could be addressed?

Answered: 6   Skipped: 90

#	RESPONSES	DATE
1	NA	6/15/2020 2:49 PM
2	Producers should not have operational control of Washington's solid waste system. The existing regulatory structure and municipal contracts should remain in place. Producer's may have a role in funding the system, purchasing back materials collected or improving packaging design.	6/12/2020 1:42 PM
3	No	6/12/2020 11:13 AM
4	Focus. Plastics 3-7 are 1% of the waste stream. Do not disrupt the successful collection system and MRF's that operate in WA. The current collection system is economically and environmentally sustainable. Are MRF's are some of the most sophisticated in north america. Let build upon that foundation and not destroy it or set it back in time. There is no issue that can not be dealt with, within our current solid waste management system. IF, there are to be PRO's then involve professionals who know how to effective operate and manage recycling operations. The inclusion of industries who do not recycle or run such operations, NGO, etc are not an effective substitution for the private and public solid waste management companies and government officials current managing solid waste in our state.	6/11/2020 12:05 PM
5	Don't use it	6/11/2020 11:41 AM
6	Don't implement it for anything that is not inherently dangerous, like chemicals or sharps.	6/10/2020 2:32 PM

**Q35** Are there any elements of extended producer responsibility that you think could be helpful for managing plastic packaging waste? If so, please describe them.

Answered: 6 Skipped: 90

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	<p>IBWA believes that EPR programs for PET and HDPE plastics are unwarranted as these recycled plastics are already in high demand and manufacturers are already using rPET and rHDPE in their products. Should a program be considered, IBWA approaches packaging and recycling issues in a manner emphasizing the most effective and efficient solutions to reduce the strain on the environment, while considering the equal responsibility of all stakeholders, including consumers. IBWA believes that locally run, comprehensive recycling programs are the best method of cost-effectively diverting solid waste from landfills and increasing recycling of consumer products and packaging. The following principles should apply to any Extended Producer Responsibility Program: 1. Minimize Environmental Footprint - Recycling program(s) should collect recyclables in a manner that minimizes the environmental footprint and does not create inefficient energy or natural resource use. 2. Comprehensive and cost efficient - Recycling program(s) should seek to collect recyclables in a cost-effective manner and provide the maximum opportunity, through ease of participation in multiple venues, for consumers to recycle a broad range of products and packaging. 3. Achievability - Recycling program(s) should have reasonable and specific recycling rates goals (e.g., % increase in rate over X yrs, % of households covered within X years, etc.), and these goals should be measured and evaluated on a regular basis. 4. Consumer Involvement - Recycling program(s) should include components that educate and motivate consumers to purchase products that are recyclable and recycle those products after use. 5. Equitable Cost Sharing - Responsibility for the cost burden of any recycling program should be shared by government (municipalities for curbside and state government for other programs), consumers and industry. Recycling program funds should be dedicated solely for the use of supporting recycling efforts. 6. Flexible and Industry Led – Flexibility is critical to ensure the continued viability of any material recovery program, as it allows member participants and the government to react to changes in the market. Any partnership formed to oversee and lead the program must include a majority of brand owners participating in the program, and these brand owners will constitute a majority of the governing board. IBWA believes that EPR programs should focus on packaging that does not yet have efficient recycling streams. Both PET and HDPE plastics have specific and relatively mature recycling infrastructure currently in place as demand already exists for these recycled plastics (rPET and rHDPE) in the market. Creating an EPR structure for these recycled plastics is duplicative and inefficient.</p>	6/15/2020 4:24 PM
2	NA	6/15/2020 2:49 PM
3	<ul style="list-style-type: none"> <li>• WRRRA may support stewardship programs that (1) Do not disrupt the existing curbside collection system or regulatory structure; or (2) Cover hard-to-handle materials that present challenges to human health and safety in the waste stream (such as sharps or batteries).</li> <li>• Stewardship programs for materials already collected through curbside programs must have: (1) Full reimbursement for current system costs, (2) Clear, continued inclusion of curbside collection under the existing regulatory structure, and (3) Government oversight with robust reporting and transparency requirements.</li> <li>• Stewardship programs must also promote environmentally and economically sustainable recycling and sustainable materials management practices including: (1) Life cycle analysis, (2) Consideration of greenhouse gas reductions, (3) Recycled content in packaging and manufacturing, (4) Recycling market development.</li> </ul>	6/12/2020 1:42 PM
4	<ul style="list-style-type: none"> <li>• WRRRA Response: WRRRA strongly opposes a BC modeled EPR system or any system that delegates operational control over an essential public health service to plastics packaging manufacturers.</li> <li>• WRRRA may support stewardship programs that (1) Do not disrupt the existing curbside collection system or regulatory structure; or (2) Cover hard-to-handle materials that present challenges to human health and safety in the waste stream (such as sharps or batteries).</li> <li>• Stewardship programs for materials already collected through curbside programs must have: (1) Full reimbursement for all current and future system costs (vehicle, employees, fuel, taxes, and current and future investment in infrastructure including MRF's); (2) Clear, continued inclusion of curbside collection under the existing regulatory structure, and (3) Government oversight with robust reporting and transparency requirements.</li> <li>• Stewardship programs must also promote environmentally and economically sustainable recycling and sustainable materials management practices including: (1) Life cycle analysis, (2) Consideration of greenhouse gas reductions, (3) Recycled content in packaging and manufacturing, (4) Recycling market development.</li> </ul>	6/11/2020 12:05 PM
5	None	6/11/2020 11:41 AM
6	NO	6/10/2020 2:32 PM

## Q36 What concerns do you have about deposit return system for containers?

Answered: 9 Skipped: 87

#	RESPONSES	DATE
1	There are a limited number of products where deposit/return systems make sense. Glass bottles might be one although even this is doubtful. Plastic bottles are not economically viable. The same can be said for the biggest contributors to plastic waste such as single-use plastics or plastic bags.	6/15/2020 4:14 PM
2	Large regulatory oversight necessary to manage programs.	6/15/2020 2:49 PM
3	Has not shown that it stops plastics leakage into the environment.	6/15/2020 7:08 AM
4	Space for returns at establishments, litter, sanitation.	6/12/2020 4:16 PM
5	<ul style="list-style-type: none"> <li>• WRRRA Response: Recycling programs are in part funded by selling the collected materials. Many of those materials now have a negative value and are costing programs instead of funding them. A few materials, including aluminum cans and beverage bottles made from plastics #1 and #2 have retained stronger values and continue to support Washington's recycling programs. A bottle bill will remove many of the few remaining materials with value from our curbside recycling programs.</li> <li>• Bottle bills can also operate as a windfall for the beverage association at the cost of our recycling programs. In 2018 (the only year with available data due to lack of transparency), the Oregon Beverage Recycling Cooperative stewardship organization kept \$28 million in unclaimed deposits. Over the years, this represents hundreds of millions of dollars that could have been invested in improving recycling.</li> <li>• Many communities in Oregon and California have also raised concerns regarding the location of redemption centers as well as homeless issues. An Oregon DEQ survey reports that over half of property managers interviewed identified the use of waste collection areas by non-tenant scavengers, citing the retrieval of returnable containers as the motivation for non-tenants to access the collection areas. This often results in contamination of recyclables and need to clean the waste collection area.</li> </ul>	6/12/2020 1:42 PM
6	Bringing dirty items back into the grocery stores is always a bad idea. Grocer nationally have worked to get these items OUT of the stores and to centralized locations for recycling. Don't go backwards.	6/12/2020 11:13 AM
7	WRRRA opposes deposit return system contains for the reasons discussed under question #12.	6/11/2020 12:05 PM
8	Leads to more costs for consumers, items subject to deposit are already recycled. It creates another system that needs to be managed and transported leading to more costs and greenhouse gases. It may ruin any recycling program, since it pulls out the most valuable commodities left in established recycling collection, which has been in place for over 40 years	6/10/2020 2:32 PM
9	Drains the existing, robust, near universal curbside programs, and potentially generates millions more car trips per year, to move a couple pounds of plastic across town to the grocery store.	6/4/2020 2:57 PM

## Q37 Do you have any suggestions for how your concerns around deposit return system for containers could be addressed?

Answered: 8 Skipped: 88

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Limit this strategy to materials that lend themselves better to re-use. Also, they would have to have considerable value that will make it worth the effort to run such a system.	6/15/2020 4:14 PM
2	Consider public-private opportunities	6/15/2020 2:49 PM
3	Don't do it.	6/12/2020 4:16 PM
4	The policy is inadvisable for reasons discussed above. However, all unclaimed deposits should go to improving recycling, not the beverage industry.	6/12/2020 1:42 PM
5	Potentially the Oregon system, but CA system is now bankrupt.	6/12/2020 11:13 AM
6	Recycling programs are in part funded by selling the collected materials. Many of those materials now have a negative value and are costing programs instead of funding them. A few materials, including aluminum cans and beverage bottles made from plastics #1 and #2 have retained stronger values and continue to support Washington's recycling programs. A bottle bill will remove many of the few remaining materials with value from our curbside recycling programs. • Bottle bills can also operate as a windfall for the beverage association at the cost of our recycling programs. In 2018 (the only year with available data due to lack of transparency), the Oregon Beverage Recycling Cooperative stewardship organization kept \$28 million in unclaimed deposits. Over the years, this represents hundreds of millions of dollars that could have been invested in improving recycling. This amount alone could have funded the unfunded local SW grants in WA and WA is twice the size of OR. • Many communities in Oregon and California have also raised concerns regarding the location of redemption centers and in many cases documented the issue of homelessness that accompany these facilities. An Oregon DEQ survey reports that over half of property managers interviewed identified the use of waste collection areas by non-tenant scavengers, citing the retrieval of returnable containers as the motivation for non-tenants to access the collection areas. This often results in contamination of recyclables and need to clean the waste collection area.	6/11/2020 12:05 PM
7	NO	6/10/2020 2:32 PM
8	Don't do it.	6/4/2020 2:57 PM

**Q38 Are there any elements of deposit return system for containers that you think could be helpful for managing plastic packaging waste? If so, please describe them.**

Answered: 7   Skipped: 89

#	RESPONSES	DATE
1	Encouraging re-use for very specific products could be beneficial although my general impression is that these materials tend to be heavier and more valuable so they are not likely to end-up as uncontrolled plastic waste.	6/15/2020 4:14 PM
2	NA	6/15/2020 2:49 PM
3	Have the collection sites at a local/state government funded facility like a landfill or work it out with the disposal collection system.	6/12/2020 4:16 PM
4	Curbside recycles so much more than just bottles and cans.	6/12/2020 11:13 AM
5	Not at the sacrifice of the local recycling programs. As individual items are removed from local programs the remaining items must take up the economic slack to pay for the remaining program materials. We need to stay focused on maintaining our local programs feasibility.	6/11/2020 12:05 PM
6	No	6/10/2020 2:32 PM
7	The local programs I see deal with glass because it is so much easier to reuse (sterilize, refill, etc). Plastic poses all kinds of serious challenges in this regard.	6/4/2020 2:57 PM

## Q39 What concerns do you have about minimum recycled content requirements?

Answered: 7 Skipped: 89

#	RESPONSES	DATE
1	Recycled content is not always a valid measurement of environmental impact.	6/18/2020 9:58 AM
2	it will not reduce plastic packaging and it is difficult to verify	6/15/2020 5:04 PM
3	Not enough supply and not high enough quality to meet FDA standards	6/15/2020 2:49 PM
4	Minimum recycled content requirements for packaging may distort existing market forces by directing material to specific uses rather than efficient market demands. Depending on where requirements are implemented, they may or may not provide positive overall environmental value. In some cases, there may not be enough current post-consumer-recycled (PCR) material supply to meet mandatory targets. The desired environmental benefits may therefore not be achieved and the penalties for noncompliance might be significant.	6/15/2020 8:21 AM
5	Does not address technical or supply concerns. For example, clear plastic is in high demand. For PP, you cannot make clear plastic with recycled PP (but can through chemical recycling).	6/15/2020 7:08 AM
6	Supply. It is often hard to get the supplies. markets are often not developed or don't exist.	6/12/2020 4:16 PM
7	For EPS packaging, the current state-of-the-art is that using in-house recycled content from industrial scrap, post-industrial and post-consumer sources is not technologically feasible, while there are resins that do have recycled content, their is a very low supply and is cost prohibitive.	5/21/2020 5:22 PM

## Q40 Do you have any suggestions for how your concerns around minimum recycled content requirements could be addressed?

Answered: 5 Skipped: 91

#	RESPONSES	DATE
1	Require vigorous life cycle assessments to support business judgment of product manufacturers. Recognize that there is not one best material for every product and shipment requirement	6/18/2020 9:58 AM
2	Conduct LCAs and verify the technology and data to demonstrate that they are preferred options	6/15/2020 5:04 PM
3	Increase infrastructure investments. Off ramps for health, safety, etc.	6/15/2020 2:49 PM
4	Packaging manufacturers and brand owners have already made aggressive commitments toward using recycled content in their packages and should not be penalized for these voluntary efforts.	6/15/2020 8:21 AM
5	start a pilot project and build up markets and supplies first before mandating.	6/12/2020 4:16 PM

Q41 Are there any elements of minimum recycled content requirements that you think could be helpful for managing plastic packaging waste? If so, please describe them.

## Appendix F. Policy & Technology Survey Responses

Answered: 5 Skipped: 91

#	RESPONSES	DATE
1	Relaxation of unsupported or unjustified health and safety requirements for food contact and near food contact materials.	6/18/2020 9:58 AM
2	will help create markets for recycled plastic	6/15/2020 5:04 PM
3	NA	6/15/2020 2:49 PM
4	Minimum recycled content requirements for some materials may be effective for managing plastic packaging waste and increasing demand for material. In some instances, demand for recycled content materials might be better suited for other efficient end market manufacturing solutions rather than being directed towards packaging. Additionally, any PCR goal must have a demonstrated and viable materials market available to meet demand.	6/15/2020 8:21 AM
5	Yes - could help build markets and supplies - must balance with cost.	6/12/2020 4:16 PM

### Q42 What concerns do you have about reusables programs?

Answered: 9 Skipped: 87

#	RESPONSES	DATE
1	Reusable programs should be de-prioritized until the COVID-19 pandemic has ended and, along with it, the concerns about hygiene of reusables	6/16/2020 3:44 PM
2	Largely infeasible for personal care/hygiene products due to quality and safety expectations.	6/15/2020 6:55 PM
3	I would have to see a full LCA with production, delivery, use, return and clean showing a reduction in environmental impact before considering this as a widely applied option. At this point, there is extremely limited public acceptance of this strategy. I have doubts that the broad public will be willing to use this option particularly if there is an additional cost versus current distribution/sales models. Think of this in terms of Amazon. On average you get a lower price delivered free within two days or less. Although the re-use models are not directly competing with Amazon, they have set the standard for public expectation.	6/15/2020 4:14 PM
4	Scalability and accessibility	6/15/2020 2:49 PM
5	Safety of packaging that is returned and must be decontaminated prior to reuse. Environmental impact of cleaning and transportation can be very high.	6/15/2020 2:02 PM
6	In the current pandemic landscape, this is a big nonstarter. Moreover, using more water, energy and chemicals to wash reusables needs to be factored in as well when discussing this as a viable alternative.	6/15/2020 1:44 PM
7	Cleaning & sterilizing will be a challenge on a large scale basis	6/15/2020 8:13 AM
8	I just don't think it will make that big of an impact, but I think it should be attempted as much as possible. We need to get away from the disposable society. I would love to see reusables come back for many things.	6/12/2020 5:03 PM
9	Please do not bring dirty items into a grocery store. Would have to put the container on a grocery scale to weigh, creating contamination issues.	6/12/2020 11:13 AM

### Q43 Do you have any suggestions for how your concerns around reusables programs could be addressed?

Answered: 8 Skipped: 88

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	no	6/15/2020 6:55 PM
2	Pricing would need to come down significantly before the general public would be willing to even consider this option.	6/15/2020 4:14 PM
3	NA	6/15/2020 2:49 PM
4	Limit reusable programs to products other than food or medical products.	6/15/2020 2:02 PM
5	As it relates to foodservice products, please engage directly with the restaurant industry on their perspective regarding reusables.	6/15/2020 1:44 PM
6	No	6/15/2020 8:13 AM
7	More incentives and funding for reusable programs, continue to push it and create a culture around it.	6/12/2020 5:03 PM
8	Fundamentally oppose. Now is not the time to bring items from home into stores	6/12/2020 11:13 AM

**Q44 Are there any elements of reusables programs that you think could be helpful for managing plastic packaging waste? If so, please describe them.**

Answered: 6 Skipped: 90

#	RESPONSES	DATE
1	not for our company or consumers	6/15/2020 6:55 PM
2	Not really. It's not going to impact the larger problems with plastic packaging waste.	6/15/2020 4:14 PM
3	NA	6/15/2020 2:49 PM
4	Restrict reusables to only those packaging materials that can effectively be surface decontaminated, especially glass and metal.	6/15/2020 2:02 PM
5	Not at this time.	6/15/2020 1:44 PM
6	Create a demand pull for reusables. This can happen with media campaigns, policies, and disincentives for producing the throw-away goods and packaging. Needs money, funding to gain traction.	6/12/2020 5:03 PM

**Q45 What concerns do you have about multi-faceted measures?**

Answered: 7 Skipped: 89

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Multi-faceted measures focused on a single material, may cause an unintended shift towards an alternative material that may have even more negative environmental impacts.	6/16/2020 3:44 PM
2	Have a full-loop system with incentivized government regulations, ran by private industry and not-for-profit producer responsibility organizations (PROs). All plastics, metals, paper, etc is to be sourced (virgin or post-consumer) within a certain local radius wherever possible. And have local facilities and infrastructure to recover these materials and turn them back into the system.	6/15/2020 11:18 PM
3	Completely unmanageable and destined to fail. When you try to do everything and satisfy every NGO or constituent who voices an opinion, you're never going to make any real progress in accomplishing a goal.	6/15/2020 4:14 PM
4	Too complex to manage effectively. Requires extensive bureaucracy and cost to administer. Leads to unintended consequences.	6/15/2020 2:02 PM
5	If too broad in scope, they can have unfavorable unintended consequences with goals that are difficult if not impossible to meet. SB 54 is a great example.	6/15/2020 1:58 PM
6	They can be too complex if trying to address too many different types of materials, however, no single type of material is perfect and all must be allowed.	6/15/2020 1:44 PM
7	I like the current system	6/11/2020 11:41 AM

### Q46 Do you have any suggestions for how your concerns around multi-faceted measures could be addressed?

Answered: 6   Skipped: 90

#	RESPONSES	DATE
1	If a material is hazard for our own local people, we certainly need not pawn it off on another community and would be wisest to assess where hazards start and head them off at the producer, before it disperses to consumers/community/environment.	6/15/2020 11:18 PM
2	Having inter-related approaches can be a good strategy but those relationships need to be complimentary.	6/15/2020 4:14 PM
3	Conduct life cycle analysis to understand and anticipate potential trade-offs.	6/15/2020 2:02 PM
4	These kinds of measures should be minimized or eliminated.	6/15/2020 1:58 PM
5	Decisions should be based on more than just the packaging material and the ability for it to be recycled. Performance and the impact of the entire supply chain on environmental and human/animal health must be included in all measures.	6/15/2020 1:44 PM
6	none	6/11/2020 11:41 AM

### Q47 Are there any elements of multi-faceted measures that you think could be helpful for managing plastic packaging waste? If so, please describe them.

Answered: 5   Skipped: 91

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Recycle compliant packaging will have no tear-off features ensuring the entirety of the packaging is recycled. All aspects of packaging must stay attached to main package. Lids with tethers to the tub, recyclable film pouch with perforations at opening and build-in same-material closure (zip, tie-off, fold-over). Aseptic packaging has its place and can be recycled in mass quantity when not contaminated. Create newly designed packing with ease of rinsing and start collecting curb-side. Do a similar redesign for ease of cleaning on regular non-aseptic cartons. Address where plastic enters non-plastic packaging: a plastic security sticker on a cardboard box, the sticker on an apple, the ring around a glass jar that has a metal lid. Change these plastics to be backyard compostable too. Or, if the recycle process for say, paper, is better with a more resilient plastic because in the recycle process it will float and be easily skimmed off, then recycled, start clear education and identification standards for consumers on an all materials level.	6/15/2020 11:18 PM
2	None of the standard approaches is 100% stand-alone. You need to have a holistic strategy but be strategic in its development. As an example, consumer education and behavior needs to be in-synch with collection and processing and that needs to be aligned with recycle markets.	6/15/2020 4:14 PM
3	Solicit input from across value chain for ideas and suggestions on how to address issues.	6/15/2020 2:02 PM
4	While the intent is to bring attention to issues related to packaging waste, broad sweeping multi-faceted measures are often ineffective.	6/15/2020 1:58 PM
5	Medicine, food, toxic materials packaging should be exempt or unintended consequences of increased food waste and contaminated recycled materials might be a bigger problem.	6/15/2020 1:44 PM

### Q48 What concerns do you have about expanded mechanical recycling for additional resin types?

Answered: 4 Skipped: 92

#	RESPONSES	DATE
1	I don't think it's practical and feasible to recycle more and more of everything. It's too hard to keep clean, there are no markets, etc. The answer is to produce less and standardize recycling so there are fewer materials in the mix to sort and it is more marketable.	6/12/2020 5:03 PM
2	The department's 2016 waste characterization study estimated plastics packaging at 5.7% of Washington's waste stream. WRRRA members anecdotally report comparable inbound waste streams at their facilities. Around 1/3 of that plastic is #1 PETE and #2 HDPE which have weakened, but viable markets. Plastics #3-7 represent less than 1% of the waste stream and in many cases the materials lack viable and sustainable markets. These materials are also responsible for 0.1% of the greenhouse gas reductions from recycling. Nearly 90% of GHG reduction benefits from recyclables collected through municipal solid waste systems are from fiber (including paper and old corrugated cardboard or OCC). • WRRRA supports data driven decisions using life-cycle analysis to determine what is environmentally and economically sustainable to collect and process through our recycling programs.	6/11/2020 12:05 PM
3	None	6/9/2020 3:20 PM
4	Vary few 100% resin type	6/6/2020 4:24 PM

### Q49 Do you have any suggestions for how your concerns around expanded mechanical recycling for additional resin types could be addressed?

Answered: 4 Skipped: 92

#	RESPONSES	DATE
1	Require only certain highly valuable and marketable materials in the recycling bin. Police recycling - fines for putting garbage in bins. No additional resin types in recycling!!!	6/12/2020 5:03 PM
2	<ul style="list-style-type: none"> <li>• WRRRA Response: The department's 2016 waste characterization study estimated plastics packaging at 5.7% of Washington's waste stream. WRRRA members anecdotally report comparable inbound waste streams at their facilities. Around 1/3 of that plastic is #1 PETE and #2 HDPE which have weakened, but viable markets. Plastics #3-7 represent less than 1% of the waste stream and in many cases the materials lack markets. These materials are also responsible for 0.1% of the greenhouse gas reductions from recycling. Nearly 90% of GHG reduction benefits from recyclables collected through municipal solid waste systems are from fiber (including paper and old corrugated cardboard or OCC).</li> <li>• WRRRA supports data driven decisions using life-cycle analysis to determine what is environmentally and economically sustainable to collect and process through our recycling programs.</li> </ul>	6/12/2020 1:42 PM
3	Do a true cost benefit analysis. Watch Plastic War Documentary.	6/11/2020 12:05 PM
4	Explain where newly sorted resins will go - provide examples and be transparent	6/9/2020 3:20 PM

**Q50 Are there any elements of expanded mechanical recycling for additional resin types that you think could be helpful for managing plastic packaging waste? If so, please describe them.**

Answered: 4 Skipped: 92

#	RESPONSES	DATE
1	Yes. Go back to cardboard, paperboard packaging, HDPE, PET packaging only, or better yet, no packaging at all. We need to reduce the use of plastics and not keep adding resins that are difficult to recycle and extremely costly for people in terms of environmental justice issues and the environmental burden that the materials cause.	6/12/2020 5:03 PM
2	Market development for these materials is required first.	6/12/2020 1:42 PM
3	Watch Plastic War Documentary.	6/11/2020 12:05 PM
4	Explain where newly sorted resins will go - provide examples and be transparent	6/9/2020 3:20 PM

**Q51 What concerns do you have about polymer-to-monomer chemical recycling?**

Answered: 11 Skipped: 85

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Chemical recycling is limited in terms of feedstocks.	6/16/2020 3:44 PM
2	This is not a solution, it is a bandaid to a bad enviro deal. Best not to produce what the earth cannot digest.	6/15/2020 11:18 PM
3	it will not reduce plastic packaging (only reduce what gets sent to the landfill). Technology not mature yet, costs and environmental impacts make it a worse option	6/15/2020 5:04 PM
4	This is an unproven technology with unknown environmental and social impacts. : it will not reduce plastic packaging (only reduce what gets sent to the landfill). The costs and environmental impacts could make it a worse option.	6/15/2020 12:24 PM
5	I don't know enough about it. I don't think the chemical recycling is feasible on a large scale, and it requires a "feed the beast" type of system, where we produce more and more of the stuff, to justify the machine. Also, I don't think it can be economically feasible on any large scale as you have to collect so much material when sortation issues are going to be prohibitively expensive for MRFs or other facilities.	6/12/2020 5:03 PM
6	Generally speaking, WRRA is skeptical of chemical recycling. Its shortcomings with regards to environmental benefits and energy use are well documented in this report and elsewhere. The Global Alliance for Incinerator Alternatives recently released a study that demonstrates the plastic "industry has "grossly overstated" the feasibility of chemical recycling."	6/12/2020 1:42 PM
7	Generally speaking, WRRA is skeptical of chemical recycling. It has been attempted for many years. It has been attempted by solid waste companies. It has not proven to be economically or environmentally sustainable. Its shortcomings with regards to environmental benefits and energy use are well documented in this report and elsewhere. The Global Alliance for Incinerator Alternatives recently released a study that demonstrates the plastic "industry has "grossly overstated" the feasibility of chemical recycling." • <a href="https://www.plasticsnews.com/news/study-chemical-recycling-not-answer-plastic-waste?utm_source=pn-breaking-news&amp;utm_medium=email&amp;utm_campaign=20200604&amp;utm_content=hero-headline">https://www.plasticsnews.com/news/study-chemical-recycling-not-answer-plastic-waste?utm_source=pn-breaking-news&amp;utm_medium=email&amp;utm_campaign=20200604&amp;utm_content=hero-headline</a>	6/11/2020 12:05 PM
8	Added cost with limited results	6/11/2020 11:41 AM
9	It doesn't make the highest use of materials necessarily	6/9/2020 3:20 PM
10	I am not an expert on this technology, but it seems to take a lot of energy, and therefore not be consistent with the need for action on climate change.	6/5/2020 10:30 AM
11	Actual costs and who pays.	6/4/2020 2:57 PM

### Q52 Do you have any suggestions for how your concerns around polymer-to-monomer chemical recycling could be addressed?

Answered: 8   Skipped: 88

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Create purer products from the get-go or use a backyard compostable standard.	6/15/2020 11:18 PM
2	Conduct LCAs and verify the technology and data to demonstrate that they are preferred options	6/15/2020 5:04 PM
3	Much more study and research is needed to understand whether this is an environmentally sound technology. It should not be funded by government. If there is promise that this is a viable technology, industry should be funding the R&D	6/15/2020 12:24 PM
4	It should be restricted to large scale industries that have enough process waste to feed it and can assure a clean stream.	6/12/2020 5:03 PM
5	See our response to Item 23. Watch Plastic War Documentary.	6/11/2020 12:05 PM
6	none	6/11/2020 11:41 AM
7	use this only where reuse/recycling/change of material isn't possible	6/9/2020 3:20 PM
8	Not informed well enough to venture.	6/4/2020 2:57 PM

**Q53 Are there any elements of polymer-to-monomer chemical recycling that you think could be helpful for managing plastic packaging waste? If so, please describe them.**

Answered: 6 Skipped: 90

#	RESPONSES	DATE
1	This is not an acceptable answer to plastic waste when plastic "waste" need not exist.	6/15/2020 11:18 PM
2	provides a waste management option, if no better option	6/15/2020 5:04 PM
3	See my last answer.	6/12/2020 5:03 PM
4	See our response to Item 23.	6/11/2020 12:05 PM
5	none	6/11/2020 11:41 AM
6	explain what that is and be transparent about limitations	6/9/2020 3:20 PM

**Q54 What concerns do you have about polymer-to-fuel chemical recycling?**

Answered: 19 Skipped: 77

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	There are legitimate doubts about whether polymer-to-fuel processes can really be called recycling given the by-products of waste-to-energy.	6/16/2020 3:44 PM
2	We are interested in creating a circular economy by closing the loop and turning our PET resins back into bottles. Resin-to-fuel processes could potentially divert PET from this loop.	6/16/2020 11:51 AM
3	Not sure about the efficacy of doing this.	6/16/2020 2:54 AM
4	It's a dirty deal.	6/15/2020 11:18 PM
5	This is anti-climate change. This policy would face massive opposition (politically).	6/15/2020 9:56 PM
6	Does not solve the problem at all. Creates additional air pollution. Does not implicate producers in the ethical management of the problem they create.	6/15/2020 6:08 PM
7	It seems to just displace the problem. We want to discourage recycling plastics to be emitted as exhaust from vehicles.	6/15/2020 5:43 PM
8	it will not reduce plastic packaging (only reduce what gets sent to the landfill). Technology not mature yet, costs and environmental impacts make it a worse option	6/15/2020 5:04 PM
9	We are interested in creating a circular economy by closing the loop and providing our PET resins back into bottles. Resin to Fuel processes could potentially divert PET from this loop.	6/15/2020 4:43 PM
10	Will not reduce plastic packaging, it will only reduce what gets sent to the landfill. Technology not mature yet, costs and environmental impacts may make this a worse option than other plastic recycling technologies. It does not promote circular economy and instead relies on burning of the plastic (as fuel).	6/15/2020 12:24 PM
11	See my answers about polymer to monomer recycling.	6/12/2020 5:03 PM
12	just creates another mechanism for fossil fuel production to continue; also creates the illusion that plastic waste is being captured and turned into a meaningful product when, in reality, it is simply adding to GHG emissions	6/11/2020 6:17 PM
13	This is a misnomer and should be "Polymer-to-fuel chemical processing." It is not a recycling process, but a fuel production process, providing for more full resource utilization through generating energy for a single cycle. As such, it is basically a more productive disposal mechanism. The concern is that it will be credited as recycling when it is not, it will displace real recycling through mechanical sorting, it will displace investment and research into polymer-to-monomer chemical recycling, and it will encourage further proliferation of single-use, low-value, hard-to-recycle, and mixed material plastic packaging and products. The quality and toxicity load of the resulting fuel is also a concern. While described by proponents as an interim step to polymer-to-monomer chemical recycling, once investment is made and polymer-to-fuel chemical processing facilities are constructed, it is difficult to imagine how the shift actually happens. The recently released Gaia report "Chemical Recycling: Technical Assessment" ( <a href="https://www.no-burn.org/reports/">https://www.no-burn.org/reports/</a> ) poses issues that should be addressed regarding any form of chemical recycling. Considerations include: - Which polymers can the process handle? Does it need reconfiguration between batches of different polymers, or can it handle mixed polymers and if so, which ones? What level of contamination can it tolerate? - A complete mass balance for the operation. One of Gaia's major concerns covered in the report is that >50% of the plastic that goes in emerges as CO2 emissions. - An energy balance for the operation: what external sources of energy does it require and how much of its own products does it burn for energy. - Fate of toxics in the feedstock. Also, an analysis of PAHs in particular in the outputs. - What is the market for the outputs? Most of the facilities we are seeing are producing fuel to be burned on- or off-site, especially at cement kilns. - Demonstrated scale is important since so many of the technical issues are tractable in the lab but insurmountable at scale	6/11/2020 4:48 PM
14	See response to item 23. Watch Plastics War Documentary.	6/11/2020 12:05 PM
15	adds cost and is not a good environmental solution	6/11/2020 11:41 AM
16	turning pollution into pollution...	6/9/2020 3:20 PM
17	I am not an expert on this technology, but it seems to not be consistent with the need for action on climate change. It feeds into a continued reliance on fossil fuels. Incinerating waste	6/5/2020 10:30 AM

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is a known public health concern. There are environmental justice concerns because incinerators are located in low-income neighborhoods.

18	It is well established in WA State that burning materials for energy is not recycling.	6/4/2020 2:57 PM
19	this does not seem like recycling to me. it is not part of a circular economy	5/26/2020 10:25 AM

### Q55 Do you have any suggestions for how your concerns around polymer-to-fuel chemical recycling could be addressed?

Answered: 13    Skipped: 83

#	RESPONSES	DATE
1	Shut off the tap, don't just grab a mop! This is not environmentally better, and we can and will do better!	6/15/2020 11:18 PM
2	No	6/15/2020 9:56 PM
3	If this was a last resort for residual from a high-tech, local system as part of an EPR system, I would be okay with it. Even then, the air pollution may not be tolerable.	6/15/2020 6:08 PM
4	No.	6/15/2020 5:43 PM
5	Conduct LCAs and verify the technology and data to demonstrate that they are preferred options	6/15/2020 5:04 PM
6	Much more study is needed.	6/15/2020 12:24 PM
7	See above.	6/12/2020 5:03 PM
8	create a carbon tax on the polymer-to-fuel produced	6/11/2020 6:17 PM
9	Don't refer to it as recycling, don't credit it as recycling, do not use public funds to finance it or pay for its on-going operating expenses. Ensure that it is only a last resort and transitional technology that doesn't compete with other processes that are higher up the hierarchy. Do not allow resulting products to be used for fuel if they have other uses. Require resulting fuels to be clean and meet clean fuel standards.	6/11/2020 4:48 PM
10	It is a diversion from the real issue of the recyclability of resins #3-#7's which are less than 1% of the total waste stream.	6/11/2020 12:05 PM
11	this should be the method of last resort...	6/9/2020 3:20 PM
12	Transparency	6/4/2020 2:57 PM
13	continue to remove subsidies for fossil fuels and create state funding mechanisms to boost availability of truly renewable energy	5/26/2020 10:25 AM

### Q56 Are there any elements of polymer-to-fuel chemical recycling that you think could be helpful for managing plastic packaging waste? If so, please describe them.

Answered: 13    Skipped: 83

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#	RESPONSES	DATE
1	Polymer-to-fuel chemical recycling holds some promise with flexible plastics that are difficult to recycle today.	6/16/2020 11:51 AM
2	Switch to compostable.	6/15/2020 11:18 PM
3	No	6/15/2020 9:56 PM
4	If this was a last resort for residual from a high-tech, local system as part of an EPR system, I would be okay with it. Even then, the air pollution may not be tolerable. Outside of that context it is not a tolerable or ethical option.	6/15/2020 6:08 PM
5	provides a waste management option, if no better option	6/15/2020 5:04 PM
6	Polymer to fuel chemical recycling holds some promise with flexible plastics that are difficult to recycle today.	6/15/2020 4:43 PM
7	See above.	6/12/2020 5:03 PM
8	no	6/11/2020 6:17 PM
9	If all the issues addressed above are sufficiently dealt with, this could be an interim step for dealing with difficult plastics as an alternate disposal option (but it is not a recycling method.) However, as stated above, it is hard to imagine how the transition happens after investments have been made in this technology and facilities.	6/11/2020 4:48 PM
10	Watch Plastics War Documentary.	6/11/2020 12:05 PM
11	not really	6/9/2020 3:20 PM
12	Conceptually, making simpler commodities from more complex ones makes sense. Simpler may have more applications than complex, but getting there economically sounds like it's upside down at the moment.	6/4/2020 2:57 PM
13	not really	5/26/2020 10:25 AM

**Q57 Are there any elements of material/disposal bans that you think could be helpful for managing plastic packaging waste? If so, please describe them.**

Answered: 6    Skipped: 90

#	RESPONSES	DATE
1	Bans are a good tool for raising awareness of our habits. Who does not feel guilty today if they grab a straw or a plastic bag at the store? Who would want asbestos back in their walls at home?	6/15/2020 2:36 PM
2	None. Only ban items that cause harm.	6/15/2020 1:56 PM
3	No ban without a plan. Same for all packaging.	6/12/2020 3:02 PM
4	WRRRA generally opposes material/disposal bans. WRRRA supported disposal bands for sharps and batteries in the 2020 legislative session because those materials present safety risks. Sharps in recycling cause safety hazards for MRF workers and lithium batteries are highly flammable. Plastic packaging generally does not present similar safety concerns.	6/12/2020 1:31 PM
5	None	6/11/2020 12:06 PM
6	Yes, if there are options for different materials to be used and options for recycling than yes, this is a good way to push it in the right direction	6/5/2020 11:20 AM

## Q58 Do you have any concerns about material/disposal bans? If so, please describe them.

Answered: 8 Skipped: 88

#	RESPONSES	DATE
1	In an ideal world, I would like decisions to be made by each individual around a more accurate environmental accounting of true cost. If a straw and lid cost 50 cents, I would save one for future use or go without. Banning disposal creates some enforcement management and outright banning the material can stifle efficient innovative use of the material. That being said, bans are unfortunate but sometimes necessary.	6/15/2020 2:36 PM
2	Unintended consequences. Often bans do not consider the entire supply chain and possible effects on environmental and health considerations.	6/15/2020 1:56 PM
3	Need to take into consideration viable economic alternatives. For example, there is no viable economic alternative to expanded polystyrene in the marketplace for shipment of certain types of durable goods. Additionally, we don't want to force an alternative option that would lead to significantly higher product damage (particularly for durable goods).	6/15/2020 8:42 AM
4	No ban without a plan. Ban needs to be at generator level. Non recyclable material ending up in recycling stream as a result of the ban.	6/12/2020 3:02 PM
5	WRRRA generally opposes material/disposal bans. WRRRA supported disposal bands for sharps and batteries in the 2020 legislative session because those materials present safety risks. Sharps in recycling cause safety hazards for MRF workers and lithium batteries are highly flammable. Plastic packaging generally does not present similar safety concerns.	6/12/2020 1:31 PM
6	Banning disposal does not deal with having markets for the items ban	6/11/2020 12:06 PM
7	Yes there has to be a clear and ready alternative available for the consumer to manage the material	6/10/2020 1:12 PM
8	Bans without viable options are not a good thing. Bans also don't always solve the solution.	6/5/2020 11:20 AM

## Q59 Are there any elements of fees/charges/taxes/levies that you think could be helpful for managing plastic packaging waste? If so, please describe them.

Answered: 9 Skipped: 87

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Coca-Cola is interested in learning more about what fees, charges and taxes might be considered and how they can encourage consumer incentives and guard against market distortions. Further suggest examination of landfill tipping fees and how adjustments can be made to make recycling at least as economical as landfilling.	6/16/2020 11:51 AM
2	Important to have dedicated funding to close gaps in recycling access, make investments in recycling infrastructure; disposal tip fee surcharges can generate revenue for municipal recycling and help equalize disposal and recycling costs	6/15/2020 6:48 PM
3	It has some of the same benefits as the ban, but it has more unpredictability. Financial based incentives (or disincentives) can have benefits, especially when it comes to generating revenue streams for enforcement and programmatic development. They can also deter certain behaviors and help to drive behavior change.	6/15/2020 5:45 PM
4	Swire Coca-Cola, USA is interested in learning more about what fees, charges, taxes might be considered and how they can encourage consumer incentives and guard against market distortions. Further suggest examination of landfill tipping fees and how adjustments can be made to make recycling at least, if not more economical than landfill.	6/15/2020 4:44 PM
5	If structured correctly and in consultation with industry, fees should provide revenue that is ringfenced to support recycling, not be discriminatory, and provide incentives for sustainability.	6/15/2020 4:15 PM
6	Yes, fees (and related items) could generate sufficient infrastructure investment to address the supply side of the recycling challenge.	6/15/2020 3:28 PM
7	WRRRA supports the existing state and locally regulated solid waste collection system. At the local level, programs are typically funded by a combination of these approaches, including local tip fees and a wide variety of local excise taxes, surcharges, etc.,. This system has proven resilient and achieved excellent results for Washington. These tools can, and in fact already have, been used to improve recycling in Washington. In lieu of dissolving the state solid waste collection and processing system you might consider a fee on the brands that manufacture the problem materials that are mandated to be collected in our local programs, in many cases at the urging of those same brands. Such a cost could be directly funded by brand owners, collected as an assessment, tax, or a fee charged at the point of purchase. The fee would be assessed for any materials mandated for diversion from the waste stream, but is not yet economically viable or have a sustainable end market for those products sold in Washington. Revenues from fee/tax could be used to offset the costs associated with the problematic materials whether they are ultimately recycled or properly disposed.	6/11/2020 12:20 PM
8	This survey is too long. I'm done.	6/4/2020 10:25 PM
9	Fees/charges/taxes/levies have two potential functions, which are; 1. a deterrent to purchase a product, and 2. collect revenue to address problems. The fee has to be really high in order to be a deterrent.	6/4/2020 9:23 AM

**Q60 Do you have any concerns about fees/charges/taxes/levies? If so, please describe them.**

Answered: 8    Skipped: 88

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Support would depend on the nature of the fee and its purposes; protect against funds being diverted to other purposes by the state; establish criteria for fund recipients; should be multi-material, not plastics only	6/15/2020 6:48 PM
2	We are concerned about the regressive nature of this option. Often with flat fees/charges/taxes/levies, those who are making the lowest amount must pay the most relative to their income when taxes or fees such as this are implemented. It also can put enforcement responsibilities on people who did not design the policy if there is not a designated agency to enforce. For example, Tacoma's Bring Your Own Bag Ordinance (bag ban), relies on cashiers to field complaints about there not being plastic bags available and/or any associated fees.	6/15/2020 5:45 PM
3	Fees can be focused on only one part of the waste stream, disproportionately impacting some industries. In some cases, generated funds can be misappropriated toward other purposes.	6/15/2020 4:15 PM
4	Yes, frankly, that funds will not be used for their intended purposes or continue after goals have been achieved. Also, it matters a great deal who will collected and make spending decisions.	6/15/2020 3:28 PM
5	Plastics industry will just absorb the cost and pass along to consumer.	6/15/2020 8:14 AM
6	WRRRA supports multi-faceted measures that can be adopted within the existing regulatory system. Policies WRRRA supports include, PCR in products and packaging, recycling market development, contamination reduction, simplified recycling program material lists, and public education.	6/11/2020 12:20 PM
7	I feel the consumer will just end up absorbing the cost and then the producers do not have a real incentive to actually fix the problem	6/10/2020 1:12 PM
8	It will disproportionately affect the lower income tiers the most. The fees probably can't be high enough to be a deterrent. So then the fees become a way to raise monies to address the problem. One challenge with this approach is ensuring the monies always go to the problem they were intended to address. Just look at the litter tax and lottery fund as examples. Monies have a way of being diverted to new and more critical (in the eyes of some) functions.	6/4/2020 9:23 AM

**Q61 Are there any elements of extended producer responsibility that you think could be helpful for managing plastic packaging waste? If so, please describe them.**

Answered: 4   Skipped: 92

#	RESPONSES	DATE
1	Yes, a material neutral EPR system with eco modulation could both help fund a recycling system and provide incentives to make smarter packaging design decisions.	6/15/2020 3:28 PM
2	- Requires ALL producers to participate - Allow EXISTING producer groups to run their programs but with mandatory participation by ALL producers	6/15/2020 6:59 AM
3	Support for EPR for HTR material as long fees flow to local government for program management.	6/12/2020 3:02 PM
4	Very little.	6/4/2020 3:00 PM

**Q62 Do you have any concerns about extended producer responsibility? If so, please describe them.**

Answered: 4   Skipped: 92

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#	RESPONSES	DATE
1	Yes, similar to fees, it will be important that the system is properly managed and covers all materials.	6/15/2020 3:28 PM
2	There are many organizations, including producers, working to determine a possible US template for EPR for packaging. Highly encourage Ecology and/or the legislature to engage in those discussions before mandating EPR for producers.	6/15/2020 8:42 AM
3	- inefficiency of government systems - State run EPR programs which is grossly inefficient and redundant for industry to manage. Need national programs, not state specific programs. - "one size fits all" approach - inefficiency of huge stewardship organizations appointed by government to run government systems	6/15/2020 6:59 AM
4	Encourages people to abdicate self-education and thoughtful conservation behavior because "the manufacturers are going to pay for it." Doesn't encourage citizen "ownership" of the consequences of our consumer behavior.	6/4/2020 3:00 PM

**Q63 Are there any elements of deposit return system for containers that you think could be helpful for managing plastic packaging waste? If so, please describe them.**

Answered: 9    Skipped: 87

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	<p>can provide a narrow framework for increasing recovery of certain containers if properly designed. Systems must provide strong, multi-material environmental in an efficient and accountable manner, provide convenient service to consumers, create a financially sustainable model, and offer producers access to recovered material for closed loop recycling</p>	6/15/2020 6:48 PM
2	<p>IBWA believes that any system that works to provide manufacturers with access to material that can be utilized for packaging, whether that be new (virgin) material or recycled material, is worthwhile of being considered a component of a recycling and/or manufacturing stream. IBWA recommends the following areas be addressed when any new deposit program is being considered or changes are being made to any existing program – designing the administration of the program for greater efficiency, reducing contamination, addressing fraud and abuse, ensuring handling and other fees are utilized to make the program more effective, and use of unclaimed deposits to support the program and recycling infrastructure. Designing the administration of the program for greater efficiency A program should be designed with an administration that establishes a cooperative organization that is managed by a third-party, non-state entity that includes industry participation. It should include an educational component to address proper recycling process and goals. There should be an evaluation by the management entity of what containers would be covered (types and materials), redemption fee, handling and processing fees, industry commitments, state support, etc. to ensure an effective and efficiently run program. Equitable financial arrangements should be established to ensure that manufacturers, consumers, recyclers, and end users are all providing support to operate a successful program. Reducing contamination A strong effort to reduce contamination of recycled materials is essential to making any program valuable to end users. This should include increased ability for reclaimers to refuse products based on contamination, necessary consumer education on recycling streams, standardization of quality control and increase oversight of recycling processing to better ensure proper sorting of materials, and funding to provide access to the latest technology. Also, municipalities need to have additional leverage when negotiating hauling and recycling contracts with industry that can ease contamination requirements. Lastly, flexibility in how containers are returned, whether it be through bag drops, mobile return stations, redemption centers, curbside, and at retail locations, should be included in any bottle deposit program. Addressing fraud and abuse The biggest issue with most redemption programs is fraud. Every state that has a deposit program is losing money to fraud and spending money on trying to curtail that fraud. Increased oversight of the system is paramount to ensuring fraud reduction and control. Some states have already implemented regular audits of the system, redemption centers, and distributors to ensure compliance, examine efficiency, and deter fraud. Penalties need to be at levels that deter repeat offenses and establishing appropriate daily limits on return amounts can also limit attempts to defraud the system. Finally, deposit initiation should occur at the time of retail sale. This will improve the collection of deposits on interstate shipments and reduce the possibility of products that are sold to distributors in non-deposit states being sold to stores in deposit states at a reduced cost that undercuts their competitors. In addition, transparency is crucial for any bottle deposit program. Regulatory entities should be required to post reported data so there is visibility on how much material is being collected, via what methods, and on all costs associated with operating the program. This includes how the program uses unclaimed funds, discussed in more detail below. Ensuring handling and other fees are utilized to make the program more effective One of the major differences in the various deposit programs throughout the US is the fees beyond the actual deposit. Handling fees and other industry focused fees can make the actual cost of being part of a deposit system more than double the actual deposit amount. Applying a more uniform system of fees across all states and utilizing technological enhancements to keep costs at a minimum for processing and handling fees will ease the burden on business. Determining fees need to consider several factors including: true cost of handling the material; type of material; recovery rate; market demand; and program management. Use of unclaimed deposits to support the program and recycling infrastructure Unclaimed deposits should be used to support the bottle deposit program by offsetting industry costs and investing in recycling education, collection, and recycling infrastructure. Whether the program is administered by a third party or by the state, it is critical to ensure adequate funding for all these efforts on an ongoing basis. Because the redemption rate in a state may vary from year-to-year, the annual amount of unclaimed deposit money available to operate the program may be uncertain. For example, if the redemption rates increase beyond a certain percentage, that will significantly reduce the unclaimed deposit funds available to efficiently operate the program. If that happens, the state should provide additional funds needed to run the program. Lastly, Certain bottle deposit programs operate more efficiently and effectively than others. Generally, the material returned via redemption is better quality and less contaminated than</p>	6/15/2020 4:33 PM

## Appendix F. Policy & Technology Survey Responses

that being returned through a more generic recycling program or single-stream program. With some systems, such as California's, communities rely upon grants from money raised from unclaimed deposits to help increase the viability and efficiency of an existing recycling program or help to support funding for new programs.

3	High recovery rates for targeted and high value materials. If properly designed, can be industry friendly while also consumer friendly.	6/15/2020 4:15 PM
4	For plastics, there may be benefits in very limited and narrow situations.	6/15/2020 3:28 PM
5	Restrict to rigid packaging, such as glass, metal and HDPE.	6/15/2020 2:03 PM
6	Possibly, but need to have stable collection and payment system.	6/15/2020 1:56 PM
7	Expensive system for small portion of stream.	6/12/2020 3:02 PM
8	N/A	6/12/2020 9:26 AM
9	None in my opinion	6/11/2020 12:06 PM

### Q64 Do you have any concerns about deposit return system for containers? If so, please describe them.

Answered: 8 Skipped: 88

#	RESPONSES	DATE
1	very limited impact on overall plastics or waste stream, adverse financial and operational impacts on remaining multi-material system, high operating costs, protect against funds being diverted to other purposes by the state	6/15/2020 6:48 PM
2	While deposit programs do have the capabilities of providing increasing numbers in terms of redemption and recycling, there are several areas where they struggle. This includes: Fraud and abuse Unreasonable handling fees Unclaimed deposits Contamination in the recycling stream In addition, IBWA would have concerns with any bottle deposit program proposal that does not include, at a minimum, elements suggested in the response to question 16.	6/15/2020 4:33 PM
3	Expensive, complex, and difficult to manage. Not all players favor DRS schemes due to cost and complexity. Limited environmental benefits due to narrow materials focus.	6/15/2020 4:15 PM
4	System management and accountability. Recently, the California system failed due to large-scale mismanagement.	6/15/2020 3:28 PM
5	Surplus fees from the deposits are not directed at initiatives to expand access or scale of recycling.	6/15/2020 2:03 PM
6	Sustainability of businesses responsible for this.	6/15/2020 1:56 PM
7	N/A	6/12/2020 9:26 AM
8	Adds complexity to the recycling system, Redemption processes don't work well there for many people just place in the blue bin for convenience	6/11/2020 12:06 PM

### Q65 Are there any elements of minimum recycled content requirements that you think could be helpful for managing plastic packaging waste? If so, please describe them.

Answered: 5 Skipped: 91

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#	RESPONSES	DATE
1	recognizes importance of closing the loop and encouraging use of material to make new packaging; especially important for materials for which demand for recovered material is weak	6/15/2020 6:48 PM
2	<p>IBWA supports reasonable recycled content requirements based on market data and effective dates. There are several factors that should be addressed when potentially instituting a mandate on the use of recycled rPET and rHDPE:</p> <ul style="list-style-type: none"> <li>• Adequate time for recyclers to supply enough recycled content. Mandates cannot start right away and usually at least 2-3 years is needed to allow the market to adjust.</li> <li>• Achievable mandates based on market data. The starting mandate should be set at a level to not shock the market and cause dysfunction. In addition, should all bottlers face a mandate, rPET and rHDPE supply will greatly diminish. Mandates should gradually increase over a sufficient period of time to allow for the market to meet demand. Also, the rPET and rHDPE markets are not the same, and any mandate should consider supply differences between the two.</li> <li>• No two plastic recycled content markets are alike. A responsible recycled content mandate would take in to account the differences between the PET and HDPE markets and use data to determine the appropriate mandates for each. In addition, preliminary information suggests that taste and odor become major impediments for using rHDPE at a level of 35% or higher.</li> <li>• Prioritization of access to high quality, food grade recycled plastics. Under a recycled content mandate, bottlers will have to meet a mandated percentage use requirement while many other PCR users will not. Bottled water producers facing a mandate should have priority access to high quality, food grade recycled plastics. Otherwise, a mandate will effectively reduce the recycled plastics supply available and dramatically increase costs to the beverage industry, while creating a competitive advantage to those not under a mandate who use recycled plastics.</li> <li>• Ensure that safeguards are included so that when market dysfunction occurs (e.g., not enough recycled content available to meet a mandate), the policy is not punitive to manufactures who cannot access needed recycled content supply. These safeguards should include lowering or removing the mandate or not enforcing a penalty during time when market cannot provide adequate supplies of recycled content.</li> <li>• Percentage mandates should be based on the aggregate use of recycled content across all product brands and lines within the company.</li> <li>• Penalties based on the amount the manufacturer falls short of meeting a specific percentage mandate and not for every product placed in the market. For example, should a manufacturer only achieve 8.5% use of recycled content in attempting to meet a 10% mandate, the manufacturer should only be penalized on the 1.5% shortfall</li> <li>• Reporting requirements for all market participants. Requiring usage data from just those manufacturing bottled water or other beverages only shows a partial picture of how the program is working and what may need to be altered to ensure its success. Data should be gathered from other market participants, include MRFs, other processors, and recycled content suppliers. Collecting market data relating to how much recyclable material is collected and how much is then produced into food-grade recycled resins would be helpful in determining the potential impact of any mandate.</li> <li>• Statewide preemption is an important part of any statewide recycled content mandate. Consistency across the state will help with compliance and the market can better adapt to one set of expected mandates.</li> <li>• Protecting data collected in any reports submitted to the State by manufacturers and ensuring its privacy.</li> </ul>	6/15/2020 4:33 PM
3	Recommend targeting materials that do not need high quality performance or can survive risk of impurities due to recycled content.	6/15/2020 8:42 AM
4	It certainly has a place. If recycled materials aren't being used, then there is no system pull and reason to actually collect materials. I almost rated this very high. And maybe I should have. The minimum content needs to be high enough to drive change and make a difference.	6/4/2020 9:23 AM
5	this isn't a bad thing, it just seems like it would be politically difficult and ultimately insufficient. better to focus efforts on EPR	5/26/2020 10:27 AM

**Q66 Do you have any concerns about minimum recycled content requirements? If so, please describe them.**

Answered: 8    Skipped: 88

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	for materials like PET, demand is strong already, so minimum content requirements should be coupled with initiatives to enhance collection (like EPR) and ensure producers' access to the material (see multi-faceted approaches below); off-ramps and exemptions need to be available when markets are disrupted (e.g., during a pandemic)	6/15/2020 6:48 PM
2	IBWA would have concerns with any recycled content proposal that does not include, at a minimum, elements suggested in the response to question 18.	6/15/2020 4:33 PM
3	Do not consider market factors. If out-of-market imports are not allowed, MRCs can place a tremendous burden on industry. Can impact markets in ways that are problematic for consumers and industry.	6/15/2020 4:15 PM
4	Recommend for recycled content thresholds incorporate both post-industrial (PI) and post-consumer (PC). PC is particularly challenging for suppliers at the scale needed by large corporations and they often do not have a way to provide PC specific data. Additionally, need to take into account that packaging in many cases is made on an international market where products are shipped from (especially for durable goods) for distribution into the US/North American where quality recycled-content may not be readily available.	6/15/2020 8:42 AM
5	Availability of supply if bans are implemented	6/12/2020 11:52 AM
6	It would make the recycling of the new item more difficult	6/6/2020 4:30 PM
7	If the content requirements are too low they have a potential to be purely symbolic.	6/4/2020 9:23 AM
8	seems like a distraction. some entity would have to track and given innovations in packaging design, that tracking could be difficult and time consuming	5/26/2020 10:27 AM

**Q67 Are there any elements of reusables programs that you think could be helpful for managing plastic packaging waste? If so, please describe them.**

Answered: 11   Skipped: 85

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	When considering strategies for reducing use of virgin materials and increasing reuse and recycling, all options should be on the table. Reusable programs may not be as developed as other strategies but could be considered as part of a mix of solutions.	6/16/2020 11:51 AM
2	very localized applications for specific products	6/15/2020 6:48 PM
3	Encouraging reusability is a more “upstream” solution, and that would eliminate the waste before it is even created. It could also help create culture change away from single use containers. Right now this option seems underdeveloped, and integrating reusable programs could help to develop the markets for such business ventures.	6/15/2020 5:45 PM
4	When considering strategies for reducing use of virgin materials and increasing reuse and recycling, all options should be on the table. Reusable programs may not be as developed as other strategies but could be considered as part of a mix of solutions.	6/15/2020 4:44 PM
5	No response	6/15/2020 4:33 PM
6	Simple to manage, positive environmental impact	6/15/2020 4:15 PM
7	Legislated programs such as the Berkeley's ordinance that requires reusable food ware for dine-in service are the most promising. Voluntary programs are nice, but unpredictable.	6/15/2020 12:34 PM
8	That it must also contain recycled content, that it not be made of multi material products that cannot be recycled at its end of life and product designers know that their product at end of life must be something they can use in their product line again. This CANNOT be like reusable mugs that are multi material and technically have no endsite at end of life- think coffee mugs with plastic and stainless steel- nobody takes them.	6/12/2020 3:00 PM
9	N/A	6/12/2020 9:26 AM
10	Seems very challenging given health codes and engineering issues (sterilizing and resealing plastic containers for ex.).	6/4/2020 3:00 PM
11	Reusables definitely have a place. The ability to bring your own container, and even encourage it for restaurant leftovers.	6/4/2020 9:23 AM

**Q68 Do you have any concerns about reusables programs? If so, please describe them.**

Answered: 15    Skipped: 81

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Advantageous to fully understand the cost, complexity and trade-offs implicit with building out infrastructure and programs.	6/16/2020 11:51 AM
2	life-cycle impacts considering fuel, water, and effluent issues as well as sanitation at return locations	6/15/2020 6:48 PM
3	This option does not seem as fully formulated as to what a government could do to implement this type of program or policy. Reusability is also associated with higher income populations and requires more upfront investment in durable products. It would require a lot of resource allocation that governments don't have; it might be better initially for private partners to focus on this. Governments can create the policies (or remove policies that are barriers), but we were unsure how governments would have the resources to run this type of program right now. Basically, we like reusability, but we are unsure about what a reusability program would look like that government could support or implement.	6/15/2020 5:45 PM
4	Advantageous to fully understand the cost, complexity and trade-offs implicit with building out infrastructure and programs.	6/15/2020 4:44 PM
5	No response	6/15/2020 4:33 PM
6	On its own, not enough to address recycling issues and pollution challenges.	6/15/2020 4:15 PM
7	How to make them economical viable and sustainable.	6/15/2020 12:34 PM
8	This option would be extremely difficult/infeasible for the durable goods industry and may be better suited to specific types of plastic packaging.	6/15/2020 8:42 AM
9	May not meet consumer needs. Also, doesn't take into account other impacts like water, chemical, energy usage, as well as public health.	6/15/2020 7:11 AM
10	VERY FEW products have packaging that can be safely reused or have guaranteed quality	6/15/2020 6:59 AM
11	It will be incredibly expensive to operate, and has to be convenient.	6/12/2020 3:00 PM
12	Health and safety and food waste.	6/12/2020 9:26 AM
13	The trend for plastic containers has been make them lighter to reuse them they need to be made heavier and therefore use more plastic.	6/6/2020 4:30 PM
14	See above	6/4/2020 3:00 PM
15	Our fast food and disposable culture creates significant cultural and physical barriers to overcome. To be truly effective, reusables may need some law tweaks (food safety health regulations for leftovers) and required of restaurants.	6/4/2020 9:23 AM

**Q69 Are there any elements of multi-faceted measures that you think could be helpful for managing plastic packaging waste? If so, please describe them.**

Answered: 3 Skipped: 93

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Any multi-faceted measure should include programs only if they have been tested and verified as successful within any given marketplace. While deposit programs and curbside recycling have coexisted in many states, they each suffer from the success of the other. An improper mix of any multiple programs could cause market disruption, a lack of direction regarding specific recycling requirements and needs for any given material, and significant confusion among consumers. Any multi-faceted program being proposed, could include a bottle deposit program as described in our response to question 16, and/or a recycled content mandate that is reasonable and based on market data. The burden of any EPR-type program that is included in a multi-faceted approach should be shared among all participants, including consumers, government and business.	6/15/2020 4:33 PM
2	WRRRA supports multi-faceted measures that can be adopted within the existing Washington State regulatory system. Policies WRRRA supports include, PCR in products and packaging, recycling market development, contamination reduction, simplified recycling program material lists, and public education.	6/11/2020 12:20 PM
3	?	5/26/2020 11:31 AM

### Q70 Do you have any concerns about multi-faceted measures? If so, please describe them.

Answered: 4   Skipped: 92

#	RESPONSES	DATE
1	The implementation of any one program can have a significant cost to the industry. The dangers of a multi-faceted approach is that it can create significant market disruption and thus do more harm than good. Any multi-faceted measure(s) must be carefully designed with thought given to how one program may interact with another in order to ensure optimal functionality across all programs.	6/15/2020 4:33 PM
2	Yes, WRRRA is concerned with any proposal that delegates control of an essential local public health and environmental service to a PRO-stewardship organization composed of non solid waste professionals and who do not have the best interest of our individual communities as their guiding principle.. See WRRRA's attached comments for more detail.	6/11/2020 12:20 PM
3	Sounds like just harder to recycle	6/6/2020 4:30 PM
4	?	5/26/2020 11:31 AM

### Q71 Are there any elements of expanded mechanical recycling for additional resin types that you think could be helpful for managing plastic packaging waste? If so, please describe them.

Answered: 3   Skipped: 93

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	No response	6/15/2020 4:33 PM
2	Yes- there has to be a market for the resin. PS, PVC, ABS can be incredibly difficult to collect from post consumer sources (Municipal MRFs especially). They are easier to recycle from a post industrial setting but not post consumer. If a recycler decides to invest in technology that will help separate the specific plastic, it must be because there is a market for that recycled resin and not the other way around.	6/12/2020 3:00 PM
3	?	5/26/2020 11:31 AM

**Q72 Do you have any concerns about expanded mechanical recycling for additional resin types? If so, please describe them.**

Answered: 4   Skipped: 92

#	RESPONSES	DATE
1	Mechanical recycling processes exist, but market conditions make single-stream post-consumer recycling financially unviable. It is worth investing in technology that is already proven but uncompetitive.	6/16/2020 3:45 PM
2	There are technology limitations that need to be overcome for this to be realized. Mechanical recycling is not feasible for all combinations of materials used for packaging applications. Packages that are made by using two or more polymers (either as a single layer or multiple-layers) cannot be recycled with existing infrastructure. Additionally, mechanical recycling equipment/processes are not efficient in handling all the variety of packages (film, bottles, etc.) for the same polymer. Lastly, though the resin type is same, there can be and will be significant differences in material chemistry from application to application. Mechanical recycling cannot accommodate all of them to produce a single end product. This could mean having separate streams or processes for each, which will make the recycling less efficient and more costly. Before enforcing laws to improve recycling, it is necessary that significant investments are made to develop the technologies needed.	6/15/2020 4:33 PM
3	See above.	6/12/2020 3:00 PM
4	?	5/26/2020 11:31 AM

**Q73 Are there any elements of polymer-to-monomer chemical recycling that you think could be helpful for managing plastic packaging waste? If so, please describe them.**

Answered: 9   Skipped: 87

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	When considering strategies for reducing virgin plastic use, all options should be on the table. Polymer-to-monomer chemical recycling programs may not be as developed as other strategies but could be considered as part of a mix of solutions. While we are in the early stages of partnering with enhanced recycling providers to understand how to help bring these solutions to scale with reasonable costs, years of continued development are likely needed to meet demand.	6/16/2020 11:51 AM
2	See new GAIA report: <a href="https://www.no-burn.org/reports/">https://www.no-burn.org/reports/</a> The current knowledge on this arena of technologies does not tip towards a net benefit (on many counts). But in the future, it could have potential	6/15/2020 9:57 PM
3	Technology still in its infancy but appears to hold promise and innovation should be encouraged	6/15/2020 6:48 PM
4	When considering strategies for reducing virgin plastic use, all options should be on the table. Polymer-to-monomer chemical recycling programs may not be as developed as other strategies but could be considered as part of a mix of solutions. While Coca-Cola is in the early stages of partnering with enhanced recycling providers to understand how to help bring these solutions to scale with reasonable costs, years of continued development are likely needed to meet demand.	6/15/2020 4:44 PM
5	Chemical recycling technologies, especially polymer-to-monomer, will be very useful to address the concerns related to plastics in waste stream. Those technologies will be helpful in addressing the challenges related to mechanical recycling if expanding recycling to additional resin types. Any new technology will be costly and less efficient to begin with, but with enough research support, they will be available at scale to address the challenges with plastic waste.	6/15/2020 4:33 PM
6	Not sure.	6/12/2020 4:17 PM
7	Not enough knowledge	6/12/2020 3:00 PM
8	?	5/26/2020 11:31 AM
9	if it can be done in an economic setting where virgin monomers are so cheap, I'd be amazed	5/26/2020 10:27 AM

### Q74 Do you have any concerns about polymer-to-monomer chemical recycling? If so, please describe them.

Answered: 7    Skipped: 89

#	RESPONSES	DATE
1	see above	6/15/2020 9:57 PM
2	Technology still in its infancy but appears to hold promise and innovation should be encouraged	6/15/2020 6:48 PM
3	No response	6/15/2020 4:33 PM
4	Not sure.	6/12/2020 4:17 PM
5	not enough knowledge	6/12/2020 3:00 PM
6	?	5/26/2020 11:31 AM
7	no concerns.	5/26/2020 10:27 AM

### Q75 Are there any elements of polymer-to-fuel chemical recycling that you think could be helpful for managing plastic packaging waste? If so, please describe them.

## Appendix F. Policy & Technology Survey Responses

Answered: 7 Skipped: 89

#	RESPONSES	DATE
1	Insufficient information to comment	6/15/2020 6:48 PM
2	This can be somewhat useful, especially for difficult to recycle plastics or for plastics that are very expensive to make back to the same material. Breaking down to fuel (waxes, grease, lubricants, etc. or other options) could be a solution so there is value extracted from the materials rather than left in the environment or landfills.	6/15/2020 4:33 PM
3	Not enough information	6/15/2020 4:15 PM
4	NA	6/15/2020 2:50 PM
5	Absolute worst case scenario- plastics recyclers still generate many tonnes of waste that have no market. This should be the last straw and should be an available option.	6/12/2020 3:00 PM
6	Another market for these materials and could increase the value of the recycling stream.	5/29/2020 11:31 AM
7	?	5/26/2020 11:31 AM

**Q76 Do you have any concerns about polymer-to-fuel chemical recycling?  
If so, please describe them.**

Answered: 7 Skipped: 89

#	RESPONSES	DATE
1	Insufficient information to comment	6/15/2020 6:48 PM
2	No response	6/15/2020 4:33 PM
3	Not enough information	6/15/2020 4:15 PM
4	NA	6/15/2020 2:50 PM
5	That such an option exist in Washington state	6/12/2020 3:00 PM
6	Like many of these investments, if we invest in this technology, we are tying ourselves to a downstream solution for waste. These investments would require we continue to produce waste to make economic sense. We need to ensure that any path we take doesn't disincentivize the need to combat waste upstream and pursue waste prevention measures.	5/29/2020 11:31 AM
7	?	5/26/2020 11:31 AM

**Q77 Are there any options that you think would work particularly well in combination with other options? If so, please describe how you see them working together.**

Answered: 43 Skipped: 53

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Support landfill diversion by engaging citizens and encouraging cooperative and creative solutions to keep packaging material in use. Do not let those carbons leave the economy.	6/18/2020 10:08 AM
2	Deposit systems can ensure large enough volumes to help EPR models drive changes in packaging design. An EPR system can drive investments in processing infrastructure for additional resin types.	6/16/2020 3:46 PM
3	Addressed in comments.	6/16/2020 11:51 AM
4	Deposits with Reusable/Durable/Refillable. Like Terracycle's Loop project. The importance of a lead in education and instilling a cultural shift. We no longer smoke in courthouses or on a plane. We can learn to compost and not throw litter out our car windows or allow dumping of garbage in our waterways by big business. It's time for a shift in humanity, to care for the environment so that we and the rest of the planet can breathe. Washington can lead the way! How can recycling, reuse, refill and producer responsibility organizations (PROs) be marketed to be the cultural norm? It's cool and hip to do the environmentally right thing (#GreenTruthing), making the non-compliant lose money/customers or they comply with the new enviro-minded norm. A key factor to this switch will be personal health, family health and earth health. Plastics are now found in ice caps, shellfish, salts, bottled water and within all aspects of the human body. We are literally suffocating this earth in plastic. This is a choice. We can choose no single-use, reuse and to recycle, we can choose a healthier way.	6/15/2020 11:30 PM
5	This depends on how each is structured. Except for bans (which are fairly straightforward as stand-alone policies - styrofoam, bags, etc), many of these policies work well if administered by the same entity (which could be a PRO).	6/15/2020 10:08 PM
6	We strongly favor producer-PRO-managed EPR coupled with recycled content (using ISO definitions for post-consumer, pre-consumer and post-industrial) to accelerate progress and sustain successes.	6/15/2020 7:09 PM
7	I think we need an EPR system first and foremost. I would see a DRS, and advanced (mechanical/chemical) sorting infrastructure as part of this system that would be possible with additional industry investment and which would increase efficiency of the system. A reusable/durable program would be the next component, that would decrease the overall amount of waste created, but that would be a separate initiative of the government/public. Minimum recycled content requirements, disposal bans, and fees, are more of intermediary, stop-gap measures that would try to shift us to more responsible recycling, on the way to EPR. A good EPR system would make them unnecessary or incorporate them.	6/15/2020 6:13 PM
8	Given the complexity of plastic waste reduction, we feel that it is imperative to examine this issue from all angles and policy options. We feel that all of them present opportunities for a complimentary strategy and encourage those developing these policies to take a holistic approach that puts equity and those who would be potentially negatively impacted at the forefront of the conversation to avoid unintended consequences.	6/15/2020 5:46 PM
9	EPR together with mandatory reporting, technical standards, labeling, recovery and recycling goals	6/15/2020 5:06 PM
10	Addressed in comments	6/15/2020 4:44 PM
11	There is a need for more coordinated efforts between municipalities, consumers and industry. A couple of examples that come to mind are the Hefty Energy Bag program and the Materials Recovery for the Future. Collaborative efforts will inherently be more successful as opposed to what appears to be the adversarial ones promoted through social media and some NGOs.	6/15/2020 4:34 PM
12	Funds should be provided to states by the federal government to invest in improvements for U.S. recycling infrastructure and materials recovery facilities.	6/15/2020 4:16 PM
13	Increase investment in recycling infrastructure combined with efforts to increase demand.	6/15/2020 3:28 PM
14	Please see Consumer Brands Recycling Policy Platform: <a href="https://consumerbrandsassociation.org/sustainability/recycling-policy-platform/">https://consumerbrandsassociation.org/sustainability/recycling-policy-platform/</a>	6/15/2020 2:54 PM
15	Cradle to grave Environmental accounting is critical to our future. This concept determines the fees and charges needed for administration and correction of the virgin resin cost advantage. Much of this product is coming in from out of state. Do we collect it in our already overly complex sales tax or by dump fees? However we do it, it needs to be done to generate the	6/15/2020 2:36 PM

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funds to manage the EPR program and to subsidize the virgin / recycled resin cost equalizing as well as jump start recycling operations and ultimately recycled resin production within our own state. The other options seem to be stand alone opportunities

16	Fees to develop new infrastructure for collection, sortation and processing fit well together. Using polymers to fuel is a bridge technology and should not be banned.	6/15/2020 2:14 PM
17	All technology options should be considered when looking to addressing plastic waste and recycling. Technology options require investment. Source of this investment can come from EPR fees, as long as all products are collected and fees are established to secure infrastructure development.	6/15/2020 2:10 PM
18	Technology and Policy should go hand in hand. Putting policies in place and then restricting viable technology options to address those policies constrain innovation and development. All of the technology options listed in this survey should be included as they address material circularity, which is ultimately the goal.	6/15/2020 2:05 PM
19	Depends on the product material and type. Needs to be flexibility in the system and programs.	6/15/2020 1:45 PM
20	EPR, DRS (or other incentives for consumers to return their recyclable materials) and Recycled Content Requirements will work well together to achieve a circular economy for recycling. Include incentives for reuse and durables.	6/15/2020 12:48 PM
21	No comment.	6/15/2020 8:23 AM
22	Not at this time	6/15/2020 8:16 AM
23	Fees/charges/taxes/levies/EPR with all of the technology options	6/15/2020 7:56 AM
24	1) material / disposal bans PLUS... 2) mandatory participation in recycling programs by producers PLUS... 3) Recycling programs MANAGED and OPERATED by Industry producer groups PLUS... 4) Minimum recycled content requirements PLUS... 5) Expanded mechanical recycling options (like local washing and pelletizing facilities) PLUS... 6) Polymer-to-fuel chemical recycling (for plastics that are more difficult to mechanically recycle).	6/15/2020 7:08 AM
25	I think fees/charges/taxes/levies would work well together with extended producer responsibility, minimum recycled content requirements, and reusable/durable product programs. Essentially, multi-faceted measures, please.	6/12/2020 5:07 PM
26	EPR and reusable.	6/12/2020 4:19 PM
27	Yes- material/disposal bans+ fees/charges/taxes/levies + Extended producer responsibility+ minimum recycled content requirements. or Deposit returns +EPR + Minimum Recycled content Or Minimum recycled content for all commodities and the rest will fall automatically in place	6/12/2020 3:01 PM
28	WRRRA believes a multi-faceted approach to successful management of plastics is possible within the existing regulatory structure. • Policies that create markets for recyclable materials are essential. . Real recycling requires that recyclable materials replace virgin feedstocks in manufacturing. Without markets, there can be no recycling. • WRRRA supports life-cycle analysis and sustainable management principles to ensure we maximize the environmental and economic benefits from recycling. • WRRRA response: The scope of the report was determined before the new paradigm introduced by COVID-19. The conversation around single-use plastics, reusables, and essential services must consider new concerns raised by the pandemic on these issues. • WRRRA supports honest labeling on plastics packaging. Packaging should include the resin code to help recyclers sort material, but producers should be held accountable for claims that are misleading, confusing, or contribute to contamination in our recycling system.	6/12/2020 1:43 PM
29	Increased areas for drop off centers and increase waste haulers role for collection	6/12/2020 11:53 AM
30	Minimum recycle content could work well with any of the tech options to expand recycling.	6/12/2020 11:13 AM
31	EPR, Deposits, minimum recycle content, increased tipping fees, Its important that all materials be included and not just plastics.	6/12/2020 10:59 AM
32	I think the best option is to focus on policy. Specifically, reduce it to a single policy (EPR). Force the producer to "own" the entire product, by which I mean the product purchased including any/all packaging materials. In turn, give producers the freedom to develop technology options that bring themselves into compliance with a circular product/package. This	6/11/2020 6:27 PM

## Appendix F. Policy & Technology Survey Responses

gives producers the opportunity to differentiate themselves in terms of both products consumed now and into the future, which provides consumers with another means to choose and differentiate the "product" produced. Governments are better at policy and not so good at defining/determining the "best" technological solution.

33	This is described above and repeated here. DRS for containers should only be done as a tool within EPR system, and recycled content should be included in EPR policy also. The combination of policies would be: The key policy/action would be EPR that incorporates recycled content requirements, uses container deposit return as a mechanism for subset of packaging, and exempts reusable packaging, or provides other incentives for reuse/refill. Separately, EPS and PVC packaging and food service products would be banned. Durables and refillable policies would be put in place, as well as "on request only" legislation for any type of single use straw, cutlery or condiment packets. The EPR system would finance or spur financing for advanced plastics sorting at existing MRFs and establish a regional PRF of Secondary MRF for additional sorting unable to be achieved at the primary MRFs. The EPR system would allow and pay for polymer to monomer chemical recycling if feasible and use to produce new plastics is assured. Polymer to fuel processing might be paid for and allowed by the EPR system but would not be counted to meet required plastic resin specific recycling rates.	6/11/2020 4:49 PM
34	WRRRA believes a multi-faceted approach to successful management of plastics is possible within the existing regulatory structure. • Policies that create markets for recyclable materials are essential. . Real recycling requires that recyclable materials replace virgin feedstocks in manufacturing. Without markets, there can be no recycling. • WRRRA supports life-cycle analysis and sustainable management principles to ensure we maximize the environmental and economic benefits from recycling.	6/11/2020 12:20 PM
35	banning what outright should be used, using reusables wherever possible, taxing what you can't replace or ban, and then using funding for research on how to get rid of them while encouraging recycling through recycled content requirements	6/9/2020 3:23 PM
36	I think all the policy options can work for specific material types and applications. One option will not catch all of the materials. Same with technology, use mechanical recycling for the easy to get to materials, based on LCA/TEA use chemical and fuel recycling for the rest.	6/5/2020 11:25 AM
37	Minimum recycled content legislation drives MRF pricing upward, which speeds flows of money to invest in better MRF technology to produce cleaner commodities which make recycled content products cost less.	6/4/2020 3:03 PM
38	Programs to connect consumer interest and concerns around finding sustainable products and packaging; reducing packaging.	6/4/2020 3:01 PM
39	It seems to me that multi-faceted is all of the bullets points above it under policy options. What I see working best together are EPR, deposit returns, minimum recycle content, and bans. Given the breadth of plastics and their issues, it seems there needs to be a combination of the three technology options listed. Each has a place and addresses different problems.	6/4/2020 9:23 AM
40	EPR, bottle bills, minimum recycled content and reusable programs would work well together. It would design out waste and improve the products' ability to be recycled; separate out the recycling to improve the quality of the stream; increase demand and the prices of recycled materials; and reduce overall waste through reusable programs.	5/29/2020 11:35 AM
41	bottle bills would reduce waste of plastic bottles, glass bottles, and aluminum cans. EPR would help reduce the remaining waste streams.	5/26/2020 11:34 AM
42	EPR + deposit return + durables = multi facetd	5/26/2020 10:28 AM
43	For the #6 expanded polystyrene industry, we use our material for a variety of product uses such as packaging and building materials. We at FMI are working on one project to utilize 100% recycled material in a building material, however due to regulatory concerns through the building code enforcement this project may not be feasible as we are unable to get this product "Approved" through a 3rd party lab such as UL. If such problems were addressed on a case by case basis, my firm would be able to convert millions of pound of expanded foam recycled packaging material into reusable building insulation. Assistance from they Recycling Development Center would help to move this project.	5/21/2020 5:27 PM

## Q78 Are there any options not listed that you think are important to consider?

Answered: 42 Skipped: 54

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Waste management programs need to be uniform across jurisdictions. Set minimum standards and requirements that all jurisdictions must meet. For example, are pizza boxes in or out?	6/18/2020 10:08 AM
2	Subsidizing post-consumer plastic processing to help bridge the existing gap between the high supply of recyclables and the low demand for them on the processing side.	6/16/2020 3:46 PM
3	Not at this time but Coca-Cola looks forward to continued conversations about how we can work together to reduce virgin plastic use and create a true and effective closed loop recycling system for plastic and other packaging materials in the state of Washington.	6/16/2020 11:51 AM
4	If it at all possible, step up health and safety standards. For example, more research on toxins in polymers, stop bleaching products, etc. No undue chemicals in the name of aesthetics and marketing. Life need not go colorless, just use other brilliant marketing and resourceful product packaging innovations. Could a system that is already widely dispersed, regulated and protected help with deposit recoveries and transport? Call in a recovery of USPS! Large locker system "mail boxes" that are deposit recovery boxes (DRB). This in conjunction with depots/hubs for material recovery that are as close as your local fire department.	6/15/2020 11:30 PM
5	I think the report should have included the Norway EPR model. Also, "on demand" policy is missing (utensils, straws, condiments) And, of course, Ecology's policy already being considered - removing chasing arrows. Policies that would improve the plastics stream - such as shifting back to dual bins (i.e., not comingled) Incentives for end markets Purchasing requirements, while mentioned in report, were not part of survey Also missing is requirements for compostable only food serveware	6/15/2020 10:08 PM
6	Consider moving your January 1st 2025 target date forward one day to December 31, 2024. As many manufacturers' corporate sustainability goals go through end of year, compliance timing that tracks the timing used by a large number of companies may encourage wider adoption.	6/15/2020 7:09 PM
7	Subsidize renewable energy and actual recycling rather than oil and plastics industry.	6/15/2020 6:13 PM
8	It is noticeable that there were no policy options explicitly around reduction. Bans and EPR might be seen as reduction, but we would support other policy initiatives to encourage reduction. We encourage policy developers to consider the nuances of their approach, while considering both opportunities and limitations for governments to encourage reduction and prevention.	6/15/2020 5:46 PM
9	There are more than two types of instruments available for policy-makers, e.g. mandatory reporting, technical standards, labeling, educational and informational instruments, etc.	6/15/2020 5:06 PM
10	Not at this time but look forward to continued conversations about how we can work together to reduce virgin plastic use and create a true and effective closed loop recycling system for plastic and other packaging materials. Thank you for the opportunity to engage and share ideas and information.	6/15/2020 4:44 PM
11	Expanding or further encouraging store drop-off programs could be another stream to help reduce the amount of flexible plastic waste in the environment.	6/15/2020 4:34 PM
12	No, covered well above.	6/15/2020 4:16 PM
13	Economic development. Reframe recyclables as valuable feedstock that create jobs. Support state commerce and economic development departments to develop appropriate markets for feedstock. Consider legislation implementing the South Carolina Commerce Department's approach. For example, determine which industries a state should consider expanding or attracting given a state's waste and recycling stream. Recognition. Recognize public and private purchase of recycled content through programs sponsored by state and local governments and other nonprofit organizations. The US Environmental Protection Agency (EPA) assists organizations developing programs based on EPA's existing programs and guidelines. Procurement. Urge states to adopt guidelines encouraging public and private procurement of sustainable products and products containing postconsumer recycled content (PCR). Waste audits and policy. State and industry sponsorship of waste and recycling audits to better understand and publish the state's waste and recycling stream. Studies and ensuing policy should be both material neutral and consider the full environmental impact of items to avoid regrettable substitutions. Extend stewardship to food service. Working with allied stakeholders, encourage states to adopt the division's "on request" straw stewardship policy. Extend the stewardship policy to cutlery.	6/15/2020 3:28 PM

## Appendix F. Policy & Technology Survey Responses

14	We do have additional ideas (see policy platform) however, it can't necessarily be overly simplified. Please reach out to discuss further.	6/15/2020 2:54 PM
15	I feel we may be missing an opportunity to utilize our schools as a collection stream as well as a cultural changing education movement. I would envision each middle and high school requiring student to take a one semester class in Plastics technology and recycling. The class would include some basic technology surrounding plastics processing as well as it would present the opportunity for the students to collect a quantity perhaps 1000 or 1500 lbs of a plastic of their choice which they would bale. It could then be back hauled via a supply truck to district headquarters for pick up by an advanced processor such as Merlin Plastics. The educational as well as the community awareness dividends could be immense. There may even be some activity funds generated by the process. If we add up all the schools in the State,,the result may be more than just a few steps in our 1000 mile journey. Who knows where this could lead educationally. Each class could be equipped with some very simple processing equipment. SEE: <a href="http://www.Preciousplastics.com">www.Preciousplastics.com</a>	6/15/2020 2:36 PM
16	Do not limit thinking to what is available today. Use consideration of entire supply chain and products as well as packaging during legislation. Consider technology that accepts food contaminated packaging technology. Remain open to new packaging materials and new recycling, collection, sortation and processing concepts.	6/15/2020 2:14 PM
17	Need to invest in technology options that expand collection, especially of flexible materials and food-contaminated materials.	6/15/2020 2:10 PM
18	Life cycle analysis should become an integral part of any legislation related to plastics, specifically flexible packaging. Without the lens of product protection and safety, these measures can yield unintended consequences that have implications for years to come. These options should also leave open the opportunity to incorporate new yet to be discovered technologies which can bring meaningful change.	6/15/2020 2:05 PM
19	N/A	6/15/2020 1:45 PM
20	Yes, consider setting statewide MRF performance standards including sortation requirements, reporting requirements, and downstream due diligence. Require that information about the downstream fate (volume of material, country, vendor, end product ie plastic flake, pellet etc) of the recyclable commodities are submitted to Ecology on a regular basis. As evidenced by this Plastic Packaging Study, there is a lack of data that exists on quantities of materials recycled (actual recycling – not collection numbers) and markets. This is vital data that needs to be reported – at least to the state – so that we can determine if our recycling efforts are making a positive environmental impact vs a detrimental one.	6/15/2020 12:48 PM
21	When exploring options such as EPR, it has been demonstrated in other countries that those programs are only successful in combination with a list of mandatory recyclables and structures such as Pay As You Throw (PAYT).	6/15/2020 8:42 AM
22	For some plastics there are globally not a lot of end of life recovery solutions and so investment in end market development is a necessary strategy.	6/15/2020 8:23 AM
23	Not at this time	6/15/2020 8:16 AM
24	N/A	6/15/2020 7:56 AM
25	I mentioned before, but consumer education is missing. If we want less plastic in the environment, we need consumers to stop littering (according to KAB, the vast majority of litter is the result of human behavior).	6/15/2020 7:13 AM
26	Recycling programs that are managed and operated by INDUSTRY PRODUCER GROUPS (see <a href="http://www.acrecycle.org">www.acrecycle.org</a> as an example).	6/15/2020 7:08 AM
27	If the first one "Material/disposal bans" could mean banning a material in manufacturing/use/sale, I am all for that. I don't think a disposal bans are going to help.	6/12/2020 5:07 PM
28	Yes, tax incentives and exemptions for businesses that create and utilize solutions that work.	6/12/2020 4:19 PM
29	None.	6/12/2020 3:01 PM
30	The Task 3 report "Successful Plastic Packaging Management Programs and Innovations" does not fulfill the statutory requirements of the study. The report largely ignores Washington's solid and recycling industry as a stakeholder as well as questions and concerns consistently	6/12/2020 1:43 PM

Policy & Technology Options for Managing Plastic Packaging Waste Survey  
Appendix F. Policy & Technology Survey Responses

raised by WRRRA. The report ignores sources not supportive of EPR programs, including a study of the BC EPR by national expert Chaz Miller and a 2020 York University Study. WRRRA provides links to these sources in our attached comments. • WRRRA requests the consultant team reflect WRRRA member concerns, include existing service providers in sections that discuss stakeholder costs and involvement, and conduct a more thorough and unbiased review of available literature and incorporate sources critical of EPR. See WRRRA's separate comments for more information.

31	No	6/11/2020 6:27 PM
32	I think additional work needs to be done on waste prevention and reusables options. What would the policy and infrastructure needs be such that reuse/refill/durable is the norm and recyclable/compostable/disposable is the anomaly. Work we are beginning to engage in with the Partnership to Reuse, Refill, Replace Single -use Plastics points to the need for new scaled collection programs, sterilization/refill/deployment facilities, standardization of refillable packaging by industry, etc. The Ellen MacArthur Foundation report shows possibilities. At issue is what policy support and infrastructure is necessary to bring these possibilities about. <a href="https://www.newplasticseconomy.org/about/publications/new-plastics-economy-reuse">https://www.newplasticseconomy.org/about/publications/new-plastics-economy-reuse</a>	6/11/2020 4:49 PM
33	This report seems to be devoid of any acknowledgement of the feasibility and program successes of the current collection and processing system in Washington State. There should be a Cost Benefit Analysis (CBA) to any alternative suggested that documents the full cost of a new program and which costs will be included and who will pay those increased costs and whether or not there are any savings, and who will receive those savings. his report reflects the program's bias towards EPR at all costs. The scope of the report was determined before the new paradigm introduced by COVID-19. The conversation around single-use plastics, reusables, and essential services must consider new concerns raised by the pandemic on these issues. • WRRRA supports straightforward and honest labeling on plastics packaging. Packaging should include the resin code to help recyclers sort material, but producers should be held accountable for claims that are misleading, confusing, or contribute to contamination in our recycling system.	6/11/2020 12:20 PM
34	Provide a state wide accepted material list tied to viable markets. Invest in more education including bin audits at the curb to clean up the inbound stream prior to sorting Dual stream recycling	6/11/2020 12:09 PM
35	Reuse & bans - both contribute to a just circular economy that we desperately need	6/9/2020 3:23 PM
36	Over the years plastic have grown and replaced many materials so know what you will replace plastic with before you eliminate it.	6/6/2020 4:34 PM
37	Polymer-oligimer chemical recycling is becoming more prevalent. If we can make products that do not require the expense and energy to break them into a monomer form, then we have a sustainable chemical process.	6/5/2020 11:25 AM
38	Community education for all ages and socio-economic sectors has to be a part of any successful approach.	6/4/2020 3:03 PM
39	How to encourage the best consumer practices around their purchasing decisions.	6/4/2020 3:01 PM
40	Require simplified plastics generation.	6/4/2020 9:23 AM
41	We need significant contamination reduction campaigning so people stop contamination so much.	5/26/2020 11:34 AM
42	can't think of any	5/26/2020 10:28 AM

## Q79 Do you have any other comments or suggestions for the consultant team to consider?

Answered: 36 Skipped: 60

## Appendix F. Policy & Technology Survey Responses

#	RESPONSES	DATE
1	Not at this time. Thank you for the opportunity to engage and share ideas and information.	6/16/2020 11:51 AM
2	Thank you for looking into all of these options. It is very important to me and the future of the planet. Thanks for leading the way. And good luck!	6/16/2020 2:55 AM
3	Backyard compostable product packaging can come from a number of sources for a wide array of uses. One type could be water soluble, add water and the plastic-like film starts to breakdown. You wouldn't sell a wet box of cereal or bag of flour, keeping our goods dry is something we already do. So why isn't that cereal bag backyard compostable? And stronger more water resilient compostable film types can replace: safety seals on top of dairy containers and ketchup, the wrapper around frozen veggie burgers or a TV dinner and in a more ridged form they can be cup lids for hot or cold drinks or even straws. Think bamboo fibers, corn husks or funguses and mycelium. Innovate.	6/15/2020 11:34 PM
4	Thank you	6/15/2020 10:08 PM
5	I can't say EPR enough! I don't see another viable way to address the problem upstream. The lack of responsibility for packaging producers in the US is an ethical issue that the public should not and will not tolerate for much longer.	6/15/2020 6:15 PM
6	There needs to be high quality and authentic community engagement and education with all of these options, especially to the most impacted communities.	6/15/2020 5:46 PM
7	The report should attempt to report consistently on the effectiveness (who well did it achieve the objectives) and efficiency (what were the costs / resources used to achieve the objectives) of each program reviewed, and attempt to compare them with each other. See <a href="https://ec.europa.eu/environment/waste/pdf/target_review/Guidance%20on%20EPR%20-%20Final%20Report.pdf">https://ec.europa.eu/environment/waste/pdf/target_review/Guidance%20on%20EPR%20-%20Final%20Report.pdf</a> - For each policy measure, relevant questions were formulated as "Key considerations". It would have been good if these were attempted to be answered in the context of Washington State. The "Applicability to Washington" asks more questions than it answers... - Blockchain technology is interesting, but the report omits all the existing approaches for monitoring, reporting and verifying waste management supply chain information. It should have at least described how existing EPR programs are reported and audited – as well as the costs and administrative burden of these. - The EPR database of producers is just a long list. It would have been good to provide an analysis of the most relevant producers for Washington State.	6/15/2020 5:08 PM
8	The committee should be cognizant that it is not in anyone's best interest to ignore the fact that all plastic packaging is not the same and careful consideration should be given to essential packaging such as medical or food. Recent events have made it abundantly clear that medicine and food security will continue to be critical. In addition, preventing food waste is, and will continue to be, absolutely critical both from an environmental and feeding the planet perspective. We do not want to make decisions today that we will regret in 10-20 years. WE want to make the right decisions, not the easy ones.	6/15/2020 4:34 PM
9	The first few questions ask how much each of the different options would help increase recycling. It is very difficult to answer that question without a specific proposal to review.	6/15/2020 3:28 PM
10	Thank you for your efforts. It is a very complex challenge and it is made more difficult when our national efforts are do diffused.	6/15/2020 2:37 PM
11	Thanks for the opportunity to participate. legislation must consider what is technologically and financially feasible.	6/15/2020 2:15 PM
12	Flexible packaging represents a tremendous opportunity to reduce overall environmental impacts, but is also a packaging format that requires investment in collect, sorting and recycling infrastructure.	6/15/2020 2:11 PM
13	Flexible plastics are vitally important to the preservation and protection of food, pharmaceutical and consumable products. Food contaminated flexible packaging currently has no end of life solution. Any policy and technology options should bear in mind the critically important role these materials play in feeding the world and transporting goods in the global economy and the impact unfavorable legislation can have on these products and the end consumers.	6/15/2020 2:10 PM
14	N/A	6/15/2020 1:45 PM
15	Include other approaches for monitoring, reporting and verifying waste management supply	6/15/2020 12:52 PM

## Appendix F. Policy & Technology Survey Responses

chain information such as the SPC Recycled Materials Standards

<https://sustainablepackaging.org/projects/recycled-material-standard-rms/> Describe how existing EPR programs are reported and audited with the costs and administrative burden of these. The legislation require the report provide “the comparative costs and savings to different stakeholders of packaging stewardship programs”. The costs and savings to customers, retailers, local government and waste haulers need to be included and analyzed.

16	Highly encourage direct stakeholder engaged with consumer goods industries to help advise policy development to achieve industry support legislation. Lots of outstanding questions on definitions, specifics, etc. through that will also need to be worked through prior to any suggested policy proposals. Document also did not address bio-based plastic packaging. (Bio-based as in derived from renewable materials and can be traditionally recycled, not biodegradable plastics.) May be worth incorporating moving forward.	6/15/2020 8:46 AM
17	Washington State has invested in the development of a recycling market development corporation. We believe the ability to attract, market and grow demand for recyclables will be key to successfully meeting the state’s goals to reduce plastics packaging and therefore should play a key role in any strategies to reduce plastics waste. This is not a policy per se, but without the development of markets for local materials and re-processors, any efforts to reduce plastics will be hindered.	6/15/2020 8:25 AM
18	Not at this time	6/15/2020 8:17 AM
19	Please consider the entire lifecycle of the packaging and do not impose policy options that drive producers away from better and lighter materials, like plastics, which are much better from a climate change perspective (transportation efficiency, less green house gas emissions, less food waste, less water and energy consumption, etc.); instead we need to concentrate of collection and recycling of these materials.	6/15/2020 7:58 AM
20	They need to study EXISTING recycling programs to better understand what works well and what doesn't. Need to encourage industry and private enterprise to provide solutions and manage efficient programs....Only use government and policy to bridge gaps identified by existing programs.	6/15/2020 7:10 AM
21	This is important work. Thank you!	6/12/2020 5:07 PM
22	We need to be careful that we don't create more of a problem then we are trying to fix. Everyone wants a clean and healthy environment - but it needs to be balanced with economic costs and ROI.	6/12/2020 4:20 PM
23	That the idea of post consumer recycled content be used not only in household products, but also commercial products- fishing lines, tractors, cars, plastic pallets, forklifts, etc. It needs to happen immediately	6/12/2020 3:03 PM
24	• WRRRA Response: The Task 3 report “Successful Plastic Packaging Management Programs and Innovations” does not fulfill the statutory requirements of the study. The report largely ignores Washington’s solid and recycling industry as a stakeholder as well as questions and concerns consistently raised by WRRRA. The report ignores sources not supportive of EPR programs, including a study of the BC EPR by national expert Chaz Miller and a 2020 York University Study. WRRRA provides links to these sources in our attached comments. • WRRRA requests the consultant team reflect WRRRA member concerns, include existing service providers in sections that discuss stakeholder costs and involvement, and conduct a more thorough and unbiased review of available literature and incorporate sources critical of EPR.	6/12/2020 1:43 PM
25	Please consider the impact to consumers and the impact to the market place. Can we get the product (soap, detergent, food) in the alternative plastic required? Will that product comply with other federal and state programs like WIC and SNAP that restrict what items can be purchased by public assistance? There is a larger picture here to consider.	6/12/2020 11:14 AM
26	Please consider all materials not just plastics.	6/12/2020 11:01 AM
27	Good luck; this is a challenge that is more complex than most realize, but unfortunately is past due.	6/11/2020 6:27 PM
28	While this effort pertains to plastic packaging, as work continues it would be great to note when able what options might also help address non-packaging plastics, such as plastic toys and other consumer products and plastics from electronic and electrical products.	6/11/2020 4:50 PM
29	We question if the Task 3 report “Successful Plastic Packaging Management Programs and	6/11/2020 1:07 PM

## Appendix F. Policy & Technology Survey Responses

Innovations” does fulfill the statutory requirements of the study. The report largely ignores Washington’s solid and recycling industry as a stakeholder as well as questions and concerns consistently raised by WRRRA. The report seemingly ignores sources not supportive of EPR programs, including a study of the BC EPR by national expert Chaz Miller and a 2020 York University Study. WRRRA provides links to these sources in our attached comments. • WRRRA requests the consultant team reflect WRRRA member concerns, include existing service providers in sections that discuss stakeholder costs and involvement, and conduct a more thorough and unbiased review of available literature and incorporate sources critical of EPR. • Recyclables are collected as feedstock for manufacturing. We know of the supply side (Program items), as it is defined in SWMPs, SLO’s or by city contract but the demand is determined by the need of the manufacturers and the demand for plastic’s #3-7 has not been economically or environmentally sustainable. This is not a problem created by the collection companies or the cities that provide their own collection services. The demand side or lack of it for needs to be more fully documented. Lastly WRRRA Members know how to collect, transport, process and market recyclable materials, and have a proven track record of doing just that. Those KSA’s need to be acknowledged and documented as part the full report to the legislature.

30	EPR does not increase recycling rates or lower costs even though many consultants will tell you other wise.	6/11/2020 12:12 PM
31	Please look at the studies related to EPR and Deposit Bills from actual data and experiences in other states and provinces. Typically they will point to very disappointing results for recycling, and greatly increased costs to all consumers and taxpayers. You have the opportunity to see real world tests and results and costs of these programs, use this opportunity to see with open eyes.	6/10/2020 2:38 PM
32	Natural resources are central to the identity of WA and its residents. We owe it to ourselves and the environment on which we depend to lead other states in adopting vanguard policies that build a just, circular economy that minimizes pollution and values our many resources.	6/9/2020 3:25 PM
33	Hybrid solutions in all cases are the best way to go in my opinion.	6/5/2020 11:25 AM
34	This was good. It got me thinking. Clearly the current system isn't working so great. The team will need to engage the potentially affected interests (PAIs) to learn their concerns so they can be effectively addressed. It might start with listing who might be against this approach and why. This may help with defining which strategies are more likely to be successful. Compare that with an impact table - defining which options have the greatest impact overall.	6/4/2020 9:31 AM
35	1	5/26/2020 11:34 AM
36	emphasize the current unknown nature of plastic additives and the potential of EPR and durables to bring more consistency and accountability to plastic recipes, which can then reduce migration of micro plastics from materials to our bodies.	5/26/2020 10:31 AM

# Appendix G. Draft Recommendations Feedback Form

## Background

The Plastic Packaging Evaluation and Assessment law (Chapter [70A.520](#) RCW) states that producers of plastic packaging should consider the design and management of their packaging in a manner that ensures minimal environmental impact, and that producers should be involved from design concept to end-of-life management to incentivize innovation and research to minimize environmental impacts. Per the law, the Washington State Department of Ecology (Ecology) hired an independent third-party consultant team to study how plastic packaging is managed in Washington and assess various policy options to meet the following goals:

- **Plastic packaging sold into the state is 100 percent recyclable, reusable, or compostable by January 1, 2025.**
- **Plastic packaging sold into the state incorporates at least 20 percent post-consumer recycled content by January 1, 2025.**
- **Plastic packaging is reduced when possible and optimized to meet the need for it.**

The consultant team was tasked with **making recommendations to meet the goals of reducing plastic packaging waste, including through industry initiative or plastic packaging product stewardship, or both.** The law required the consultant team to consider the following when making recommendations:

- Implications and reality of meeting the above goals, including the system needed to support recycling and composting this much packaging.
- Expected costs and benefits of proposed recommendations to state and local government agencies for administration and enforcement, as well as to private persons or businesses.
- Consistency with federal Food, Drug and Cosmetic Act (21 U.S.C. Sec. 301 et. seq.)
- Recommended infrastructure necessary for the complete management of plastic packaging in the state according to the waste management hierarchy.
- Regulatory changes that would be required to achieve any of the recommendations, which may include regulatory changes pertaining to the following:
  - Washington Utilities and Transportation Commission-governed waste systems.
  - Local recycling contract systems.
  - Statute and rule updates including Chapter [81.77](#) RCW, Chapter [70A.205](#) RCW, Chapter [480-70](#) WAC, and Chapter [173-350](#) WAC.

The team was also tasked with identifying legislative options to meet plastic packaging goals that can be established and implemented by January 1, 2022, as well as within two to five years.

# Feedback Instructions

The consultant team has developed draft policy recommendations to propose to Ecology based on best practices and programs research, analysis of available data on current plastic packaging use and management in Washington, and stakeholder consultation.

**After reading the [draft recommendations for managing plastic packaging](#) in Washington State, please use the form below to submit specific input by 11:59 pm on August 26, 2020.**

We are using this form to gather feedback on levels of support, suggested alternatives, and associated funding mechanisms for the draft policy recommendations. The consultant team will accept and review all feedback on the draft recommendations received via this form by **11:59 pm PDT on Wednesday, August 26** and use it to refine and finalize recommendations. The Study's final recommendations will be submitted to Ecology on Monday, September 14. Ecology will use these recommendations to submit a report to the Legislature.

We will also continue to accept general public comments via the Study's [public comment page](#) through September 4. These public comments, and all other input received throughout the course of the Study, will become part of the public record and be included in the task-level report summarizing the stakeholder consultation process. However, any public comments or forms received after August 26 on the draft recommendations may not be specifically considered by the consultant team as we finalize recommendations. The final recommendations and the report summarizing the stakeholder consultation process will be submitted to Ecology on September 14.

### **Steps to complete and submit the form:**

1. Save a copy of this feedback form as a Microsoft Word document named with your organization (or your name in the case of private citizens) and date of submission. E.g., PlasticStudyFeedbackForm\_JSmith\_8-25-20.docx. OR PlasticStudyFeedbackForm\_CompanyName\_8-25-20.docx.
2. Enter your name and organization/affiliation in the grey form fields, and select the appropriate sector using the dropdown menu. For trade associations, lobbyists, nonprofits, community-based organizations, and other advocacy organizations, please enter the industry, interest, or issue area you represent in the grey form field.
3. For each recommendation, select the option in the dropdown menu in the "Support/Don't support" column that best describes your support for each proposed recommendation. If you do not support part or all of a recommendation, **please provide**

## Plastic Packaging Management Study Stakeholder Consultation Process

**a specific change or alternative recommendation to meet the legislative goals, as well as a sustainable funding source (if applicable) to support your approach.**

Please keep in mind that proposed recommendations were each designed to meet the legislative goals summarized above and in the context of a financed system.

4. Save your completed feedback form and email it as an attachment to [WAPlasticPkgStudy@cascadiaconsulting.com](mailto:WAPlasticPkgStudy@cascadiaconsulting.com) by 11:59 pm on August 26. Contact [WAPlasticPkgStudy@cascadiaconsulting.com](mailto:WAPlasticPkgStudy@cascadiaconsulting.com) with any questions.

If you choose to provide additional comments in response to the questions in the “Suggested change or alternative” and “Sustainable funding source” beyond this form via the [public comment page](#):

- Please select an option in the “Support/Don’t support” column for your general opinion to be considered as the consultant team finalizes recommendations.
- You can then mention in the associated comment fields that you will be submitting additional comments under separate cover.

Additional comments must be submitted by **August 26** for them to be considered as the consultant team finalizes recommendations. Comments submitted via the [public comment page](#) through September 4 will be appended to the report to Ecology summarizing the stakeholder consultation process.

# Draft Recommendations Feedback Form

**Name:**

**Sector:**

Select one

**Organization/Affiliation:**

**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs)

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Select one		
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Select one		
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Select one		
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Select one		
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Select one		

Plastic Packaging Management Study Stakeholder Consultation Process

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Select one		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Select one		
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Select one		

# Appendix H. Comments Received on Draft Recommendations

**Table 6 Organizations and Individuals Who Submitted Comments on Draft Recommendations**

#	Organization/Affiliation	Sector	Name
1	American Chemistry Council	Industry & Trade Association	Tim Shestek
2	American Forest & Paper Association	Industry & Trade Association	Elizabeth Bartheld
3	AMERIPEN	Industry & Trade Association	Dan Felton
4	Association of Washington Business	Industry & Trade Association	Peter Godlewski
5	Consumer Healthcare Products Association	Industry & Trade Association	Carlos Gutierrez
6	Consumer Technology Association	Industry & Trade Association	Katie Reilly
7	Corumat, Inc.	Industry & Trade Association	Michael Waggoner
8	EPS Industry Alliance	Industry & Trade Association	Walter Reither
9	Flexible Packaging Association	Industry & Trade Association	Alison Keane
10	International Bottled Water Association	Industry & Trade Association	James Toner
11	Northwest Grocery Association	Industry & Trade Association	Holly Chisa
12	PepsiCo on behalf of Consumer Goods Forum members (Ampcor, Coca-Cola, Nestle, PepsiCo, SC Johnson, Unilever, Walmart)	Industry & Trade Association	Alex Schenck
13	Personal Care Products Council	Industry & Trade Association	Thomas Meyers
14	Plastics Industry Association	Industry & Trade Association	Shannon Crawford

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation	Sector	Name
15	Seattle-Tacoma Box Company	Industry & Trade Association	Erika Nist
16	The Clorox Company/Glad	Industry & Trade Association	Mark Smith
17	Washington Beverage Association	Industry & Trade Association	Brad Boswell
18	Washington Food Industry Association	Industry & Trade Association	Catherine Holm
19	Washington Hospitality Association	Industry & Trade Association	Samantha Louderback
20	City of Gig Harbor	Local Government	Jeni Woock
21	City of Shoreline	Local Government	Cameron Reed, Autumn Salamack
22	King County Solid Waste Division	Local Government	Lauren Cole
23	Kitsap County	Local Government	Caitlin Newman
24	San Juan County - Solid Waste	Local Government	Mark Ingman
25	Seattle Public Utilities	Local Government	Sego Jackson
26	Member of the Public	Member of the Public	Elizabeth DeWreede
27	Beyond Plastics	Nonprofit or Community-Based Organization	Judith Enck
28	Environment Washington	Nonprofit or Community-Based Organization	Pamela Clough
29	Latino Community Fund of Washington	Nonprofit or Community-Based Organization	Giovanni Severino
30	National Stewardship Action Council	Nonprofit or Community-Based Organization	Jordan Wells, Heidi Sanborn
31	Oceana	Nonprofit or Community-Based Organization	Ben Enticknap
32	PR3	Nonprofit or Community-Based Organization	Anita Kedia Schwartz
33	Puget Soundkeeper	Nonprofit or Community-Based Organization	Bruce Wishart
34	Seattle Aquarium	Nonprofit or Community-Based Organization	Nora Nickum
35	The Lands Council	Nonprofit or Community-Based Organization	Mike Petersen
36	Toxic-Free Future	Nonprofit or Community-Based Organization	Laurie Valeriano

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Organization/Affiliation	Sector	Name
37	Zero Waste Washington	Nonprofit or Community-Based Organization	Heather Trim
38	Pioneer Recycling Services, LLC	Waste or Recycling Service Provider	Dave Claugus
39	Republic Services	Waste or Recycling Service Provider	Wendy Weiker
40	Washington Refuse & Recycling Association	Waste or Recycling Service Provider	Brad Lovaas, Rod Whittaker
41	Waste Management	Waste or Recycling Service Provider	Matt Stern

Full comments, including recommendations feedback forms and additional comments and letters, are included in the following pages.

**Comments from the American Chemistry Council (ACC)  
Draft Recommendations for Managing Plastic Packaging in Washington**

August 26, 2020

The Plastics Division of the American Chemistry Council (ACC)<sup>1</sup>, appreciates the opportunity to submit the following comments in response to the draft Recommendations for Managing Plastic Packaging Waste in Washington, Assessing Use, Disposal, and Management.

ACC and our members are deeply committed to creating a more circular economy for plastics and ending plastic waste in the environment. To support that commitment, ACC and our Plastic Division members established goals to reuse, recycle and recover all plastic packaging in the United States by 2040 and make all U.S. plastic packaging recyclable or recoverable by 2030.<sup>2</sup>

The three task level sub-reports that were released prior to the draft recommendations appropriately highlight several issues/policy areas which offer opportunities for increasing the amount of plastic material recycled and used as feedstock in the manufacture of new products. These include the need for recycling infrastructure funding; establishing a secondary materials recovery facility (MRF) system to sort plastic material that has been collected and sent to a primary MRF; and identifying the need for retail at-store drop-off programs to be expanded in order to capture additional plastic bags and other film plastics. ACC appreciates the report recognizes the role advanced (chemical) recycling technologies can play in helping the State of Washington achieve higher plastics recycling rates. Many of ACC's chemical and resin company members, and as well as those involved in its Advanced Recycling Alliance for Plastics,<sup>3</sup> are at the forefront of commercializing technologies to

<sup>1</sup> ACC represents a diverse set of companies engaged in the U.S. business of chemistry, a \$565 billion enterprise that is helping to solve the biggest challenges facing our country and the world. Chemistry touches 96 percent of all manufactured goods, and the use of plastics in modern automotive, building and construction, and food packaging industries is helping to create a more sustainable society.

<sup>2</sup> "U.S. Plastics Resin Producers Set Circular Economy Goals to Recycle or Recover 100% of Plastic Packaging by 2040," news release, 9 May 2018, <https://www.americanchemistry.com/Media/PressReleasesTranscripts/ACC-news-releases/US-Plastics-Producers-Set-Circular-Economy-Goals-to-Recycle-or-Recover-100-Percent-of-Plastic-Packaging-by-2040.html>.

<sup>3</sup> <https://plastics.americanchemistry.com/Advanced-Recycling-Alliance-for-Plastics.html>

return post-use plastics to their basic chemical building blocks for creating a versatile mix of new plastics, chemicals, fuels, and other products. These technologies provide significant environmental benefits and economic opportunities.

ACC believes many of the policy recommendations offer an opportunity for the State of Washington to work collaboratively with industry to further increase the amount of plastic material diverted from disposal. However, given the current economic crisis and on-going state budget pressures, expansive new regulatory programs that create misguided or unnecessary challenges which impede development of this important sector must be avoided.

### **Extended Producer Responsibility**

One of the primary recommendations is for the State to create an extended producer responsibility (EPR) framework for all packaging. Creating and implementing a new, state-specific regulatory program or policy for packaging will require the full engagement of the entire value chain. While an EPR policy may be a way to address recycling infrastructure funding, other approaches should also be considered. The Recycling Partnership<sup>4</sup> (TRP) has been leading an effort among several industry sectors to develop a recycling infrastructure funding policy. ACC urges the State of Washington to engage with the TRP and its industry stakeholders. Critical elements for the success of any well-structured packaging policy are avoiding unfair market disruptions and ensuring consideration of potential unintended environmental tradeoffs between varying packaging material types. In assessing new policies or regulations, ACC urges the State to consider the following:

- Will this policy reduce waste or disposal or rather simply result in replacing one material with another?
- Are there environmental impacts (e.g., energy use, water use, greenhouse gas emissions, trash generation, landfill waste, etc.) associated with the manufacture, distribution, use and disposal of likely alternative replacement products?
- Are likely replacement products recycled or composted within the existing infrastructure and do viable, end use markets exist for these products?

### **Use of Recycled Content in Packaging**

The report recommends the State establish new requirements related to recycled content for all plastic packaging supplied into the State. Opportunities exist for expanding the use

<sup>4</sup> <https://recyclingpartnership.org/>

of recycled content in plastic packaging and ACC urges the State to consider how State and local product/packaging procurement policies can help drive new markets for use of post-consumer recycled content.

ACC welcomes the opportunity to discuss other projects/policies to expand the use of PCR in packaging. ACC believes that recycled content policies should be based on the following four principles:

- Recycled content should include both pre-consumer and post-consumer recycled material;
- Recycled content should include output from advanced recycling;
- Any mandated recycled content policy should consider environmental lifecycle outcome improvements;
- Performance standards for recycled content should be managed between value chain partners.

Additionally, any plastic recycled content regulations should incentivize the use of recycled plastic content, reflect the primacy of the health, safety and performance of end products, consider supply/demand balance for recycled material, focus on specific end product applications for any minimum recycled content mandate, and align with the U.S. EPA non-hazardous materials and waste management hierarchy. Additionally, certification systems and processes for plastic recycled content should include a mass balance approach to chain of custody traceability, certification reciprocity through the chain, transparent certification standards and methodology, preference for broad global adoption of harmonized certification standards, and requirement for marketing claims to be in compliance with federal and state standards.

The report acknowledges the role that advanced recycling may play in meeting recycled content requirements. To encourage innovation and new technologies while simultaneously helping protect the environment and human health, we suggest regulating these technologies as manufacturing facilities rather than waste disposal facilities. Eight states have passed laws since 2017 to ensure these technologies are appropriately regulated as manufacturers and another five states are currently considering similar legislation.

Advanced recycling offers a promising solution for recycled content use in food-grade and other applications. Advanced recycling complements existing mechanical recycling and

both types of processes are needed to meet ambitious recycling and waste reduction targets.

The benefits of advanced recycling include:

- Value to otherwise unused plastic waste. Today only limited types and suitably sorted plastics may be mechanically recycled. This means that a large quantity of plastic waste, the kind that is contaminated or mixed, is still being landfilled or exported. Advanced recycling enables recycling of contaminated and/or mixed plastic waste that cannot be recycled through mechanical recycling.
- Produces plastic with equivalent quality to that of virgin feedstock. With advanced recycling, post-use plastics are recycled back into the production of feedstocks, new chemicals and plastics with an equivalent quality to those produced from virgin feedstock. This recycled plastic can therefore be used in high-quality applications such as food contact and food packaging.
- Reduces the use of fossil feedstock to produce plastics, since chemically recycled plastics can be re-used as feedstock for new plastics.
- Reduction of carbon emissions. Advanced recycling can eliminate certain emissions associated with combustion and energy recovery<sup>5</sup>.

There are several examples of localities and companies utilizing advanced recycling. For one, companies like Oregon-based Agilyx<sup>6</sup> are turning polystyrene – both rigid and foam packaging - back into its original styrene molecules that can then be used to make new packaging. Utah-based Renewlogy<sup>7</sup> was recently awarded a new contract with the City of Phoenix<sup>8</sup> to divert Number 3 – 7 plastics that previously would be exported to China. Phoenix Mayor Kate Gallego noted "During a time when cities are giving up on recycling, Phoenix is again leading the way in setting the gold standard for innovation and creativity."

<sup>5</sup> <https://www.basf.com/global/en/who-we-are/sustainability/we-drive-sustainable-solutions/circular-economy/mass-balance-approach/chemcycling/lca-for-chemcycling.html>

<sup>6</sup> <https://www.agilyx.com/>

<sup>7</sup> <http://renewlogy.com/>

<sup>8</sup> <https://www.wastedive.com/news/phoenix-awards-contract-to-renewlogy-for-chemical-recycling-project/552055/>

Advanced recycling technologies use a combination of heat, pressure, catalysts and/or solvents to convert post-use plastics and other materials into their basic building blocks. These basic building blocks can make new plastics again and have the versatility to create feedstocks to make useful chemicals and high-value end products. Below are some examples of the types of plastics accepted and outputs generated by advanced recycling technologies:

- Polystyrene foam (No. 6) can be recycled as styrene monomer and used to manufacture food packaging for meat, dairy and bakery products, electronics, automotive components, medical devices, and paper coatings.
- PET (No. 1) and polyester fiber can be recycled as PET monomer building blocks and used to manufacture new polyester and PET for use in durable food containers, small appliances, consumer electronics, antifreeze, and skin conditioning agents.
- PET (No. 1)/flexible packaging/plastic films can be recycled as cellulose based thermoplastics and used to manufacture textiles, eyeglass frames, and automotive lens applications and decorative trim.
- Mixed plastics including films (Nos. 4)/PP (5) /PS (6)/miscellaneous plastics (7) may be recycled and used to manufacture waxes, lubricants, and ingredients for detergents and cosmetics.
- Mixed plastics (combined with non-compostable materials) may be recycled to create renewable methanol used to manufacture plastics, new chemicals, and products such as acetic acid and windshield washer fluids.

This demonstrates the diverse value of advanced recycling and its potential to divert post-use plastics from disposal and to convert plastics to many different types of new plastics, chemicals and other useful products.

### **Mass-Balance Approach in Advanced Recycling**

To add clarity as to what is counted toward a recycled content target, ACC agrees with many other organizations, including the Ellen MacArthur Foundation<sup>9</sup>, that a mass balance method offers a workable set of rules to support the attribution of recycled feedstock into new products. The International Sustainability & Carbon Certification (ISCC) is certifying chemically recycled plastics via its ISCC+ certification standard. Several packaging

<sup>9</sup> [https://www.basf.com/global/documents/en/sustainability/we-source-responsibly/EllenMacArthur\\_White%20Paper\\_2019.pdf](https://www.basf.com/global/documents/en/sustainability/we-source-responsibly/EllenMacArthur_White%20Paper_2019.pdf)

manufacturers and consumer brands are endorsing this type of certification which helps ensure that post-use plastics are repurposed for new plastics packaging.<sup>10</sup>

Certification systems should include a mass balance approach to track and certify chemically recycled content for plastics. A mass balance approach is one of the best ways to promote the use of circular feedstock. Like proven approaches in renewable energy, timber, cacao and coffee, mass balance can enable credible and transparent traceability between feedstock input and product output, and along the value chain to the producer of a final article.

Mass balance may be used for any advanced recycling process producing feedstocks like naphtha, syngas, oil or monomers. To leverage the benefits and traceability while remaining pragmatic about the implementation, ACC urges the State to include the following elements in any recycled content policy:

- Adoption of a mass balance approach in the tracing of chemically recycled plastics.
- Transparent certification by an independent third-party at each step of the value chain.
- Development of a standard which includes clear and credible rules on feedstock qualification, mass balance calculation and the use of appropriate product claims.

ACC recently released guiding principles for mass balance certification<sup>11</sup>. These principles may be used to help trace recycled content in the Washington marketplace, increase plastics recycling, and support markets for the outputs from advanced plastics recycling.

As stated previously, the draft recommendations suggest opportunities to work in partnership with industry stakeholders on policies to reduce waste. ACC urges the State to work with the restaurant and hospitality industry on managing single-use disposable foodservice products like cutlery, straws and condiment packets through a customer “upon request” approach. These policies can help reduce unnecessary waste without imposing misguided and burdensome new regulations on this industry sector.

<sup>10</sup> <https://www.foodbev.com/news/unilever-debuts-magnum-tubs-created-from-recycled-plastic/>;  
<https://www.foodbusinessnews.net/articles/16165-mondelez-to-use-recycled-plastic-in-philadelphia-packaging>

<sup>11</sup> American Chemistry Council, "Mass Balance Certification Principles for Advanced Recycling," (Washington, DC, 2020), Statement of Principles. <https://plastics.americanchemistry.com/recycling-and-recovery/Mass-Balance-Certification-Principles-2020.pdf>.

Several industry-led programs such as the Wrap Recycling Action Program (WRAP)<sup>12</sup>, Plastics Recycling Terms and Tools<sup>13</sup>, and the Grocery Rigid Plastic Recycling Program offer opportunities to increase the quality and quantity of plastic material collected for recycling.

Increasing the recycling of plastic film, wraps and bags represents a major opportunity to help Washington meet its objectives. Clean polyethylene (PE) film is a valuable feedstock for manufacturers and many major retailers in the United States collect post-consumer plastic wraps, bags and film at front- of-store locations. These plastics are combined with the large amount of shrink wrap generated behind the store and are backhauled to stores' suppliers. ACC's Flexible Film Recycling Group created its WRAP program to leverage this existing supply chain. The WRAP program promotes brand owner adoption of the Sustainable Packaging Coalition's (SPC) "How to Recycle Label" and can educate consumers on the free resources and tremendous opportunity to recycle their bag and film plastics at major retailers.

Confusion about what plastics are recyclable in community recycling programs remains a significant barrier to increasing plastics recycling. ACC worked with a large group of plastics stakeholders and leading plastics recycling consultants to develop a common set of outreach terms (a glossary or lexicon) for community recycling coordinators to use when educating residents about what plastics to recycle. The Plastics Recycling Terms and Tools program offers many useful resources for community recycling coordinators and recycling professionals, including use of royalty-free images to help develop communications materials with the objective of boosting diversion rates of clean material, increasing the types and amounts of plastics recycled, decreasing contamination, and helping meet growing demand for recycled plastics. Information on this program can be found at [www.RecycleYourPlastics.org](http://www.RecycleYourPlastics.org)

Additionally, the Grocery Rigid Plastic Recycling Program<sup>14</sup> offers an opportunity to increase the recycling of plastics used in grocery store delis, bakeries, fish markets, and pharmacies. These plastics are often larger, bulkier items that contain foods like cake batter, frosting, and fish fillets. Growing the total supply of non-bottle rigid plastics available for reclamation in Washington could potentially help establish markets for smaller communities as well. The Association of Plastic Recyclers (APR) and ACC created a

<sup>12</sup> <https://www.plasticfilmrecycling.org/recycling-bags-and-wraps/wrap-consumer-content/>

<sup>13</sup> [https://www.recycleandrecoverplastics.org/recycling-professionals/education/terms-tools/#pmtt\\_getTermsToolsPage](https://www.recycleandrecoverplastics.org/recycling-professionals/education/terms-tools/#pmtt_getTermsToolsPage)

<sup>14</sup> <https://www.recyclegroceryplastics.org/>

website, [www.RecycleGroceryPlastics.org](http://www.RecycleGroceryPlastics.org) which provides resources, case studies and videos that can help Washington grocery stores recycle more of their valuable post-use plastics and increase its diversion rate.

Finally, ACC is concerned with the suggested policy to “ban plastic packaging identified as problematic or unnecessary.” The inclusion of this recommendation is not only misguided, but contradicts other language included in the recommendations stating that “research...generally found material- and product-specific bans to be relatively inefficient/ineffective at driving systemic change and sometimes resulting in negative unintended consequences, partly because bans tend to be initiated by government, without complete information about potential responses to bans, and with the potential to lead to material substitutions with unintended consequences that increase overall environmental impacts.”

As outlined above, there are many opportunities to work in a collaborative fashion with industry stakeholders to increase the recovery of plastic packaging without imposing new, unnecessary burdens on regulated entities, including those packaging manufacturers, downstream users and their employees in Washington State.

ACC appreciates the opportunity to provide these comments and looks forward to the continued discussion on this important topic. If you have any questions or comments, please contact me at 916-448-2581 or [tim\\_shestek@americanchemistry.com](mailto:tim_shestek@americanchemistry.com)

Sincerely,

A handwritten signature in black ink, appearing to read "Ti Sh", with a long horizontal flourish extending to the right.

Tim Shestek  
Senior Director, State Affairs

## Works Cited

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August 26, 2020

Washington State Department of Ecology  
PO Box 47600  
Olympia, WA 98504-7600

Position: Concerns

**Re: Comments on “Recommendations for Managing Plastic Packaging Waste in Washington”**

Dear Washington State Department of Ecology:

The American Forest & Paper Association (AF&PA) appreciates the opportunity to share our perspective on the Cascadia study, “Recommendations for Managing Plastic Packaging Waste in Washington.” AF&PA serves to advance a sustainable U.S. pulp, paper, packaging, tissue and wood products manufacturing industry through fact-based public policy and marketplace advocacy. AF&PA member companies make products essential for everyday life from renewable and recyclable resources and are committed to continuous improvement through the industry’s sustainability initiative — Better Practices, Better Planet 2020. In Washington, the industry employs over 29,000 individuals at over 80 paper manufacturing facilities including 12 pulp and paper mills.

Specifically, we are concerned that although the purpose of the study was to recommend a policy solution for plastic recycling, the study overreaches the scope of Senate Bill 5397 by recommending extended producer responsibility (EPR) for all types of packaging, even for paper, where substantial private sector investment has resulted in very high recovery rates relative to plastic.

This recommendation for a program modeled on British Columbia is delivered in spite of recent research on the B.C. program from York University in Toronto, Canada stating that “program costs have increased by approximately 26 percent, while program performance (measured as percent of tonnes diverted) has increased by 1 percent.” The same report concludes that “increases in the cost of recycling of end of life printed paper and packaging is ultimately born by the consumer.”<sup>1</sup>

<sup>1</sup> “Review of Recycle BC Program Performance,” Dr. Calvin Lakhan & Elizabeth Cho McMillan, Faculty of Environmental Studies, York University.

### **Plastic Recycling Should not be Subsidized by Other Highly Recovered Materials**

*AF&PA agrees that industry shares a role in responsibility for recycling material, and we are doing our part.*

- Every year since 2009, the U.S. paper recovery for recycling rate has met or exceeded 63 percent. And in 2019, 66.2 percent of all paper consumed in the U.S. was recovered for recycling.
- According to the U.S. EPA, more paper (by weight) is recovered for recycling from municipal solid waste streams than glass, plastic, steel and aluminum combined.
- From 2018 to 2022, our industry is investing \$4.1 billion in our own manufacturing infrastructure that will allow us to recycle more paper. Companies are using new technology to reduce the amount of material in packaging and right size capital expenditures. Those are great ways for companies to compete in the market place to ensure consumers are getting what they want.
- Ninety-six percent of the U.S. population had access to community curbside and/or drop-off paper recycling services, according to the most recent (2014) survey of communities.

*The paper industry's consistently high recovery rates, and ongoing efforts to increase recovery, demonstrate that EPR is unnecessary for paper.*

- In 2019, the Washington Legislature passed the Plastic Packaging Evaluation and Assessment law, which directed the Washington State Department of Ecology (Ecology) to hire an independent third-party consultant team to study how plastic packaging is managed in Washington and assess various policy options to meet the goals of reducing plastic packaging waste. The direction of the legislation is clear, the study and policy recommendations should be on plastic packaging and not on other materials like paper.
- Imposing regulatory costs on our industry through EPR will reduce resources available for further investment.

*The responsibility for materials recovery must be distributed equitably.*

- The paper industry is doing its part by meeting or exceeding ambitious voluntary recovery goals for our products. An EPR program that includes paper will increase cost for no return or benefit to the recycling system.
- As directed, the study and its policy recommendations should focus on improvements to plastic packaging and its recovery.

### **Conclusion**

We believe that the draft Ecology study ignores key facts and fails to follow obvious legislative intent and direction to formulate a policy recommendation narrowly tailored to address the pressing problem of plastic waste.

Thank you for the opportunity to comment on the “Recommendations for Plastic Packaging Waste in Washington” and we hope to see some of our comments included in the final draft of

the study. Please feel free to contact Terry Webber, Executive Director, Packaging, AF&PA at 202) 463-2732 or [terry\\_webber@afandpa.org](mailto:terry_webber@afandpa.org) for further information.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Elizabeth Bartheld', with a stylized flourish at the end.

Elizabeth Bartheld  
Vice President, Government & Industry Affairs

# Draft Recommendations Feedback Form

**Name:** Dan Felton  
**Sector:** Trade Association or Lobbyist  
**Organization/Affiliation:** AMERIPEN - American Institute for Packaging and the Environment  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs) Packaging Industry Value Chain

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Could support with the following changes	<p>Washington State should align with a nationally structured and industry run producer responsibility organization (PRO) that is directly tied to best practices for packaging recovery for all material types. This will meet the state's legislative goals with critically needed and timely funding that is reliable, efficient and effective, and equitable and fair. AMERIPEN envisions that the PRO would have the authority to disperse funds under the following priorities (high to low) to increase packaging recovery:</p> <ol style="list-style-type: none"> <li>1. Infrastructure improvements and upgrades.</li> <li>2. Research and development for end markets and technologies.</li> <li>3. Consumer education on reducing contamination.</li> <li>4. Post-consumer recycled (PCR) material processing.</li> <li>5. Improved access to recycling.</li> <li>6. Daily operation funding gaps</li> </ol>	<p>There are multiple options AMERIPEN has been discussing under which stakeholders across the packaging value chain might help fund the industry managed PRO as a shared responsibility. Some of those mechanisms identified have been targeted because they can be implemented quickly by leveraging existing systems rather than creating new reporting processes as typically found within more traditional EPR models. As the state pushes towards 2025 goals, speed of implementation may be important. In any event, any underlying administrative, oversight and registration costs and fees for the PRO must be capped.</p>

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Select one	AMERIPEN is neutral on the efficacy of deposit return systems (DRS) for beverage containers, but does believe that such, if legislated, should be done entirely separate from any type of legislated extended producer responsibility policy (EPR) framework for other packaging. While some consider DRS programs to be a focused form of EPR, there is a consumer element to those programs that is distinctly different from industry funded – and ideally run – producer responsibility programs designed to manage packaging materials. While DRS programs for beverage containers and EPR programs for packaging are not mutually exclusive or inclusive of each other, the focus must be on supporting the right infrastructure to reclaim each packaging type.	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Could support with the following changes	Recycled content mandates for packaging can have significant and at times unintended consequences on material markets. A recent study by More Recycling notes that there is currently more demand for recycled resins than there is available material. Understanding the availability of demand to supply is essential before any mandates are enacted. Oftentimes, supply of high-quality materials is also not available to meet mandatory targets that may distort existing market forces by merely shifting material to specific uses rather than increasing market supply and availability. Depending on how and where mandates are implemented, the desired overall environmental benefit may therefore not be achieved. We also need to consider the impact of moving material from one industry to another (e.g., PET from textiles back into bottles).	An industry managed producer responsibility organization (PRO) could provide funding for designing and implementing programs aimed at increasing recycled content for packaging tied to state requirements, but again, those requirements should be legislated entirely separate from any type of extended producer responsibility policy (EPR) framework legislated for packaging and any underlying administrative, oversight and registration costs and fees for recycled content compliance must be capped.

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>The packaging industry understands the value in recycling and believes the reprocessing of packaging materials reduces litter and marine debris and contributes to the vitality of the American manufacturing sector. AMERIPEN's members have therefore established aggressive goals to increase the use of postconsumer recycled content (PCR) in their products. They are investing across their supply chains in technologies designed to increase the quality of materials collected and processed as well as the avenues for re-use and end markets that may or may not include putting recaptured materials back into packaging.</p> <p>AMERIPEN could consider supporting recycled content requirements for all packaging as a policy mechanism to potentially increase the demand for recyclable materials, and we agree that such requirements must include clear definitions and methodologies for compliance. But we caution that specific goals and rates should not be codified in statute and instead be established through a rigorous regulatory process that includes extensive discussion with all stakeholders before implementing. Furthermore, as with our comments on DRS programs for beverage containers, any recycled content requirements for packaging should be legislated entirely separate from any type of extended producer responsibility policy (EPR) framework legislated for packaging. While a successful product stewardship program for packaging could be complemented by recycled content requirements and other policy drivers (i.e., contamination mitigation and end market and infrastructure development), it should not be statutorily reliant on those drivers.</p>	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Don't support, suggest the following alternative	<p>It is unclear to AMERIPEN how a producer registry would help increase packaging recovery within the state.</p> <p>AMERIPEN is concerned that this recommendation is overreaching, perhaps impossible to successfully implement, extremely preemptive of any extended producer responsibility (EPR) and/or recycled content mandate policy frameworks that might be legislated and regulated, and tantamount to a ban on the sale of products in Washington State if certain requirements are not met. Under what, if any, existing statute and regulation would the Washington State Department of Ecology have authority to require this and what purpose would the collected data serve towards increasing and improving packaging recovery before any of the primary policy recommendations might be implemented? The purposes of this recommendation would be better served after an industry managed producer responsibility organization (PRO) that offers the necessary legal protections has been successfully developed and implemented. As previously stated, any recycled content requirements for packaging should be legislated entirely separate from other legislated policies and requirements.</p>	An established industry managed producer responsibility organization (PRO) can quickly collect the necessary data from registered producers in order to effectively and efficiently increase and improve packaging recovery, but as stated earlier, any underlying administrative, oversight and registration costs and fees for the PRO and related data collection must be capped. The PRO could provide funding for collecting data and designing and implementing programs aimed at increasing recycled content for packaging tied to state requirements, those requirements should be legislated entirely separate from any type of extended producer responsibility policy (EPR) framework legislated for packaging.
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Select one	AMERIPEN is not adequately informed on this topic to respond to this recommendation and we would encourage dialogue with the American Beverage Association.	AMERIPEN is not adequately informed on this topic to respond to this recommendation and we would encourage dialogue with the American Beverage Association.
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Select one	AMERIPEN is not adequately informed on this topic to respond to this recommendation and we would encourage dialogue with trash bag manufacturers.	AMERIPEN is not adequately informed on this topic to respond to this recommendation and we would encourage dialogue with trash bag manufacturers.

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Don't support, suggest the following alternative	Beyond the difficulties of defining through consensus what packaging is problematic and unnecessary, bans do not typically drive systemic changes and more often lead to negative unintended consequences, including substitutions that have higher carbon footprints, for example. Policies should focus on programs and initiatives that clearly improve and increase packaging recovery.	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Could support with the following changes	A statewide standard for customer opt-in for non-essential disposable foodservice packaging and accessories may help reduce unwanted packaging. However, we would not support this standard if there were any underlying intentions to eventually expand the standard to bans and fees on such packaging as was proposed in 2020 House Bill 2656.	
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Could support with the following changes	Clarifying, expanding and more effectively collecting data from regulated recycling facilities on the final destinations of materials sent for reprocessing should help provide greater insight into demand and capacity, but it alone will not help increase packaging recovery. It would be important to ensure that this data is complemented with ongoing support for the Washington State Recycling Development Center that could use this data to help attract and retain re-processors to the state or region.	
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Support as is		

## AMERIPEN - American Institute for Packaging and the Environment

AMERIPEN – the American Institute for Packaging and the Environment – appreciates the opportunity to provide comments on the draft policy Recommendations for Managing Plastic Packaging Waste in Washington State released on August 14, 2020. Please find attached our completed Plastic Study Feedback Form, as well is a cover letter. Thank you in advance for your consideration of our comments.

August 26, 2020

Submitted via Email

Washington Plastic Packaging Study Team  
Solid Waste Management Program  
Washington State Department of Ecology  
Post Office Box 47600  
Olympia, Washington 98504-7600

**Re: Draft Policy Recommendations for Managing Plastic Packaging Waste in Washington State**

To Washington Plastic Packaging Study Team:

AMERIPEN – the American Institute for Packaging and the Environment – appreciates the opportunity to provide comments on the draft policy **Recommendations for Managing Plastic Packaging Waste in Washington State** released on August 14, 2020. AMERIPEN supports the State’s efforts to evaluate and improve the management of packaging materials after consumer use.

AMERIPEN is a coalition of packaging producers, users and end-of-life materials managers dedicated to improving packaging and the environment throughout the United States. Our mission is to lead the packaging industry through advocacy based on science and to enhance understanding of the role packaging plays in a more sustainable society, economy, and environment. Our membership represents the entire packaging supply chain, including materials suppliers, packaging producers, consumer packaged goods companies and end-of-life materials managers. We have several members with facilities in Washington, and many more who import packaging materials and products into the state.

After reviewing the policies laid out in **Recommendations for Managing Plastic Packaging Waste in Washington State**, as well as the data within **Plastic Packaging in Washington: Assessing Use, Disposal and Management; Successful Plastic Packaging Management Programs and Innovations;** and **Recycled Content Use in Washington: Assessing Demand, Barriers and Opportunities**, we perceive a disconnect between policies that can tackle the needs of the full packaging system and policies that are more narrowly focused on collection, residential recycling and financing.

Recycling is a system of distinct phases. Design, collection, sortation, reprocessing and resale all have unique challenges and needs. Additionally, residential recycling is distinct from commercial recycling. This letter is intended to outline some of the areas we feel have been overlooked in the policy recommendations that Washington State could consider as they embark on their ambitious plan to meet the Global Commitment goals of 100% recyclable, reusable or compostable plastic packaging by 2025 – a goal many AMERIPEN members share with the state and are committed to reach.

**None of the proposed policies adequately address the dearth of plastic re-processors in the region.**

There is an assumption behind all these recommendations that increased and improved collection will result in increased recycling, but a lack of insight into end markets and local re-processors does not guarantee that plastic waste will be recovered. The state's own data notes:

“Although no reliable data are available to trace the flow of recyclable commodities to end markets, it is assumed that very little rigid plastic packaging collected in Washington is reprocessed in-state. Of the 11 plastics re-processors identified in Washington and the surrounding region (including Oregon and British Columbia), only a few handle post-consumer rigid plastics and, among those, only one—located in British Columbia—accepts predominantly curbside materials and mixed rigid plastic bales.” (*Plastic Packaging in Washington: Assessing Use, Disposal and Management* pg. 85)

It is unclear how the recommended policies will address the need for re-processors in the region, especially ones that can handle curbside materials. One might argue that recycled content mandates create demand for recycled plastic feedstock, **but demand alone will not create the infrastructure and processors that are necessary** to meet demand and to process current volumes of packaging in the curbside stream.

**None of the proposed policies address challenges with hard-to-recycle packaging formats.** The state's own data notes that there is a lack of markets for mixed plastics as well as flexibles. Resolving this is not as simple as banning or harmonizing materials without creating unintended consequences. AMERIPEN's own research on emerging packaging trends suggests we should anticipate an increase in flexible and multi-material packaging formats in the residential stream as a result of COVID, as well as rapidly growing ecommerce and greenhouse gas reductions from use of such materials.<sup>1</sup> There are benefits from a sustainable materials management (SMM) perspective in embracing these materials and we therefore recommend policies and programs to help advance innovation and end market development in Washington State. This will further assist the state with its own 2025 goals and support increased job creation and economic opportunity within the state.

**None of these policies adequately address management of financing and control of systems.** In fact, within the **Plastic Packaging in Washington: Assessing Use, Disposal and Management** report it is noted that taxes collected for the purpose of litter prevention have been repeatedly redirected by the Washington State Legislature to general funds during times of economic crisis. As we now face a new economic crisis due to COVID-19, reliable funding for recycling and materials management goals and oversight is more important than ever for all involved parties.

We encourage you to consider where some of the gaps are between the objective of increasing packaging recovery and the recommended policies that have been proposed. We also encourage you to meet with end users of these materials to better understand their needs and interests and the

<sup>1</sup> Resource Recycling (Dec 2019) "[On the Doorstep](#)".

proposals they are developing to help create a system of shared responsibility where all packaging is recovered and reused towards a vision of minimizing overall environmental impact.

Like Washington State, AMERIPEN members are seeking to reduce unrecoverable packaging and increase recycled content within their own packaging portfolios. As a result, AMERIPEN has been working diligently for the past year on identifying a number of policies and initiatives to help increase packaging recovery, and address financing shortfalls, to help modernize our recycling system towards a vision of 100% recyclable, reusable or compostable plastics. We would welcome the opportunity to discuss some of these further with the Department of Ecology Plastics Packaging Study Team and the Legislature as they develop next steps. Related:

1. AMERIPEN has been working with state recycling market development centers across the country for the past six months to identify policies and best practices that will support market development centers to advance end markets and demand. We would be happy to share insights from that group to support the state's emerging efforts here. Market development would significantly advance the state's own insight into end markets and re-processors while at the same time creating local jobs and generating state revenue.
2. Additionally, AMERIPEN has been working on developing a draft financing proposal to support state recycling programs for packaging. This proposal identifies industry specific financing mechanisms that could be explored and outlines a strategy for funding that also contemplates how we can best modernize the recycling system to address the emerging growth of hard to recycle packaging and other materials. We would welcome the opportunity to meet with the Plastic Packaging Study Team to discuss some of this work and how it could be merged with the proposed policies outlined in the draft recommendations.

As requested, we have submitted detailed comments on the draft policy **Recommendations for Managing Plastic Packaging Waste in Washington State** in the Plastic Study Feedback Form. While AMERIPEN has some concerns with the recommendations, we appreciate the state's efforts to develop and implement the strategies necessary to meet the stated goals and we appreciate your consideration of our recommendations that we believe will help effectively and efficiently improve and increase packaging recovery in the state. We look forward to working with you in that regard.

Sincerely,



Dan Felton  
Executive Director—AMERIPEN

## Draft Recommendations Feedback Form

**Name:** Peter Godlewski  
**Sector:** Trade Association or Lobbyist  
**Organization/Affiliation:** Association of Washington Business  
**Industry/Issue Area:** (for trade associations, lobbyists, Statewide Business Association  
 advocacy organizations, nonprofits, and CBOs)

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Don't support, suggest the following alternative	Will provide additional comments in cover letter	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Don't support, suggest the following alternative	Will provide additional comments in cover letter	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Could support with the following changes	Will provide additional comments in cover letter	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Don't support, suggest the following alternative	Will provide additional comments in cover letter	
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Could support with the following changes	Will provide additional comments in cover letter	
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Don't support, suggest the following alternative	Will provide additional comments in cover letter	
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Could support with the following changes	Will provide additional comments in cover letter	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Support as is	Will provide additional comments in cover letter	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
<b>9</b>	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Don't support, suggest the following alternative	Will provide additional comments in cover letter	
<b>10</b>	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Don't support, suggest the following alternative	Will provide additional comments in cover letter	



PO Box 658 / Olympia, WA 98507-0658 / 1414 Cherry St. SE / Olympia, WA 98501 / 360.943.1600 / [awb.org](http://awb.org)

August 26, 2020

RE: AWB Comments on Draft Plastic Packaging Study

Thank you for the opportunity to provide input on the draft Plastic Packaging Study for Washington State. The Association of Washington Business (AWB) represents around 7,000 members across Washington. Our members are focused on good environmental stewardship practices and have made many investments to help address the issue of post consumer plastic packaging waste. However, we do have some concerns regarding the draft recommendations in the report and hope they can be addressed in the final version.

Before getting to the specifics of the recommendations, we would like to underscore how much the state economy, business environment, and consumer behavior have changed in the past four months since the first steps to mitigate the spread of COVID-19 were announced. While these steps have helped to limit the spread of COVID-19, they are having disastrous effects on our members. Stores and restaurants are not able to operate at full capacity and most service businesses have been required to implement new and costly measures to protect staff and customers. This combination of lost revenue and the new regulatory requirements required to stay open means businesses are continuing to operate on incredibly tight margins and barely managing to stay afloat to continue supporting their employees. This is particularly an issue for our small and medium sized businesses. Each increase in operating costs, no matter how small, drives more and more businesses to close down.

The report simply does not assess these issues or the new post-COVID economic paradigm. A recent study by York University estimates that a 100% EPR program for printed paper and packaging will increase the cost of groceries and packaged products by 5-7% for consumers. The effects of increasing the cost of essential products like food and medicine when many Washingtonians have lost jobs and businesses face an uncertain future requires further study.

It is in this environment that we are viewing the draft recommendations, which did not make any significant mention of the impact of COVID-19 on the state. While steps to protect the environment are very important, it is just as important to have a clear eye towards what the exact environmental gain will be compared to the costs. We would like to see additional information in the final report which details how existing EPR programs perform in terms of reducing plastic packaging waste; not merely in shifting responsibility for that waste. This is not

the only area where businesses are facing increased costs and we would hope the final report would acknowledge that businesses are facing financial pressure from a variety of directions.

Within this context, we are concerned regarding several of the recommendations within this report and their likely cost impacts on businesses across the state. The Extended Producer Responsibility (EPR) program outlined as draft recommendation 1 is bigger and far more comprehensive than any other that exists in the world today. Just two elements of the EPR policy design recommendations, such as the creation of a registration and reporting system to track producer behavior and the shifting of responsibility of waste collection to producers represent major departures from how existing waste collection is managed.

It is not clear from the British Columbia example that the costs associated with their EPR program have had a dramatic decrease in the amount of plastic waste identified in this report. Therefore we think it is important for the final draft to stress the uncertainty associated with this approach.

Setting up such a comprehensive system statewide is also likely to severally tax the already strained resources of the state and local governments, whose cooperation and guidance will be necessary to this process. Just creating a statewide packaging registration and tracking system will require extensive staff time by multiple state and local agencies and add additional costs. While the report states that producers would be responsible for the operating costs of the EPR program, it makes no mention of how these considerable start up costs will be paid.

One way to approach the outlined legislative goals while minimizing the costs on businesses is to work within the existing waste management regulatory and institutional framework which exists in the state today. Several of the other recommendations (Recommendations number 2, 4, and 9) would all require additional expensive and significant upgrades to how the state manages our waste streams. Outside of Recommendation 2 (Bottle deposit system) producers are responsible for the totality of costs associated with this report. Based on the definition of “producer” adopted in the final report, this represents a massive increase in the costs of doing business in Washington and will have a certain and detrimental impact on the business environment in this state.

Waste management is a shared responsibility for all actors in the value chain. Each participant in the solid waste management system has a distinct role to play. In shared responsibility, costs are distributed to those who are closest to a given management activity and have the largest opportunity to reduce waste. A shared responsibility approach creates a more direct and transparent incentive for all stakeholders to improve how waste is managed and makes it more economically efficient. For example, “Pay as You Throw” (PAYT) policies serve to provide a direct and transparent incentive for consumers to influence behavior and have been shown to increase waste diversion.

Additionally, the draft language suggests that recyclability is not an end goal itself, and in order to qualify as recyclable, plastic packaging must be shown to have been recycled. **Producers cannot be held responsible for actual recycling rates of which they have no control.** Holding manufacturers responsible for designing products that can be readily collected, sorted, and processed for recycling is a reasonable goal, however requiring manufacturers to also predict consumer behavior is unreasonable.

Finally, there appears to be considerable scope creep in the recommendations which do little to address the outlined legislative goals at the heart of this report. It is unclear why paper products are suggested for inclusion in the EPR program as they fall outside of any of the listed legislative goals to examine plastic packaging in Washington state. AWB does not believe that paper products should be mentioned in a report on how to reduce plastic waste in the state. In addition, there is very little mention in the report to underscore the need for necessary exemptions where governed by other regulatory bodies. Products under the jurisdiction of the FDA, for example, have specific requirements set by the agency and cannot be changed by state laws. The final recommendation should make clear where such exemptions exist and make the case for their continued exempt status.

AWB and our members take seriously our efforts to reduce our environmental impact and reducing plastic waste. However, our businesses are currently operating in an extremely harsh economic environment with uncertain futures. Enacting one of the strictest and comprehensive EPR programs in the world and requiring these same businesses to pay for all of the associated costs is not a sustainable path forward. We hope the updated draft report will reflect this considerable change in the business environment in this state and adjust the recommendations to align with the current business climate.

Thank you,

Peter Godlewski  
Government Affairs Director for Environmental Issues  
Association of Washington Business

August 25, 2020

Solid Waste Management Program  
Department of Ecology  
300 Desmond Drive SE  
Lacey, WA 98503

Dear Sir or Madam:

In late July, the Consumer Healthcare Products Association (CHPA), provided comments to assist in informing your draft recommendations to the Washington Department of Ecology regarding the management of plastic waste in the state.

Upon reviewing the draft recommendations released on August 14<sup>th</sup>, we have enduring concerns we hope you'll consider as you conclude stakeholder input and prepare to finalize the recommendations.

CHPA is the national trade association representing the leading manufacturers of over-the-counter (OTC) medications, dietary supplements, and consumer medical devices. The packaging of these products is very complex and highly regulated by the Food and Drug Administration (FDA) to ensure product safety, quality, and stability. As we shared with you in our previous correspondence, the industry is very committed to advancing sustainable practices and shares the goal of minimizing environmental impacts created by plastic packaging. However, we hope you will consider our concerns before moving forward with your final recommendations for the State of Washington.

### **Recommendations Are Beyond Scope of Legislation**

We have strong concerns that the recommendations outlined in the August 14<sup>th</sup> draft go far beyond what is requested in the legislation. The law, in fact, is called the Washington Plastic Packaging Evaluation and Assessment law (WPPEA). Yet, the primary recommendation provided in the August 14<sup>th</sup> document is to create a broad, overly burdensome extended producer responsibility (EPR) framework for ALL packaging, not just plastic. This is clearly beyond the bounds of the law's charge.

Furthermore, since several of the recommendations lack supportive data, the recommendations themselves threaten the ability to achieve the law's three stated plastic packaging goals.

Reducing packaging waste and movement toward a circular economy involves multiple stakeholders along the value chain. In the case of OTC medications, dietary supplements and consumer medical devices, there are also several beneficiaries along the supply chain. Therefore, solutions to the plastic packaging problem should

involve all stakeholders and not solely the producers/manufacturers. Product stewardship involving all stakeholders, not extended producer responsibility, is a far better approach to achieving the WPPEA's goals. As programs currently operational in Europe have consistently shown, EPR does not incentivize or change producer behavior on eco-design. Rather, it simply shifts costs of municipal waste disposal and recycling from local government to manufacturers. Using EPR as the primary policy approach, therefore, fails to achieve the WPPEA's stated goal of getting producers to consider the design and management of their packaging.

### **Producers Cannot Be Held Responsible for Consumer Behavior**

The draft regulations suggest that recyclability is not an end goal itself, and in order to qualify as recyclable, plastic packaging must be shown to have been recycled. Producers cannot be held responsible for actual recycling rates of which they have no control. Holding manufacturers responsible for designing products that can be readily collected, sorted, and processed for recycling is a reasonable goal, but to require manufacturers to also predict consumer behavior is quite unreasonable.

### **Recommendations Lack Exemption for Food and Drug Administration (FDA) Regulated Products**

OTC drugs in the United States, much like prescription drugs and medical devices, must meet the Food and Drug Administration's (FDA) extensive standards for safety and effectiveness before they can be introduced in the marketplace for consumer access. Additionally, the Consumer Product Safety Commission has the authority to require child-resistant plastic packaging and has done so for many drugs and some dietary supplements. Therefore, it would be technologically unfeasible for manufacturers of these items to alter their packaging as prescribed by a state EPR law. Yet despite this potential conflict, the draft recommendations failed to provide an express exemption for FDA regulated products. It is critical that your final recommendations include an exemption for FDA regulated products, or some manufacturers will be forced to abandon Washington as a market altogether.

### **Flexibility on Reporting Requirements Is Essential**

The draft recommendations include a reference to the establishment of a packaging registry to produce an accounting of the packaging sold in Washington state. We recognize that data evaluation is an important component of eco-incentive implementation, however, it is very important that legislation allow for flexibility in that reporting. For instance, reporting state level data on types of packaging and post-consumer resin (PCR) content will be overly burdensome, if not entirely impossible. Please emphasize the critical nature of maintaining flexibility on how producers report.

### **Clarity on Definitions Is Necessary**

The 7<sup>th</sup> recommendation on the draft document encourages a ban on plastic packaging identified as problematic or unnecessary through public-private initiative. “Problematic or unnecessary” is very vague terminology and requires greater clarity. Without clear definitions, the legislation risks providing a state agency with broad and sweeping powers to hastily ban products from sale in Washington altogether.

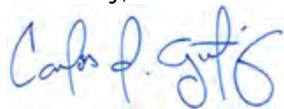
### **Medication Affordability Should Be Considered When Allocating Fees**

Having safe, effective, and affordable options for everyday personal healthcare has never been more important. OTC medicines are the first line of defense for relief from a wide variety of symptoms and conditions. Most importantly, they are widely available to consumers at very affordable rates. Unlimited, overlapping, and multiple producer fees associated with the draft recommendations threaten the affordability of medications at a time when consumers need access to self-care options more than ever. According to the draft recommendations, producers are held responsible for providing funding for an EPR program through registration and reporting fees. Additionally, producers are responsible for financing performance standards infrastructure, meeting collection and accessibility standards, sorting infrastructure, and plastic packaging infrastructure. On top of that, producers are also mandated to pay multiple registration and reporting fees. Like all production costs, these fees will simply be passed on to the end consumer in the price of the product. For many Washingtonians, the increase in medicine costs may be the difference on whether or not they seek treatment for a common ailment or sickness.

Packaging for pharmaceuticals, dietary supplements, and medical devices is a very complex and highly regulated space that forces manufacturers to follow an established federal framework that for decades has served the public interest well. For this reason, we request you reconsider your draft recommendations to the Department of Ecology and take into account both sets of the comments we have submitted to date.

Thank you for taking the time to consider our concerns and feel free to contact me directly with any follow up questions you may have.

Sincerely,

A handwritten signature in blue ink that reads "Carlos I. Gutiérrez". The signature is written in a cursive style with a large, stylized "G" at the end.

Carlos I. Gutiérrez  
Vice President, State & Local Government Affairs

Consumer Healthcare Products Association  
Washington, D.C.  
202.429.3521  
cgutierrez@chpa.org

## Draft Recommendations Feedback Form

**Name:** Katie Reilly  
**Sector:** Trade Association or Lobbyist  
**Organization/Affiliation:** Consumer Technology Association  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs) Consumer Technology/Electronics - 2000+ members

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Don't support, suggest the following alternative	Study should not have recommended EPR for all packaging as that was not within scope of of RCW 70.380. See additional written comment submitted on 8/26/20.	Open to Ecology facilitated stakeholder discussions on EPR options for plastics packaging. Note that industry coalition work is already underway on EPR models implementable in the US to address the needs of the US specific system and challenges.
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Select one	Not applicable to our industry	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Could support with the following changes	Must align with recycled-content mandates found elsewhere in the US such as the Rigid Plastic Packaging Container program in California. Any recycled-content mandate must be specific to the plastic type to ensure feasibility within the system and availability of recycled material, whether in Washington or globally (wherever packaging is sourced). Additionally compliance options such as source reduction should be incorporated and should not limit to just post-consumer recycled-content. See additional written comment submitted on 8/26/20.	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Select one		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Select one	Not applicable to our industry	
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Select one	Not applicable to our industry	
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Don't support, suggest the following alternative	No definition is provided for "problematic and unnecessary plastic packaging". CTA opposes given the lack of necessary parameters around its scope and a requirement for an alternatives assessment that evaluates economically viable alternatives focused on a the specific application/use of each plastic packaging type before a determination that it is "unnecessary". See additional written comment submitted on 8/26/20.	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Select one	Not applicable to our industry	
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is		
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Select one	Clarification is needed on what specific plastic packaging types would be within scope. Unclear if focus is just on replacement for single-use plastic packaging or all plastic packaging types.	

August 26, 2020

Washington State Plastic Packaging Management Study  
Via email at [WAPlasticPkgStudy@cascadiaconsulting.com](mailto:WAPlasticPkgStudy@cascadiaconsulting.com)

**Re: CTA Comments on DRAFT Recommendations for Managing Plastic Packaging Waste**

Dear Washington State Plastic Packaging Management Study:

The Consumer Technology Association™ (CTA)<sup>1</sup> appreciates the opportunity to submit comments in response to the DRAFT Recommendations for Managing Plastic Waste in Washington as part of the [Washington State Plastic Packaging Management Study](#) established in response to the Plastic Packaging - Evaluation and Assessment Law ([RCW 70.380](#)). CTA provides the below comments and suggestions to ensure the Final Recommendations are implementable, clear, and in line with the authorizing legislation.

### **Overall Comments**

CTA supports Washington’s interest in identifying and evaluating opportunities for the management of plastic packaging in the state. The Plastic Packaging - Evaluation and Assessment Law ([RCW 70.380](#)) is explicit in the requirements to focus on plastic packaging. While the DRAFT Recommendations include a justification on page 10 for going outside the scope and providing recommendations on all packaging material types, the reality is that the report should remain focused on the parameters provided in RCW 70.380. Additionally, the background research leading to these recommendations did not evaluate material types other than plastic. As such, the inclusion of all packaging for certain recommendations is not based on data or the research done as part of this study. CTA recommends that the Final Recommendations remain within the plastics only scope as outlined in RCW 70.380.

CTA requests additional clarification on the definition of “plastic packaging” as defined in the DRAFT Recommendations. It is unclear how films, coatings, and adhesives would or wouldn’t be included in the scope of these recommendations. Additionally, it is unclear if the proposed recommendations apply to all (primary, secondary, and tertiary) plastic packaging or if they are focused solely on one subset. For example, extended producer responsibility (EPR) programs throughout the world do not incorporate tertiary packaging into their programs because they are focused on residential/household generated waste and tertiary packaging is handled at the distribution or retail level. Additionally, it is unclear if de minimis volumes of plastic packaging are within scope where

<sup>1</sup> As North America’s largest technology trade association, CTA® is the tech sector. Our members are the world’s leading innovators – from startups to global brands – helping support more than 18 million American jobs. CTA owns and produces CES® – the most influential tech event in the world. Find us at [CTA.tech](http://CTA.tech). Follow us @CTAtech.

plastic may be utilized but is not the primary form of packaging (e.g., <5% of the overall packaging volume/weight). CTA discourages the inclusion of tertiary packaging in any of the recommendations and encourages a de minimis level to be set to ease compliance burden. Clarification is needed in the Final Recommendations.

Lastly, cost estimates are not provided for the recommendations making it unclear the fiscal impact to Ecology and to producers. The fiscal impact of these recommendations should be included and should accompany any future potential legislative proposal. Impacted entities must understand the implications on their operations as well as the impact to the Ecology's budget for implementation of the outlined recommendations.

### **Primary Recommendation 1. Extended Producer Responsibility**

As noted above, this recommendation to establish an EPR policy for all packaging extends beyond the scope of RCW 70.380. With that in mind, the focus should be on whether an EPR policy for plastic packaging only can achieve the overarching goals outlined in the authorizing legislation; not whether an EPR policy for all packaging can achieve the goals.

EPR for plastics packaging, or for packaging in general, has not been adopted anywhere in the U.S. The challenges and needs of Washington's recycling system should guide any type of EPR structure to ensure those specific challenges and needs are addressed. Washington should not look to blanket adopt structures found elsewhere in the world. The focus instead should be on utilizing producer funding in a way that addresses the current challenges of Washington's system, not just shifts the costs of a failing or challenged system to producers. Goals should be less focused on recycling rates but rather work toward a healthy recycling system that can stand on its own and help contribute to a circular economy. Responsibility must be shared among all stakeholders in the collection and recycling system.

As noted on page 12, this recommendation focuses on residential plastic packaging. The recommendations should make clear that the focus is only on primary packaging that reaches the residential household. It should not include any secondary or tertiary packaging that is handled at the distribution or retail level nor should it include packaging that is hauled away by the retailer or delivery service upon delivery of the product. The latter regularly occurs with the delivery and installation of electronic devices and the associated product packaging is handled not by the resident but by the retailer or delivery service.

Like many organizations, CTA has a set of principles that guide any discussion regarding EPR. We look forward to sharing those principles as part of any formal stakeholder process convened either through this study or by Ecology. From my time spent serving on the Connecticut Task Force to Study Methods for Reducing Consumer Packaging that Generates Solid Waste<sup>2</sup>, a quote from Joachim Quoden, Managing Director of the Extended Producer Responsibility Alliance (EXPRA) in Europe, has always stuck with me. Mr. Quoden stated that all stakeholders in the value chain must agree on the

<sup>2</sup> The Final Report of the Connecticut Task Force to Study Methods for Reducing Consumer Packaging that Generates Solid Waste can be found under the "Final Report" section of the "Meetings" portion of the Connecticut General Assembly website at [https://www.cga.ct.gov/env/taskforce.asp?TF=20170216\\_Task%20Force%20to%20Study%20Methods%20for%20Reducing%20Consumer%20Packaging%20that%20Generates%20Solid%20Waste](https://www.cga.ct.gov/env/taskforce.asp?TF=20170216_Task%20Force%20to%20Study%20Methods%20for%20Reducing%20Consumer%20Packaging%20that%20Generates%20Solid%20Waste). Additional meeting documents including presentations, written comments and meeting notes can also be found under the "Meetings" portion.

program to avoid undermining of the product stewardship system. The necessary stakeholders have not yet reached such agreement in Washington. In fact, the necessary stakeholders haven't even been convened for a discussion.

**Primary Recommendation 3. Recycled Content Requirements for All Plastic Packaging**

CTA does not support recycled-content mandates on all types of plastic packaging. For specific applications/uses of plastic resins, recycled plastic is either 1) not readily available in the marketplace and/or 2) does not provide the level of performance needed to adequately protect the product during transport and delivery. Any recycled-content mandates should be specific to a certain plastic resin or category (e.g., rigid plastic packaging container) and based on feasibility of recycled-content for a particular use and availability of and stability of the supply chain for that plastic resin in the global marketplace, which is where plastic packaging for consumer electronics is typically sourced. If a recycled-content mandate is feasible, sufficient lead time for compliance is needed for companies to plan, work with suppliers on a global scale, and execute an increase in recycled content.

Where recycled-content standards already exist such as with the Rigid Plastic Packaging Container (RPPC) Program requirements in California, CTA strongly encourages Washington to pursue harmonization. For a program such as the RPPC Program, California's requirement of 25% recycled content is part of a broader list of compliance options including allowing companies to pursue source reduction. In fact, a variety of compliance options that ultimately reduce the amount of virgin plastic packaging in Washington such as recycled-content, source reduction, etc. should be part of a multi-faceted compliance approach for producers.

CTA discourages against the requirement for producers to provide verification via a third-party certification. Currently, companies work within their own supply chains for internal verification. Requiring a third-party verification would unnecessarily raise the costs for producers without providing value-add. Programs like the RPPC Program do not require third-party certification and have not encountered transparency or reliability issues with the reported data from producers.

While CTA understands the authorizing legislation focused on post-consumer resin (PCR) only, many companies utilize recycled resin from non-consumer sources in their packaging. This is needed for a variety of reasons including availability as well as performance. CTA encourages the study to examine the limitations that a focus on post-consumer resin presents in the recycled-content discussion.

Lastly, as noted on page 23 of the DRAFT Recommendations, if an EPR program is implemented, a recycled-content mandate should not be established as recycled-content can be encouraged through eco-modulated fees by the implementing stewardship organization. This is a more effective and efficient manner in which to encourage recycled-content where it's feasible and appropriate as determined by the producer. It should not be mandated but rather part of the set of tools utilized by a stewardship organization and producers through eco-modulation to encourage environmentally preferable design decisions.

**Complementary Recommendation 7. Ban on Problematic and Unnecessary Plastic Packaging**

A ban on a material type with no consideration for its specific application/use could lead to unintended consequences especially if there is no stakeholder engagement process open to all impacted entities prior to the decision to implement a ban. Not all entities that might be regulated

by Washington are involved with U.S. Plastics Pact which is intended to be a voluntary effort. Mandating voluntary public-private partnership efforts undermines the purpose of a public-private partnership. More importantly, there is no guarantee that a list developed through a public-private partnership will avoid any of the pitfalls and unintended consequences noted in the DRAFT Recommendations.

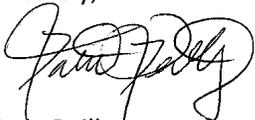
As an example, the use of expanded polystyrene (EPS) by the electronics industry is necessary as other packaging material types have proven inadequate to protect heavy and high value electronics during transport and delivery. A damaged television or printer has a significantly higher environmental impact than the use of EPS even if that material isn't recycled. Any bans should focus on a specific application/use of the plastic packaging type and assess the trade offs and availability of viable economic alternatives within the marketplace to avoid unintended consequences such as higher damage rates of products. CTA opposes this Complementary Recommendation without the necessary parameters around its scope and a requirement for an alternatives assessment that evaluates economically viable alternatives focused on the specific application/use of each plastic packaging type before a determination that it is "unnecessary".

**Conclusion**

CTA submitted the Plastic Study Feedback Form which is included with these comments. Please note that CTA did not provide comments on all of the DRAFT Recommendations as several are not applicable to CTA members or the packaging material they utilize.

CTA appreciates this opportunity to provide comments and feedback on the DRAFT Recommendations. We welcome the opportunity for additional conversations as well as to participate in any future stakeholder dialogue around these recommendations.

Sincerely,



Katie Reilly  
Director, Environmental and Sustainability Policy  
[kreilly@cta.tech](mailto:kreilly@cta.tech) | 703-625-0054

## Draft Recommendations Feedback Form

**Name:** Michael Waggoner  
**Sector:** Packaging or Packaged Goods Producer  
**Organization/Affiliation:** Corumat, Inc.  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs)

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Could support with the following changes	Providing a tax or subsidy to support these efforts would be helpful	Providing a state-funded resource to help manufacturers find/obtain funding would be great.
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Could support with the following changes		
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Support as is		
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Could support with the following changes	Develop a scorecard (or adopt Walmart's/SPC's) that would reward producers for incrementally better behavior	
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Don't support, suggest the following alternative	Doing nothing may be better	Historical efforts in this have resulted in products with higher environmental impact due to poorer performance
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Could support with the following changes	Develop a scorecard including LCA methodologies to minimize harmful environmental effects	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Could support with the following changes	Develop a scorecard including LCA methodologies to minimize harmful environmental effects	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is		
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Don't support, suggest the following alternative		There's a pandemic, and this won't necessarily develop scalable alternatives. Support innovative, holistic solutions to plastic waste.

## Corumat, Inc.

I applaud the efforts of the plastic packaging study. I've worked in new materials and sustainability for 15 years and have tried to keep up to date what is working and what is not. In general, industry-led initiatives, incentives, and bans are effective. California's recycling efforts have hit major roadblocks and their recycling rates appear to be decreasing, so it may not be a good model.

Seattle and other municipalities that required compostable packaging by law created a "premium" market that has allowed for innovation in packaging (and banning PFAS may solve the issues in these markets). Walmart has been a leader in packaging sustainability by creating a scorecard and getting their suppliers to be more effective in reducing packaging by that scorecard. Developing a similar scorecard that creates subsidies for "good" behavior in all packaging would provide industry a "carrot" in order to change its behavior. Working to make this scorecard universal and perhaps incentive system up/down the West coast (working with BC, Oregon, and CA) would create a large enough market to really drive change.

I have a concern with EPR and reusability in that they may not lead to truly scalable solutions. Composting is great, but it costs ~\$120/ton and so convincing the world to replace their \$30/ton landfills with it will be hard. Developing holistic, scalable solutions and using local premium markets to incentivize small companies to develop new products was effective in composting. One way WA could help would be to develop a scorecard (or perhaps modify the SPC's and Walmart's) that includes LCA methodologies, and create financial incentives for innovation (even if just at the local level). Giving "points" for scalability in solutions worldwide would be great.



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●●● Innovative solutions for a sustainable future

Plastic Packaging in Washington  
 Managing Plastic Packaging Waste in Washington  
 Cascadia Consulting  
 August 14, 2020

**Ban on problematic and unnecessary plastic packaging.** Complementary recommendation 7. Problematic presumably means resin types and forms (EPS) that are being recycled by the private sector and not in the problematic single-stream system. Current private sector recycling should be encouraged and supported. It is about three times greater than reported and functioning without taxpayer contribution, financially sustainable. Current single-stream program as operated by counties and as quantified by these reports is not financially sustainable. Government dictated elimination of “unnecessary” packaging will require a commitment to hire packaging engineers to redesign protective packaging to meet the efficiencies of current packaging. Redesign should consider all environmental implications of redesigned packaging such as added weight of shipments, increased product damage and spoilage, environmental footprint of remanufacture and reshipment of damaged goods and entire life cycle assessment of alternative packaging material.

**Strengthen Data Collection.** EPS-IA strongly supports this recommendation. These reports admittedly over-estimate the weight of EPS landfilled in Washington State and under-report the weight of EPS recycled. *See Table 3.*

**To assess various policy options to meet the goal that plastic packaging is 100% recyclable, reusable, or compostable by January 1, 2025.** No evaluation of whether the policy goal of encouraging compostable plastic would align with any legitimate state objective. Presumably, compostable means compliant with ASTM D6400 or ASTM D6868. As experts in the field, it is the obligation of the authors of this report to inform your target audience, Washington State legislators, exactly what “compostable plastic” means. The Federal Trade Commission has recognized the widespread confusion and misunderstanding of the term compostable. As such, this report to the legislators should explain the following:

1. Plastic that can be labelled compostable pursuant to ASTM D6400 or ASTM D6868 does not break down into its constituent elements but breaks into small pieces of plastic (<10mm or smaller than
2. The current number of composting facilities in Washington State that process compostable plastic is zero.

**Regulating Plastic Packaging for Environmental Benefit.** Authors should be commended for developing recommendations in accordance with the principle that regulation of plastic packaging should seek to achieve net environmental benefit. EPS-IA supports the recommendation to expand the analysis to include consideration of all packaging to avoid the unintended consequences and higher environmental impacts that would result from single attribute focus. Reduction of the lifecycle impacts of not just the packaging but the entire life cycle of the material, product or service.

**Focus on regulation of residential sector packaging.** EPS-IA understands the recommendation to focus on residential sector packaging but suggests consideration of how the commercial waste streams could function as a catalyst for efficient recycling. Broadening the focus where appropriate could significantly help achieve the wider goals. Expanded polystyrene is a minor form of a minor resin. According to the EPA and confirmed by many waste characterization studies, EPS represents around 1% of the waste stream by weight or volume. As such and as recognized in the work done in conjunction with these recommendations, low volume presents a challenge to recapturing a 100% recyclable material. Successful collection of residential EPS can be created around a commercial hub. For example, all EPS manufacturing facilities in Washington state accept consumer EPS for recycling which commonly occurs at that plant. Distribution facilities handling high volumes of furniture, electronics and white goods in Washington State sell densified EPS into the recycle market. Examining these existing commercial sector recycling solutions and determining what, if any, regulatory support could grow and protect these recycling streams should not be outside the focus of these recommendations.

**Necessary Infrastructure.** EPS-IA supports a level playing field based on accurate data. It is recommended that producers will need to pay for or provide expansion of residential collection service infrastructure. These taxes and fees imposed on consumers should be apportioned fairly and based on verified and accurate data. It is reasonable and necessary for successful implementation that consumers participate in collection programs for materials. Not all materials are suitable for single-stream. Cross-contamination and sorting equipment limitations require consumers to share some responsibility for proper placement of materials. Increase drop-off resources, education and consumer effort is essential.

**Deposit Return System for Beverage Containers.** EPS-IA supports the recommendation to focus on materials that represent the greatest proportion of the waste stream.

**Recycle Content Requirements for All Plastic Packaging.** EPS-IA suggests that the authors re-examine the market failure conclusion. Feedstock for plastic is a by-product of natural resource extracted for fuels and lubricants. Attempting to impose market corrections on the plastic industry to compensate for the impact of fuel extraction is backwards. Crude oil, petroleum and natural gas are refined into fuels. The left over, by product of the refining process is made into plastics. So long as our appetite for fossil fuels continues unabated, there will be cheap feedstock available to make plastics. Any financial adjustment must be targeted at the reason there is an abundance of by-product from our fuel consumption. Imaging trying to address the waste management of eggshells without addressing how many eggs we are using?

**Policy Design Considerations.** Recycle content requirements should not just be separate for rigid and flexible but should be set for each material and environmental footprint reduction. There must also be consideration of relevant impact of virgin, virgin by-product, post-consumer, post-industrial and scrap. Limiting to PCR only makes sense if there is life-cycle justification for the preference.

**Necessary Infrastructure.** EPS-IA agrees that additional collection and sorting infrastructure will likely be needed to allow packaging manufacturers to achieve the prescribed targets. An additional policy consideration is whether this source of recycled feedstock is in proximity to the packaging manufacturer. The environmental benefit of a recycle content requirement must account for and balance the impact of material acquisition.

**Producer Registry & Packaging Reporting.** The authorizing legislation has lumped two very distinct considerations together that are at cross-purposes and will frustrate the objectives. This is endemic to the function of packaging. On the one hand, the legislature would like information on packaging produced in the state. On the other hand, there is a request for data on packaging coming into the state. The problem arises because packaging is used to transport product. Packaging manufactured in the state will be shipped out-of-state. Sorting, recycling, and recovery will happen somewhere outside the jurisdiction. The only relevant consideration should be packaging that is delivered into and stays in Washington State.

**Ban on Problematic and Unnecessary Plastic Packaging.** Problematic for whom and compared to what? There needs to be clear and verifiable parameters to objectively define problematic. This is an open invitation to emotionally target unpopular materials.

**Strengthen Data Collection.** EPS-IA strongly supports expanded and robust data collection. Expanded polystyrene is not separately categorized yet is frequently a target for elimination. Many resins can be foamed. There is polyurethane, polyisocyanurate, expanded polypropylene, cellulose acetate and others. These materials are frequently misclassified as EPS and all of the sins of these materials are loaded onto EPS as an unpopular scapegoat and banished to the wilderness. Worked performed as part of this task has Washington State, with slightly more than 2% of the US population, disposing of 12% of nation's EPS. Waste characterizations from the EPA and data from the UN Environmental Program and the Ellen MacArthur foundation confirm that EPS is about 1% of the waste stream by weight or volume. The most recent Washington State waste characterization study sets total waste at 2,422,900 tons. Of that, it is estimated by this study that 22,450 tons are polystyrene foam packaging or less than 1%. Recycling report requirements should be expanded to capture all recycling and must be material specific and verifiable. Reporting efforts and data collection should be expanded beyond regulated facilities to capture all markets.

# Draft Recommendations Feedback Form

**Name:** Alison Keane  
**Sector:** Trade Association or Lobbyist  
**Organization/Affiliation:** Flexible Packaging Association  
**Industry/Issue Area:** (for trade associations, lobbyists, Flexibl Packaging  
 advocacy organizations, nonprofits, and CBOs)

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Could support with the following changes	Additional Comments Submitted	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Select one		
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Could support with the following changes		
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Don't support, suggest the following alternative	Additional Comments Submitted	
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Select one		
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Could support with the following changes	Additional Comments Submitted	
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Don't support, suggest the following alternative	Additional Comments Submitted	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Select one		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Select one		
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Select one		

Comments of the Flexible Packaging Association  
on the Draft Report  
“Recommendations for Managing Plastic Packaging Waste in Washington”  
Prepared for the Washington State Department of Ecology  
8/26/20

The Flexible Packaging Association (FPA) is submitting these comments as additional feedback to the Draft Recommendations Feedback Form also submitted on the above referenced Report. FPA is the voice of U.S. manufacturers of flexible packaging and their suppliers. Flexible packaging represents over \$33 billion in annual sales in the U.S., and is the second largest and fastest growing segment of the packaging industry. The industry employs close to 80,000 workers in the United States. Flexible packaging is produced from paper, plastic, film, aluminum foil, or any combination of these materials, and includes bags, pouches, labels, liners, wraps, rollstock, and other flexible products.

These are products you and I use every day – including hermetically sealed food and beverage products such as candy, salty snacks, yogurt, beverages, and infant formula; and health and hygiene items and pharmaceuticals, such as aspirin, shampoo, shaving cream and yes, even flexible packaging for PPE and COVID19 and antibody test kits. Flexible packaging is also used for pet food to deliver fresh and healthy meals to a variety of animals. Carryout, take-out food containers, and e-commerce delivery, which are increasingly important during this pandemic, are also heavily supported by the flexible packaging industry. Thus, FPA and its members are vital to the supply chain when addressing the needs of U.S. consumers in their daily lives and particularly now in responding to the COVID-19 crisis.

FPA understands the importance of reducing and recycling solid waste to minimize litter and optimize landfill space. There is no single solution that can be applied to all communities when it comes to the best way to collect, sort and process flexible packaging waste. Viability is influenced by existing equipment and infrastructure, material collection methods and rates, volume and mix, and demand for the recovered material. Single material flexible packaging, which is about half of the flexible packaging waste generated, can be mechanically recycled through store drop-off programs. The other half can be used to generate feedstock, though a variety of mechanisms, most of which are not yet to the scale needed. Developing end-of-life solutions and markets therefore, is a work in progress and will take time.

Given these circumstances, at least for flexibles, FPA does not believe the underlying law requiring the assessment and Report, “The Plastic Packaging Evaluation and Assessment” law (Chapter 70.380 RCW), and its goals of all plastic packaging sold into the state being 100 percent recyclable, reusable, or compostable and incorporating at least 20 percent post-consumer recycled content, by January 1, 2025 are realistic. FPA believes that regardless of the mechanisms to achieve such goals outlined in the Report, the timeframe must be revised in any legislation introduced based on the Report’s recommendations to afford more time for any of the mechanisms to work.

Furthermore, there is a reason only 50% of flexible packaging is mechanically recyclable. 50% is single material. The rest is multi-material laminates for a good reason – to create less waste in the first place. Not all flexible packaging is the same – different products require different types of protection. Multiple materials are required to provide the appropriate barrier and protection to prevent contamination, extend freshness and ultimately protect the product by providing puncture, tear and burst resistance and strength. When assessing

sustainability or examining the full life-cycle of packaging, flexible packaging wins hands down. Flexible packaging uses fewer resources, generates fewer emissions and creates less waste. Flexible packaging starts with using fewer materials and resources than other packaging types and has the ability to package the most product in the least amount of packaging possible, reducing energy use, water use, and greenhouse gas emissions in the manufacturing and transportation of the package and product. Below are some specific key issues, that FPA would like to note with the draft recommendations.

1. FPA agrees that any extended producer responsibility (EPR) scheme in Washington state should include all packaging and not just plastic packaging, as law was drafted. FPA also agrees that the EPR system should focus on residential packaging and not institutional or industrial packaging. All packaging and materials types should be covered, across all sales channels, including e-commerce. Schemes should focus on consumer as industrial and institutional segments already have robust collection and recycling systems in place. These systems may be leveraged on the backend to support consumer packaging recycling where appropriate, however, they do not need an end-of-life management fee to support that infrastructure.
2. FPA does not agree, however, that legislation enabling an EPR program in Washington state should include progressively increasing recycling targets. Setting performance standards and recycling targets, including any eco-modulation fees should be reserved for the Producer Responsibility Organization (PRO) in order to allow for full lifecycle aspects of packaging; changes in the recycling infrastructure and markets; and new packaging formats over time. Fee allocation and eco-modulation should not be punitive and equitably applied across all packaging

formats. The PRO must have the ability to set targets and adjust accordingly, whether increasing or decreasing based on the circumstances. This is not the role of the legislation, which would most likely be as arbitrary as the current 100 percent recyclability with 10 percent post-consumer content goals. Rather, this should be addressed in the program plan and program plan approval process as well as an annual program report process.

3. FPA also does not agree that a PRO should solely be responsible for providing all post- collection services, particularly when it comes to disposal, litter clean-up and public spaces. EPR, particularly one for packaging that will use existing infrastructure to the extent possible, is a shared responsibility. This could include, but is not limited to, raw material manufacturers, packaging converters, waste haulers, retailers, consumers and/or federal, state and local agencies. Funds should not be allocated to municipalities solely to reimburse or expand disposal, litter or cleanup activities and any revenue already generated through packaging waste must be directed to the recycling system.
4. FPA also believes that administrative costs should be capped, so that generated funds are dedicated to operational costs, including, consumer education to increase recycling and reduce contamination; collection and infrastructure investment and improvement and development of advanced recycling systems to allow for collection and recycling to a broader array of packaging materials, including flexible packaging; and quality sorting and markets for currently difficult-to-recycle materials.
5. Any EPR system put in place must be designed to increase recycling and invest in the necessary infrastructure to allow for collection and circularity of today's

packaging types, FPA strongly opposes the Report's recommendations to ban plastic packaging identified as problematic. As the Report states, it has been generally found that material and product specific bans are inefficient and ineffective at driving systemic change and can result in negative unintended consequences. While the public-private Plastic Pact partnership that the Report references, might produce a list of these supposedly problematic plastic packaging types, the initiative is in its infancy, so to recommend following whatever directive may or may not come out of the Pact is premature at best.

6. FPA generally believes post-consumer recycled content mandates, both generally and in plastic bags, should be addressed outside of an EPR scheme. This will be highly specific to not only the material type, but to the use of the packaging format. Much like investment in infrastructure, innovation and investment in packaging technology will be needed and is outside the scope of an EPR funding mechanism. While an EPR program may encompass recycled content mandates within the broader scope of performance standards, given the complexity of setting these mandates and the above stated potential unintended consequences of doing so, they should be addressed in a separate policy.

Finally, legislation implementing EPR schemes should address any regulatory hurdles current laws may impose, such as bans and limits on advanced recycling technology, that would prevent collection and recycling of additional packaging types, such as flexible packaging, and markets for currently difficult-to-recycle materials. Legislation that intentionally or inadvertently incentivizes disposal over recycling should be prohibited. Use of flexible packaging is increasing because of its beneficial environmental and health attributes. Any EPR scheme imposed on packaging must maintain or enhance the current

environmental and performance attributes of flexible packages while providing sustainable funding, including funding for R&D for and investment in advanced recycling infrastructure and sustainable end markets, in order to provide an onramp for collection and recycling of all flexible packaging. Lack of current infrastructure and markets should not impede inclusion and flexible packaging should not be banned based on lack of current infrastructure for circularity.

# Draft Recommendations Feedback Form

**Name:** James Toner  
**Sector:** Trade Association or Lobbyist  
**Organization/Affiliation:** International Bottled Water Association  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs) water, bottled water, plastics, beverage containers, recycling, taxes

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Don't support, suggest the following alternative	<p>IBWA believes that EPR programs for PET and HDPE plastics are unwarranted as these recycled plastics are already in high demand and manufacturers are already using rPET and rHDPE in their products.</p> <p>Should a program be considered, IBWA approaches packaging and recycling issues in a manner emphasizing the most effective and efficient solutions to reduce the strain on the environment, while considering the equal responsibility of all stakeholders, including consumers. IBWA believes that locally run, comprehensive recycling programs are the best method of cost-effectively diverting solid waste from landfills and increasing recycling of consumer products and packaging.</p> <p>The following principles should apply to any Extended Producer Responsibility Program:</p> <ol style="list-style-type: none"> <li>1. Minimize Environmental Footprint - Recycling program(s) should collect recyclables in a manner that minimizes the environmental footprint and does not create inefficient energy or natural resource use.</li> </ol>	<p>For any EPR system to be successful, multiple entities need to play a role in ensuring the program is sufficiently funded and operating effectively. For this to occur, all parties must have a vested interest in how the program is run using any available funds. Those funds need to come from multiple sources, be equitable, and provide sustainability for the program. Groups that don't have a financial interest in the program will be less motivated to ensure its success.</p> <p>Well rounded funding resources will also allow for all those who contribute financially to have a say in how an EPR program should be run, what should be its main goals, and how does everyone benefit from it. Relying on a single source of funding, whether state or industry, fails to level the incentive playing field. If the goal is for everyone to benefit from such a program then everyone should participate in its funding.</p>

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>2. Comprehensive and cost efficient - Recycling program(s) should seek to collect recyclables in a cost-effective manner and provide the maximum opportunity, through ease of participation in multiple venues, for consumers to recycle a broad range of products and packaging.</p> <p>3. Achievability - Recycling program(s) should have reasonable and specific recycling rates goals (e.g., % increase in rate over X yrs, % of households covered within X years, etc.), and these goals should be measured and evaluated on a regular basis.</p> <p>4. Consumer Involvement - Recycling program(s) should include components that educate and motivate consumers to purchase products that are recyclable and recycle those products after use.</p> <p>5. Equitable Cost Sharing - Responsibility for the cost burden of any recycling program should be shared by government (municipalities for curbside and state government for other programs), consumers and industry. Recycling program funds should be dedicated solely for the use of supporting recycling efforts.</p> <p>6. Flexible and Industry Led – Flexibility is critical to ensure the continued viability of any material recovery program, as it allows member participants and the government to react to changes in the market. Any partnership formed to oversee and lead the program must include a majority of brand owners participating in the program, and these brand owners will constitute a majority of the governing board.</p>	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>IBWA believes that EPR programs should focus on packaging that does not yet have efficient recycling streams. Both PET and HDPE plastics have specific and relatively mature recycling infrastructure currently in place as demand already exists for these recycled plastics (rPET and rHDPE) in the market. Creating an EPR structure for these recycled plastics is duplicative and inefficient.</p> <p>IBWA believes that EPR programs for PET and HDPE plastics are unwarranted as these recycled plastics are already in high demand and manufacturers are already using rPET and rHDPE in their products. In addition, any EPR system that places the burden completely on producers will upset</p>	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Could support with the following changes	<p>IBWA believes that any system that works to provide manufacturers with access to material that can be utilized for packaging, whether that be new (virgin) material or recycled material, is worthwhile of being considered a component of a recycling and/or manufacturing stream. We recommend the following areas be addressed when any new deposit program is being considered or changes are being made to any existing program:</p> <p>Designing the administration of the program for greater efficiency</p>	<p>Most deposit programs operate on money raised via the deposit or via a unique funding source (such as Oregon). However, it is vital that funds raised from any deposit be used solely for the purposes of the program. This means recycling education, waste management, support for local recycling programs, and program operation. Money raised from a deposit that is placed into a general fund and not earmarked for the goals of the program will hinder the ability of the program to have a proper impact.</p>

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>A program should be designed with an administration that establishes a cooperative organization that is managed by a third-party, non-state entity that includes industry participation. It should include an educational component to address proper recycling process and goals. There should be an evaluation by the management entity of what containers would be covered (types and materials), redemption fee, handling and processing fees, industry commitments, state support, etc. to ensure an effective and efficiently run program. Equitable financial arrangements should be established to ensure that manufacturers, consumers, recyclers, and end users are all providing support to operate a successful program.</p> <p>Reducing contamination</p> <p>A strong effort to reduce contamination of recycled materials is essential to making any program valuable to end users. This should include increased ability for reclaimers to refuse products based on contamination, necessary consumer education on recycling streams, standardization of quality control and increase oversight of recycling processing to better ensure proper sorting of materials, and funding to provide access to the latest technology. Also, municipalities need to have additional leverage when negotiating hauling and recycling contracts with industry that can ease contamination requirements. Lastly, flexibility in how containers are returned, whether it be through bag drops, mobile return stations, redemption centers, curbside, and at retail locations, should be included in any bottle deposit program.</p> <p>Addressing fraud and abuse</p>	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>The biggest issue with most redemption programs is fraud. Every state that has a deposit program is losing money to fraud and spending money on trying to curtail that fraud. Increased oversight of the system is paramount to ensuring fraud reduction and control. Some states have already implemented regular audits of the system, redemption centers, and distributors to ensure compliance, examine efficiency, and deter fraud. Penalties need to be at levels that deter repeat offenses and establishing appropriate daily limits on return amounts can also limit attempts to defraud the system. Finally, deposit initiation should occur at the time of retail sale. This will improve the collection of deposits on interstate shipments and reduce the possibility of products that are sold to distributors in non-deposit states being sold to stores in deposit states at a reduced cost that undercuts their competitors. In addition, transparency is crucial for any bottle deposit program. Regulatory entities should be required to post reported data so there is visibility on how much material is being collected, via what methods, and on all costs associated with operating the program. This includes how the program uses unclaimed funds, discussed in more detail below.</p> <p>Ensuring handling and other fees are utilized to make the program more effective</p>	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>One of the major differences in the various deposit programs throughout the US is the fees beyond the actual deposit. Handling fees and other industry focused fees can make the actual cost of being part of a deposit system more than double the actual deposit amount. Applying a more uniform system of fees across all states and utilizing technological enhancements to keep costs at a minimum for processing and handling fees will ease the burden on business. Determining fees need to consider several factors including: true cost of handling the material; type of material; recovery rate; market demand; and program management.</p> <p>Use of unclaimed deposits to support the program and recycling infrastructure</p> <p>Unclaimed deposits should be used to support the bottle deposit program by offsetting industry costs and investing in recycling education, collection, and recycling infrastructure. Whether the program is administered by a third party or by the state, it is critical to ensure adequate funding for all these efforts on an ongoing basis. Because the redemption rate in a state may vary from year-to-year, the annual amount of unclaimed deposit money available to operate the program may be uncertain. For example, if the redemption rates increase beyond a certain percentage, that will significantly reduce the unclaimed deposit funds available to efficiently operate the program. If that happens, the state should provide additional funds needed to run the program.</p>	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>Lastly, Certain bottle deposit programs operate more efficiently and effectively than others. Generally, the material returned via redemption is better quality and less contaminated than that being returned through a more generic recycling program or single-stream program. With some systems, such as California's, communities rely upon grants from money raised from unclaimed deposits to help increase the viability and efficiency of an existing recycling program or help to support funding for new programs.</p> <p>While deposit programs do have the capabilities of providing increasing numbers in terms of redemption and recycling, there are several areas where they struggle. This includes fraud and abuse, unreasonable handling fees, unclaimed deposits, and contamination in the recycling stream. In addition, IBWA would have concerns with any bottle deposit program proposal that does not include, at a minimum, elements suggested above.</p>	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Could support with the following changes	<p>IBWA supports reasonable recycled content requirements based on market data and effective dates that allow enough time for manufacturers to comply. There are several factors that should be addressed when potentially instituting a mandate on the use of recycled rPET and rHDPE:</p> <ul style="list-style-type: none"> <li>• Adequate time for recyclers to supply enough recycled content. Mandates cannot start right away and usually at least 2-3 years is needed to allow the market to adjust.</li> </ul>	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<ul style="list-style-type: none"> <li>• Achievable mandates based on market data. The starting mandate should be set at a level to not shock the market and cause dysfunction. In addition, should all bottlers face a mandate, rPET and rHDPE supply will greatly diminish. Mandates should gradually increase over a sufficient period of time to allow for the market to meet demand. Also, the rPET and rHDPE markets are not the same, and any mandate should consider supply differences between the two.</li> <li>• No two plastic recycled content markets are alike. A responsible recycled content mandate would take in to account the differences between the PET and HDPE markets and use data to determine the appropriate mandates for each. In addition, preliminary information suggests that taste and odor become major impediments for using rHDPE at a level of 35% or higher.</li> <li>• Prioritization of access to high quality, food grade recycled plastics. Under a recycled content mandate, bottlers will have to meet a mandated percentage use requirement while many other PCR users will not. Bottled water producers facing a mandate should have priority access to high quality, food grade recycled plastics. Otherwise, a mandate will effectively reduce the recycled plastics supply available and dramatically increase costs to the beverage industry, while creating a competitive advantage to those not under a mandate who use recycled plastics.</li> </ul>	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<ul style="list-style-type: none"> <li>• Ensure that safeguards are included so that when market dysfunction occurs (e.g., not enough recycled content available to meet a mandate), the policy is not punitive to manufactures who cannot access needed recycled content supply. These safeguards should include lowering or removing the mandate or not enforcing a penalty during time when market cannot provide adequate supplies of recycled content.</li> <li>• Percentage mandates should be based on the aggregate use of recycled content across all product brands and lines within the company.</li> <li>• Penalties based on the amount the manufacturer falls short of meeting a specific percentage mandate and not for every product placed in the market. For example, should a manufacturer only achieve 8.5% use of recycled content in attempting to meet a 10% mandate, the manufacturer should only be penalized on the 1.5% shortfall.</li> <li>• Reporting requirements for all market participants. Requiring usage data from just those manufacturing bottled water or other beverages only shows a partial picture of how the program is working and what may need to be altered to ensure its success. Data should be gathered from other market participants, include MRFs, other processors, and recycled content suppliers. Collecting market data relating to how much recyclable material is collected and how much is then produced into food-grade recycled resins would be helpful in determining the potential impact of any mandate.</li> <li>• Statewide preemption is an important part of any statewide recycled content mandate. Consistency across the state will help with compliance and the market can better adapt to one set of expected mandates.</li> <li>• Protecting data collected in any reports submitted to the State by manufacturers and ensuring its privacy.</li> </ul>	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Could support with the following changes	While a similar registry is being run in California that requires manufacturers of plastic beverage containers to report annually on the amount of virgin plastic and recycled content plastic being utilized for plastic beverage containers sold in the state, there is no fee associated with this. Reports are required to be delivered to CalRecycle and the information provided is posted on the department's web site. The most important component of any such registry will be the ability of the agency compiling the data to ensure that anything provided by a manufacturer that could be deemed proprietary remain confidential.	
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Could support with the following changes	Please refer to suggestions provided in question number 3.	
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Select one		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Don't support, suggest the following alternative	<p>IBWA does not believe that banning the use of plastics for packaging, especially PET and HDPE, is either worthwhile or productive. Bans on disposal of such items could be useful as long as they are communicated and enforced properly. Diversion of these materials away from landfills and into correct recycling streams is vital in continuing their reuse. However, contamination of collected waste and recycling materials is a problem and hinders the ability of these collection programs to operate efficiently. Education is a key component to ensure that consumers understand what materials are recyclable, how to properly discard of them, and the benefits of doing so.</p> <p>Any ban on the use of PET and HDPE plastics are a concern for a few important reasons.</p>	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<ul style="list-style-type: none"> <li>Bans do not teach people how to recycle properly. For example, just because a local community or state decides to ban the sale of a product made with PET or HDPE packaging material doesn't mean the product won't be available for a consumer to purchase in a neighboring community or state. Once that product is used and needs to be properly disposed of, the local or state system won't be able to correctly process the product and that material loses its value and ends up going to a landfill.</li> <li>Many materials used for packaging, especially when made with PET or HDPE, when disposed of properly, are reused in numerous ways. Whether it is to make new packaging or repurposed into a new product, this material is utilized after its initial use.</li> <li>PET and HDPE plastics are a valuable commodity for many communities that rely on the recycling of these materials as a financial resource. Reclaimers and communities that provide recycling services can utilize money earned from recycling programs to better enhance these programs and educate consumers.</li> </ul>	
<b>8</b>	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Select one		
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
<b>9</b>	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is	Data provided via such reporting will be essential in assisting the state in setting possible goals and mandates in the future. The accuracy of this data from various sources must be verified and provided in a timely and understandable manner.	
<b>10</b>	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Select one		

## Draft Recommendations Feedback Form

**Name:** Holly Chisa  
**Sector:** Retailer  
**Organization/Affiliation:** NW Grocery Association  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs) Trade Association

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Don't support, suggest the following alternative	Please see attached comments	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Don't support, suggest the following alternative	PSAC	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Could support with the following changes	PSAC	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Don't support, suggest the following alternative	PSAC	
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Could support with the following changes	PSAC	
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Could support with the following changes	PSAC	
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Don't support, suggest the following alternative	Against interstate commerce law	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Could support with the following changes	PSAC	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Don't support, suggest the following alternative	PSAC	
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Could support with the following changes	PSAC	



August 26, 2020

Washington Department of Ecology  
Cascadia Consulting Group et al

The NW Grocery Association represents the larger retail grocery stores in Washington, Oregon, and Idaho. We have reviewed the draft recommendations provided by Cascadia Consulting Group et al, and appreciate the opportunity to provide comment.

The study as currently drafted creates significant burdens for retail grocery stores in all categories. This document creates new reporting, tracking, and documentation requirements not currently required for retailers and at significant cost. It proposes programs for returned bottles and cans, and use of reusables in the stores, all of which create contamination issues for store sites. Requirements for packaging limitations and may violate interstate commerce laws. Many of the proposals are drafted without input from other regulating entities, most notably the state Department of Health, and the local health departments. And none of the definitions of “producer” recognize the role of store brands, and how products created by other entities on behalf of grocery stores will be impacted by all of these proposals.

While there are portions of the study we are willing to consider in a voluntary basis, the bulk of the language as currently drafted is unacceptable to the industry.

#### **Extended Producer Responsibility (EPR)**

Grocers have long-participated in the discussions around EPR. Retailers sell products under the branded names of other producers, but also sell their own store brands. These include beverages bottled by retailers on behalf of other store brands. Under the definitions provided by the study, retail grocery stores would be considered producers, and would carry responsibility to fund the programs as proposed. This would include the reporting requirements and costs. Store brands are commonly manufactured by third parties under the retailer’s brand, so retailers would be carrying the costs of the work of other producers.

The definition of producer must be clarified to remove the requirements for retailers to report and carry costs associated with their brands. Additionally, there are retailers that bottle beverages and other products for other store brands. Clarification is needed so retailers that manufacture on behalf of other entities are only charged for the products they manufacture, and NOT for products manufactured under their own label by others unless appropriate.

EPR will impact distribution channels for retailers. Our members transport product across state lines and the EPR can only be applied to products that are in-state. The tax would have to be

applied at the first touch into Washington and cannot be applied to products being manufactured in Washington for distribution outside of the state. This will require expensive tracking for both manufacturers and retailers to prevent products with EPR taxes from being distributed to other states.

EPR significantly increases the costs of specific goods for consumers that must be recognized. A penny a plastic cup or plate may seem insignificant, but immediately becomes burdensome if a 30 pack of Solo cups is now \$.30 higher. These costs will be borne by the consumer.

### **Deposit Return Systems**

The NW Grocery Association will strongly oppose deposit return systems, or bottle bills, in Washington. Our members have implemented these programs in Oregon, California, and other states for 30+ years. The requirement to take back bottles and cans at the store level leads to vermin, needle sticks, contamination within the stores, health department challenges, and puts our employees at risk. The problems are so significant our Association has built an entire program in Oregon to REMOVE take-back sites from our stores to local, central facilities paid for by private companies just to keep these machines out of grocery stores.

Washington State, in response to bottle bill legislation proposed in the late 1970's, instead passed a litter tax. When properly funded, this program picks up not only bottles and cans, but restaurant and take out waste, cigarette butts, waste along the freeways. Funds are also used to support municipal solid waste programs for local recycling and waste management. Coupled with an effective curbside recycling program, the litter tax is a far more comprehensive and effective tool in reducing litter than a bottle bill. While bottles and can return rates are higher in states with bottle bills, their over-all recycling rates fall far below the levels found in Washington State.

One point we wish to discuss in the study is the statement of an over 90% return rate in Oregon for their deposit system. While the return rate was roughly 90%, only 32% of the materials returned through the deposit system was plastic; the rest were cans and bottles. Also, the higher the rate of return of materials makes the program less economically feasible. The Oregon program is administered by the Oregon Beverage Recycling Cooperative (ORBC) uses unclaimed escheat to run the program. As recycle rates increase, the less economical the program becomes as less escheat becomes available. With a 90% redemption rate, Oregon's program is not as economically viable. California is also experiencing this issue, and the program now faces insolvency due to lack of take back locations, increased costs to run the program, and a shrinking market for aluminum and other recyclable materials.

The Washington litter tax, when properly funded and not swept by the state, is an effective tool in litter clean up. It also supports statewide recycling programs, the "Litter and It Will Hurt" campaign, and other programs vital to keeping Washington clean. There is no repayment bounty to consumers for returns. The money collected is kept by the system and used for critical programs. This would not occur under a take back bottle system. In our reading, the litter tax was not even acknowledged as having value in litter clean up as part of the study.

### **Recycled Content**

Requiring certain recycled content levels is a concern for retailers if product suppliers are unable to meet the new levels proposed by the state. Again, product moves via interstate commerce, so products with higher content levels must be readily available not just for Washington, but for distribution regionally to not interrupt supply chains.

### Additional concerns, comments on other provisions of the study

#### **Producer Registry and Packaging Reporting**

Again, the definition of producer used in the study includes store brands. Retailers under this concept would have to report packaging used for branded products. This would be a significant cost and burden for retailers, and we will oppose the inclusion of retailers in this requirement.

#### **Recycled content for trash bags**

Consideration should be made for plastic grocery bags that are used for trash bin liners. Also, this would apply to paper bags utilized for the same purpose so clarity would be required in the proposed language.

#### **Ban on Unnecessary Packaging**

A public-private partnership with goals to reduce packaging voluntarily would be fruitful, and we would support that discussion. A mandatory law requiring reduced packaging is a violation of interstate commerce law and is not enforceable without a national policy.

#### **Customer Opt-In for Food Service Packaging**

NWGA is willing to support an upon-request model for certain products within stores as long as it does not create an undue burden on retailers in the deli or service areas. We have participated in the negotiations on this issue at both the local and state level and would welcome a continued discussion.

#### **Reusable Packaging Systems**

Our members are OPPOSED TO individuals bringing in reusable containers, especially food containers, into grocery stores. There are significant public health concerns. Most grocery stores do not have sanitation facilities for individual containers that a customer brings in. Scales in the deli, meat, produce areas and at the check stands are regulated by the state and are not designed to be adjusted (or “zeroed out”) for customer containers. We will not support any policy that allows an individual to bring in their own container from home for filling at one of our stores except as a voluntary, optional program developed by a state health department.

Comments or questions, please contact Holly Chisa (360)791-6647 [hollychisa@hpcadvocacy.com](mailto:hollychisa@hpcadvocacy.com)

**Alex Schenck**

To Whom it May Concern,

PepsiCo is submitting on behalf of several members of the Consumer Goods Forum.

Best,

Alex Schenck  
Senior Manager, Environmental Policy



September 4, 2020

Director Laura Watson  
Washington State Department of Ecology  
300 Desmond Drive SE  
Lacey, WA 98503

Dear Director,

Thank you for the opportunity to provide feedback on the ‘*Recommendations for Managing Plastic Packaging Waste in Washington*’. We appreciate your hard work and applaud your dedication to circularity and enhancing recycling systems in Washington State. Our membership shares your concern over the impacts of plastic waste and the challenges facing recycling systems. To that end, we are committed to investing our energy and resources into the enhancement of recycling systems worldwide.

As a group of 7 leaders in the packaged goods value chain, our companies have taken a leadership position to develop and endorse design principles for optimal Extended Producer Responsibility (EPR) programs. As the endorsing companies under the umbrella of the Consumer Goods Forum’s Plastic Waste Coalition of Action, we agree that EPR can be an effective system for managing recycling systems.

High-functioning EPR systems with industry support achieve strong environmental outcomes and promote circularity. Further, they are convenient for consumers and account for multiple materials in the waste stream.

The undersigned companies worked together to develop a collective industry view on the optimal design of such EPR programs, which can be found here:

<https://www.theconsumergoodsforum.com/environmental-sustainability/plastic-waste/key-projects/extended-producer-responsibility/>

We encourage your organization to review our principles and key design parameters, which are built upon years of experience and considerable analysis. We were pleased to see agreement on many of the same design principles including:

- 1) Setting measurable recovery rates by material type
- 2) Defining the scope of products to residential packaging (excluding commercial or other sectors)
- 3) Including all material types of packaging (plastic, paper, glass, aluminum)
- 4) Supporting management of the program through Producer Responsibility Organizations

Our members have learned through decades of experience that EPR systems can be a highly effective way of managing recycling systems. A successful EPR system benefits greatly from its simplicity from stakeholder participation to cost management. Incorporating features from other models can disrupt collection rates, increase costs, and mitigate environmental benefits.

We encourage your organization to continue engaging with stakeholders and discussing the recommendations relating to financial responsibility. EPR systems function best when the cost of collection, recovery and recycling are shared across the value chain. This should include municipalities, manufacturers, importers, converters and others. A clear understanding of the roles and responsibilities of each party will be critical in ensuring that one sector does not absorb the full financial responsibility of managing the system.

We would appreciate the opportunity to elaborate on these risks in the coming weeks as you continue to develop your final recommendations to the state.

While our co-developed set of guidelines has a global focus designed to foster EPR in markets worldwide, we hope that you find them useful as you continue developing recommendations to the State. While there is no EPR system for packaging currently operating in the United States, we hope that Washington State adopts the EPR concepts outlined in our paper.

We stand eager and ready to assist you and the State of Washington in your efforts.

Sincerely,

Amcor  
Coca Cola  
Nestle  
PepsiCo  
SC Johnson  
Unilever  
Walmart

Please direct replies to this submission to:

Andrew Aulisi  
Vice President, Global Environmental Policy  
PepsiCo  
[Andrew.Aulisi@pepsico.com](mailto:Andrew.Aulisi@pepsico.com)



# Building a Circular Economy for Packaging:

A View from the Consumer Goods Industry on Optimal Extended Producer Responsibility

A paper endorsed by members of The Consumer Goods Forum's Coalition of Action on Plastic Waste

[www.tcgfplasticwaste.com](http://www.tcgfplasticwaste.com)

**AUGUST 2020**



## About the Consumer Goods Forum's Coalition of Action on Plastic Waste

The Consumer Goods Forum (“CGF”) Coalition of Action on Plastic Waste was founded in 2020 with the aim of developing a more circular approach to the development and processing of plastic packaging in the consumer goods industry. The development of the Coalition builds on the CGF’s 2018 endorsement of the Ellen MacArthur Foundation’s New Plastics Economy. As a CEO-led group of 36 committed and innovative retailers and manufacturers, the Coalition’s vision of accelerating progress towards the New Plastics Economy is embodied by its central aims for members to work towards implementing impactful measures through multi-stakeholder collaborations that will help make circularity the norm in the industry.



## About

To progress towards a circular economy, the performance of waste management and recycling systems throughout the world needs to urgently improve. As leading manufacturers and retailers of consumer packaged goods, we believe that Extended Producer Responsibility (EPR) programmes for packaging can accelerate this progress and provide critical and effective support to recycling, particularly when the right conditions are in place for a given market. This paper reflects our view on the guiding principles and key design parameters of such optimal EPR programmes. It supports a proactive stance across our industry to deliver constructive recommendations when such programmes are being pursued or developed while fostering pre-competitive collaboration at the local level.

## Introduction

As leaders in the manufacturing and retailing of packaged goods and members of the Consumer Goods Forum's Plastic Waste Coalition of Action, we seek collective and individual actions to address the challenge of packaging waste, especially the critical issue of plastic pollution. Packaging is essential to safely and efficiently meeting the needs of consumers for a wide variety of products, but it has no place in the environment. Our packages are one of a number of contributors to waste and pollution, yet they are often the face of the problem because of the visibility of our brands, which are recognised around the world. We understand that we have a unique responsibility to take action.

A circular economy for packaging is built on the principles of resource efficiency and a low-carbon footprint. We start with the reduction of packaging material and reusable packaging wherever possible. For essential packaging that cannot be reused, recycling is a critical solution to enabling a circular value chain for the materials. Despite some of our successes to advance recycling, the performance of these systems—from collection and sorting to the sale of recycled materials—needs to improve throughout the world. To this end, our companies have made significant commitments, including designing our packaging to be recyclable, using more recycled and renewable content, and supporting recycling systems through multi-stakeholder and industry-wide platforms that work to advance sustainable packaging and the circular economy. We work together—market by market—to advance progressive initiatives and policies that increase collection and recycling rates.

All companies along the value chain have a responsibility to contribute to the success of these systems, including producers such as consumer goods manufacturers and retailers (specifically in relation to their private brands). Our consumers also have a critical role in supporting the circular economy. By making recycling convenient and easy to understand, optimal collection systems can foster active and enthusiastic consumer participation while promoting the view that packaging after use is no longer waste but a valuable resource.

As well, governments have a responsibility to ensure waste management systems are in place to provide a foundation on which recycling and a circular economy can be built. Under the right conditions, we favour systems that are encouraged and enabled by government but left to producers to govern and manage, especially in cases where industry is providing substantial funding. A range of policy options may be used to increase recycling rates. Of these policies, EPR offers the potential to sustainably finance the collection for recycling of a wide array of packaging after use. It can be adapted to the priorities of both developed and transitional markets while leveraging industry expertise to help design efficient approaches.

## Principles to Guide EPR

To demonstrate leadership, we have developed the following global principles and parameters for EPR policies that serve as a starting point for productive multi-stakeholder engagement and dialogue in markets around the world. Our principles and parameters are informed by experience in both developed and transitional markets. They have global application and set the stage for our industry's participation in the development and improvement of these programmes. We balance a variety of factors and point to ideal policy outcomes while recognising that advocacy in any specific market will be shaped by and reflect local circumstances and exigencies. Importantly, the policy outcomes we prefer should meet the following general principles:

- **Strong environmental outcomes;**
- **Efficient, cost-effective, transparent and accountable;**
- **Shared financial responsibility;**
- **Convenient for consumers;**
- **Long-term financial sustainability;**
- **Allow producers to secure material for closed loop recycling; and**
- **Social inclusiveness and fairness, especially in transitional markets with informal sector involvement.**



## Pre-requisites and Conditions Needed for Optimal EPR

Our preferred policy outcomes for EPR depend on critical pre-requisites and conditions. In any given market, waste management legislation and infrastructure must be in place to handle the waste stream. Packaging is one element of waste, and the overall costs of municipal waste management cannot be borne disproportionately by producers. Complementary policies may be helpful to enable EPR and drive greater recovery of packaging materials. Options include, for example, government mandates for (and enforcement of) the separation of recyclable materials from waste, landfill bans for recyclable materials, and targeted measures such as deposit return systems, which can achieve high rates of collection and recycling for specific packaging types.

EPR should always be part of a broad solution in which the roles and responsibilities of all actors are properly attributed and fulfilled, and all material types should bear a fair share of the costs. Basic enabling legislation is needed for all recycling systems, including those supported by EPR, ensuring consistent implementation across the jurisdiction as well as harmonisation between jurisdictions wherever possible. Transparent and accurate reporting, monitoring and independent auditing of systems are necessary to eliminate discrimination, ensure compliance, drive cost efficiency and provide a level playing field for materials and producers. This includes fair processes for setting fees as well as transparency around collected material flows, costs, tendering procedures and the overall financial health of the system. All fee revenue raised should stay within the system. The long-term financial sustainability of the EPR programme is necessary to enable strategic investment decisions. Market-based and/or informal recycling systems also exist at significant scale in some parts of the world with little to no enabling legislation. A local perspective is needed to determine the relevant scope of regulatory policy.

## EPR in Transitional Markets

EPR has been shown to work effectively in markets with well-developed waste management policies and infrastructure. In markets where this is not the case, defined here as “transitional”, the essential elements of EPR may be adapted to offer solutions, especially where there is an immediate need to increase collection rates and eliminate leakage to nature. A key consideration is the inclusion of the informal waste sector. Specific support and incentives may be required to aid the establishment and growth of more formal recycling systems in a way that fosters the inclusion of informal recyclers over time.

To this end, long-term programmes should be considered to address the needs of informal workers consistent with local goals for social inclusion and economic development, including goals and objectives to monitor progress and encourage accountability. Consideration needs to be given to working and living conditions and respect for human rights, including but not limited to responsible recruitment and no child or forced labor. These considerations are relevant to both industry-led voluntary programs as well as EPR programmes underpinned by regulatory policy.

## Key Design Parameters

The following aspects of EPR design should inform the development of EPR programmes as they are being considered in different markets. They reflect critical components of optimal EPR but are not exhaustive.

- **Collection for Recycling Targets:** The overall target should be measurable, achievable and cost effective while seeking strong environmental performance. EPR programmes need to find the optimal balance between material collection for recycling and cost. Based on existing systems in advanced markets, 50-60% collection for recycling across material types is a reasonable benchmark in the early phase of EPR implementation and has been exceeded cost-effectively in some jurisdictions. Higher targets in the range of 60-80% may be warranted over time, though marginal increases in collection may not be cost-effective based on local factors, such as population density. In other words, as collection rates increase, costs may increase exponentially. Material-specific targets for all different plastic types, glass, metals, fibers, etc. may also be warranted and should reflect the local waste stream as well as viable end markets for the material. Revision of targets should be carried out at appropriate intervals taking into account previous achievement levels as well as technological and organizational advancement. Accurate and reliable data based on clear monitoring, reporting and verification procedures should be used for the calculation of performance against targets.
- **Scope of Covered Materials:** All major consumer goods packaging materials (all plastics, fibers, glass, and metals) should be collected. At the outset, collection for recycling may need to focus on a targeted set of materials but with a clear plan to expand to full coverage, recognising that all producers would be paying fees into the system and investments may be required to improve system capabilities. Different materials have different handling costs as well as differing market values for the recyclates, and each material should “pay its own way”, meaning the cost of including a given material in the programme needs to be assigned to that material and therefore the producers who use it. Once the programme is established, consistency in the covered materials should be maintained across the jurisdiction, including clear on-pack labelling to help consumers understand which materials to place in the recycling bin. The program should only cover consumer packaging waste and no other wastes. The most successful EPR programmes are predicated upon some degree of separate residential collection of waste to improve the quantity and quality of materials collected for recycling.
- **Programme Management:** Management of an EPR programme should be commensurate with how the financial responsibilities are assigned. When responsibility to achieve a recovery rate and the associated costs are imposed on industry, then industry should have sufficient oversight over the process to gauge performance, ensure compliance, and promote efficient systems for the circular use of materials and strong environmental performance. In that respect, we favor programs that are governed by producers through an industry-run Board of Directors. When launching an EPR programme, the programme should be managed by a professional Producer Responsibility Organisa-



tion (PRO) operating on a not-for-profit basis and covering the entire jurisdiction, which helps foster broader coverage and deter “free riding”. The PRO develops and implements a plan to achieve the programme goals, developed in consultation with other stakeholders and usually mapped out over five to seven years to provide confidence and clarity for stakeholders and investors. After plan approval, the PRO sets fees for producers following a set of cost parameters, implements needed recycling system changes, establishes funding and reimbursement arrangements related to the net cost of collection and sorting of materials, evaluates and reports on performance, and markets recycled materials. As an EPR programme matures, the market for EPR services could be opened to new entrants to help drive greater efficiency and innovation.

- **Definition of Included Costs:** Activities for which producers are financially responsible should be clearly identified and limited to an appropriate share of post-consumer collection and sorting costs for the residential sector, including multi-family housing. Collection and sorting of materials from industrial, commercial and institutional (ICI) locations are the responsibility of ICI generators and should be addressed separately from the EPR programme due to added complexity and inefficiencies. Other areas that should be outside the scope of a packaging EPR programme are agricultural operations as well as public spaces that are serviced by municipalities, such as parks.
  - **Programme management:** Included. The overhead costs of running the PRO, including costs associated with oversight and enforcement, should be included in the programme and embedded in the producer fees.
  - **Consumer education and awareness:** Included. Investments in consumer education and awareness result in improved quantity and quality of recovered materials, thereby improving the overall environmental benefit and cost effectiveness of an EPR programme. Promotion of consumer education should not be limited to EPR financing and should be complemented by public agency programs, which play a critical role in advancing the understanding of and participation in recycling.
  - **Treatment of residual waste:** Not included. Some material that gets collected and sorted cannot be recycled in practice due to the lack of processing capability, end markets and cost. Consequently, once proper material sortation has occurred, EPR programs should not be expected to pay for the treatment of residual wastes.
  - **Litter clean up:** Not included. Litter is a significant societal problem that stems from many factors, involves a broad range of products and materials, and requires broadbased solutions. Public waste collection and general waste management are outside of industry control, and a producer’s responsibility under an EPR programme should be focused on the actions required to meet recycling targets, which can help to prevent litter.

- **Distribution of Cost:** Broad distribution, or shared financial responsibility, including municipalities and consumers. The cost of collection and sorting should be shared among producers and municipalities and potentially other value chain actors where appropriate so that the costs to any single company and other stakeholders are minimised because all critical stakeholders pay a share. A clear definition of the roles and responsibilities of all actors will help to share the costs among parties.
- **Material Revenue:** “Net cost” principle. Revenue from the sale of collected materials should always be credited to the system to offset the collection obligation. EPR fees paid by producers should reflect the actual cost of collection and sorting as well as material revenue differentiated by material type, meaning costs and revenues are allocated back to specific materials and crosssubsidization of materials is avoided. Because costs and commodity values change over time, fees should typically reset once per year. Producers should have fair and privileged access to the purchase of recycled materials in support of closed loop recycling.
- **Incentives for Sustainability:** Because EPR fees should reflect both collection and sortation costs as well as revenues for each material, they incentivise design for recyclability and the use of materials with strong end markets. Additionally, through an approach known as “ecomodulation”, fees can be decreased or increased based on positive or negative environmental attributes of a package, respectively. Divergence of incentives across markets may inhibit economies of scale in the design and production of sustainable packaging, however, and ecomodulation adds complexity that needs to be properly accounted for in the program budget, including updates to the fee structure at regular intervals. When eco-modulation provides clear, predictable and harmonised incentives, it can be an important mechanism for driving the development of sustainable packaging. EPR programmes and their fee structures also need to consider and avoid unintended environmental impacts, and reusable packaging could be exempted from the programme altogether.



## Overview of Recommended Approach to Establishing EPR

In any market that is seeking to set up a new EPR programme for consumer packaging, especially transitional markets that may have significant challenges with infrastructure and other enabling conditions, a phased approach should be taken, as follows:

**Phase 1 – Scoping:** This phase should seek to: a) take lessons learned from how EPR has performed in comparable markets; and b) establish a comprehensive understanding of the waste management landscape in the focus market, including engaging in knowledge-building initiatives.

**Phase 2 – Stakeholder engagement and set up:** This phase should a) engage industry in discussions and clearly set out key parameters of the programme, including but not limited to defining the producer, scope of materials covered, and reporting protocols for the producers; b) form a PRO; and c) run commercial scale pilots.

**Phase 3 – Formalisation:** Establish enabling policies for EPR, engaging with government in a manner most appropriate to the local context.

## List of Endorsers

This paper supports a proactive stance across our industry to deliver constructive recommendations about optimal EPR when programmes are being pursued or developed while fostering pre-competitive collaboration at the local level.

- Amcor
- Bel Group
- Carrefour
- The Coca-Cola Company
- Colgate-Palmolive
- Danone
- Essity
- GSK Consumer Healthcare
- Grupo Bimbo
- Jerónimo Martins
- Land O’Lakes, Inc.
- Loblaw
- Mars, Incorporated
- Mondelez, International
- Nestlé
- PepsiCo
- Reckitt Benckiser
- REWE Group
- SC Johnson
- SIG Combibloc
- Tetra Pak
- Unilever
- Walgreens Boots Alliance
- Walmart





## About the Consumer Goods Forum

The Consumer Goods Forum (“CGF”) is a global, parity-based industry network that is driven by its members to encourage the global adoption of practices and standards that serves the consumer goods industry worldwide. It brings together the CEOs and senior management of some 400 retailers, manufacturers, service providers, and other stakeholders across 70 countries, and it reflects the diversity of the industry in geography, size, product category and format. Its member companies have combined sales of EUR 3.5 trillion and directly employ nearly 10 million people, with a further 90 million related jobs estimated along the value chain. It is governed by its Board of Directors, which comprises more than 50 manufacturer and retailer CEOs. For more information, please visit: [www.theconsumergoodsforum.com](http://www.theconsumergoodsforum.com).

[www.tcgfplasticwaste.com](http://www.tcgfplasticwaste.com)

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## Personal Care Products Council

Thank you for the opportunity to provide the attached comments on this important topic and we look forward to continued engagement with Cascadia, Ecology and the state legislature.



September 4, 2020

**Via Electronic Submission**

Solid Waste Management Program  
Department of Ecology  
300 Desmond Drive, SE  
Lacey, WA 98503

**Re: Comments on Draft Report titled *Recommendations for Managing Plastic Packaging Waste in Washington***

Department of Ecology/Cascadia Consulting Group:

The Personal Care Products Council (PCPC)<sup>1</sup> is pleased to submit the following comments on a draft report prepared for the Washington State Department of Ecology (Ecology) titled [\*Recommendations for Managing Plastic Packaging Waste in Washington\*](#), dated August 14, 2020.

PCPC supports the laudable goals of the 2019 “Plastic Packaging Evaluation and Assessment” law (Chapter 70.380 RCW), which requires producers of plastic packaging to consider the design and management of their packaging in a way that ensures minimal environmental impact. PCPC further supports Ecology’s efforts to address the problem of plastic pollution.

The personal care industry is strongly committed to advancing more sustainable packaging, and many of our member companies are leading the way in reducing plastic packaging and waste for their brands. In fact, many of our companies – both large and small – have made sweeping, voluntary public commitments to reducing the environmental impact of their products and have advanced sustainable practices throughout our industry.<sup>2</sup> Such voluntary commitments have

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<sup>1</sup> Based in Washington, D.C., the Personal Care Products Council is the leading national trade association representing global cosmetics and personal care products companies. Founded in 1894, PCPC’s approximately 600-member companies manufacture, distribute, and supply the vast majority of finished personal care products marketed in the U.S. As the makers of a diverse range of products millions of consumers rely on and trust every day – from sunscreens, toothpaste, and shampoo to moisturizer, lipstick, and fragrance – personal care products companies are global leaders committed to product safety, quality, and innovation.

<sup>2</sup> Examples include participation by many of our member companies in the U.S. Plastics Pact; the Alliance to End Plastic Waste; Closed Loop Partners; the Ellen MacArthur Foundation’s New Plastics Economy; TerraCycle; Circulate Capital; the Sustainable Packaging Initiative for Cosmetics (“SPICE”); and other multi-stakeholder, global coalitions.

allowed our industry to make real progress in the area of packaging sustainability<sup>3</sup> without the need for a government mandate. Indeed, such mandates often complicate the many competing concerns that companies must balance when addressing packaging concerns.

### **Three Goals**

As an initial matter, it is worth noting that the underlying law mandates that Ecology conduct studies of plastic packaging waste disposal and management in order to inform policy options to meet the law's three primary goals:

- 1. Plastic packaging sold into the state to be 100% recyclable, reusable, or compostable by January 1, 2025.**
- 2. Plastic packaging sold into the state to incorporate at least 20% post-consumer recycled content by January 1, 2025.**
- 3. Plastic packaging to be reduced when possible and optimized to meet the need for it.**

The application of these three objectives, however, may conflict with one another. Consider, for example, the third goal “plastic packaging to be reduced when possible, optimizing the use to meet the need” and the first goal regarding “recyclable” plastic packaging. When packaging is minimized, it may be done by shifting to a flexible or thin-film structure. Unfortunately, thin-films are not widely recyclable; and this may be true of similar materials that reduce packaging. As such, meeting the third goal may create obstacles that frustrate the first goal.

Similarly, any residue left on packaging from a personal care product (unlike food products) may adversely impact whether it can be composted. This would leave only two end-of-life options for personal care packaging then – ‘recyclable,’ which as noted above conflicts with minimal material use, or ‘reusable,’ which requires significant infrastructure (e.g., refill stations) as well as changes to consumer behavior.

If the goal is to minimize the environmental impact of packaging, then perhaps the focus should be on Life Cycle Assessment results associated with a particular packaging, and not just end-of-life.

### **Federal Framework**

PCPC was pleased that the Washington legislature recognized the importance of aligning any packaging policy with existing federal regulatory frameworks. Specifically, the *Plastic Packaging Evaluation and Assessment* law states that Ecology, in developing any policy

<sup>3</sup> Link to PCPC's 2019 Sustainability Report of the beauty industry titled ‘*Creating a More Beautiful World*’: <https://www.personalcarecouncil.org/wp-content/uploads/2020/07/2019-PCPC-Sustainability-Report.pdf>

recommendations, must “ensure consistency with the federal food, drug, and cosmetic act (21 U.S.C. Sec. 301 et. seq).”<sup>4</sup>

As you may know, the U.S. Food and Drug Administration (FDA) tightly regulates packaging for certain product categories in order to ensure the safety, quality, and/or stability of the products sold. Over-the-counter (OTC) drugs, such as sunscreens and antiperspirants, must meet the FDA’s stringent standards for safety and effectiveness before they can be introduced in the marketplace for consumer access. Any changes to packaging materials would require testing, validation, and stability studies – all of which are subject to FDA’s current Good Management Practice (GMP) regulations. Consider, for example, one of the policy recommendations in the draft report involves mandating a certain amount of post-consumer content in plastic packaging. Such a mandate could make it difficult or even impossible for companies to comply with FDA purity standards for OTC drug packaging.

Likewise, the Poison Prevention Packaging Act of 1970 is intended to prevent children from being exposed to some products, including OTC drugs and certain cosmetics. Prevention under this law often takes the form of tamper-proof packaging. Because tamper-proof packaging is almost always made of plastic, however, it may be technologically infeasible (not to mention potentially dangerous) for manufacturers to alter this packaging to comply with a state legislative mandate.

Based on the foregoing, it would be important for any proposed legislation to include an exemption for FDA-regulated products that must meet such federal standards – or to include a statement that where such a conflict exists the federal law controls – and we encourage Ecology to make such a recommendation.

### **EPR Programs**

The beauty and personal care industry recognize that plastic packaging generally is contributing to a global waste challenge and that is why, as noted above, our companies are taking action to reduce their use of plastic packaging, use more recycled plastic, and increase the recyclability of the plastic packaging they use.

This challenge, however, cannot be solved by one stakeholder alone. The circular economy model relies on each stakeholder doing its part. So, while the personal care industry can take steps to address packaging design regardless of material – making it more recyclable, compostable, or reusable – real, lasting progress on reducing packaging waste requires the participation of all stakeholders to build a system that works.

Regulatory schemes like extended producer responsibility (EPR) put all of the responsibility on a single participant, without buy-in from all responsible parties. A better approach would be to focus collaboratively with all stakeholders toward the common goal of higher recycling rates

<sup>4</sup> Chapter 70.380.030 RCW, Sec. (2).

for all materials (i.e., material neutral), which can be achieved through improving existing infrastructure, sustainable financing models, more consumer participation and resilient and reliable end-markets for recycled material.

Waste management is a shared responsibility for all actors in the value chain. Each participant in the solid waste management system has a distinct role to play. In shared responsibility, costs are distributed to those who are closest to a given management activity and have the largest opportunity to reduce waste. A shared responsibility approach creates a more direct and transparent incentive for all stakeholders to improve how waste is managed and make it more economically efficient. For example, “Pay as You Throw” policies serve to provide a direct and transparent incentive for consumers to influence behavior and have been shown to increase waste diversion.

As a preliminary matter, and given the enormous breadth of the EPR policy recommendation, it would make sense for Ecology to assess how existing EPR programs perform in terms of reducing plastic packaging waste. If these programs are ineffective and/or overly expensive in terms of the environmental benefit delivered, then perhaps another EPR program is not warranted at this time.

### **Minimum Recycled Content Targets**

There is currently a demand for post-consumer recycled content; but unfortunately, demand significantly exceeds supply. Any government mandate at this time will further diminish supply as companies scramble to secure post-consumer materials from a limited pool. Consequently, it makes little sense to mandate recycled content requirements for consumer products until the supply of post-consumer content increases sufficiently enough to allow companies to meet such requirements.<sup>5</sup> PCPC encourages Ecology to conduct an additional analysis of the market for *higher quality* post-consumer content (lower quality materials are often unacceptable from a quality perspective) – and determine effective methods to increase demand gradually so the market can adjust – before setting any content requirement.

To truly and significantly increase supply, of course, consumer behavior must change. Ecology should therefore focus on increasing recycling rates, consumer education, and ensuring that packaging is properly collected, sorted and processed before moving ahead with any mandate.

Ecology should also consider building in exemptions for any products that must comply with potentially conflicting federal standards – e.g., FDA-regulated products that must meet purity, stability, etc., standards for products and packaging – which may limit companies from utilizing too much post-consumer recycled materials.

<sup>5</sup> Complicating this issue is that fact that virgin plastic is less expensive than post-consumer recycled plastic, making it more practical and cost-effective for companies to utilize.

**Producer Registry and Packaging Reporting**

The recommendation to develop and implement a product registry and packaging reporting system, while well intentioned, would create administrative burdens that outweigh any associated benefit. It is highly impractical for each company to provide producer/product data in order to meet individual state mandates. As similar state legislation spreads nationwide, as we expect it will, it becomes extremely onerous for companies to provide all of the information requested (likely similar information, but requested in a different format) to meet each state's request. Instead, PCPC recommends a multi-state coalition to develop a uniform, universal approach on such data submission.

**Fees/Charges/Tax/Levy**

Should these policy recommendations ultimately inform state legislation, there will be a fiscal impact – meaning the state will almost certainly impose fees or levy costs on industry. While a fee can be used to support an appropriate recycling infrastructure, this only works if it is assessed on a broad range of products and materials (using plastic, metal, glass, paper, cardboard, etc.) so as to promote equity, and if it drives recycling behaviors in consumers. As such, PCPC recommends that Washington carefully assess whether any new fee would accomplish the twin goals of improving the recycling infrastructure and educating consumers.

Thank you for the opportunity to submit these comments and we look forward to continued engagement with Ecology on this very important work.

Very truly yours,



Thomas Myers  
EVP-Legal & General Counsel  
Personal Care Products Council

September 4, 2020

Alli Kingfisher  
WA State Department of Ecology  
Solid Waste Management Program  
[Alli.Kingfisher@ecy.wa.gov](mailto:Alli.Kingfisher@ecy.wa.gov)

**Re: Plastics Industry Association Comments on Recommendations for Managing Plastic Packaging Waste in Washington**

To Whom it May Concern:

We appreciate the opportunity to comment on the “Recommendations for Managing Plastic Packaging Waste in Washington”. PLASTICS members have long been committed to recycling as an important part of our industry’s sustainability goals. Our members continue to grow recycling through:

- Making materials and products more recyclable.
- Demonstrating viable business models for collecting and recycling different types of plastic materials from locations like offices, hospitals and other areas.
- Finding ways to eliminate waste and increase recycling throughout the processes of manufacture, distribution, and use.
- Promoting the use of recycled plastics in new products.
- Investing in programs to measure the amount of wasted recyclable plastic material and ways to collect it.

Recycling is an essential public service and consumers are demanding products with more recycled content. As long as funding is lacking for the adequate amount of recycling infrastructure needed to meet consumer demands and sustainability goals, we believe the plastics industry has an important part to play in developing the funding structure of recycling programs. PLASTICS’ member companies strongly support the use of post-consumer recycled (PCR) plastic and welcome discussions about effective public policies that strive to encourage the use. The inclusion of PCR in a variety of products can have positive environmental benefits and legislating minimum requirements may be beneficial if done appropriately.

**General Comments on Funding**

We believe any funding mechanism should be fair and equitable across materials and consider the impact of the full lifecycle of recyclable products. PLASTICS appreciates the recommendation that the Extended Producer Responsibility framework apply to all packaging materials and not just plastics.

With regards to how fees are handled, any fee that may be levied against a material or specific product should go into a non-profit organization, controlled by a board of diverse stakeholders representing all affected industries, that dedicates the entirety of its funding to recycling infrastructure and organizational administration.

It is PLASTICS’ strong position that any plan to fund recycling infrastructure should prioritize sorting and processing improvements to ensure collected material is able to be recycled economically. Examples of these activities include secondary sorting facilities and material recovery facility upgrades that allow flexibles to be effectively sorted.

Funds collected and applied towards improving recycling infrastructure should be made available to public and private enterprises. Recycling expansion and improvement will be achieved through the work and innovation of both public and private entities.

**General Comments on Post-consumer Recycled Content**

In order to avoid market disruption, any minimum PCR requirements should be set with both economic and environmental feasibility in mind as well as the performance characteristics and quality of the available supply.

A scientific analysis should be conducted by the proposed regulating entity to determine whether requiring recycled content will yield positive environmental outcomes across important impact areas (air, water, energy, etc.).

PLASTICS believes that before a requirement is set, research must be done to quantify if there is an appropriate and adequate supply of PCR for all products impacted, especially for food-contact applications which may require Letter of No Objection (LNO) materials from the Food and Drug Administration.

Any minimum PCR requirements should be examined on a specific product category basis and not by material or type of resin. PCR requirements should be calculated on an aggregated basis of the regulated entity's portfolio of relevant products, not on a per unit basis. (For instance, a 25% PCR requirement for PET beverage bottles should be calculated as an average of all PET beverage bottles used by the regulated entity and not require 25% in every single bottle.)

Demonstration of compliance should be done through self-reporting or third-party verification. The deadline for compliance should provide the necessary time for the supply of applicable PCR to be produced. Depending on the minimum PCR required, at least at least 18 months from enactment should be provided to allow for material qualification processes and procurement adjustments.

Advanced or chemically recycled resin should be considered PCR for any mandated minimum requirement. If a manufacturer is wanting to use a biobased resin, compliance with minimum recycled content could be waived if the manufacturer can show the use of biobased resin yields equal environmental benefits to that of recycled content.

**Ban on Problematic and Unnecessary Plastic Packaging**

The packaging industry utilizes different materials and barriers to protect products and food for shipment. What may seem "problematic" or "unnecessary" to a recycler could be a necessary material to preserve the integrity of a product. Packaging materials are carefully selected for their purpose and forcing them to adhere to an arbitrary definition of "problematic" is concerning. In order to protect the stream of recyclable materials, policies must permit fair and open market access for all participating materials. It is concerning that Ecology may proceed with the primary recommendation of extended producer responsibility and still ban materials. If a producer is paying into a system for a product or material, they should not be subject to future bans.

PLASTICS appreciates the opportunity to submit these comments and looks forward to working with Ecology and other stakeholders in developing these recommendations. If you have any questions, please do not hesitate to contact me directly at 202.974.5206 or by email at [scrawford@plasticsindustry.org](mailto:scrawford@plasticsindustry.org).

Respectfully submitted,



Shannon V. Crawford  
Director, State Government Affairs

Good morning,

I work in our sustainability department at one of our companies that manufactures polypropylene cartons. On the list of primary recommendations I wanted to comment on the third. As a manufacture we have developed a program and standard where we can collect our material from the end user, have it reprocessed then use the PCR (post-consumer resin) into new packaging. However, there are only 1-3 recyclers in the entire nation that can make that possible for us. With none currently West of the Rockies. If you are going to establish a requirement for content there needs to be infrastructure from a variety of plastics to support that requirement, such as washlines or other recycling capabilities that can take contaminated waste and turn it into a usable resin. We currently have to subsidize our program because of the freight to the recycler, along with the service to toll or purchase material. Asking for a requirement in a time where the recycling industry is low, virgin resin prices are low and businesses are struggling in general may be a tall ask.

Just wanted to provide some feedback to the study. If you have any additional questions please let me know, thank you for your work on this!

Best Regards,

Erika Nist

Seattle-Tacoma Box Company | SeaCa Packaging | SeaCa Plastic Packaging  
Sustainability | Marketing | Corporate Compliance  
Phone: [redacted]



September 4, 2020

To: Washington State Department of Ecology

On behalf of the Clorox Company, we appreciate the opportunity to provide comments on the draft *Recommendations for Managing Plastic Packaging Waste in Washington*. The Clorox Company is recognized as a leader in sustainability and is proud to be a signatory of the Ellen MacArthur Foundation's New Plastics Economy Global Commitment, a vision of a circular economy for plastic in which it never becomes waste or pollution. The foundation's vision is in line with the company's new plastics-related ESG goals announced as part of its new integrated corporate strategy called IGNITE. These new ESG goals include: 1) 50% combined reduction in virgin plastic and fiber packaging by 2030; 2) 100% recyclable, reusable or compostable packaging by 2025; 3) Double post-consumer recycled plastic in packaging by 2030 (+50% by 2025). Clorox has also pledged to continue the following initiatives as part of its signatory status in the New Plastics Economy Global Commitment: 1) No polyvinyl chloride (PVC) in packaging; 2) Pilot new business models and solutions which enable consumers to refill and reuse primary packaging, such as participation in TerraCycle's Loop pilot program. In short, Clorox takes the challenge of working with others to collectively reduce our environmental footprint, takes reducing plastic waste seriously and is actively implementing plans against these pledges.

While we look forward to providing input on the broader recommendations around packaging through our respective industry associations, on behalf of our Glad® brand we would like to convey our comments on the draft Complementary Recommendation on Recycled Content Requirements for Trash Bags.

Over the last 10 years, Glad® has reduced its overall environmental footprint through reduction in plastic usage, resulting in an overall lower carbon footprint (30% reduction in GHG emissions) and by implementing zero waste to landfill manufacturing practices. We are a technology leader enabling product improvements for consumers and sustainability enhancements. In the trash category, we introduced and led innovations in drawstring closure, flexible strength, odor neutralization, and two-layer technology with less plastic. We've also been active in our communities developing municipality-based programs, focused on supporting curbside organics and recycling behaviors. We are committed to developing innovative product solutions that will not only inspire consumers to divert more but also function in the complex US diversion system. As the branded market leader in trash bag innovation, we hope we can provide valuable input into the policy making process.

Before we get to our recommendation, we'd like to correct some misunderstandings that are reflected in the Recommendations for Managing Plastic Packaging Waste in Washington.

**The premise that Trash Bag Recycled Content requirements help create a market for Recycled PE film from mixed retail and consumer-return sources is misplaced:**

The stated purpose of the proposed legislation is to create demand for recycled PE film from mixed retail and consumer-return sources. Unfortunately, this premise is flawed as trash bags are not an appropriate application for PCR PE film from mixed retail and consumer-return sources. Consumer trash bags are primarily made from a specific type of plastic called LLDPE.

The large scale and high efficiency equipment used to make trash bags is not tolerant of contamination from other polymers. Contamination of other polymers in the trash bag manufacturing process results in poor and inconsistent product quality and significant efficiency losses which lead to an increase in waste generated during the film extrusion and bag making processes. For this reason, Glad® does not tolerate contamination from other polymers in its manufacturing process.

The primary composition of collected film in mixed retail and consumer-return sources is a mix of LLDPE, HDPE, LDPE with smaller amounts of PVC, PVOH, PET, and Nylon. During reclaimers' sorting, cleaning and mechanical recycling, this mix of polymers is not separable today on a commercial scale. Even within the polyethylene (PE) family, contamination of LDPE or HDPE into a LLDPE trash bag will significantly degrade its quality. There is also a lot of non-polymer contamination in this stream such as cash register receipts, and organic waste. A mixed and contaminated recycling stream such as this is best suited for outlets such as plastic lumber or molded parts which might better tolerate the contaminated mixed polymers. LLDPE consumer trash bags cannot use this mixed material waste stream.

### **The Recommendations Misrepresent CA Recycled Content Requirements:**

The recommendations state that California requires 30% recycled content for bags above 0.7 mil thickness and suggests this should serve as the minimum threshold for Washington state requirements. In fact, Cal Recycle 14CCR Section 17979 requires manufacturers of regulated trash bags (at or above 0.70 mil thickness) to certify one of the following: 1) that the manufacturer met the annual aggregate use requirements that plastic trash bags intended for sale in California contained Actual Postconsumer Material (APCM) equal to at least 10 percent by weight of the regulated trash bags; 2) that the manufacturer met the annual aggregate use requirement that 30 percent of the weight of the material used in all of your plastic products intended for sale in California is APCM; 3) Were exempt from meeting the requirements because all of the regulated trash bags you sold in California during the previous reporting period were either: below the minimum gauge standard, or were hazardous or medical waste bags, or were non-plastic trash bags. Unfortunately, Cascadia has confused the annual aggregate use requirement and the recycled content requirement and, as a result, is proposing a baseline requirement far above the regulations in California.

Now that we have addressed this confusion, we'd like to provide some further input.

### **Legislation should encourage REDUCE, REUSE and RECYCLE:**

Glad® is fully supportive of and actively working on efforts to minimize the environmental impacts of our trash bags. Based on the waste management hierarchy, our first approach is always to use technology to minimize the amount of plastic used in the product while maintaining the performance our consumers rely on. While we are committed to including greater recycled content, this is a secondary goal. Why? The best way to evaluate the environmental impact of a trash bag product is by conducting a full Life Cycle Analysis (LCA) on the product, including measuring the amount of greenhouse gasses (GHG) that are generated. This is commonly reported as the product's global warming potential (GWP). The greatest environmental impact of a trash bag in a cradle-to-grave assessment occurs in the manufacturing of the plastic resin pellets purchased to make trash bags. As a result, the biggest driver of GWP and the biggest opportunity to reduce the environmental impact is by reducing the amount of

virgin plastic used in the bag, while still delivering the product performance that consumers trust and expect trash bag manufacturers to deliver.

Indeed, the best place to start when trying to minimize plastic waste and GWP is always “Reduce”. To illustrate with an example: consider the GWP impact for virgin LLDPE and recycled LLDPE. Based on independent third party estimates performed for GLAD®, virgin LLDPE resin emits 1.93 kg-CO<sub>2</sub>e/kg and PCR emits 0.54 kg-CO<sub>2</sub>e/kg. Replacing the virgin resin with PCR is a good thing (~3.5x lower impact), however removing virgin resin without replacing it with PCR is even better.

That is why Glad® has made significant investments in this area and has been a leader in the industry in reducing the amount of plastic needed to make strong consumer-preferred trash bags. Over the years, as new and improved plastic technology has become available, we have evolved our formulations and equipment and reduced our trash bag weights. Glad® Drawstring Kitchen bags, by far the largest category that we sell, use approximately 20% less plastic than other leading competitors because of years of dedicated R&D work, technology advances and resulting capital investment.

While we have a primary focus on reducing the amount of plastic we use we also are committed to the use of recycled materials including post-consumer reclaim (PCR). A current barrier to widespread high level PCR use is quite simply the scalable supply of LLDPE-rich PCR of sufficient quality. If low quality PCR is used, the bag weight has to be increased to the point that it nullifies the environmental benefits of using PCR at all from an environmental perspective. As illustrated above, reducing the gauge of bags is not done in the interest of exploiting “loopholes” but it is the right thing to do for the environment. We believe that any recycled content requirement should incentivize this reduction first and then encourage the increased usage of recycled material in a manner that is commercially viable. Our investments in technology to reduce plastic waste and environmental impact should be taken into account when creating legislation. Including an exemption in the law similar to CA for lower thickness bags and/or a threshold of bag thickness, over which recycled material would be required, should be considered.

### **We look forward to working with WA to develop Sources of PCR/PIR That Work for Our Trash Bags**

Recycling streams that are better suited for use in trash bag applications are rich in LLDPE and can be processed to remove limited amounts of non-polymer contamination. Examples of good sources include plastic wrap used to protect products transported on pallets or plastic wrap used for autoparts. The biggest issue currently is getting sufficient quantities of this material to support large scale national distribution of trash bags. Glad® is committed to developing sources of LLDPE-rich material so we can increase our use of it but we are not yet able to do this on a national scale. We welcome a dialogue with the state of Washington focused on developing a sustainable and scalable source of this material. As we gain access to more of the right high-quality material we look forward to increasing the amount of recyclable material in our trash bags accordingly.

**Any Future Recycled Content Requirements Should be Phased-In Slowly and Allow for Adjustments for Supply Constraints:**

A current barrier to widespread high level PCR use is quite simply the scalable supply of LLDPE-rich PCR or PIR of sufficient quality. If low quality recycled material is used, the bag weight has to be increased to the point that it nullifies the environmental benefits of using PCR at all from an environmental perspective. Imposing requirements that don't take into consideration availability of material may result in our inability to provide our market-leading products in the Washington market to consumers that depend on them every day. As such, recycled content requirements should be phased-in slowly to allow for investments and adjustments to be made by manufacturers and suppliers that will allow for compliance. We look forward to working with Washington State authorities to discuss the current state of markets, our projections for their evolution and what the realm of possibility is. Flexibility for markets' failure to develop as expected should be built into the law so manufacturers and consumers aren't penalized for supply issues beyond their control.

We thank you for the opportunity to comment on the draft recommendations and would be pleased to further clarify or discuss our comments as needed. We look forward to being engaged as the discussion evolves.

Sincerely,

Mark Smith  
Director, Government Affairs

## **“Recommendations for Managing Plastic Packaging Waste in Washington:”** *Comments from the Washington Beverage Association*

We greatly appreciate the opportunity to engage with the Cascadia team as it developed this draft report: “*Recommendations for Managing Plastic Waste in Washington*,” as well as the opportunity to now provide comments on the initial recommendations. First, we thank and applaud the state for exploring stronger recycling systems that can ultimately produce a circular economy for multiple materials and keep all recyclable materials – including consumer goods packaging and paper – from ending up in the environment. We commit to working with the state, lawmakers and stakeholders on building a system that serves Washington’s citizens and its environment for many generations.

Today, we would like to focus our comments on the draft report’s review of Extended Producer Responsibility and a Deposit Return System, two worthy pathways that will certainly recover more materials (including our bottles and cans), enhance their recycling and reduce their impact on the environment. We understand Cascadia’s interest in exploring each of these systems. The perspective we offer is built upon the decades of experience our global companies have working with communities and recyclers around the world on successful programs to collect and recycle valuable plastic bottles, cans, and other materials.

First, our association and its members support a strong, efficient and convenient Extended Producer Responsibility (EPR) system built on core principles for successful operation. Extended Producer Responsibility provides the opportunity to create a more efficient, financially sustainable collection and processing system for recovering all recyclable materials used to package consumer goods and printed paper, enabling those materials to be turned into new products and not end up as waste in the environment. For our industry, that means collecting and recycling more of our 100% recyclable plastic bottles, aluminum cans, and glass containers so they can be remade into new ones. In Washington, EPR does so by building upon and strengthening the existing recycling infrastructure already in place throughout the state. This includes keeping recycling convenient to consumers by taking advantage of existing curbside recycling systems. A high functioning EPR system will have profound environmental benefits by promoting circularity, minimizing environmental waste, and reducing the carbon emissions associated with unnecessary materials production.

A successful EPR system in Washington needs to:

- Have strong environmental outcomes that collect all recyclable materials in an efficient manner
- Be convenient to consumers so they recycle consistently and properly
- Be financially sustainable, allowing the private sector to operate and fund the system with government setting the scope of the program and providing oversight. The system must ensure that private sector fees paid into the system go solely toward operating and investing in the system and not other causes
- Provide producer access to recovered material to ensure that producers have access to their recyclable materials for making new products and creating a closed

loop, as well as ensuring this material does not go to entities that are not financially contributing to operation of the system.

Our association and its members share your concern that too much plastic and other recyclable packaging ends up as waste in the environment and are committed to working with Washington policymakers to address this significant challenge. We believe an EPR system built upon these principles offers a strong approach for Washington to protect the environment and create a truly circular economy for these materials in a sustainable fashion. More importantly, we are eager to invest in a high functioning system guided by this experience.

An EPR system built on the principles above has proven successful elsewhere, but it has never been tried in America. This provides Washington a ground-breaking opportunity to become the first state in the US to create an EPR system for packaging and printed paper and show the path to a modern, financially sustainable recycling system that other states can follow.

Attached to this response is our more detailed position paper in support of EPR.

While we support EPR and believe it has many advantages, we appreciate that this study also looks at a Deposit Return System (DRS) for beverage containers. If built right and constructed on similar essential principles, a DRS can also improve the collection of more materials for recycling. Our experience in other countries shows that special caution must be taken when jurisdictions evaluate constructing both an EPR and DRS to avoid inefficiencies that could complicate efforts to achieve a truly circular economy.

With regards to recycled content standards, many ABA beverage manufacturers voluntarily use and have established global goals to use recycled PET content in their plastic bottles with the overall goal of reducing the amount of virgin plastic that is introduced into the environment. For this reason, we would be interested in engaging in conversations about how we can help design appropriate recycled content requirements for beverage containers in Washington in keeping with the already-aggressive goals set by our member companies. It is important, however, that we have a fully optimized system designed to fit local needs to collect and recycle more consumer packaging to support minimum content goals within any one state. This includes ensuring that beverage manufacturers participating in the system have first access to recycled materials (rPET) that can be used to meet minimum recycled content requirements.

Additionally, we fully recognize the current budget and resource challenges presented by the COVID-19 pandemic and are supportive of using interim steps to help create awareness and accountability of the packaging used in Washington to better inform long-term policy decisions.

The bottom line is that we want to work closely with state leaders, lawmakers and other stakeholders on building and participating in a stronger recycling system for Washington. It's a challenging endeavor, but a worthy and essential one. Again, we appreciate the opportunity to be part of this important work and look forward to further collaboration.

## **Optimal Parameters of an Extended Producer Responsibility System for Packaging and Printed Paper in Washington State**

The beverage industry plays an important role in advancing the circular economy. Our packaging is specifically designed and optimized for recycling. In particular, our PET bottles and aluminum cans are 100% recyclable, have a high commodity value and, when collected and recycled, can become new bottles and cans. The industry has also invested in local and regional recycling infrastructure for more than 40 years and has advocated for a portfolio of public policies to enhance recycling systems. Washington's recycling program, like many others in the country, are not performing nearly as well as they need to be if we want to realize the economic and environmental benefits of a circular economy.

With the launch of our *Every Bottle Back* campaign in late 2019, we recognized the limitations of the *status quo* and that more profound public policy changes may be necessary to achieve our goals and to raise the performance of all recycling in the country. Many solutions to reforming the recycling system in our country have been debated, and we are willing to look at the various systems in pursuit of the right one, though we believe a broader approach for improving multi-material recycling is needed through the lens of Extended Producer Responsibility (EPR).

### **The Current Situation**

Inadequate investment, tight municipal budgets, and a patchwork of regulation across more than 20,000 local jurisdictions lead to inconsistent performance and lack of accountability. As a result, recycling programs in the U.S. range from very high-performing to very low-performing with low recycling rates. A focused effort to bring substandard programs up to a high-performance level would dramatically increase material recovery, expand the recycling industry, and reduce economic and environmental costs of disposal.

Some policy makers point to deposit return systems (DRS) as a beverage-only approach to addressing poor recycling performance. Our industry has more than 40 years of experience participating in DRS programs in Europe, Canada, and elsewhere and we have found that efficient and cost-effective DRS can be a successful recovery mechanism. However, these systems ignore other recyclables and program design flaws can lead to inefficiency and poor performance.

### **Extended Producer Responsibility Systems**

Based on our global learnings and experience with multi-material EPR systems, we understand that we therefore have a unique responsibility to lead on this issue. To expand on our past advocacy efforts, we have developed the following principles and parameters for an EPR program for Washington. EPR has the potential to efficiently increase recovery of packaging but only under certain conditions articulated below.

The overarching goals for these principles are:

- Generate strong environmental outcomes in an efficient and accountable manner
- Provide convenient service to consumers
- Create a financially sustainable model
- Offer producers access to recovered material for closed loop recycling

### Key Principles for Packaging and Printed Paper EPR in Washington State

- **Clear scope of products affected, and programs funded**
  - Products include all types of consumer goods packaging and printed paper with products labeled to indicate recyclability to consumers. The list of materials that can be recycled is consistent throughout Washington.
  - The program funds 100 percent of the net cost (net of scrap value) for residential recycling of packaging and printed paper including both single- and multi-family dwellings and including education and outreach programs. Excludes costs for industrial, commercial, and institutional waste management and for disposal of residential material.
  
- **Centralized program management**
  - A single, non-profit Producer Responsibility Organization (PRO) manages the funding system for the entire state, with professional staff answerable to a producer-led board of directors.
  - The PRO develops and implements a plan to achieve the program goals, developed in consultation with other stakeholders and usually mapped out over five to seven years. After plan approval, the PRO sets fees for producers following the cost principles below, implements needed recycling system changes, establishes funding and reimbursement arrangements with recyclers, evaluates and reports on performance, and markets recycled materials. Obligated producers have right of first refusal to their share of recovered material at market terms.
  - The PRO does not typically operate recovery vehicles and facilities, but contracts for those services either directly or through reimbursement of private sector or municipal costs to provide the services.
  
- **Transparent cost principles**
  - The PRO sets producer fees by material type (e.g., PET, aluminum, corrugated cardboard) based on the cost to recycle the material minus its value in the scrap market. Because costs and commodity values change over time, fees are reset typically once per year.
  - Producers pay fees based on these net costs with fees assessed based on the weight of various materials sold, with a *de minimis* threshold set to relieve the smallest producers of obligation. Producers typically update sales annually and the data is treated confidentially.
  - The PRO may modify fees based on environmental factors. Fee reductions might be considered for products that are the most recyclable, contain recycled content, or have a low carbon footprint. Surcharges (disruptor fees) may apply to difficult to recycle materials with the highest fees charged to materials that cannot be recycled.
  - The overhead costs of running the PRO and the state government's cost of rulemaking, oversight, and enforcement are also embedded in the producer fees.

- **Defined role for Washington State government**
  - Enabling legislation sets the scope of the program and its goals to assure a level playing field among producers of consumer goods packaging and printed paper. The legislation also specifies the role for the state and how those activities are funded.
  - The designated government agency evaluates and approves the PRO's plan for achieving program goals, monitors program progress, and provides enforcement.
  - Government agency costs for rulemaking, plan approval, oversight, and enforcement activities are reimbursed by the PRO, with those costs embedded in the producer fees. No additional government funds are drawn from the producer organization, other than reimbursements to local and regional governments for recycling services as noted above.

All of these principles reflect experience in other developed economies around the world, but any program needs to be customized to Washington's local and regional conditions including the existing infrastructure, demographics, available markets, and key stakeholders.



*An alliance of the independent grocery and convenience store industries.*

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**TO:** Cascadia Consulting Group, Eunomia Research & Consulting, Full Circle Environmental and MORE Recycling  
**CC:** Department of Ecology  
**FR:** Washington Food Industry Association  
**RE:** Washington Food Industry Association Comments on “Recommendations for Managing Plastic Packaging Waste in Washington”

On behalf of Washington Food Industry Association (WFIA) and our independent grocery and convenience store industry members, we offer the following comments on the “Recommendations for Managing Plastic Packaging Waste in Washington.”

#### General Comments

We appreciate all the work that the entire team did on the very extensive report and recommendations. It is incredibly detailed and well organized. However, COVID-19 has had a significant impact on everyone involved – from the consulting firms to businesses to consumers and other stakeholders. The report does not address the sheer magnitude of the COVID-19 impact on our communities, businesses and our world because most of the study was done before COVID-19 hit Washington State. We encourage the writers of the recommendations to rethink some of their primary recommendations as they are not realistic due to the economic and supply challenges currently facing our communities. An addendum to the study should be done addressing the changes that have been put in place due to restrictions on use of other packaging, viral protection requirements, business shut downs, supply issues related to disease outbreaks, current economic conditions, and how these impact the ability to implement each of the recommendations.

Our immediate concern is that the recommendations require a considerable amount of funding. With limited funds at the government level, combined with the economic recession (and ongoing limited funds at the retail level), there must be alternative recommendations and solutions that do not require significant funding from the government or businesses. The upstream and downstream economic impacts to businesses must be evaluated or you will see businesses closing, product costs rising and consumer costs rising at a time when our economy cannot afford this. Washington is facing a \$4.5 billion deficit in the current budget cycle, requiring Governor Inslee to direct state agencies to cut their budgets by 15 to 25%. The unemployment trust fund will not be solvent by 2021 without backfilling the fund with \$1 billion dollars, which means people may be going without unemployment benefits unless money can be found to replenish the fund. Our state is in crisis mode and asking for a large amount of money for the recommendations is unrealistic. We urge you to reconsider your recommendations and instead focus on creative solutions to plastic packaging waste that focuses on existing structures and funding mechanisms and could be feasibly done without significant increases in costs.



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To do this we urge you to focus on the following questions:

- Do we have solutions that do not require money from the government?
- What is the federal government doing on this issue? Can we use their resources or work in conjunction with their actions here in Washington State?
- Within the last several years, there are several states (ME, MD, VT) that passed packaging laws. What are the impacts of those laws on businesses and the waste stream both in terms of reducing plastic packaging waste and the costs for all entities, including consumers?
- Since there are currently not many viable alternatives for food plastic packaging (they are extremely expensive, or it takes months to receive from the manufacturer due to low supply), how can manufacturers be encouraged to create viable alternatives to plastic packaging in spite of the cost to do this at a time when their businesses are struggling?

#### Deposit Return System for Beverage Containers

Out of all the recommendations, deposit return systems for beverage containers -- also known as bottle bills -- is the most alarming. Only 10 states have implemented bottle bills, with the majority occurring in the 1970s and 1980s. The bottle bill theory is an antiquated idea, which has shown very little, if any, improvement in reducing plastic waste in our waste streams or benefiting the environment.

The idea was considered briefly in Washington state in the 1970s. However, the state chose to implement a litter tax in lieu of a bottle bill. The study and recommendations mention the litter tax, but do not expand or seem to fully understand why Washington has a litter tax. Nor do the recommendations consider creative means to better utilize this tax to reduce plastic waste.

The litter tax is a tax on manufacturers, wholesalers, and retailers of certain products which end up as litter. There are thirteen categories of products subject to the litter tax including soft drinks, carbonated beverages, beer, other malt beverages, glass containers, metal containers, plastic or fiber containers, and more. The tax, which has been collected for more than 45 years, originally was intended to pay for litter cleanup and waste prevention programs. However, until recently significant amounts collected have been diverted to other accounts for other purposes. The litter tax is more comprehensive and impacts more packaging than the deposit return system. It also provides an existing, readily available funding mechanism for reasonable recommendations.

When looking at the other states, the bottle bills have many flaws. As an example, Oregon has recycling centers at the food establishments. Our independent grocers in Oregon state the costs are significantly higher and safety is a tremendous issue due to a wide variety of problems such as vermin, contamination within the stores and recycling centers/drop boxes, and health department



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challenges. These programs also put our employees at risk due to needles and other safety hazards that end up in the bins with the bottles.

From a cost perspective, it is a new cost to retail operations in Washington State, as the retailer must pay the deposit value when purchasing the redemption valued products from a wholesaler or distributor. The distributor collects the redemption value from the food establishment when delivered - the food establishment does not receive the redemption value back until the consumer purchases the product from the Food Store shelves. This can add several thousands of dollars in weekly operational costs for a food establishment when purchasing redemption valued products from a wholesaler or distributor – without any real guarantee of return on investment.

Some other indirect costs include:

- Increases in worker compensation rates and injury costs due to workplace safety hazards.
- Employee safety equipment - googles, face shields, thick non puncture rubber gloves.
- Increased utility costs to handle the redemption and recycling process - electricity to run the vending machines, added garbage expense and water to do daily pressure washing of redemption area additional pest control due to both insects and rodents that are attracted to spoiled beverages.
- Construction costs to the food establishment if they need to build or add onto their existing building to create separation between recycling activities and fresh food purchasing.
- No reduction in the existing litter tax which means retailers will be paying twice for reducing the waste of these products.

Instead of recycling an old idea like this that has not shown any improvement in reducing plastic packaging waste and instead creates costs and problems, we encourage the writers of the plastic study to look at Washington's existing structure for funding, waste reduction, recycling and consumer education to come up with more creative solutions that will actually make a difference in reducing plastic in our waste streams. And they must be economically feasible through good times and bad.

Thank you for the opportunity to present these comments, and we hope you take them into consideration.

A handwritten signature in black ink that reads 'Catherine Holm'.

*Catherine Holm*  
*Legal Counsel and Legislative Director*  
*360-867-89721*  
*catherine@wa-food-ind.org*

## Draft Recommendations Feedback Form

**Name:** Samantha Louderback  
**Sector:** Trade Association or Lobbyist  
**Organization/Affiliation:** Washington Hospitality Association  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs) Hospitality

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Select one	Please see attached comments	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Select one	Please see attached comments	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Select one	Please see attached comments	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Select one	Please see attached comments	
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Select one	Please see attached comments	
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Select one	Please see attached comments	
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Select one	Please see attached comments	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Select one	Please see attached comments	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
<b>9</b>	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Select one	Please see attached comments	
<b>10</b>	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Select one	Please see attached comments	



**TO:** Cascadia Consulting Group, Eunomia Research & Consulting, Full Circle Environmental and MORE Recycling  
**CC:** Department of Ecology  
**FR:** Washington Hospitality Association  
**RE:** Washington Hospitality Association Comments on “Recommendations for Managing Plastic Packaging Waste in Washington”

I am writing you today to respectfully ask the Department of Ecology and the Cascadia Consulting Group to reconsider the timeline and approval of the draft plastics study and would urge the Department to reconsider its proposal.

As a member organization representing more than 6000 hospitality businesses across the state in an industry that once employed more than 260,000 employees, COVID-19 has hit our industry the hardest in Washington state. COVID-19 has not only created great concern and uncertainty for our communities, it has also left 152,000 hospitality employees unemployed, crippled hotel and leisure businesses by important but restrictive safety guidance, and has our industry anticipating a 30-35% closure rate.

We would like to recognize the hard work done by the Department and the independent consultant group, however the study and data collected was done so before the implications and challenges of COVID-19 were known. No one could have anticipated the vast impacts of COVID-19, but the impacts are devastating and there is a tremendous amount to be learned and considered from our experiences over the last six months. Unfortunately, we are not able to “flip the switch” back on once we contain the virus and the economic consequences will take years for our industry to climb out of. Without proper consideration of these factors, we would be doing a disservice to Washingtonians, local communities, and the revitalization of our state.

**Extended Producer Responsibility (EPR)**

Food establishments sell products under the branded names of other producers, but also offer their own packaging to customers. An example of this is a small mom and pop coffee shop who has put a stamp with their logo on the cup they give to customers. Under the definition in the study, a restaurant who stamps a logo on a cup produced by another company could be responsible for the costs of other producers.

In addition, under the definitions provided by the study, restaurants could be considered producers, and would carry responsibility to fund the programs as proposed. This would include the reporting requirements and costs. The definition of producer must be clarified to remove overburdensome requirements for restaurants to report and carry costs associated with this program in a time where hospitality businesses are reeling to keep their doors open and the employees they have left employed.

**Deposit Return System for Beverage Containers**

COVID-19 has brought swift, drastic, restrictive, and necessary emergency rules to stop the spread of the virus. With that came along the need and increase for take-out foods and now more than ever food establishments are relying on take-out to sustain any type of revenue. The proposed Deposit Return System is concerning due to the financial implications on small businesses with the proposed “deposit system” and the reliance of customers returning those bottles to the establishment where they were purchased. As take-out grows and becomes more and more crucial to the survival of food establishments, we ask the Department to reconsider this proposal and think about how this disproportionately impacts hospitality.



**Reusable Packaging Systems**

We would respectfully ask that this priority be removed. While our industry supports sustainable alternatives to packaging and providing guests' options, we do not believe that should come at the expense of our employees and guest's health. Not only does allowing customers to bring in their own reusable packaging have food safety implications, cross contamination challenges, and major liability on a food establishment, it feels irresponsible in the midst of a global pandemic. Currently food establishments are being asked to control everything from the table size to whom can dine together. How can a food establishment be certain that a customer's reusable container has been properly washed, rinsed, and sanitized and has not been exposed to norovirus, salmonella, or in today's times, COVID-19?

Thank you for the opportunity to submit comments and we appreciate your consideration.

Samantha

**Samantha Louderback**

Senior Manager, State Government Affairs  
Washington Hospitality Association  
|C 360.789.7477 | [wahospitality.org](http://wahospitality.org)

## Draft Recommendations Feedback Form

**Name:** Jeni Woock  
**Sector:** Local Government  
**Organization/Affiliation:** City of Gig Harbor  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs)

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Could support with the following changes	Until all plastic is eliminated there must be an unwrapping table at the retailer for users to take product out of the plastic and repackage in their own containers	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Support as is		
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Support as is		
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is		
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Select one		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Could support with the following changes	A ban on all plastic packaging and allow customers to bring in their own containers	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Don't support, suggest the following alternative	no food service plastic packaging should be allowed	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is		
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Support as is		

# Draft Recommendations Feedback Form

**Name:** Cameron Reed, Autumn Salamack  
**Sector:** Local Government  
**Organization/Affiliation:** City of Shoreline  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs)

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Support as is		
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Support as is		
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Support as is		
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is		
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Support as is		
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Support as is		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is		
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Support as is		

# Draft Recommendations Feedback Form

**Name:** Lauren Cole  
**Sector:** Local Government  
**Organization/Affiliation:** King County Solid Waste Division  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs)

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Support as is	This recommendation is in alignment with the work that King County has done via the King County Responsible Recycling Task Force and now with our Zero Waste of Resources planning task force. King County looks forward to continued discussions about these recommendations with Ecology, the State Legislators and other stakeholders. Strongly support material-specific performance standards – but they need to be more aggressive to provide a stronger incentive for early adoption. Equity is not just about access but responsibility to pay. On necessary infrastructure: the benefits for jobs and local growth need to be highlighted more	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Could support with the following changes	An EPR system for all packaging and paper products should be first priority. A DRS system could be implemented by producers if that is the mechanism they choose to meet their recycle rate requirements, but would not mandate a DRS system. A DRS integrated with recycled content and EPR will achieve significant efficiency savings and remove administrative costs. An ambitious recycling target for beverage containers under an EPR policy would most likely encourage producers to organize a DRS themselves without any need for legislation.	Deposits on beverage containers could be one mechanism for helping to fund an EPR system. However, it should be left to the producers to determine if the economics of implementing a DRS within an EPR system are cost effective and whether a DRS is necessary to achieve the recycling rate requirements.

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>The system needs to be set up for other material (e.g. glass) schemes systems in the future.</p> <p>Strongly support a comprehensive system that minimizes free riders.</p>	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Support as is	<p>The minimum recycled content requirements need to be stretching – consider not just minimum but optimal – e.g. early adopters of 100% recycled content need to be rewarded compared to those meeting 50%.</p> <p>Recyclability needs to also be considered – limited benefit in having something made of 100% recycled resin if it then cant be recycled.</p> <p>Empowering a regulatory agency: the approach must also direct Commerce to prioritize recycling/material processing infrastructure for inward investment</p> <p>Outside of a comprehensive EPR system, why isn't it possible to have modulated fees to reflect processing infrastructure investment?</p> <p>Agree that EPR needs to complete the recycling loop and require the use of recycled materials. This could be part of the EPR policy.</p>	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is	<p>This is an excellent recommendation that will provide much needed data for many programs. This could be bumped to a priority action.</p>	
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is	<p>Another priority and as a bill was passed (but vetoed due to financial constraints), a bill should be brought back as soon as possible. This could be part of the EPR policy.</p> <p>Strongly support the inclusion of PCR and claim verification.</p>	
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Could support with the following changes	<p>The scope could be a little broader – not just trash bags but plastic use in waste and recycling collection more broadly.</p> <p>It isn't very clear if the recommendation is for state procurement only or for all plastic trash bags.</p>	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Support as is	Agree that this should be a regional or national effort with support from states. This policy should be coupled with an incentive or another program to encourage the use of a less impactful alternative as compared to the banned product.	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Could support with the following changes	No regulatory agency to carry out rigorous oversight and enforcement is mentioned. This should be included.	
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is	This should also be a priority action as it is tied to equity and environmental justice. We should know where the materials are being sent and should document that they are not harming human health and the environment. It would be helpful to understand which facilities are considered "regulated facilities" and which are left out of the reporting requirements. How complete is the data set if the requirements are only on regulated facilities? Strongly support more data collection. If there is a power/authority to do that now – it should happen. More transparency is needed for secondary material markets to flourish.	
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Could support with the following changes	This has great potential to reduce waste and should be encouraged more. This could be by providing economic incentives through an EPR program, DRS and Customer Opt-in for Food Service Packaging. It could also include requirements for schools, restaurants, bars and events to only use reusable products for on-premise consumption.	

# Draft Recommendations Feedback Form

**Name:** Caitlin Newman  
**Sector:** Local Government  
**Organization/Affiliation:** Kitsap County  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs)

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Support as is		
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Support as is		
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Support as is		
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is		
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Support as is		
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Support as is		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is		
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Support as is		

## Kitsap County

Page 10, paragraph 3: The last sentence is difficult to read.

Page 12, paragraph 1: "EPR is the policy approach designed to realize this legislative intent." Could be wrongly interpreted that EPR was designed as a result of this legislation.

Page 13, paragraph 2: The last sentence is difficult to read.

Page 14, paragraph 3: The last sentence is difficult to read.

Page 22, paragraph 1: Typo in the word "develop."

Page 23, paragraph 5: First paragraph is difficult to read.

Page 27, paragraph 4. "...the systems for this area still in development." However, on page 30 you detail two existing systems (RMS and APR). Do you mean that the reporting systems are still in development?

Page 27, paragraph 5, first sentence: "producers to pay a registration fee to producers..." Should this be regulatory agency?

# Draft Recommendations Feedback Form

**Name:** Mark Ingman  
**Sector:** Local Government  
**Organization/Affiliation:** San Juan County - Solid Waste  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs)

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Could support with the following changes	Strongly support an EPR policy framework for all packaging. Packaging used by commercial sector (and some of the industrial sector), however, overlaps with residential use packaging and thus should be included. A comprehensive system covering all sectors, where appropriate, will result in stronger outcomes reflecting legislative intent.	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Could support with the following changes	A deposit system for beverage containers--the most valuable type of plastic--should be incorporated into an EPR system, not independently established, as the current financial system for recycling would likely be harmfully disrupted. We would like to let the PRO in the EPR be allowed to decide whether to do a DRS for beverage containers.	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Could support with the following changes	Recycled content requirements should be included for all materials, given the benefits of this approach, not just limited to plastic.	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Could support with the following changes	Because the legislative goal is to reduce plastic packaging, we feel this recommendation should be elevated to be a primary recommendation. EPR will incentivize some waste reduction but bans are often needed in parallel. A key example of reducing plastic packaging would be a ban on styrofoam packaging, which has been demonstrated to be a significant operational problem for MRFs and is also a plastic pollution problem. We should not wait for a national process, many problematic materials are already well known.	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Support as is	A statewide law to require opt-in would save money for businesses and be a big step forward for reducing unnecessary plastic.	
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is		
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Could support with the following changes	Reusable foodservice products should be required for on-premise dining. Case studies show that this saves money for businesses within a year or two and then long-term. Furthermore, financial incentives and technical assistance could spur innovation in this area. Reusable is an important method to reduce packaging and, as written, this recommendation downplays its significance.	

## Draft Recommendations Feedback Form

**Name:** Sego Jackson  
**Sector:** Local Government  
**Organization/Affiliation:** Seattle Public Utilities, City of Seattle  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs)

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Support as is	One suggested nuance is that there are packaging materials that "residential consumer-like" but may be in commercial settings, such as a can of soda consumed at an outdoor food court. Also there are many small businesses that are able to utilize the same curbside recycling services as provided to residents. The EPR program should include consumer packaging from these sources.	The suggestion would be financed by packaging producers and is a small expansion of the recommendation so to include other sources of consumer packaging.
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Support as is	Strong preference is for DRS within a broader packaging stewardship law/system. Passage of DRS as a stand alone would not be a suitable substitute for an EPR law/system covering all packaging and paper products. DRS as a stand-alone without an EPR system in place would raise questions as to the impact on the finances of local curbside collection programs.	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Could support with the following changes	Should specify "post-consumer" recycled content and that should be sourced from residential sources if part of an EPR law that only addresses residentially generated materials. Otherwise, materials not collected through the EPR system but from commercial sources could fulfill recycled content requirements, creating no market pull for materials collected in the EPR system. Otherwise support as is. Prefer as part of broader EPR law for all packaging and paper products, or if standalone, passed in conjunction with separate EPR bill. As a standalone, recycled content legislation will not accomplish as much or accomplish the same important elements as EPR and should not be mistaken as a substitute action to EPR.	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is	This is an important recommendation for gathering information needed for other actions.	
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is	Note: if post-consumer recycled content is to include material generated from commercial sources, but an EPR program only includes materials from residents, something will need to be done in the EPR legislation to ensure recycled content from residential sources isn't "left on the table" and recycled content requirements are able to be met completely by commercially generated materials. When addressing just plastic beverage containers, this may not be much of an issue, but could be for other types of plastic packaging or packaging made of non-plastic materials.	
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is	Note that requirement could be met by only utilizing commercially generated film and consideration of how to ensure market pull for residentially generated film at front-of-store retail take-back will be needed.	If a recommendation addressed organics, recycling and solid waste collection containers, the costs would be within regular rate setting or contracting processes, or could be a requirement within an EPR system, and thereby the recycling container related costs would be born by the EPR system and its producer members.

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			Also, an additional recommendation could be that all plastic organics, recycling and garbage containers also meet minimum post consumer content and that some percentage of that must come from post consumer packaging (not just broken and returned plastic solid waste carts/toters.)	
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Support as is	Even if the US Plastics Pact fails to identify and gain consensus on the problematic or unnecessary plastic, WA state should move forward, especially on an immediate ban of most EPS foam products.	A state-wide EPS ban would result in many savings but none that would directly finance the necessary costs to the State of implementation. A state-wide EPS ban could be funded at the same level and in the same way as the state-wide bag ban, the implementation of which is more complex than an EPS foam ban would be. Producers, distributors and retailers would be required to comply and by applying the law upstream - at the producer and distributor level, effort would be targeted, efficient and very low cost. Non-compliance is easily identifiable and can be swiftly addressed.
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Could support with the following changes	This would be a highly beneficial option across the state that would work everywhere and reduce costs and waste for all involved. Unfortunately, some parties in the past have wanted full preemption of any local government regulation on any food service packaging or products included within "customer opt-in" legislation. State-wide opt-in legislation is not a substitute for local authority and local governments that want more strict standards (such as outright bans, or that condiments if not prepackaged must be recyclable or compostable) must be allowed. The State opt-in should create "a floor" across the state - a minimum. Local government must retain the authority to go further.	
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is	This is critical to ensure responsible recycling and to address equity and environmental justice.	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Could support with the following changes	This is a very important recommendation that is supported as is with a bit of nuance. There are broader roles the State could take on than described. Reuse/refill related businesses and infrastructure need assistance and development, including technical assistance. The economic development aspect is lacking in the text. There are likely roles for Department of Commerce and some reuse//refill businesses likely fit under the purvue of the Recycling Development Center. City of Seattle is approached by businesses looking to partner, to pilot, or for support regarding reuse and refill models at least once per quarter. The Ellen MacArthur Foundation has stated that about 20% of all plastic packaging could be reusable/refillable through design and system changes. It has identified four primary forms for reusable/returnable/refillable packaging: refill at home, return from home, refill on the go, return on the go, and these can also be characterized by refill by business and refill by consumer actions. Most of these possibilities involve business activities. The framing of "study options for future adoption" text should be expanded to include a broader range of packaging than restaurants and food service businesses, though that is a very important sector.	This is a rapidly emerging field that with some nudging, assistance and partnership can flourish. Many entities are looking for pilot locations and partnerships and often come with grant or private funding already intact, but need the cooperation and coordination locally between multiple parties to be able to "launch." State expenditures could be minimal, and more likely what will make a difference is being "open for business" regarding reuse systems. Other benefits that could be offered, such as tax incentives or other economic development assistance should be considered, and may already exist, but need to be expanded in scope to include reuse.

## Draft Recommendations Feedback Form

**Name:** Elizabeth DeWreede  
**Sector:** Member of the Public  
**Organization/Affiliation:**  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs)

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Support as is		
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Support as is		
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Could support with the following changes	Increase the % to 40%.	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is		
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Could support with the following changes	Not sure I understand the plan, but garbage should not go in virgin plastic bags.	
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Support as is		
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Support as is		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is		
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Support as is		

## Beyond Plastics

The report is excellent but needs to make recommendations that focus more on source reduction. We cannot recycle our way out of the the plastic pollution crisis. A greater focus on preventing the manufacturing, use and disposal of plastics is needed.

# Draft Recommendations Feedback Form

**Name:** Pamela Clough  
**Sector:** Advocacy Organization  
**Organization/Affiliation:** Environment Washington  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs) Environment

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Could support with the following changes	Strongly support an EPR policy framework for all packaging. Packaging used by commercial sector (and some of the industrial sector), however, overlaps with residential use packaging and thus should be included. A comprehensive system covering all sectors, where appropriate, will result in stronger outcomes reflecting legislative intent.	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Could support with the following changes	A deposit system for beverage containers--the most valuable type of plastic--should be incorporated into an EPR system, not independently established, as the current financial system for recycling would likely be harmfully disrupted. We would like to let the PRO in the EPR be allowed to decide whether to do a DRS for beverage containers.	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Could support with the following changes	Recycled content requirements should be included for all materials, given the benefits of this approach, not just limited to plastic.	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Could support with the following changes	Because the legislative goal is to reduce plastic packaging, we feel this recommendation should be elevated to be a primary recommendation. EPR will incentivize some waste reduction but bans are often needed in parallel. A key example of reducing plastic packaging would be a ban on styrofoam packaging, which has been demonstrated to be a significant operational problem for MRFs and is also a plastic pollution problem. We should not wait for a national process, many problematic materials are already well known.	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Support as is	A statewide law to require opt-in would save money for businesses and be a big step forward for reducing unnecessary plastic.	
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is		
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Could support with the following changes	Reusable foodservice products should be required for on-premise dining. Case studies show that this saves money for businesses within a year or two and then long-term. Furthermore, financial incentives and technical assistance could spur innovation in this area. Reusable is an important method to reduce packaging and, as written, this recommendation downplays its significance.	

# Draft Recommendations Feedback Form

**Name:** Giovanni Severino  
**Sector:** Nonprofit or Community-Based Organization  
**Organization/Affiliation:** Latino Community Fund of Washington  
**Industry/Issue Area:** (for trade associations, lobbyists, Non-Profit  
 advocacy organizations, nonprofits, and CBOs)

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Support as is	Strongly support an EPR policy framework for all packaging. Packaging used by commercial sector (and some of the industrial sector), however, overlaps with residential use packaging and thus should be included. A comprehensive system covering all sectors, where appropriate, will result in stronger outcomes reflecting legislative intent.	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Support as is	A deposit system for beverage containers--the most valuable type of plastic--should be incorporated into an EPR system, not independently established, as the current financial system for recycling would likely be harmfully disrupted. We would like to let the PRO in the EPR be allowed to decide whether to do a DRS for beverage containers.	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Support as is	Recycled content requirements should be included for all materials, given the benefits of this approach, not just limited to plastic.	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Support as is	Because the legislative goal is to reduce plastic packaging, we feel this recommendation should be elevated to be a primary recommendation. EPR will incentivize some waste reduction but bans are often needed in parallel. A key example of reducing plastic packaging would be a ban on styrofoam packaging, which has been demonstrated to be a significant operational problem for MRFs and is also a plastic pollution problem. We should not wait for a national process, many problematic materials are already well known.	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Support as is	A statewide law to require opt-in would save money for businesses and be a big step forward for reducing unnecessary plastic.	
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is		
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Support as is	Reusable foodservice products should be required for on-premise dining. Case studies show that this saves money for businesses within a year or two and then long-term. Furthermore, financial incentives and technical assistance could spur innovation in this area. Reusable is an important method to reduce packaging and, as written, this recommendation downplays its significance.	

## Draft Recommendations Feedback Form

**Name:** Heidi Sanborn  
**Sector:** Nonprofit or Community-Based Organization  
**Organization/Affiliation:** National Stewardship Action Council  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs) Extended Producer Responsibility and Circular Economy

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Could support with the following changes	1) The legislation should specify how many PROs can operate at a time. 2) It should be clear if it is a for profit or non-profit organization. If a non-profit, it should be a 501(c)3 non-profit. If it is a for-profit, there should be clear transparency and accountability parameters, similar to that of a 501(c)3. 3) There must be a transition plan if the PRO is not meeting the program requirements.	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Could support with the following changes	Consumer deposit money should not controlled by the industry alone, but instead the funds should be put into a trust controlled by the state to ensure there is transparency around the funds. Furthermore, there must be parameters around the trust formation so that other agencies, etc. cannot take funds from the trust.	Due the impacts of COVID-19 on the Beverage Container Recycling Act and redemption centers being unable to collect containers under the program, we recommend the legislation include language about utilizing touch-free and convenient return systems, such as reverse vending machines and bag drop programs.
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Support as is		
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Support as is		
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Support as is		
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is		
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Support as is		

## Draft Recommendations Feedback Form

**Name:** Ben Enticknap  
**Sector:** Nonprofit or Community-Based Organization  
**Organization/Affiliation:** Oceana  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs) Plastic Pollution

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Could support with the following changes	We support an EPR policy framework with an emphasis on plastic packaging. With the goal of reducing plastic packaging waste, the EPR policy must include measurable objectives and incentives for plastic packaging source reduction, not only targets for recovery and increased recycling rates. Recycling and composting alone are not enough to solve the plastics problem; we must reduce the amount of plastic being produced at the source. Packaging used in the commercial sector should be included. A comprehensive system covering all sectors, where appropriate, will result in stronger outcomes reflecting legislative intent.	Source reduction mandate on producers of plastic packaging. This will decrease the amount of funding needed for infrastructure because there will be less waste produced.
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Could support with the following changes	A deposit system for beverage containers--the most valuable type of plastic--should be incorporated into an EPR system, not independently established, to avoid unnecessary duplication of efforts and avoid public confusion. Would also like to see an mandated percentage of beverage containers be reusable/refillable systems.	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Support as is		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is		
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Could support with the following changes	<p>This recommendation should be elevated to be a primary recommendation linked with the overall goal of reducing plastic waste. EPR will incentivize some waste reduction but bans are often needed in parallel. A key example of reducing plastic packaging would be a ban on styrofoam packaging, which creates significant operational problems for material recovery facilities (MRFs) and is also a plastic pollution problem. We strongly disagree with the statement in the report that "Research on policy and technology options from around the world to manage plastic packaging...generally found material- and product-specific bans to be relatively inefficient/ineffective at driving systemic change..." Many plastic bans have been implemented around the country and around the world (e.g. plastic bag bans/ban and levy) with great success and reduction in plastic use.</p> <p>Further, we disagree with the premise that the materials must be "broadly agreed upon through public-private initiative" and that we should wait for the U.S. Plastics Pact to figure this out. This provides an easy out for the plastic industry to delay and block important and necessary prohibitions.</p>	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Support as is	A statewide law to require opt-in would save money for businesses and be a big step forward for reducing unnecessary plastic.	
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is	We also support strengthening the data on what is being sold, distributed and consumed in or into the state.	
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Could support with the following changes	Reusable packaging systems are a great alternative to single-use plastic packaging. This recommendation should be strengthened and elevated. For example, reusable foodservice products should be required for on-premise dining. Case studies show that this saves money for businesses within a year or two and over the long-term. Furthermore, financial incentives and technical assistance could spur innovation in this area. Reusable is an important method to reduce packaging and, as written, this recommendation downplays its significance. Economic incentives for reusables could be built into the EPR program. Further, it will be important to define what is meant by reusable (i.e. by number of uses/washes the packaging or food ware can sustain).	

## Draft Recommendations Feedback Form

**Name:** Anita Kedia Schwartz  
**Sector:** Nonprofit or Community-Based Organization  
**Organization/Affiliation:** PR3  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs) Reuse Standards Development

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Could support with the following changes	EPR Policy Framework should consider the commercial and residential single use packaging formats. Policy would include reusable packaging as a category with the given caveat that the containers must share infrastructure and logistics regardless of producer.	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Could support with the following changes	Considerations for reuse as well as recycling. In the EU, DRS containers can capture single use plastics and cans as well as reusable bottles for refill.	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Support as is	PCR can apply to reusable container formats as well such as durable PET and coffee cups made of durable PPE. Such requirements will create the market pull for more recycled content regardless of single use or refillable formats	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is	Recycled content should also include post-consumer film along side commercial grade film. Managing contamination and ensuring clean collection will be key to including all post use plastic film formats.	
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Support as is	EPR policy should include primary and secondary packaging in eliminating unnecessary plastic packaging.	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Could support with the following changes	Policy should create a minimum requirement for packaging used should the customer opt-in that meets collection and processing capabilities for single use in recycling and composting. Alternatively, the standards could encourage foodservice to utilize reusable packaging that is provided by the foodservice provider and not (only) by the consumer.	Tax incentive can be bolstered for foodservice/ restaurants to adopt reusable packaging along with cost analysis that indicate reductions on procurement of single use (especially compostables) in conjunction with reduced waste costs to the city.
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is	Perhaps a blockchain system to track bales of materials from recycling facilities to processors and then resin production (if plastic) to packaging producers.	
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Could support with the following changes	Many policy initiatives and goals for EPR can be achieved by systemic adoption of reuse packaging. Washington State could be a pilot adoption state that creates the local infrastructure necessary to scale reusable packaging integration. Beginning with post consumer collection DRS systems could facilitate collection, sharing a common logistics network despite the producer of the packaging to a shared local sanitation facility and redistribution channels to food service/ cafes for reuse. These on the ground tactical studies will provide understanding of operational alignment and inform standards to create scale into other product categories.	Grants, Federal stimulus funds, Corporate sponsorship, public/ private partnership

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			The policy implications are to include reuse into recycled content for durable plastic packaging for refill; producer registry and packaging report to account for LCA studies, as well as collection of data on material reprocessing, usage, GHG emissions, and financial impacts along the value chain.	

## Draft Recommendations Feedback Form

**Name:** Bruce Wishart  
**Sector:** Advocacy Organization  
**Organization/Affiliation:** Puget Soundkeeper  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs)

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Could support with the following changes	Strongly support EPR recommendations. The establishment of an EPR is, from our standpoint, the most important improvement the state could make in this area. We would suggest that the program be expanded to include commercial sector.	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Could support with the following changes	We support DRS for beverage containers provided it is merged into the EPR. We are uncomfortable with it as a stand alone in that it would be likely to disrupt the financial viability of the current recycling system.	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Could support with the following changes	While we fully support recycled content standards for plastic packaging, we'd urge you to expand the recommendation for recycled content to include paper and other materials.	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is		
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is		
7	<b>Ban on Problematic and</b>	Could support with the following changes	We strongly support bans and feel that this approach	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
	<b>Unnecessary Plastic Packaging</b>		should be elevated to a Primary Recommendation. For decades, Washington State has been a national leader in the area of banning toxic and other materials that have an adverse impact on the environment, including the passage of what is likely the strongest plastic bag ban in the nation this past session. We disagree with your conclusion that this approach has been "inefficient / ineffective" While product substitution has been issue with some bans, many bans have been very successful in eliminating real threats to the environment. While consensus around these approaches is desirable, we think it is doubtful that we will achieve agreement on many materials.	
<b>8</b>	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Support as is		
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
<b>9</b>	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is		
<b>10</b>	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Could support with the following changes	Reusable foodservice products should be required for on-premise dining. Case studies show that this saves money for businesses within a year or two and then long-term. Furthermore, financial incentives and technical assistance could spur innovation in this area. Reusable is an important method to reduce packaging and, as written, this recommendation downplays its significance.	

# Draft Recommendations Feedback Form

**Name:** Nora Nickum  
**Sector:** Nonprofit or Community-Based Organization  
**Organization/Affiliation:** Seattle Aquarium  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs) Ocean conservation

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Could support with the following changes	Strongly support an EPR policy framework for all packaging, but want it to include commercial and industry, too, not just residential. Commercial (and some industrial) packaging overlaps with residential use packaging, and a comprehensive system will have greater impact.	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Could support with the following changes	Prefer to see this as part of an EPR system, so that bottles--the most valuable type of plastic--are not dealt with separately in a way that makes it hard to get support for an EPR system. We would like to let the PRO in the EPR be allowed to decide whether to do a DRS for beverage containers.	Could reduce expense if the PRO leads DRS decision-making and operation.
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Could support with the following changes	Would like to see recycled content requirements for all materials, not just plastic.	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is	There seems to be a typo on page 27: "Require producers to pay a registration fee [to producers] to cover the costs of developing and overseeing the registry"	
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Could support with the following changes	Support bans on items like styrofoam packaging and other known problematic and replaceable materials. Not keen on a lengthy process to determine the materials to be banned--would be costly, time-intensive, and impact could be reduced if private sector partners have to agree to everything.	Eliminating or streamlining the lengthy public-private process portion would cut down on expense.
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Could support with the following changes	Strongly support the concept, but would rather see the focus on statewide (the report mentions model local ordinances as an alternative, but that route will take much longer to achieve the same impact and will not result in clear, uniform statewide requirements for businesses).	Not a new proposal, just preferring one of the two options laid out in the recommendations--so doesn't affect funding.
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is		
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Could support with the following changes	Require reusable foodservice products for on-site dining. This saves money for businesses, and it is important to reduce packaging. As written, this recommendation downplays the utility of this kind of measure.	

## The Lands Council

The Lands Council appreciates the good work that went into the Plastic Packaging Study. We support the finding, including the Primary Recommendations:

1. Extended Producer Responsibility Policy Framework for All Packaging
2. Deposit Return System for Beverage Containers
3. Recycled Content Requirements for Plastic Packaging

We look forward to the final study and implementation, please keep us informed of progress and next steps.

Sincerely,

Mike Petersen

## Toxic-Free Future

I am re-submitting our comments (attached) so that the links are active in the PDF.  
Thank you, Laurie

September 4, 2020

To Whom it May Concern:

Thank you for this opportunity to comment on the “[Recommendations for Managing Plastic Packaging Waste in Washington](#)” developed in accordance with RCW 70.380.

For more than 30 years, Toxic-Free Future (TFF) has worked to reduce toxics used in plastics, products and packaging due to the hazards they pose to health of workers, communities, consumers and the global environment during production, use, disposal and recycling.

Most recently, TFF worked on:

- Expanding Washington’s [toxics in packaging law](#) to include a [ban on per and polyfluoroalkyl substances \(PFAS\)](#), highly persistent toxic chemicals used widely in paper packaging such as compostable products. The ban is slated to take effect 2022.
- The comprehensive new law, [Safer Products for WA](#), (RCW 70.365), which initially targets classes of chemicals ([PFAS](#), Phthalates, bisphenols, APEs, [flame retardants](#) and PCBs), and gives the Department of Ecology the authority to ban, restrict or require disclosure of these chemicals in products and packaging sold for residential or commercial use. Many of these classes of chemicals are used in plastics (e.g. [BPA/polycarbonate](#), [phthalates in PVC](#)) and other packaging.

Our ultimate goal is for the safest chemicals and cleanest materials to be used to make products and packaging to minimize the impact to health and the environment.

We have the following comments on the recommendations to accomplish this goal:

**1) Adopting Extended Producer Responsibility (EPR) for All Packaging.**

Our biggest concern with this recommendation is that it does not address toxicity of packaging up front. This is especially concerning with respect to plastic packaging given the [enormous volumes of toxic chemicals used to produce plastics](#) and their [associated health hazards](#). The intent of the legislation includes minimizing impact on the environment, however, without clear restrictions on toxic chemicals

that can be used in plastic or other packaging there is no assurance the impact will be minimized. If toxics are not addressed at the very beginning numerous problems can result including:

- **Recycling of harmful chemicals into new products and packaging:** With the recycling of plastic electronic waste, we have seen that toxic flame retardants such as the banned [PBDEs](#), which are linked to decreased IQ and other neurotoxic effects and used in electronics, [can be recycled into other plastic products such as toys](#) or other products where unnecessary harmful exposures to these chemicals continues long past when they are banned.
- **Toxic chemicals could wind up in compost.** With the use of PFAS in paper food packaging that is compostable, there is evidence that [compost can become contaminated](#) with these chemicals that never break down and pose serious threats to our health and the environment. They also leach into drinking water due to their high mobility.

To create incentives for manufactures to use the safest chemicals and cleanest materials in packaging there should be clear criteria for what chemicals to avoid. Washington state has a long history in identifying chemicals of concern and establishing the scientific criteria to serve as the foundation of lists such as the [Chemicals of High Concern for Children’s list](#).

We urge the department to include specific criteria in any EPR legislation that ensures the most harmful chemicals and chemical classes are not used in packaging. This is also consistent with the work of the [Toxics in Packaging Clearinghouse](#). This organization, which is a coalition of state governments, is currently working on [new model legislation](#) to more broadly address toxics in packaging.

Any EPR legislation should include criteria for restrictions on chemicals and chemical classes that have known or suspected hazards to human health or the environment, for example, carcinogens, mutagens, reproductive/developmental toxicants, endocrine disruptors, persistent bioaccumulative toxics, and very persistent/very bioaccumulative toxic chemicals.

**Specific policies and lists of chemicals of concern** that draw on these criteria include:

- Washington’s [Chemicals of High Concern for Children](#);
- Initial list of chemical classes identified in the [Safer Products for WA law](#);
- Maines new law—[Toxic Chemicals in Food Packaging](#); and,
- [GreenScreen List Translator LT-1 chemicals](#).

## **2) Ban on Problematic, Unnecessary Plastic Packaging.**

In addition to restricting substances used packaging, TFF supports banning problematic plastics that are not only harmful due to the toxic chemicals used in production and the potential for chemicals to leach out during use, but also due to the challenges they pose in recycling programs. It is also a key way to reduce unnecessary packaging and waste.

We support immediate bans on the most toxic plastics for packaging, including PVC, polycarbonate, and polystyrene. The Department of Ecology should consider the [Plastics Scorecard developed by Clean Production Action](#) to identify the most toxic plastics. The report card includes an extensive evaluation of the chemical footprint of the plastics. It also uses Green Screen, which is a method the agency already uses to evaluate the hazards of chemicals and identify safer alternatives. The most toxic plastics

identified in the scorecard are also the ones that [Toxic-Free Future urges consumers to avoid](#), choosing less toxic plastics when necessary such as, HDPE, LDPE or PP. However, the ultimate goal should be reduction of the use of plastics.

**3) Concerns Regarding “Chemical Recycling”**

Toxic-Free Future has serious concerns about “chemical recycling” as part of any EPR program. Chemical recycling is being advanced as a solution by the chemical industry, but it has the potential to cause more harm than good, particularly because plastics contain a wide range of toxic chemicals and treating plastic with high temperature creates even more. [A paper by the Global Alliance for Incinerator Alternatives \(GAIA\)](#) raises serious concerns about how toxics can remain in both the products and byproducts, and end up released into the environment as air emissions and toxic residues, especially if outputs are burned.

**4) Recycled Content Requirements for Plastic Packaging**

It is also important to prevent toxic chemicals from ending up in packaging because of recycled content requirements. A study from early 2020 showed more particle contamination in recycled PET (rPET) than in virgin PET.<sup>1</sup> Another study found that the concentration of benzene migrating out of rPET generally increased with higher recycled content and lower quality.<sup>2</sup>

Requirements such as this without any requirements to address toxicity will end up creating other environmental and public health hazard. We strongly recommend that any recycled content requirements include provisions that prevent harmful chemicals in recycled content.

Thank you again for the opportunity to comment. Please contact me at 206-200-2824 if you have any questions or concerns.

Sincerely,

Laurie Valeriano  
Executive Director  
Toxic-Free Future  
206-200-2824. (cell)

<sup>1</sup> <https://www.foodpackagingforum.org/news/properties-of-rpet-containing-bottles>

<sup>2</sup> *Id.*

## Draft Recommendations Feedback Form

**Name:** Heather Trim  
**Sector:** Nonprofit or Community-Based Organization  
**Organization/Affiliation:** Zero Waste Washington  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs) Ngo

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Could support with the following changes	Strongly support an EPR policy framework for all packaging. Packaging used by commercial sector (and some of the industrial sector), however, overlaps with residential use packaging and thus should be included. A comprehensive system covering all sectors, where appropriate, will result in stronger outcomes reflecting legislative intent.	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Could support with the following changes	A deposit system for beverage containers--the most valuable type of plastic--should be incorporated into an EPR system, not independently established, as the current financial system for recycling would likely be harmfully disrupted. We would like to let the PRO in the EPR be allowed to decide whether to do a DRS for beverage containers.	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Could support with the following changes	Recycled content requirements should be included for all materials, given the benefits of this approach, not just limited to plastic.	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Could support with the following changes	<p>Because the legislative goal is to reduce plastic packaging, we feel this recommendation should be elevated to be a primary recommendation. EPR will incentivize some waste reduction but bans are often needed in parallel. A key example of reducing plastic packaging would be a ban on styrofoam packaging, which has been demonstrated to be a significant operational problem for MRFs and is also a plastic pollution problem. We should not wait for a national process, many problematic materials are already well known.</p> <p>I also feel that the language in the text of the document should be edited regarding the ineffectiveness of bans. Bag bans have been shown to be effective. Here is report to the legislature in California about their law:  <a href="https://static1.squarespace.com/static/59bd5150e45a7caf6bee56f8/t/5cdb80e6c8302598e35154ef/1557889257020/SB+270+Report.pdf">https://static1.squarespace.com/static/59bd5150e45a7caf6bee56f8/t/5cdb80e6c8302598e35154ef/1557889257020/SB+270+Report.pdf</a>. In addition, here is a report for the City of San Jose indicating the effectiveness of reduction of environmental impact:  <a href="http://www3.sanjoseca.gov/clerk/CommitteeAgenda/TE/20121203/TE20121203_d5.pdf">http://www3.sanjoseca.gov/clerk/CommitteeAgenda/TE/20121203/TE20121203_d5.pdf</a></p>	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Support as is	A statewide law to require opt-in would save money for businesses and be a big step forward for reducing unnecessary plastic.	
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Support as is		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Could support with the following changes	Reusable foodservice products should be required for on-premise dining. Case studies show that this saves money for businesses within a year or two and then long-term. Furthermore, financial incentives and technical assistance could spur innovation in this area. Reusable is an important method to reduce packaging and, as written, this recommendation downplays its significance.	

## Draft Recommendations Feedback Form

**Name:** Dave Claugus  
**Sector:** Waste or Recycling Service Provider  
**Organization/Affiliation:** Pioneer Recycling Services,LLC  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs)

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Don't support, suggest the following alternative	Pioneer Recycling opposes adoption of a full EPR policy framework that includes all packaging materials. Full EPR programs are considerably more expensive than Washington's current framework. In addition to the existing collections and processing costs, full EPR programs add two additional layers of costs. These extra costs include new producer staff and office space to administer all of the new requirements with an EPR program and new government staff and office space to monitor and regulate the producers. All of these considerable additional expenses, along with the existing costs, will be passed on to WA consumers through higher product prices. In short, with a full EPR framework, Washington residents will pay much more for recycling services than currently.	Plastic producers

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>Additionally, full EPR programs ask producers to run all aspects of the recycling program. This is tantamount to asking the "fox to watch the henhouse". It makes no sense to put plastics producers, who have collectively behaved so irresponsibly in the past, in control of Washington's recycling program and assets. Washington's recycling program should be controlled locally by Washington Municipalities and Counties as it is today.</p> <p>As an alternative to a full EPR policy framework, Pioneer Recycling could be supportive of adopting a "fee only" EPR program for hard to recycle plastic materials (paper &amp; metals would be excluded). This approach would ask plastic producers to pay a fee to sell plastic products in Washington commensurate with both the costs of recycling their products and any potential harm they may cause to the environment. With this framework, the monies collected would be used to subsidize the expense of collecting, and processing the problem materials. An SRO, DOE or a stakeholder group could administer disbursement of the funds collected. Plastic producers would not have responsibility to administer the program or for collecting and processing. This approach would keep the extra costs associated with any EPR program to a minimum and focus the states resources on the root problem of plastics.</p>	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Don't support, suggest the following alternative	<p>Pioneer Recycling is skeptical that a DRS program for beverage containers is in the best interests of Washington residents. This skepticism is rooted in the knowledge that a separate recycling program for beverage containers is very expensive as compared with recycling the same containers in a curbside program. The extra expenses include staff to account for and audit all deposits received and reimbursed, the staff and equipment required to purchase and process the containers separately, and the effective interest cost of holding the consumers funds until the containers are redeemed.</p> <p>Additionally, drastically removing beverage containers from the residential curbside stream will strand existing processing assets across the state due to underutilization of those existing assets. Finally, the lower volume of beverage containers in the curbside streams will lower the average commodity yield and raise processing cost paid by Washington communities by a corresponding amount.</p> <p>If Pioneer's concerns are ignored and a DRS program is proposed, Pioneer is adamant that MRF's receive the same deposit reimbursement as Washington consumers for any covered beverage containers they process (as is the case in California). The reimbursement should compensate the MRF for the stranded assets created by the deposit program and partially offset the commodity revenues lost due to lower volume.</p>	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Support as is		
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Don't support, suggest the following alternative	Include only producers of plastic packaging	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is		
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Support as is		
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Support as is		
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Could support with the following changes	Pioneer Recycling can support this initiative if effective rules to protect the confidentiality of this sensitive business information are included in this proposal.	
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Support as is		

# Draft Recommendations Feedback Form

**Name:** Wendy Weiker  
**Sector:** Waste or Recycling Service Provider  
**Organization/Affiliation:** Republic Services  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs) Private Sector Solid Waste Company

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Don't support, suggest the following alternative	<p>I support transparency in package labeling. It's confusing as to whether materials are made from recycled materials or recyclable. This uncertainty, as well as the cleanliness of the materials leads to contamination which reduces the supply of quality, useful materials that can be recycled into packaging. Misleading labeling requirements developed by the plastics industry have contributed to consumer confusion. The "chasing arrows" are an industry trademark, and do NOT indicate the material is recyclable in any given community, or indeed anywhere in Washington State. I support repealing the chasing arrows requirement and requiring standards to label a product as "recyclable."</p> <p>I agree with WRRRA and strongly oppose a BC modeled EPR system or any system that delegates operational control of an essential public health service to plastics packaging manufacturers.</p> <p>I support stewardship programs that                      (1) Do not disrupt the existing curbside collection system or regulatory structure;</p>	<p>I do not oppose producer funding in the solid waste system but believe funding should be transparent to residents and consumers. Producers should not displace the accountability brought by state and local regulators or the existing regulatory structure.</p> <p>I agree with WRRRA members, that a preferred model for product stewardship should be as a Stewardship Responsibility Organization (SRO) system that is inclusive of the recycling supply chain. The non-profit SRO should be made up of equal representation from state government, local government, recycling collectors, recycling processors, and producers/brands. This is critical to ensure consideration of costs, capacities, and logistics of the entire value chain. The SRO should distribute funds to local governments to support recycling programs.</p>

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>(2) Cover hard-to-handle, specific materials that present challenges to human health and safety in the waste stream (such as sharps or batteries).</p> <p>(3) Full recovery/reimburse the system costs</p> <p>(4) Robust reporting and transparency requirements with government oversight.</p> <p>(5) Consist of environmentally and economically viable recycling and sustainable materials management practices including: (1) Life cycle analysis, (2) Consideration of greenhouse gas reductions, (3) Recycled content in packaging and manufacturing, (4) Recycling market development.</p>	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Don't support, suggest the following alternative	<p>I oppose deposit return systems for beverage containers given that recycling programs are in part funded by selling collected materials. Since many of those materials now have a negative value they no longer cover the costs of the program.</p> <p>A bottle bill will remove many of the few remaining materials with value from our curbside recycling programs. Bottle bills can also operate as a windfall for the beverage association to the detriment and cost of our recycling programs.</p> <p>Reducing contamination in the waste stream, harmonizing program lists, better consumer education, and enhanced transparency in plastic labeling will improve recycling rates for beverage containers.</p>	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Support as is	Without markets, there can be no recycling. I support voluntary and required Post-Consumer Recycled (PCR) in plastics packaging to promote recycling market development. PCR will create markets for recyclables. Real recycling requires that recyclable materials replace virgin feedstocks in manufacturing.	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is	Beverage containers are most commonly made from plastic using resins #1 and #2 which have value and are widely recyclable. Like WRRRA, I support PCR requirements for products and packaging.	
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Don't support, suggest the following alternative	I don't generally support bans on use or disposal.	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Support as is		
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Could support with the following changes	<p>I support transparency and enhancements in the recycling system. Customers should know what they're paying for and be made aware of the ultimate destination of their waste and recyclables. New reporting requirements for recycling facilities should apply to all facilities, including those that process C&amp;D.</p> <p>Washington also needs more timely, actionable, and publicly accessible (while protecting proprietary) data to help inform policy deliberations/decisionmaking, program management/development, and ultimately evaluation to determine impacts.</p> <p>I believe further stakeholder work on this topic is critical so feasible proposals with industry and MRF operators can be developed in this area.</p>	N/A

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Support as is	Programs should promote sustainable materials management practices, including life-cycle analysis, to make data driven decisions. The new and evolving impacts of the covid pandemic (reusables vs single use plastics) should also be taken into consideration.	

# Draft Recommendations Feedback Form

**Name:** Brad Lovaas  
**Sector:** Trade Association or Lobbyist  
**Organization/Affiliation:** WRRRA  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs) Private Sector Solid Waste Industry Trade Association

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Don't support, suggest the following alternative	<p>WRRRA opposes a full EPR policy framework for reasons discussed in our comments on the Task 3 Report. WRRRA will reference and attach those comments to this form and provide an update to a study performed by the West Coast Refuse &amp; Recycling Coalition referenced in those comments.</p> <p>The legislative goals of the packaging study can be met within the existing regulatory structure.</p> <p>WRRRA has supported harmonizing recycling program material lists and shared a list developed by Washington's Municipal Solid Waste Material Recovery Facility (MRF) operators. This will help reduce confusion on what goes in the recycling bin and thus reduce contamination in the waste stream.</p> <p>WRRRA supports recycled content mandates for products and packaging. More so than any other policy, developing strong markets for Washington's recyclables will ensure the long term environmental and economic sustainability of Washington's excellent recycling system.</p>	<p>WRRRA does not oppose producer funding in the solid waste system. However, producer funding should be transparent to residents and consumers. Solid waste collection is an essential service. Producers should not displace the accountability brought by state and local regulators or the existing regulatory structure.</p> <p>The preferred model for product stewardship should be as a Stewardship Responsibility Organization (SRO) system that is inclusive of the recycling supply chain. The non-profit SRO should be made up of equal representation from state government, local government, recycling collectors, recycling processors and producers/brands. This is critical to ensure consideration of the entire value chain. The SRO should distribute funds to local governments to support recycling programs.</p>

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>Many materials collected through the waste stream have retained values. Plastic packaging made of resins #3, #4, #6, and #7 are difficult to recycle, but represent less than 1% of the waste stream. Recycled content mandates will create markets for this material or phase out these forms of packaging if they cannot be produced with recycled material.</p> <p>WRRRA supports honesty in packaging labeling. Contamination in the waste stream also reduces the supply of quality materials that can be recycled into packaging. Misleading labeling requirements developed by the plastics industry have contributed to consumer confusion. Washington's current plastics packaging label statute RCW 70.95F requires that all plastic packaging identify the type of plastic used, industry standard resin code used (good), but also requires the "chasing arrows" recyclable symbol on plastics packaging. The "chasing arrows" are an industry trademark, and do NOT indicate the material is recyclable in any given community, or indeed anywhere in Washington State. WRRRA supports repealing the chasing arrows requirement and requiring standards to label a product as "recyclable." Washington adopted a similar law for compostables in 70.360 RCW in 2019.</p> <p>WRRRA strongly opposes a BC modeled EPR system or any system that delegates operational control over an essential public health service to plastics packaging manufacturers.</p> <p>WRRRA may support stewardship programs that                      (1) Do not disrupt the existing curbside collection system or regulatory structure; or</p>	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>(2) Cover hard-to-handle materials that present challenges to human health and safety in the waste stream (such as sharps or batteries).</p> <p>Stewardship programs for materials already collected through curbside programs must have:</p> <ul style="list-style-type: none"> <li>(1) Full reimbursement for current system costs,</li> <li>(2) Clear, continued inclusion of curbside collection under the existing regulatory structure, and</li> <li>(3) Government oversight with robust reporting and transparency requirements.</li> </ul> <p>Stewardship programs must also promote environmentally and economically sustainable recycling and sustainable materials management practices including: (1) Life cycle analysis, (2) Consideration of greenhouse gas reductions, (3) Recycled content in packaging and manufacturing, (4) Recycling market development.</p>	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Don't support, suggest the following alternative	<p>WRRRA opposes deposit return systems for beverage containers.</p> <p>Recycling programs are in part funded by selling the collected materials. Many of those materials now have a negative value and are costing programs instead of funding them. A few materials, including aluminum cans and beverage bottles made from plastics #1 and #2 have retained stronger values and continue to support Washington's recycling programs. A bottle bill will remove many of the few remaining materials with value from our curbside recycling programs.</p>	Additional funding mechanisms are unnecessary for beverage containers. These materials are usually made from plastics using resins #1 and #2. These materials are widely recyclable, generally help fund programs, and are collected through most curbside programs.

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>Bottle bills can also operate as a windfall for the beverage association at the cost of our recycling programs. In 2018 (the only year with available data due to lack of transparency), the Oregon Beverage Recycling Cooperative stewardship organization kept \$28 million in unclaimed deposits. Over the years, this represents hundreds of millions of dollars that could have been invested in improving recycling.</p> <p>Many communities in Oregon and California have also raised concerns regarding the location of redemption centers as well as homeless issues. An Oregon Department of Environmental Quality survey reports that over half of property managers interviewed identified the use of waste collection areas by non-tenant scavengers, citing the retrieval of returnable containers as the motivation for non-tenants to access the collection areas. This often results in contamination of recyclables and the need to clean the waste collection area.</p> <p>Reducing contamination in the waste stream, harmonizing program lists, better consumer education, and honesty in plastic labeling will improve recycling rates for beverage containers.</p>	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Support as is	WRRRA supports voluntary and required Post-Consumer Recycled (PCR) in plastic packaging to promote recycling market development. PCR will create markets for recyclables. Recycling requires markets. Real recycling requires that recyclable materials replace virgin feedstocks in manufacturing. Without markets, there can be no recycling.	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is	As previously discussed, beverage containers are most commonly made from plastic using resins #1 and #2 which have value and are widely recyclable. WRRRA supports PCR requirements for products and packaging. Recycled content requirements for difficult to recycle packaging and packaging made using resins #3, #4, #6, & #7 are more important candidates for PCR requirements.	
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Don't support, suggest the following alternative	WRRRA does not generally support bans on use or disposal. However, strong PCR requirements will naturally phase out problematic and unnecessary packaging that is difficult to produce using recycled materials.	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Support as is		
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Could support with the following changes	<p>WRRRA supports transparency in the recycling system. Customers should know what they pay and the ultimate destination of their waste and recyclables. New reporting requirements for recycling facilities should apply to all facilities, including those that process Construction &amp; Demolition Debris.</p> <p>Washington also needs more timely data. Crucial data in the plastic quantities report comes from a 2016 Waste Characterization Study. The most recent Waste generation and recovery data from the Department is from 2017. The underlying data needs to be timely and publicly accessible to be useful in decision-making.</p>	N/A

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>Reporting requirements must protect proprietary information. WRRRA requests further stakeholder work on the topic to develop a proposal with industry and MRF operators.</p>	
10	<p><b>Support Development and Adoption of Reusable Packaging Systems</b></p>	<p>Support as is</p>	<p>Programs should promote sustainable materials management practices, including life-cycle analysis, to make data-driven decisions.</p> <p>The Department's recommendations should consider the new paradigm established by COVID-19 for reusables vs. single use plastics.</p>	

# Draft Recommendations Feedback Form

**Name:** Rod Whittaker  
**Sector:** Trade Association or Lobbyist  
**Organization/Affiliation:** WRRRA  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs) Private Sector Solid Waste Industry Trade Association

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Don't support, suggest the following alternative	<p>WRRRA opposes a full EPR policy framework for reasons discussed in our comments on the Task 3 Report. WRRRA will reference and attach those comments to this form and provide an update to a study performed by the West Coast Refuse &amp; Recycling Coalition referenced in those comments.</p> <p>The legislative goals of the packaging study can be met within the existing regulatory structure.</p> <p>WRRRA has supported harmonizing recycling program material lists and shared a list developed by Washington's Municipal Solid Waste Material Recovery Facility (MRF) operators. This will help reduce confusion on what goes in the recycling bin and thus reduce contamination in the waste stream.</p> <p>WRRRA supports recycled content mandates for products and packaging. More so than any other policy, developing strong markets for Washington's recyclables will ensure the long term environmental and economic sustainability of Washington's excellent recycling system.</p>	<p>WRRRA does not oppose producer funding in the solid waste system. However, producer funding should be transparent to residents and consumers. Solid waste collection is an essential service. Producers should not displace the accountability brought by state and local regulators or the existing regulatory structure.</p> <p>The preferred model for product stewardship should be as a Stewardship Responsibility Organization (SRO) system that is inclusive of the recycling supply chain. The non-profit SRO should be made up of equal representation from state government, local government, recycling collectors, recycling processors and producers/brands. This is critical to ensure consideration of the entire value chain. The SRO should distribute funds to local governments to support recycling programs.</p>

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>Many materials collected through the waste stream have retained values. Plastic packaging made of resins #3, #4, #6, and #7 are difficult to recycle, but represent less than 1% of the waste stream. Recycled content mandates will create markets for this material or phase out these forms of packaging if they cannot be produced with recycled material.</p> <p>WRRRA supports honesty in packaging labeling. Contamination in the waste stream also reduces the supply of quality materials that can be recycled into packaging. Misleading labeling requirements developed by the plastics industry have contributed to consumer confusion. Washington's current plastics packaging label statute RCW 70.95F requires that all plastic packaging identify the type of plastic used, industry standard resin code used (good), but also requires the "chasing arrows" recyclable symbol on plastics packaging. The "chasing arrows" are an industry trademark, and do NOT indicate the material is recyclable in any given community, or indeed anywhere in Washington State. WRRRA supports repealing the chasing arrows requirement and requiring standards to label a product as "recyclable." Washington adopted a similar law for compostables in 70.360 RCW in 2019.</p> <p>WRRRA strongly opposes a BC modeled EPR system or any system that delegates operational control over an essential public health service to plastics packaging manufacturers.</p> <p>WRRRA may support stewardship programs that                      (1) Do not disrupt the existing curbside collection system or regulatory structure; or</p>	

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>(2) Cover hard-to-handle materials that present challenges to human health and safety in the waste stream (such as sharps or batteries).</p> <p>Stewardship programs for materials already collected through curbside programs must have:</p> <p>(1) Full reimbursement for current system costs,                      (2) Clear, continued inclusion of curbside collection under the existing regulatory structure, and                      (3) Government oversight with robust reporting and transparency requirements.</p> <p>Stewardship programs must also promote environmentally and economically sustainable recycling and sustainable materials management practices including: (1) Life cycle analysis, (2) Consideration of greenhouse gas reductions, (3) Recycled content in packaging and manufacturing, (4) Recycling market development.</p>	
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Don't support, suggest the following alternative	<p>WRRRA opposes deposit return systems for beverage containers.</p> <p>Recycling programs are in part funded by selling the collected materials. Many of those materials now have a negative value and are costing programs instead of funding them. A few materials, including aluminum cans and beverage bottles made from plastics #1 and #2 have retained stronger values and continue to support Washington's recycling programs. A bottle bill will remove many of the few remaining materials with value from our curbside recycling programs.</p>	Additional funding mechanisms are unnecessary for beverage containers. These materials are usually made from plastics using resins #1 and #2. These materials are widely recyclable, generally help fund programs, and are collected through most curbside programs.

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>Bottle bills can also operate as a windfall for the beverage association at the cost of our recycling programs. In 2018 (the only year with available data due to lack of transparency), the Oregon Beverage Recycling Cooperative stewardship organization kept \$28 million in unclaimed deposits. Over the years, this represents hundreds of millions of dollars that could have been invested in improving recycling.</p> <p>Many communities in Oregon and California have also raised concerns regarding the location of redemption centers as well as homeless issues. An Oregon Department of Environmental Quality survey reports that over half of property managers interviewed identified the use of waste collection areas by non-tenant scavengers, citing the retrieval of returnable containers as the motivation for non-tenants to access the collection areas. This often results in contamination of recyclables and the need to clean the waste collection area.</p> <p>Reducing contamination in the waste stream, harmonizing program lists, better consumer education, and honesty in plastic labeling will improve recycling rates for beverage containers.</p>	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Support as is	WRRRA supports voluntary and required Post-Consumer Recycled (PCR) in plastic packaging to promote recycling market development. PCR will create markets for recyclables. Recycling requires markets. Real recycling requires that recyclable materials replace virgin feedstocks in manufacturing. Without markets, there can be no recycling.	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is	As previously discussed, beverage containers are most commonly made from plastic using resins #1 and #2 which have value and are widely recyclable. WRRRA supports PCR requirements for products and packaging. Recycled content requirements for difficult to recycle packaging and packaging made using resins #3, #4, #6, & #7 are more important candidates for PCR requirements.	
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Don't support, suggest the following alternative	WRRRA does not generally support bans on use or disposal. However, strong PCR requirements will naturally phase out problematic and unnecessary packaging that is difficult to produce using recycled materials.	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Support as is		
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Could support with the following changes	<p>WRRRA supports transparency in the recycling system. Customers should know what they pay and the ultimate destination of their waste and recyclables. New reporting requirements for recycling facilities should apply to all facilities, including those that process Construction &amp; Demolition Debris.</p> <p>Washington also needs more timely data. Crucial data in the plastic quantities report comes from a 2016 Waste Characterization Study. The most recent Waste generation and recovery data from the Department is from 2017. The underlying data needs to be timely and publicly accessible to be useful in decision-making.</p>	N/A

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
			<p>Reporting requirements must protect proprietary information. WRRRA requests further stakeholder work on the topic to develop a proposal with industry and MRF operators.</p>	
10	<p><b>Support Development and Adoption of Reusable Packaging Systems</b></p>	<p>Support as is</p>	<p>Programs should promote sustainable materials management practices, including life-cycle analysis, to make data-driven decisions.</p> <p>The Department's recommendations should consider the new paradigm established by COVID-19 for reusables vs. single use plastics.</p>	

## Draft Recommendations Feedback Form

**Name:** Matt Stern  
**Sector:** Waste or Recycling Service Provider  
**Organization/Affiliation:** Waste Management  
**Industry/Issue Area:** (for trade associations, lobbyists, advocacy organizations, nonprofits, and CBOs)

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
<b>Primary Recommendations (intended to be implemented as a package or in combination and cover all packaging, not just plastic)</b>				
1	<b>EPR Policy Framework for All Packaging</b>	Don't support, suggest the following alternative	WM may support brand-funded mechanisms to support recycling when local control, existing infrastructure and franchises are protected. A system that recognizes and uses existing infrastructure and investments while maintaining local control and contracts/franchises may be worth considering as a funding option for sustainable recycling. WM opposes EPR schemes that relinquish control of recycling programs to producers in exchange for the producers taking on the costs of recycling. Recyclers have invested hundreds of millions of dollars in Washington State infrastructure to produce one of the best, most effective curbside residential programs in the nation.	Waste Management does not support producer run EPR for curbside residential recycling. Producer run EPR is simply a mechanism to shift the cost of recycling to consumers. In the report, Recommendations for Plastic Packaging in Washington State, the authors acknowledge that EPR has NEVER been implemented to address demand. Why do the authors think it will here? EPR is simply a funding source.
2	<b>DRS for Beverage Containers (part of or separate from EPR)</b>	Don't support, suggest the following alternative	We recommend the existing system with the reports that would be required in the interim recommendation. Beverage containers provide a critical revenue source for Washington recyclers. Removing them will have dire consequences for the recycling system.	
3	<b>Recycled Content Requirements for Plastic Packaging</b>	Support as is	We support a phased approach to allow supply and demand to grow together.	
<b>Interim Recommendations (could be implemented on their own as a first step toward adoption of the full suite of primary recommendations)</b>				
4	<b>Producer Registry and Packaging Reporting</b>	Support as is		

#	Recommendation	Support/Don't support	Suggested change or alternative to recommendation that meets legislative goals	Sustainable funding source or mechanism for your change/alternative
5	<b>Recycled Content Requirements for Plastic Beverage Containers</b>	Support as is	See above line 3.	
<b>Complementary Recommendations (complementary to primary recommendations but narrower in scope)</b>				
6	<b>Recycled Content Requirements for Trash Bags</b>	Support as is		
7	<b>Ban on Problematic and Unnecessary Plastic Packaging</b>	Could support with the following changes	Waste Management generally does not take a position on bans of packaging. Before banning material, there must be an alternative that has equal to or better environmental attributes.	
8	<b>Standard for Customer Opt-In for Foodservice Packaging &amp; Accessories</b>	Support as is		
<b>Recommendations for Agency Action (cover agency activities that should not require legislative action to implement)</b>				
9	<b>Strengthen Data Collection on Final Destinations of Materials Sent for Reprocessing</b>	Could support with the following changes	WM will provide basic information to our government customers. Markets for recyclables are competitive. We would like to find ways to share this information, but in a confidential manner.	
10	<b>Support Development and Adoption of Reusable Packaging Systems</b>	Support as is		

# Appendix I. Other Public Comments Received

**Table 7 Summary of Public Comments Received Via Study Public Comment Page**

#	Date received	Organization	Content Summary
1	3/20/2020	EPA Region 10	Comments considering tribal participation in any producer responsibility program developed as part of legislation.
2	6/15/2020	Washington Refuse & Recycling Association	Comments on Task 3 report Successful Plastic Packaging Management Programs and Innovations.
3	8/3/2020	Consumer Healthcare Products Association	General comments about the Study related to consumer healthcare products.
4	8/14/2020	International Bottled Water Association & Northwest Bottled Water Association	Comments on Task 3 report Successful Plastic Packaging Management Programs and Innovations.
5	8/14/2020	Washington Refuse & Recycling Association	Comments on Task 2 report Recycled Content Use in Washington: Assessing Demand, Barriers, and Opportunities
6	8/17/2020	Consumer Brands Association	Comments on Task 3 report Successful Plastic Packaging Management Programs and Innovations.
7	8/18/2020	Dan Dunne (member of the public)	Comment in support of a single-use plastic bag ban.
8	8/25/2020	Steve Gilmore (member of the public)	Comments on Task 1 report Plastic Packaging in Washington: Assessing Use, Disposal, and Management.
9	8/26/2020	EPS Industry Alliance	Comments on Task 1 report Plastic Packaging in Washington: Assessing Use, Disposal, and Management.  <i>***Some of these comments included in this letter arose from a misunderstanding about data and calculations included in the report. Cascadia has included its responses and clarifications following the respective areas of misunderstanding, which were provided to the EPS Industry Alliance in an</i>

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Date received	Organization	Content Summary
			<i>email exchange on August 27. The EPS Industry Alliance provided some additional data on expanded polystyrene recycling, which Cascadia subsequently used to update the <a href="#">Task 1 report</a>.</i>
<b>10</b>	8/26/2020	Washington Refuse & Recycling Association	Comments on Task 1 report Plastic Packaging in Washington: Assessing Use, Disposal, and Management.
<b>11</b>	9/4/2020	Advanced Medical Technology Association	General comments about the Study related to medical technology and the need for industry consultation.
<b>12</b>	9/4/2020	Oregon Beverage Recycling Cooperative	Comments to address and correct information and assertions submitted by other entities regarding DRS, specifically related to the system in Oregon.

Full comments are included in the following pages.

## **U.S. EPA**

Please consider from the start of the study research and writing how to make it possible for tribes within WA to opt in. The otherwise successful WA tire take back program had some awkwardness around participation of tribes that took a while to resolve.

I understand that there are 3 tribes participating in some of the relevant work groups.

I believe that Washington is looking closely at the British Columbia model and that all of the First Nations in BC opted in to their program, so that may provide a useful parallel.

It is likely that careful attention to wording and definitions will allow for a smooth opt in option.



WASHINGTON REFUSE & RECYCLING ASSOCIATION

June 15, 2020

Solid Waste Management Program  
Department of Ecology  
300 Desmond Drive SE  
Lacey, WA 98503

To Whom It May Concern:

The Washington Refuse and Recycling Association (WRRA) is the oldest Solid Waste Trade Association operating on the West Coast of the United States, founded 69 years ago. WRRA represents the private sector solid waste and real recycling industry in Washington, from curbside collection service, state of the art recycling facilities, to landfills. WRRA member companies and the solid waste industry serve a vital role in public health, safety, and environmental protection.

Our members work in their communities every day and provide essential services. Washington's solid waste system is a successful public-private partnership. Washington's regulated and municipal solid waste system provides for excellent service, has consistently beat the national recycling rate by double digits, and creates family wage jobs— all at a transparent and affordable price.

Thank you for the opportunity to comment on this report. Since the beginning of the recycling market crisis, WRRA has stood at the forefront providing information, market updates, stakeholder feedback, and policy solutions. WRRA has participated in the many stakeholder groups established by DOE and worked closely with legislators and other stakeholders on legislation that resulted in this report.

At the outset, the report does not appear to meet the statutory requirements of RCW 70.380. Ultimately, the report lacks consideration of many issues raised by WRRA and other industry stakeholders throughout this process and includes little discussion of existing service providers in crucial sections of the report.

In these comments, WRRA will elaborate on the following high-level concerns with the report:

- The report does not identify costs and benefits to existing service providers as required by statute and excludes the solid waste industry in key stakeholder sections.
- The report fails to raise important questions regarding Extended Producer Responsibility (EPR) and fails to articulate true costs and impacts to consumers and stakeholders.
- The report does not address key sources critical of EPR programs, including a [report](#) Commissioned by the West Coast Refuse & Recycling Coalition (WCRRC) on the British Columbia EPR system and a [2020 study](#) by York University (discussed in more detail below).
- The Report does not examine the issue within the new paradigm brought by COVID-19 related to essential services and single-use plastics.

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Web: [www.wrra.org](http://www.wrra.org) • E-Mail [info@wrra.org](mailto:info@wrra.org)

- The Report does not address how goals can be met within the existing system.

**I. Concerns from existing service providers are underrepresented and not included in key stakeholder sections:**

**A. The report does not fulfill the statutory obligation to identify costs and benefits to businesses affected by the policy:** RCW 70.380.020(5) defines stakeholder as “a person who may have an interest in or be affected by the management of plastic packaging.” Existing waste and recycling service providers are perhaps more affected by the management of plastics packaging than any other stakeholder group for one reason: they actively manage it. WRRRA members collect and process the majority of plastics packaging in Washington and process the material at their MRFs.

- RCW 70.380.020(1)(a)(iv) requires an assessment of “Costs and savings to all stakeholders in existing product stewardship programs where they have been implemented...” The report does not include a discussion of costs to existing service providers impacted by EPR or the transition to an EPR system.
- An analysis of costs to existing service providers could include lost revenue/business due to changes in regulatory structure or contracts, lost investments in equipment and facilities, new required investments in equipment and facilities, legal fees, cost of transition, etc.
- In most cases in Washington, private sector solid waste and recycling services must be provided under a certificate granted by the WUTC or pursuant to a municipal contract. The report fails to address costs to existing service providers.

**B. The report does not include any representation from existing service providers under Potential EPR Advisory or Management Organizations:** Over 20 government, non-profit, trade associations and industry groups are listed among candidates for advisory or management positions under an EPR framework. Many have no true role in oversight, operations, or the solid waste industry. None of the listed organizations represent private sector stakeholders that actually provide waste or recycling services.

**II. Extended Producer Responsibility Discussion:**

Sections that address EPR programs fail to raise important issues and questions. The report and recommendations should raise and address the following issues:

**A. The consumer ultimately pays, probably twice, under EPR:** The report fails to meaningfully explain that the consumer still pays under EPR with statements like “EPR programs are a means of ensuring that the “polluter pays” principle is applied to waste management.” This statement is fundamentally misguided. Manufacturer’s simply pass on the cost of EPR programs to consumers. In many EPR programs, these costs are not transparent and simply embedded in the cost of every product purchased.

- The report glosses over costs to consumers in stating “... EPR programs move the end-of-life management costs for targeted materials from municipalities and ratepayers/taxpayers to producers and consumers.” This fails to recognize that the ratepayers *are* the consumers that EPR shifts costs to— albeit without the transparency of a bill at the end of the month.
- EPR may result in savings to municipalities, but at the expense of their residents. If an EPR program does not require proportionate cost decreases to residents, then consumers

will pay twice for the same service they get today— and no longer know how much they truly pay for the same service.

- A recent study estimates that a 100% EPR program for printed paper and packaging will increase the cost of groceries and packaged products by 5-7% ([York University](#)).

**B. EPR is effectively a regressive sales tax increase on essential goods with disproportionate impacts on those least able to pay.** Much of the plastic packaging in the waste stream comes from essential goods like food, paper products, and medicine. These essentials all become more expensive to account for the built-in cost of the EPR program. Washington's tax system is one of the most regressive in the nation with the 4<sup>th</sup> highest sales tax. EPR operates effectively as a sales tax increase that will disproportionately affect those least able to afford it on almost every essential purchase.

**C. With EPR, residents that do not receive service through the EPR program still pay for it:** EPR embeds the cost of service into every product purchased that comes in packaging covered by the program. In the case of BC and other EPR programs, stewardship organizations do not provide universal service to all residents. However, the residents of underserved communities must still pay for the program in all covered products/packaging they purchase, even when the program refuses to serve their community.

- Under Washington's existing system, solid waste collection companies must provide universal service to all and the cost is spread across the rate base to keep costs affordable for all. A UTC regulated company cannot pick and choose customers. The report fails to consider how small and rural communities will receive the service they pay for under an EPR program.

**D. Accountability, Transparency, Local Control:**

- EPR programs delegate essential public services to packaging industry-controlled operations that set their own policy, practices, and prices. EPR programs are typically managed by stewardship agencies, under the control of industry groups, with a structure that gives "the force of law" to their policies.
- EPR lacks accountability. Local authorities traditionally fund and operate solid waste systems. Local governments are directly accountable to their residents and subject to the public records act.
- In Washington, rates are approved by the UTC or negotiated through contracts with municipalities. Currently, residents receive a bill at the end of their billing cycle. In UTC regulated areas, each service is included as a separate line item. Under EPR, residents will not know what they pay as costs are embedded in covered products/packaging and manufacturers have an unlimited ability to recover costs.
- BC's EPR program has been regularly criticized for its lack of transparency with regard to system costs, what residents really pay, true recovery rates, and destination of materials ([WCRRC Report](#)).

**E. Contrary Sources & Product Design:** The report fails to give due consideration to sources critical of EPR frameworks. Two particularly important sources are ignored, [a 2019 report](#) commissioned by the WCRRC, authored by national expert Chaz Miller and a [2020 York University Report](#) by Dr. Calvin Lakhan. Key findings from these reports are summarized below:

- **WCRRC Miller Report**
  - The report points to a lack of transparency, which makes it nearly impossible to evaluate the program’s true cost, effectiveness or the recycling rates that result.
  - Manufacturers pass on the costs of EPR to their customers as a cost of doing business.
  - BC’s program “actively discriminates against lightweight products that are hard to recycle, but still have a lower environmental footprint than their recyclable competitors.”
  - BC’s EPR system adopts a recycle-only approach to material management that is uninterested in achieving the lowest environmental footprint.
  - For many communities, EPR does not cover their full costs. As a result, the true costs of recycling are underestimated.
  - **Product redesign:** EPR has not led to packaging redesign. Even EPR advocates concede this fact. For instance, the Organization for Economic and Cooperation and Development’s review of EPR in 2015 sadly confirmed that design for the environment improvements attributable to EPR have been few in number and anecdotal at best.”
  
- **York University Report**
  - Program costs have increased by approximately 26%, while program performance (measured as % tons diverted) has increased by 1%.
  - Despite increases in service coverage, total collected recycled tons remains unchanged, while tons of material sent for disposal is increasing.
  - Increases in the cost of recycling printed paper and packaging is ultimately born by the consumer. It is estimated that a 100% EPR program for printed paper and packaging results in a 5-7% increase in the cost of groceries and packaged products for the average household.
  - There is no evidence that shows a steward led EPR program will lead to either increased recycling or cost containment.

### **III. The scope of the report was determined before the new paradigm introduced by COVID-19, and lacks consideration of crucial new issues.**

- A. Single-Use Plastics:** The conversation around single-use plastics and reusables must consider new factors brought about by the pandemic. These issues are still evolving, and many governments have already changed policies. More study on this issue is necessary as more information becomes available. Industry and mainstream reporting capture the issue:
- <https://www.wastedive.com/news/coronavirus-single-use-plastic-bag-reusables-health/575353/>
  - <https://www.foodpackagingforum.org/news/covid-19-challenging-epr-and-single-use-legislation>
  - <https://www.wired.com/story/coronavirus-pandemic-recycling-crisis/>
- B. Essential Service:** COVID-19 has also illustrated the importance of essential services and workers. In March of 2020, UTC regulated solid waste collection companies quickly moved to amend tariffs and add new language to maintain maximum continuity of service during the public health crisis. Delegation of an essential service away from government to board of industry consultants requires additional consideration now.

**IV. Recycling can be improved, and goals can be met under the existing regulatory structure.**

WRRRA supports a multi-faceted approach to managing plastics packaging within the existing regulatory structure. More so than any other policy, developing strong markets for Washington’s recyclables will ensure the long term environmental and economic sustainability of Washington’s excellent recycling system. Mandated post-consumer recycled content (PCR) in packaging will create markets for recyclables. Education, outreach, and other contamination reduction will ensure our recyclables retain their value. Honesty in plastic packaging labeling will help reduce consumer confusion. All of these policies, and more, can be accomplished within the time-tested regulatory structure.

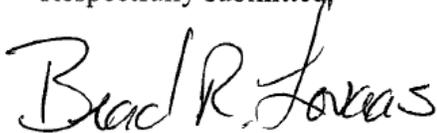
EPR will not dramatically improve recycling. Plastic packaging made of resins #1 and #2 is collected through most curbside recycling programs and the materials have markets. Plastics #3-7 lack markets and represent less than 1% of the waste stream by weight and less than 0.1% of greenhouse gas (GHG) reductions from recycling. Nearly 90% of GHG reduction benefits from recyclables collected through municipal solid waste systems are from fiber (including paper and old corrugated cardboard or OCC). The increased system costs of collection and processing marginal materials requires substantial investment with almost no measurable environmental benefit ([See 2018 Waste Management Sustainability Report](#)). An EPR program will not change these basic realities.

The plastic packaging industry should not have operational control over Washington’s solid waste system. A recent PBS Frontline investigation titled “Plastic Wars” delved into the history of plastics recycling in the United States. In the late 80s and early 90s, concern was growing over single-use plastics and the packaging industry undertook a national lobby effort. The goal: brand single use plastic packaging as recyclable and thus environmentally friendly. Washington adopted RCW 70.95F, which requires the “chasing arrows” or “recyclable” symbol on plastics packaging in 1991 along with similar statutes in states across the nation at the time. This has led to widespread consumer confusion while producers continue to ignore recyclability in product design. The plastic packaging industry has continued to produce difficult to recycle packaging without purchasing the material back to create markets.

Washington is already a national leader in diverting materials from our landfills. Real recycling is much more than diversion at the curb, and a report from BC financial institutions estimates that the total diversion rate for BC was 40% in 2016. The Department of Ecology estimates that the comparable number for Washington was 47.59% in 2016. Washington is already surpassing BC’s rate and has a more sophisticated and transparent reporting system.

Product stewardship programs that help create markets for recycled material can help ensure the long-term sustainability of Washington’s recycling system. EPR programs that would replace Washington’s existing system and take away local government control of essential public services and give control to industry groups will undermine Washington’s excellent solid waste and recycling system.

Respectfully submitted,



Brad R. Lovaas

Executive Director

July 31, 2020

Solid Waste Management Program  
Department of Ecology  
300 Desmond Drive SE  
Lacey, WA 98503

Dear Sir or Madam:

On behalf of the Consumer Healthcare Products Association (CHPA), the national trade association representing the leading manufacturers of over-the-counter (OTC) medications, dietary supplements, and consumer medical devices, I'd like to thank you for the opportunity to comment on the plastic packaging study being conducted pursuant to the Washington Plastic Packaging Evaluation and Assessment law.

The consumer healthcare products industry is strongly committed to advancing more sustainable practices and supports the intended goal of minimizing environmental impacts created by plastic packaging in the state of Washington. However, the issue is challenging and it is important to understand the role of packaging for pharmaceuticals and medical devices and the already existing federal regulations governing the industry's packaging approaches, before attempting to mandate changes to current packaging selection. The packaging of these products is very complex and highly regulated by the FDA to ensure the safety, quality, and stability of the products sold.

In other state policy measures to minimize the environmental impact of plastic packaging, no state has thus far included medical devices or medications - nonprescription or otherwise - in their packaging initiatives. Even states that have contemplated legislation have included some form of exclusion for medications and medical devices from packaging requirements in their bills. They have done so after considering the existing regulatory framework for medication packaging, and the role packaging plays in the distribution and ultimate use of medications and devices by consumers.

**Medication Packaging**

OTC drugs in the United States, much like prescription drugs and medical devices, must meet the Food and Drug Administration's (FDA) extensive standards for safety and effectiveness before they can be introduced in the marketplace for consumer access. For OTC drugs with ingredients introduced since the late 1980s, these extensive standards are identical for OTC and prescription drugs. But even for older OTC active ingredients, FDA has extensively reviewed their safety and effectiveness and has detailed requirements for labeling and tamper-evident packaging. FDA carefully evaluates the use of all OTC medications as their use does not involve the intervention of a healthcare professional, thus requiring a wider margin of safety than

prescription drugs. OTC product labeling and packaging must include Drug Facts information for consumers to properly use the medication. These rules are in place to ensure consumer protection and to maintain medication integrity.

#### **OTC Medications Are Meant to Be Stored**

Unlike many other consumer goods, OTC medications are meant to be contained within the original product packaging until the medication is no longer in use and properly disposed. When consumers purchase OTC medications and dietary supplements, they store them in their medicine cabinets, and use them as necessary. Throughout the product's life cycle, the medication or dietary supplement being used by a consumer remains in the package in which it was originally sold. This is critically important because consumers refer to Drug Facts information, including intended uses, dosing information, and any necessary Warnings related to the active drug ingredient. And this packaging must protect the product's stability throughout its expiration date. In some cases, the available space to provide mandated information is limited, thus limiting existing packaging options could hinder the capacity of manufacturers to convey critical safety information to consumers.

#### **Plastic Packaging Helps Prevent Tampering and Child Access**

The Poison Prevention Packaging Act, enacted in 1970, is intended to prevent children from exposure to household products, including many drugs and certain cosmetics. The Consumer Product Safety Commission has the authority to require child-resistant packaging and has done so for many drugs. This packaging overwhelmingly involves plastic packaging. Therefore, it would be technologically unfeasible for manufacturers of these items to alter their packaging due to the standards, including testing, they must meet for child-resistant packaging under federal law.

Similarly, under FDA requirements, all ingested OTC drugs must include tamper-evident packaging to help protect consumers against malicious tampering of products. Tamper-evident packaging most frequently involves plastic packaging features which are removed after the consumer brings the product home. In that instance, where the tamper-evident package element could be removed and discarded, it is an essential and federally required aspect of the package and should be exempt from any state regulatory mandate.

#### **Package Changes Are Multi-Year Endeavors**

Changes to packaging materials are not undertaken lightly, as they require testing, validation, and stability studies prior to introduction. All of these are subject to FDA's current Good Management Practice (GMP) regulations, which apply to all medical devices, drugs – prescription and OTC. Ultimately, all packaging must remain “suitable” from the perspective of protecting the product, compatibility, and safety. Frequently, multiple iterations of testing are needed to determine package functionality and acceptability to meet these criteria. Steps involved can include:

- Design development
- Prototype tooling
- Industrial scale-up for packaging and validation
- Stability testing
- Regulatory submissions to FDA or CPSC (e.g., for ingredients approved under a new drug application, abbreviated new drug application, or to address child-resistant packaging requirements).

Apart from this timeline, which can exceed 18 months, some materials may not be suitable replacements, requiring additional rounds of testing and design. Furthermore, packaging changes can be extremely expensive, which negatively impacts the affordability of the products that cost a consumer an average of \$7-\$8 per unit/box.

#### **Covid-19 Considerations**

The current Covid-19 pandemic has illustrated the importance of self-care achieved in part by utilizing OTC medications and dietary supplements. Now more than ever, consumers have been empowered to address their health by relying on OTC treatments and limiting unnecessary visits to primary care centers and hospitals. The enhanced reliance on self-care highlights the critical role that packaging of pharmaceuticals and dietary supplements plays in ensuring consumer safety. Packaging for OTC drugs, dietary supplements, and consumer medical devices communicates vital information about the product educating consumers on dosing, directions for use, and any necessary warnings. Any recommended change to existing medication and dietary supplement packaging rules should consider the current public health environment as well as any potential unintended negative consequences associated with mandated changes before moving forward with a particular mandate.

#### **Current Sustainability Efforts**

Many manufacturers are demonstrably committed to environmentally responsible operations and already have recycling and sustainability efforts in place, while remaining compliant with federal law. In 2018, Johnson & Johnson's Consumer Health Division signed on as a charter member of the New Plastics Economy Global Commitment. In doing so, Johnson and Johnson Consumer Health has pledged to use more recycled materials in packaging, reduce reliance on single-use model, and ensure that 100% of plastic packaging be reusable, recyclable or compostable by 2025, excluding pharmaceutical/OTC blister packages.<sup>1</sup>This new commitment is the latest in a legacy of company efforts to reduce their footprint through initiatives like [Earthwards®](#) approach to sustainable product innovation, inclusion of

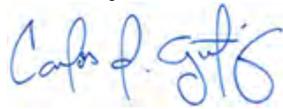
<sup>1</sup> <https://www.jnj.com/latest-news/johnson-johnson-consumer-inc-joins-the-new-plastics-economy-global-commitment>

[How2Recycle®](#) labels on packaging and the [Care To Recycle®](#) program, which helps address consumer behavior that has contributed to historically low recycling rates for personal care products. Procter & Gamble (P&G) has a 2020 sustainability goal to reduce packaging by 20% per consumer use. P&G also announced an initiative titled Ambition 2030 which sets a goal for the company to ensure 100% of their packaging will be recyclable or reusable by 2030. Several other large-scale manufacturers have programs in place to accomplish similar sustainability goals.

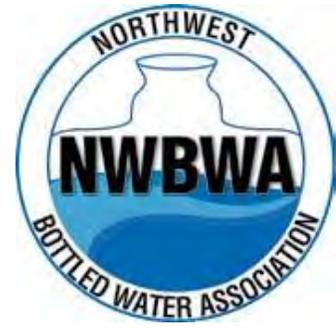
Packaging for pharmaceuticals, dietary supplements, and medical devices is a very complex and highly regulated space that forces manufacturers to take into account several factors beyond just the aesthetic appeal of the package itself. A federal framework guiding the industry's packaging is already in place, and for decades has served the public interest well. For this reason, we strongly recommend your package recommendations pursuant to the Washington Plastic Packaging Evaluation and Assessment law, exempt pharmaceuticals, medical products and dietary supplements from its scope.

Thank you for taking the time to consider our concerns and feel free to contact me directly with any follow up questions you may have.

Sincerely,

A handwritten signature in blue ink that reads "Carlos I. Gutiérrez". The signature is fluid and cursive, with the first name "Carlos" and last name "Gutiérrez" clearly legible.

Carlos I. Gutiérrez  
Vice President, State & Local Government Affairs  
Consumer Healthcare Products Association  
Washington, D.C.  
202.429.3521  
cgutierrez@chpa.org



**Comments on First Task-Level Sub Report (Phase 3) and  
Second Task-Level Sub Report (Phase 2)**

**issued by**

**Washington Department of Ecology  
Plastics Packaging Study Stakeholder Group**

**International Bottled Water Association  
and**

**Northwest Bottled Water Association**

**August 14, 2020**

The International Bottled Water Association (IBWA)<sup>1</sup> and the Northwest Bottled Water Association (NWBWA)<sup>2</sup> appreciate this opportunity to submit comments on the first task-level sub-report (Task 3), *Successful Plastic Packaging Management Programs and Innovations*, and the second task-level sub-report (Task 2), *Recycled Content Use in Washington: Assessing Demand, Barriers, and Opportunities*. IBWA submitted answers to many of the questions posed on the online survey for first task-level sub-report and these comments will encompass many of the ideas shared in those answers.

These comments will first review several of the areas covered in the first task-level sub-report exploring each of the policies discussed in the report and thoughts of the bottled water industry. Each policy has its pros and cons and we request that the stakeholder group consider how these policies will impact local business and industry as a framework for plastic waste reduction is best determined. We will then provide some additional comments on the second task-level sub-report as recycled content use is an issue the bottled water industry has been closely involved with in many states over the last few years. Please note that IBWA and CBWA did not provide answers to every question posed on the survey for the first task-level sub-report as we did not believe we had adequate information to supply sufficient answers.

<sup>1</sup> The International Bottled Water Association is the trade association representing all segments of the bottled water industry, including spring, artesian, mineral, sparkling, well, groundwater and purified bottled waters. IBWA's mission is to serve our members and the public by championing bottled water and other healthy hydration choices, while promoting an environmentally responsible and sustainable industry. IBWA represents bottled water bottlers, distributors and suppliers throughout the United States, including several small, medium and large size companies doing business in Washington.

<sup>2</sup> The Northwest Bottled Water Association (NWBWA) is the association of the bottled water industry in the Pacific Northwest of the United States. NWBWA represents a wide range of companies from small, family owned businesses to large corporations. NWBWA's objective is quality through education, communication and legislation.

**Comments on the first task-level sub-report (Task 3), *Successful Plastic Packaging Management Programs and Innovations***

**Material/Disposal Bans**

IBWA and NWBWA do not believe that banning the use of plastics for packaging, especially PET and HDPE, is either worthwhile or productive. Bans on disposal of such items could be useful as long as they are communicated and enforced properly. Diversion of these materials away from landfills and into correct recycling streams is vital in continuing their reuse. However, contamination of collected waste and recycling materials is a problem and hinders the ability of these collection programs to operate efficiently. Education is a key component to ensure that consumers understand what materials are recyclable, how to properly discard of them, and the benefits of doing so.

Banning the use of PET and HDPE plastics are a concern for a few important reasons.

- Bans do not teach people how to recycle properly. For example, just because a local community or state decides to ban the sale of a product made with PET or HDPE packaging material doesn't mean the product won't be available for a consumer to purchase in a neighboring community or state. Once that product is used and needs to be properly disposed of, the local or state system won't be able to correctly process the product and that material loses its value and ends up going to a landfill.
- Many materials used for packaging, especially when made with PET or HDPE, when disposed of properly, are reused in numerous ways. Whether it is to make new packaging or repurposed into a new product, this material is utilized after its initial use.
- PET and HDPE plastics are a valuable commodity for many communities that rely on the recycling of these materials as a financial resource. Reclaimers and communities that provide recycling services can utilize money earned from recycling programs to better enhance these programs and educate consumers.

**Fees/Charges/Taxes/Levies**

IBWA and NWBWA oppose any fee placed on a product simply due to its packaging. While any type of fee/charge/tax/levy can be used to support necessary recycling infrastructure, this only works if it is assessed on a broad range of products that promotes equity. IBWA and NWBWA oppose any fee placed on a product simply due to its packaging.

IBWA believes that certain principles are essential in addressing tax policy relative to the bottled water industry or any products packaged in plastic. Broad-based taxes, rather than industry or product specific taxes, are a more stable and thus more predictable source of government funding. The purpose of tax policy should be to encourage economic development while raising the revenue necessary to fund necessary government programs and services. The bottled water industry is willing to fund its fair share of taxes, along with the rest of the business community. However, taxes that target only bottled water or a specific type of packaging are unlikely to be a substantial or stable source of revenue for government funding and are inherently unfair. IBWA believes that only through broad based taxes can government establish a stable, predictable source of revenue for funding programs and services for citizens. IBWA supports measures that treat all taxpayers equitably.

## Extended Producer Responsibility

IBWA and NWBWA believe that EPR programs for PET and HDPE plastics are unwarranted as these recycled plastics are already in high demand and manufacturers are already using rPET and rHDPE in their products.

Should a program be considered, IBWA and NWBWA approach packaging and recycling issues in a manner emphasizing the most effective and efficient solutions to reduce the strain on the environment, while considering the equal responsibility of all stakeholders, including consumers. IBWA and NWBWA believe that locally run, comprehensive recycling programs are the best method of cost-effectively diverting solid waste from landfills and increasing recycling of consumer products and packaging.

The following principles should apply to any Extended Producer Responsibility Program:

1. Minimize Environmental Footprint - Recycling program(s) should collect recyclables in a manner that minimizes the environmental footprint and does not create inefficient energy or natural resource use.
2. Comprehensive and cost efficient - Recycling program(s) should seek to collect recyclables in a cost-effective manner and provide the maximum opportunity, through ease of participation in multiple venues, for consumers to recycle a broad range of products and packaging.
3. Achievability - Recycling program(s) should have reasonable and specific recycling rates goals (e.g., % increase in rate over X yrs, % of households covered within X years, etc.), and these goals should be measured and evaluated on a regular basis.
4. Consumer Involvement - Recycling program(s) should include components that educate and motivate consumers to purchase products that are recyclable and recycle those products after use.
5. Equitable Cost Sharing - Responsibility for the cost burden of any recycling program should be shared by government (municipalities for curbside and state government for other programs), consumers and industry. Recycling program funds should be dedicated solely for the use of supporting recycling efforts.
6. Flexible and Industry Led – Flexibility is critical to ensure the continued viability of any material recovery program, as it allows member participants and the government to react to changes in the market. Any partnership formed to oversee and lead the program must include a majority of brand owners participating in the program, and these brand owners will constitute a majority of the governing board.

IBWA and NWBWA believe that EPR programs should focus on packaging that does not yet have efficient recycling streams. Both PET and HDPE plastics have specific and relatively mature recycling infrastructure currently in place as demand already exists for these recycled plastics (rPET and rHDPE) in the market. Creating an EPR structure for these recycled plastics is duplicative and inefficient.

IBWA and NWBWA believe that EPR programs for PET and HDPE plastics are unwarranted as these recycled plastics are already in high demand and manufacturers are already using rPET and rHDPE in their products. In addition, any EPR system that places the burden completely on producers will upset the current recycling market and harm industry. No recycling system can function without equal support from consumers, government, and producers.

## **Deposit Return System for Containers**

IBWA and NWBWA believe that any system that works to provide manufacturers with access to material that can be utilized for packaging, whether that be new (virgin) material or recycled material, is worthwhile of being considered a component of a recycling and/or manufacturing stream. We recommend the following areas be addressed when any new deposit program is being considered or changes are being made to any existing program:

### *Designing the administration of the program for greater efficiency*

A program should be designed with an administration that establishes a cooperative organization that is managed by a third-party, non-state entity that includes industry participation. It should include an educational component to address proper recycling process and goals. There should be an evaluation by the management entity of what containers would be covered (types and materials), redemption fee, handling and processing fees, industry commitments, state support, etc. to ensure an effective and efficiently run program. Equitable financial arrangements should be established to ensure that manufacturers, consumers, recyclers, and end users are all providing support to operate a successful program.

### *Reducing contamination*

A strong effort to reduce contamination of recycled materials is essential to making any program valuable to end users. This should include increased ability for reclaimers to refuse products based on contamination, necessary consumer education on recycling streams, standardization of quality control and increase oversight of recycling processing to better ensure proper sorting of materials, and funding to provide access to the latest technology. Also, municipalities need to have additional leverage when negotiating hauling and recycling contracts with industry that can ease contamination requirements. Lastly, flexibility in how containers are returned, whether it be through bag drops, mobile return stations, redemption centers, curbside, and at retail locations, should be included in any bottle deposit program.

### *Addressing fraud and abuse*

The biggest issue with most redemption programs is fraud. Every state that has a deposit program is losing money to fraud and spending money on trying to curtail that fraud. Increased oversight of the system is paramount to ensuring fraud reduction and control. Some states have already implemented regular audits of the system, redemption centers, and distributors to ensure compliance, examine efficiency, and deter fraud. Penalties need to be at levels that deter repeat offenses and establishing appropriate daily limits on return amounts can also limit attempts to defraud the system. Finally, deposit initiation should occur at the time of retail sale. This will improve the collection of deposits on interstate shipments and reduce the possibility of products that are sold to distributors in non-deposit states being sold to stores in deposit states at a reduced cost that undercuts their competitors. In addition, transparency is crucial for any bottle deposit program. Regulatory entities should be required to post reported data so there is visibility on how much material is being collected, via what methods, and on all costs associated with operating the program. This includes how the program uses unclaimed funds, discussed in more detail below.

*Ensuring handling and other fees are utilized to make the program more effective*

One of the major differences in the various deposit programs throughout the US is the fees beyond the actual deposit. Handling fees and other industry focused fees can make the actual cost of being part of a deposit system more than double the actual deposit amount. Applying a more uniform system of fees across all states and utilizing technological enhancements to keep costs at a minimum for processing and handling fees will ease the burden on business. Determining fees need to consider several factors including: true cost of handling the material; type of material; recovery rate; market demand; and program management.

*Use of unclaimed deposits to support the program and recycling infrastructure*

Unclaimed deposits should be used to support the bottle deposit program by offsetting industry costs and investing in recycling education, collection, and recycling infrastructure. Whether the program is administered by a third party or by the state, it is critical to ensure adequate funding for all these efforts on an ongoing basis. Because the redemption rate in a state may vary from year-to-year, the annual amount of unclaimed deposit money available to operate the program may be uncertain. For example, if the redemption rates increase beyond a certain percentage, that will significantly reduce the unclaimed deposit funds available to efficiently operate the program. If that happens, the state should provide additional funds needed to run the program.

Lastly, Certain bottle deposit programs operate more efficiently and effectively than others. Generally, the material returned via redemption is better quality and less contaminated than that being returned through a more generic recycling program or single-stream program. With some systems, such as California's, communities rely upon grants from money raised from unclaimed deposits to help increase the viability and efficiency of an existing recycling program or help to support funding for new programs.

While deposit programs do have the capabilities of providing increasing numbers in terms of redemption and recycling, there are several areas where they struggle. This includes fraud and abuse, unreasonable handling fees, unclaimed deposits, and contamination in the recycling stream. In addition, IBWA would have concerns with any bottle deposit program proposal that does not include, at a minimum, elements suggested above.

**Minimum Recycled Content Requirements**

IBWA supports reasonable recycled content requirements based on market data and effective dates that allow enough time for manufacturers to comply. There are several factors that should be addressed when potentially instituting a mandate on the use of recycled rPET and rHDPE:

- Adequate time for recyclers to supply enough recycled content. Mandates cannot start right away and usually at least 2-3 years is needed to allow the market to adjust.
- Achievable mandates based on market data. The starting mandate should be set at a level to not shock the market and cause dysfunction. In addition, should all bottlers face a mandate, rPET and rHDPE supply will greatly diminish. Mandates should gradually increase over a sufficient period of time to allow for the market to meet demand. Also, the rPET and rHDPE markets are not the same, and any mandate should consider supply differences between the two.
- No two plastic recycled content markets are alike. A responsible recycled content mandate would take in to account the differences between the PET and HDPE markets and use data to determine the appropriate mandates for each. In addition, preliminary information suggests that taste and odor become major impediments for using rHDPE at a level of 35% or higher.

- Prioritization of access to high quality, food grade recycled plastics. Under a recycled content mandate, bottlers will have to meet a mandated percentage use requirement while many other PCR users will not. Bottled water producers facing a mandate should have priority access to high quality, food grade recycled plastics. Otherwise, a mandate will effectively reduce the recycled plastics supply available and dramatically increase costs to the beverage industry, while creating a competitive advantage to those not under a mandate who use recycled plastics.
- Ensure that safeguards are included so that when market dysfunction occurs (e.g., not enough recycled content available to meet a mandate), the policy is not punitive to manufactures who cannot access needed recycled content supply. These safeguards should include lowering or removing the mandate or not enforcing a penalty during time when market cannot provide adequate supplies of recycled content.
- Percentage mandates should be based on the aggregate use of recycled content across all product brands and lines within the company.
- Penalties based on the amount the manufacturer falls short of meeting a specific percentage mandate and not for every product placed in the market. For example, should a manufacturer only achieve 8.5% use of recycled content in attempting to meet a 10% mandate, the manufacturer should only be penalized on the 1.5% shortfall.
- Reporting requirements for all market participants. Requiring usage data from just those manufacturing bottled water or other beverages only shows a partial picture of how the program is working and what may need to be altered to ensure its success. Data should be gathered from other market participants, include MRFs, other processors, and recycled content suppliers. Collecting market data relating to how much recyclable material is collected and how much is then produced into food-grade recycled resins would be helpful in determining the potential impact of any mandate.
- Statewide preemption is an important part of any statewide recycled content mandate. Consistency across the state will help with compliance and the market can better adapt to one set of expected mandates.
- Protecting data collected in any reports submitted to the State by manufacturers and ensuring its privacy.

### **Multi-Faceted Measures**

Any multi-faceted measure should include programs only if they have been tested and verified as successful within any given marketplace. While deposit programs and curbside recycling have coexisted in many states, they each suffer from the success of the other. An improper mix of any multiple programs could cause market disruption, a lack of direction regarding specific recycling requirements and needs for any given material, and significant confusion among consumers. Any multi-faceted program being proposed, could include a bottle deposit program as described above and/or a recycled content mandate that is reasonable and based on market data. The burden of any EPR-type program that is included in a multi-faceted approach should be shared among all participants, including consumers, government and business.

The implementation of any one program can have a significant cost to the industry. The dangers of a multi-faceted approach is that it can create significant market disruption and thus do more harm than good. Any multi-faceted measure(s) must be carefully designed with thought given to how one program may interact with another in order to ensure optimal functionality across all programs.

### **Expanded Mechanical Recycling for Additional Resin Types**

There are technology limitations that need to be overcome for this to be realized. Mechanical recycling is not feasible for all combinations of materials used for packaging applications. Packages that are made by using two or more polymers (either as a single layer or multiple-layers) cannot be recycled with existing infrastructure. Additionally, mechanical recycling equipment/processes are not efficient in handling all the variety of packages (film, bottles, etc.) for the same polymer. Lastly, though the resin type is same, there can be and will be significant differences in material chemistry from application to application. Mechanical recycling cannot accommodate all of them to produce a single end product. This could mean having separate streams or processes for each, which will make the recycling less efficient and more costly. Before enforcing laws to improve recycling, it is necessary that significant investments are made to develop the technologies needed.

### **Polymer-to-Monomer Chemical Recycling**

Chemical recycling technologies, especially polymer-to-monomer, will be very useful to address the concerns related to plastics in waste stream. Those technologies will be helpful in addressing the challenges related to mechanical recycling if expanding recycling to additional resin types. Any new technology will be costly and less efficient to begin with, but with enough research support, they will be available at scale to address the challenges with plastic waste.

### **Polymer-to-Monomer Fuel Recycling**

This can be somewhat useful, especially for difficult to recycle plastics or for plastics that are very expensive to make back to the same material. Breaking down to fuel (waxes, grease, lubricants, etc. or other options) could be a solution so there is value extracted from the materials rather than left in the environment or landfills.

### **Comments on the second task-level sub-report (Task 2), *Recycled Content Use in Washington: Assessing Demand, Barriers, and Opportunities***

The information provided in the second task-level sub-report (Task 2), *Recycled Content Use in Washington: Assessing Demand, Barriers, and Opportunities* is in line with what the bottled water industry and others have been hearing and working to address over the last few years. Supply remains the biggest barrier to successfully developing a recycled content market for plastic beverage containers. Even prior to the damage inflicted on the recycling and reclamation process by COVID-19, there are large areas of the country that would struggle greatly with trying to establish any type of recycled content mandate due to major supply concerns.

While efforts in California have been ongoing on this topic and are continuing during the final stages of the 2020 session, it looks as the long-term goals of the CA proposal (50% recycled content use by 2030) will most likely be extremely difficult to achieve. While some major manufacturers of beverages worldwide have made pledges to use large amounts of recycled content in their plastic beverage containers, many who have taken a closer look at the CA market question whether or not these pledges are feasible. What California has going for it that no other state does is that that the state is home to two of the country's largest recycled plastic reclaimers.

This and many of the other arguments mentioned in the study have been addressed in the section of this document that provides insight to the bottled water industry's concerns on recycled content mandates (see pages 5 and 6). Quality of material, price difference, geography, implementation timeline and necessary financial resources are all vital components of establishing a reasonable and achievable recycled content mandate.

All of the suggested opportunities provided in the report require a significant financial and time investment. Hope for a sustainable recycled content manufacturing and use program will require a combination of many technical and policy advances suggested in the Task 2 report. Increasing quality and quantity are by far the most important components in developing a successful program. Some of the proposals offered in the first task-level sub-report (Task 3), *Successful Plastic Packaging Management Programs and Innovations*, can work to support this need. However, each of those programs has pitfalls and problems.

Even with a massive influx of funding to jump start these programs, they will require extended periods of time to have an impact that can be measured and provide the quality and quantity of feedstock necessary to ensure that any level of mandated use of recycled content can be successfully met. The comparison included in the Task 2 report of the national paper and California garbage bag recycled content requirements is erroneous as it is not comparable to the needs of the beverage manufacturing industry. Recycled papers and plastic bags are not food grade materials and do not have to be a higher grade to be reused in recycled packaging. To the contrary, recycled plastics that will be used in food packaging and come into direct contact with the food product must be approved by the U.S. Food and Drug Administration. Recycled papers. This is a unique scenario as the beverage industry currently loses about 80 percent of its bottles to downcycled purposes (e.g., film, strapping, textiles) and is not remade into high-grade food packaging. If all plastic bottlers were available to recycle into new bottles for beverages, then the comparison to the recycled paper and plastic bag programs would be appropriate. But the reality of the situation is quite dissimilar. Not all bottles that are recycled are currently reused as new bottles, and the industry's ability to access high quality, food grade recycled content is greatly reduced.

Education is essential to supporting any efforts to fully develop a recycled content market and should come in several forms. This includes working to fight contamination, understanding the importance of proper recycling, and a basic knowledge of what manufacturers are actively and regularly using recycled content in their products.

IBWA and CBWA welcome the opportunity to work with the Department and the state in determining the best course to develop needed recycling markets and how those will influence any future plans for the use of recycled content in plastic beverage containers.



WASHINGTON REFUSE & RECYCLING ASSOCIATION

August 14, 2020

Solid Waste Management Program  
Department of Ecology  
300 Desmond Drive SE  
Lacey, WA 98503

Solid Waste Management Program:

The Washington Refuse and Recycling Association (WRRA) is the oldest Solid Waste Trade Association operating on the West Coast of the United States, founded 73 years ago. WRRA represents the private sector solid waste and real recycling industry in Washington, from curbside collection service, state of the art recycling facilities, to landfills. WRRA member companies and the solid waste industry serve a vital role in public health, safety, and environmental protection.

Our members work in their communities every day and provide essential services. Washington's solid waste system is a successful public-private partnership. Washington's regulated and municipal solid waste collection system provides for excellent service, has consistently beat the national recycling rate by double digits, and maintains family wage jobs in every community in which we operate— all at a transparent and affordable price. We have an obligation to serve and to provide universal service as directed by the state and local governments.

Thank you for the opportunity to comment on Task 2 research report on recycled content use in Washington. Recycling is not broken and Washington's time-tested solid waste system has achieved excellent results. The barriers and challenges presented by the Department of Ecology's study on plastic packaging have identified many improvements that can and be accomplished within the existing regulatory structure. Additional processing capacity is coming online across the United States, as discussed in two reports from The Northeast Recycling Council (NERC) attached to these comments. Washington and WRRA members do not lack the capacity to collect, process, and market recyclables.

Overall, the report represents a useful survey of plastics manufacturing in Washington and raises important questions about barriers to the expanded use of recycled content. Plastic packaging producers make decisions based on many factors – cost, performance, advertising, etc – whether the material is recyclable or has post-consumer recycled content has not been a high priority in manufacturer decisions. Many of the concerns/barriers raised appear to stem from the decision to produce harder to recycle packaging out of difficult to recycle materials.

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Web: [www.wrra.org](http://www.wrra.org) • E-Mail [info@wrra.org](mailto:info@wrra.org)

WRRRA members collect, process, and market materials at Washington's state of the art Material Recovery Facilities (MRFs). Our members report an oversupply of many materials collected through the waste stream, particularly plastics #3, 4, 6 and 7 in clamshell and other difficult to recycle designs. If easy to recycle materials never enter the waste stream in the first place, the materials cannot be recovered.

WRRRA offers the following comments/recommendations on barriers to the use of recycled content and other issues raised by the report:

- **Lightweight/Difficult to recycle packaging:** The lack of supply of recovered high quality recyclable plastic in the waste stream is in great part due to the decisions of manufacturers. Plastic packaging producers have moved away from widely recyclable packaging (usually using plastic resins #1 and 2) in favor of lighter weight, but difficult to recycle packaging (usually made using plastic resins #3, 4, 6, and 7). Lightweight difficult to recycle packaging displaced larger quantities of recyclable packaging in the waste stream.
  - Necessary recyclable materials are only present at reduced volumes because plastic packaging producers stopped designing for recyclability. If more packaging uses widely recyclable materials (plastics #1 and 2, cardboard, etc.), more will be recovered through the waste stream.
- **Contamination/Confusion/Labeling:** Contamination in the waste stream also reduces the supply of quality materials that can be recycled into packaging. The reasons for contamination are numerous, but a significant portion is attributable to consumer confusion. Misleading labeling requirements developed by the plastics industry have contributed to consumer confusion.
  - Washington's current plastics packaging label statute RCW 70.95F requires that all plastic packaging identify the type of plastic used, industry standard resin code used (good), but also requires the "chasing arrows" recyclable symbol on plastics packaging. The "chasing arrows" are an industry trademark, and do NOT indicate the material is recyclable in any given community, or indeed anywhere in Washington State.
  - A recent PBS Frontline investigation titled "[Plastic Wars](#)" delved into the history of plastics recycling in the United States. RCW 70.95F and similar statutes across the nation are the result of national lobby efforts by plastic packaging manufacturers following growing concern over single-use plastics. The national lobby effort's goal: brand single use plastic packaging as recyclable and thus environmentally friendly. The reality is that many single use plastics are NOT recyclable given today's markets and the costs of sorting small items in mechanical recycling systems. Washington adopted RCW 70.95F in 1991, many states adopted similar laws at the same time.
- **Cost compared to virgin resin:** Recycling is not free and it never has been. Real recycling requires that recyclable feedstocks replace virgin materials in manufacturing. These costs are borne by the ratepayer on the collection side and the producer on the manufacturing side.
  - Mandating PCR in products and packaging will improve markets for collected recyclables and spur investment in the system to recover more material. Mandating PCR will also help phase out difficult to recycle packaging. If more plastics #1 and 2 enter the waste stream, more will be recovered. Supply will increase over time and help prices decrease.

- PCR mandates also remove disincentives to using PCR based on market forces. Mandates can help overcome market pressure on manufacturer's to stop using PCR when oil prices drop and virgin plastic resin becomes cheaper.
- **Recycled content minimums and design guidelines:** As previously discussed, lightweight packaging made of difficult to recycle resins/form factors have displaced highly recyclable packaging made from resins #1 and 2. Requiring PCR in products and packaging will have a twofold impact: it will phase out materials/designs that cannot meet recycled content requirements and it will increase the supply of high quality recyclable materials in the waste stream over time as more packaging is produced with readily recyclable materials and designs.
- **Increasing collection volumes and quality through policy:** Recycling programs are in part funded by selling the collected materials. Many of those materials now have a negative value and are costing programs instead of funding them. A bottle bill/deposit program will take away many of the most valuable materials from already struggling recycling programs.
  - A few materials, including aluminum cans and beverage bottles made from plastics #1 and 2 have retained strong values and continue to support Washington's recycling programs. A bottle bill/deposit program will remove many of the few remaining materials with value from our curbside recycling programs. Local governments and service providers will have less money to fund recycling programs without those materials.
  - In other states, bottle deposit programs have resulted in windfalls for beverage manufacturers at the expense of recycling programs. In Oregon, residents pay a deposit on every container they purchase. The beverage industry in Oregon keeps any unclaimed customer deposits and that money is not reinvested in improving recycling. In 2018, the amount of unclaimed deposits was estimated at \$29 million per year that could be reinvested in recycling programs. (Link to Sources: [ORBC Report](#), [KTVL: Medford News](#))

### Summary/Conclusion

- Several of the barriers found by the report are the result of a self-fulfilling prophecy brought about by plastic packaging producers. Easily recyclable materials and resins are present in the waste stream at reduced quantities because producers stopped making easily recyclable packaging using virgin resin. If producers begin to design for recyclability in packaging, the materials will be present at greater volumes in the waste stream.
- Confusion over what should be collected through our recycling system also results in materials lost due to contamination. Washington's plastic labeling laws confuse and mislead consumers, resulting in contamination and lost material.
- Washington has the capacity to collect, market, and process recyclables successfully. Our recycling programs need strong markets and to collect materials with value. NERC estimates:

1.1 billion pounds of additional scrap plastic processing capacity coming on-line through the planned and completed projects. This capacity spans numerous polymers, both post-consumer and post-industrial, with LDPE having the most planned capacity, according to NERC. “The bulk of growth is taking place in the western part of North America, NERC noted, with six projects in California, one in Nevada and one in British Columbia. (Links to Sources: [Resource Recycling](#), [NERC Plastics Capacity Report](#), [NERC Paper Capacity Report](#)).

- More so than any other policy, creating strong markets for our recyclables will ensure the long-term environmental and economic stability of our recycling programs. In the 2020 Legislative session, WRRRA supported two pieces of PCR legislation. SB 5323 banned retailers from using plastic bags and requires paper bags include 40% recycled material. HB 2722 required PCR content in beverage containers beginning at 10% in 2022 and increasing to 50% by and after 2030. Governor Inslee ultimately vetoed HB 2722 to preserve funds for Washington’s COVID-19 response. WRRRA views mandated post-consumer recycled content requirements in products and packaging as a crucial policy moving forward.

Respectfully submitted,

A handwritten signature in black ink that reads "Brad R. Lovaas". The signature is written in a cursive, flowing style.

Brad R. Lovaas

Executive Director

## MARISSA GOLISON

Please see attached for Consumer Brands Association's comments on Washington state's plastic packaging study.

August 17, 2020

Solid Waste Management Program  
Department of Ecology  
300 Desmond Drive SE  
Lacey, WA 98503

Department of Ecology:

The Consumer Brands Association (Consumer Brands)<sup>1</sup> appreciates the opportunity to provide comments on Washington State's Plastic Packaging Study.

Consumer Brands champions the industry whose products Americans depend on every day. From household and personal care products to food and beverage products, the consumer packaged goods (CPG) industry plays a vital role in powering the Washington state economy, contributing \$45.6 billion to its GDP and 454,000 jobs. Consumer Brands advocates for uniform regulatory frameworks established from risk-based science that promote choice and build consumer trust across the sectors we represent.

Consumer Brands supports the objectives and scope of the plastics packaging evaluation and assessment. From conversations we've had with stakeholders across the packaging value chain through the [Recycling Leadership Council](#), it's clear that better data of material flows will inform which policy interventions can have the most impact on improving the recycling system. We commend Washington State's legislators and Department of Ecology for including the study and comment period as an important step in the process towards developing legislation.

The CPG industry is committed to packaging sustainability. Through packaging design, innovation, research and development, CPG companies are leading the way in reducing waste-to-landfill and improving the environmental footprint of packaging. In fact, all of the 25-largest CPG companies have made voluntary public commitments to recyclable or compostable packaging or to using increased recycled content by 2030, some as early as 2025<sup>2</sup>. From shampoo bottles made from ocean plastic to toothpaste tubes made from paperboard, this sector is dedicated to innovative solutions that minimize packaging waste.

<sup>1</sup> Formerly the Grocery Manufacturers Association.

<sup>2</sup> Reduce. Reuse. Confuse. How Best Intentions Have Led to Confusion, Contamination, and Broken Recycling System in America: [https://consumerbrandsassociation.org/wp-content/uploads/2019/04/ConsumerBrands\\_ReduceReuseConfuse.pdf](https://consumerbrandsassociation.org/wp-content/uploads/2019/04/ConsumerBrands_ReduceReuseConfuse.pdf)

In the comments that follow, Consumer Brands will address each of the policy measures discussed in the report:

- Product or Material Disposal Bans
- Fees/Charge/Tax/Levy
- EPR Programs
- Minimum Recycled Content Targets
- Reusable Product Facilitation
- Multi-faceted Measures

### **Product or Material Disposal Bans**

The CPG industry is committed to packaging sustainability. Packaging is critical to the safety and quality of the products Washingtonians rely on every day. However, packaging can be better, and the industry is committed to those improvements through innovation in materials and packaging design. By implementing product and material bans, that innovation will be stifled. Additionally, product or material disposal bans could lead to regrettable substitutions. For instance, single use plastics have received much criticism for their relatively low recycling rate. If they were banned, their replacements could be much heavier or use materials that are considerably more complex to recycle like wax coated paperboard. Heavier materials have a more significant greenhouse gas impact because of the extra weight during shipping.

### **Fees/Charges/Tax/Levy**

There is a cost to creating a recycling system built for 21<sup>st</sup> century needs, but there is a vastly more substantial cost to doing nothing. Financing mechanisms must reinforce or drive desired behaviors of all stakeholders, the CPG industry included. It is critical that all generated funds be dedicated exclusively to improving the recycling system, enhancing recycling infrastructure or educating consumers. Washington should first evaluate and recommit existing revenue directed to the recycling system before any new fees or taxes are considered. Additionally, financing for a 21<sup>st</sup> century system should be a shared responsibility between multiple stakeholders.

### **EPR Programs**

The challenges facing our recycling system and the consequences of packaging waste are serious, but they are also solvable. However, they cannot be solved by any one stakeholder alone. The circular economy model relies on each stakeholder to do their part. The CPG industry can control and influence packaging design, making it more recyclable, compostable, made of innovative materials or reusable. However, if we are to make real, lasting progress on reducing packaging waste to landfill, all stakeholders must participate and collaborate in building a system that works. Regulatory schemes like extended producer responsibility (EPR) put all of the responsibility on a single player, the consumer goods industry, without fixing the underlying system. Rather, we should be working collaboratively with every stakeholder toward the common goal of higher recycling rates, which can be achieved through improved infrastructure, sustainable financing models, more consumer participation and resilient and reliable end-markets for recycled material. Additionally, EPR programs tend to pull materials and resources

from existing infrastructure. Our focus should be on investing and standardizing our infrastructure, not segmenting it and creating further market inefficiencies.

### **Minimum Recycled Content Targets**

The demand for post-consumer recycled content exists. The CPG industry, apparel, retail and other industries have made commitments to use significantly more post-consumer recycled content in their packaging and products. However, as it stands, there is only enough post-consumer recycled content to meet six percent<sup>3</sup> of existing demand. The CPG industry has committed to making single use packaging recyclable or compostable by 2030, some as soon as 2025. However, ensuring that recyclable packaging actually gets recycled — put in the correct bin, collected, sorted and processed — is outside this industry’s control. Recyclable material that is not recycled contributes to a significant shortage of some post-consumer recycled materials. This misalignment of supply and demand creates complications for the CPG and other industries, as companies make and work to meet significant commitments to using more recycled content. Sufficient levels of recovery are necessary to meet this surge in demand. We need new policies that support both the development and maintenance of strong end markets for recycled materials.

### **Reusable Product Facilitation**

The CPG industry is leading the way in reusable packaging. Terracycle’s Loop program, for example, allows consumers to purchase everyday household products like ice cream and laundry detergent from brands they know and trust in new, refillable packaging. Loop operates on the “milkman model” of delivery: a container is used at home, sent back empty and returned to the consumer full. This cycle can continue nearly in perpetuity, preventing the need for single-use packaging for those products entirely. The founding partners of Loop<sup>4</sup> are some of the best-known CPG companies in the world, demonstrating this sector’s commitment to a range of solutions to packaging waste and a complete reimagining of packaging away from single-use.

### **Multi-faceted Measures**

Everyone has a role to play. From packaging suppliers to CPG companies, the waste and recycling industry to government, NGOs to consumers, each part of the recycling ecosystem must be willing to innovate, cooperate and change. As Consumer Brands’ sees it, there is no silver bullet to fixing the recycling system. The solutions must be multi-faceted and incorporate every stakeholder in the value chain. The CPG industry is working to improve packaging design, considering environmental impact and sending a clear demand signal for recycled content to packaging suppliers. Consumer participation is critical to getting material to the waste and recycling industry. From there, the waste and recycling industry can take a leadership role in updating equipment regularly and developing new technologies to economically recover packaging. State and federal governments can invest in or incentivize market-based investments in recycling infrastructure, thinking beyond municipal borders toward harmonized, scalable systems rooted in best practices. Multi-faceted solutions are necessary to create real

<sup>3</sup> [Advancing Circular Systems for Plastics](#), Closed Loop Partners

<sup>4</sup> [Loop’s launch brings reusable packaging to the world’s biggest brands](#), GreenBiz

and lasting improvements to our recycling system because the range of stakeholders and opportunities is multi-faceted.

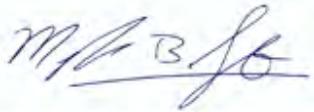
Consumer Brands outlined our perspective on the appropriate steps to developing a 21<sup>st</sup> century recycling system in our [Recycling Policy Platform](#).

\* \* \* \* \*

In summary, the Consumer Brands Association supports the review of market conditions and potential policy interventions to improve recycling in Washington state. Consumer Brands looks forward to further collaboration as the Washington Department of Ecology works to finalize the report and other recycling-related policy topics. This type of transparent and collaborative approach can result in innovative and practical solutions that help build a circular economy for products and packaging in Washington and across the United States.

Please do not hesitate to contact me for additional details or clarification. Thank you.

Sincerely,



Meghan Stasz  
Vice President, Packaging and Sustainability

DAN DUNNE

I support a ban on single use plastic bags

## Steve Gilmore

Thank you for the opportunity to comment on Task 1 Plastic Packaging in Washington: Assessing Use, Disposal, and Management report. This report contains many interesting data points but the short comment window does not provide an opportunity for stakeholders to evaluate and provide detailed responses.

Since the onset of National Sword, plastic packaging made from resins #3, #4, #6, and #7 from residential sources have lost value or now have a negative value. The Department of Ecology's 2016 Waste Characterization Study numbers demonstrate the small quantity of these materials in the waste stream by weight:

- #3 PVC Plastic Packaging 0.002% at 123 tons
- #4 LDPE Plastic Packaging 0.002% at 96 tons
- #6 PS Plastic Packaging 0.025% at 1165 tons
- #7 Other Plastic Packaging 0.2% at 6890 tons

The 2020 report uses the same underlying data as the 2016 study, but changes the presentation in a way that overstates the presence of problem materials. The report cites the Department's 2016 Waste Characterization Study in tables that show the amount of plastics packaging in Washington's material stream (Ex: Table 2, Page 21). However, the report does not use the detailed categories from the Waste Characterization study. Instead, the current report groups categories together. For example, the 2016 report breaks out plastic packaging from residential & commercial sources by resin type. The 2020 report takes the same data but only lists plastics #1, #2, and #5 by resin type. Other materials are grouped into broad categories like "other rigid plastics packaging" in the 2020 report.

Plastics #3, #4, #6, and #7 lack markets but represent less than 1% of the waste stream by weight and less than 0.1% of greenhouse gas (GHG) reductions from recycling. Nearly 90% of GHG reduction benefits from recyclables collected through municipal solid waste systems are from fiber (including paper and old corrugated cardboard or OCC) The increased system costs of collection and processing marginal materials requires substantial investment with almost no measurable environmental benefit (See 2018 Waste Management Sustainability Report). The 2016 Waste Characterization provides an honest accounting of plastic packaging in the material stream from residential sources and the 2020 report distorts and overstates that data.

A lack of mandatory reporting requirements for recyclables is also cited in the report as a barrier to data collection. In addition to better data, Washington needs timely data. As of August 2020, the most recent statewide recycling data available from the Department is from 2017. This data pre-dates National Sword and similar measures adopted around the world. Washington cannot make meaningful decisions without current data.

The report places demand for recyclables first when discussing the necessary infrastructure needed to create a plastic packaging recycling system that delivers environmental benefits. Real recycling requires markets. More so than any other policy, developing strong markets for recyclables is crucial.

Harmonizing program material lists to reduce contamination in the waste stream and using

life-cycle analysis to make decision about what materials are collected makes all the sense in the world.

One way to approach the outlined legislative goals while minimizing the costs on businesses is to work within the existing waste management regulatory and institutional framework which exists in the state today. Several of the recommendations would require additional expensive and significant upgrades to how the state manages our waste streams. Based on the definition of "producer" adopted in the final report, this represents a massive increase in the costs of doing business in Washington and will have a certain and detrimental impact on the business environment in this state.

There appears to be some minor scope creep in the recommendations which do little to address the outlined legislative goals which directed this report. It is unclear why paper products are included in this report as they fall outside of any of the listed legislative goals to examine plastic packaging in Washington state. The report goes so far as to superficially call for the inclusion of all paper products in the state, which is far outside the intended scope of this report. In addition, there is nothing in the report to underscore the need for necessary exemptions where governed by other regulatory bodies.

**\*\*\*Some of the comments related to the task-level report, Plastic Packaging in Washington: Assessing Use, Disposal, and Management included in this letter from the EPS Industry Alliance arose from a misunderstanding about data and calculations included in the report. Cascadia has included its responses and clarifications following the respective areas of misunderstanding, which were provided to the EPS Industry Alliance in an email exchange on August 27. The EPS Industry Alliance provided some additional data on expanded polystyrene recycling, which Cascadia subsequently used to update the task-level report.**



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●●● Innovative solutions for a sustainable future

Plastic Packaging in Washington  
Assessing Use, Disposal, and Management  
Cascadia Consulting  
August 4, 2020

The report overstates the amount of plastic packaging waste by 57%

The report states that it relies upon the 2015-2016 Washington Statewide Waste Characterization Study to estimate 2017 weight of plastic packaging waste generated in Washington State. The 2015-16 data sets the total weight of plastic packaging at 261,000 tons yet this study estimates plastic packaging waste at over 410,000 tons.

**\*\*\*Cascadia response: This is a misunderstanding of the data. The 2015-2016 Washington Statewide Waste Characterization Study represents only disposed waste, not waste that is recycled. The total estimate of plastic packaging in this study includes plastic packaging waste disposed and recycled. The difference between the amount of plastic packaging disposed in the 2015-16 waste characterization study (261,000 tons) and the amount estimated as disposed in 2017 in this study (330,990 tons) is the result of an increase in the total tons disposed in 2017 compared to 2014, which is the year on which the tonnage estimates for the 2015-16 waste characterization study is based.**

Based upon the note to Table 1, the additional 149,000 tons likely represents plastic products and not plastic packaging. The Note claims that it is “impossible to completely distinguish between packaging and non-packaging plastic” despite the fact that the Waste Characterization study does make this precise distinction.

**\*\*\*Cascadia response: The note relates specifically to data reported to the State as recycled by regulated recycling facilities and by non-regulated recyclers through the annual recycling survey, which is not reported in a way that enables differentiation between packaging and non-packaging materials.**

Including the amount of plastic packaging being recycled in the plastic packaging waste figure is not proper. The premise of the analysis is to examine plastic waste to determine recommendations to reach 100% recyclable, compostable. Including the amount of plastic already being diverted misses the objective of the task.

**\*\*\*Cascadia response: In Washington State, the definition of solid waste includes all waste, including material collected for recycling, up until the point at which it is transformed into a marketable commodity.**

Also, the data for recycled plastic do not distinguish packaging from product and only recognize three resin types and two additional categories for “other” and “mixed.”

Recycling volumes for EPS underreported

Table 3 reports that 610 tons of expanded polystyrene were collected for recycling in 2017 in Washington State. The EPS Industry Alliance members have accepted and recycled

**\*\*\*Cascadia response: This statement is not complete.**

Overstatement of plastic packaging waste destroys reliability of recycling and disposal cost estimates

The plastic packaging assessment is in error. A plausible explanation is that the authors have included plastic product disposal with their estimates for plastic packaging. This inflated value is then used to calculate, and ultimately shift, the cost impacts of plastic product disposal to plastic packaging users.

Inclusion of WARM emission factors for plastic packaging fails to deduct increased WARM for alternative packaging

The study misleadingly increases the cost of plastic packaging by ignoring the environmental impact of substitute packaging material. Plastic packaging, in many cases, represents a smaller environmental impact, across all life cycle factors, when compared with alternative packing materials. Paper, glass, corrugated, wood and other packaging materials are heavier, more energy intensive to manufacturer, and have greater embodied carbon. Couple with the fact that these materials are non-recyclable, the failure to recognize the environmental impact of these materials can only be explained by material bias.

**\*\*\*Cascadia response: The WARM calculation represents an estimated savings due to source reduction, so represents the relative benefit of waste prevention (not material substitution) and notes so in the report.**

No decision should be based upon a report that is so shot through with bias and prejudice.

Recycling programs need attention

Single stream has increased contamination issues, yet only two types of resin are processed for sale by MRF's. Report does not identify any recyclable feedstock being used within Washington State. Definition of recyclable must be scaled down to reflect reality and any recommendation must include the pull and not just the push. Only #1, #2clear and #2 colored are being bailed and sold and those are not being used within Washington. Goal of recyclable, compostable

Disposal Cost estimate fails to quantify the externalized environmental and social costs associated with not recycling a recyclable plastic package.

The report uses the example of two trucks passing the same house, one picking up material for the landfill and one picking up material for recycling. In acknowledging that it would be cheaper to have one truck take all material to the landfill, the authors state that such an approach does not recognize the environmental and social cost of not recycling recyclable material. The report fails to quantify the net

impact of landfilling vs. recycling and the comparative environmental impact of plastic and non-plastic packaging material, plastic recyclable and non-plastic non-recyclable, non-plastic recyclable, non-plastic compostable, plastic compostable, etc.

Litter clean-up tax calculation is flawed

The state charges businesses a tax on 13 product categories. The report provides the total revenue figure paid by businesses but fails to report how much tax is paid by plastic packaging.

Rather, the report uses a 2004 litter study, that found 5.7% of roadway litter was plastic packaging, to calculate how much of the tax paid came from plastic packaging businesses.

This is not how the tax is calculated or paid and it undercuts the credibility of the report to make the statement, “it follows that 5.7% of the litter tax revenue . . . could reasonably be assumed to be attributable to plastic packaging.”

This is particularly disturbing since the source of the tax revenue is clearly available to the State of Washington.

Social Costs fail to calculate externalized costs of substitute material

Although the authors include a parenthetical assumption regarding the impact of substitute materials, the externalized cost of plastic packaging, highlighted in bold font, is provided without adjustment. The researchers should not willfully ignore the fact that a tree must be cut down to make paper, that paper is not infinitely recyclable and paper production facilities are disproportionately located in low-income and communities of color.

What are the “many examples of plastic packaging applications that are unnecessary.”

Addressing toxics in plastic packaging.

Section references model legislation intended to prohibit toxics in packaging – not just plastic packaging. The list of chemicals of concern in the model legislation identifies many chemicals associated with paper and pulp production. The authors acknowledge heavy metals and PFAS found in paper production and products. Any consideration of toxics must be material neutral to avoid harmful unintended consequences.

Section 8.2 False connection between low oil prices and weak demand for post-consumer recycled content as contributor to plastic packaging

Authors suggest that industry has been able to externalize the cost of plastic packaging and that government should correct this inequity by raising the cost of primary production of plastics – that is artificially raise the cost of oil – or require consumers to pay more directly for the end-of-life management of the packaging. The authors have shifted their own data to inflate the amount of plastic packaging. In the 2015-2016 Waste Characterization study, Cascadia reported that plastic products amounted to about 206,000 tons of disposed waste and plastic packaging was about 261,000 tons. In this study, they have concluded that plastic packaging is somehow up to 410,000 tons. Reading between the lines, it appears that 73% of plastic products were recharacterized as plastic packaging.

All of the analysis and calculations that follow are irreparably flawed by the gross inflation of the base figure. The externalized costs, the GHG emissions, the social justice impacts, the life cycle analysis of replacement packaging materials are all fatally flawed.

This study is closer to an analysis of all plastics, products and packaging. The solutions and responsibility however are placed only on the backs of the packaging sector. Raising the price of feedstock for all plastics, that is raising the price of oil, could help internalize the cost of all plastics. Adding consumer

fees to packaging disposal would only impact people who use packaging and would have a rational relationship to a legitimate state end. However, the revenue target should match the impact of packaging and should not be inflated to attempt to capture the externalized costs of all plastic products.

A similar revenue target should be established to internalize the impacts of all non-plastic materials as well.

Categorization and weight of Plastic Packaging not supported by data

The report cites the Washington State Department of Ecology SWM Data 2017: Disposal by County and the 2015-2016 Waste Characterization study as the sources to support 410,000 tons of plastic packaging disposed of in Washington State. The 2015-2016 study has already been discussed as not supporting this figure.

Neither could the disposal by county data support the calculation. That data set reports on 31 categories of waste. Neither plastic packaging nor plastic products are listed as a category. Data on plastic packaging or products are not separately reported in that source.

It is unclear how the authors have come up with the 410,000 ton figure which serves as the essential factor in calculating all of the conclusions put forward in the assessment and recommendations.

**\*\*\**Cascadia response: See explanation of data misunderstanding above.***



WASHINGTON REFUSE & RECYCLING ASSOCIATION

August 26, 2020

Solid Waste Management Program  
Department of Ecology  
300 Desmond Drive SE  
Lacey, WA 98503

Solid Waste Management Program:

The Washington Refuse and Recycling Association (WRRA) is the oldest Solid Waste Trade Association operating on the West Coast of the United States, founded 73 years ago. WRRA represents the private sector solid waste and real recycling industry in Washington, from curbside collection service, state of the art recycling facilities, to landfills. WRRA member companies and the solid waste industry serve a vital role in public health, safety, and environmental protection.

Our members work in their communities every day and provide essential services. Washington's solid waste system is a successful public-private partnership. Washington's regulated and municipal solid waste collection system provides for excellent service, has consistently beat the national recycling rate by double digits, and maintains family wage jobs in every community in which we operate - all at a transparent and affordable price. We have an obligation to serve and to provide universal service as directed by the state and local governments.

Thank you for the opportunity to comment on Task 1 Plastic Packaging in Washington: Assessing Use, Disposal, and Management report. This report contains many interesting data points but the short comment window does not provide an opportunity for stakeholders to evaluate and provide detailed responses. WRRA offers the following high-level comments on the report.

Since the onset of National Sword, plastic packaging made from resins #3, #4, #6, and #7 from residential sources has lost value or now has a negative value. The Department of Ecology's (Department) 2016 Waste Characterization Study numbers demonstrate the small quantity of these materials in the waste stream by weight:

- #3 PVC Plastic Packaging 0.002% at 123 tons
- #4 LDPE Plastic Packaging 0.002% at 96 tons
- #6 PS Plastic Packaging 0.025% at 1165 tons
- #7 Other Plastic Packaging 0.2% at 6890 tons

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Web: [www.wrra.org](http://www.wrra.org) • E-Mail [info@wrra.org](mailto:info@wrra.org)

The 2020 report uses the same underlying data as the 2016 study, but changes the presentation in a way that overstates the presence of problem materials. The report cites the Department's 2016 Waste Characterization Study in tables that show the amount of plastic packaging in Washington's material stream (Ex: Table 2, Page 21). However, the report does not use the detailed categories from the Waste Characterization Study. Instead, the current report groups categories together. For example, the 2016 report breaks out plastic packaging from residential & commercial sources by resin type. The 2020 report takes the same data but only lists plastics #1, #2, and #5 by resin type. Other materials are grouped into broad categories like "other rigid plastic packaging" in the 2020 report.

Plastics #3, #4, #6, and #7 lack markets but represent less than 1% of the waste stream by weight and less than 0.1% of greenhouse gas (GHG) reductions from recycling. Nearly 90% of GHG reduction benefits from recyclables collected through municipal solid waste systems are from fiber (including paper and old corrugated cardboard or OCC). The increased system costs of collection and processing marginal materials requires substantial investment with almost no measurable environmental benefit ([See 2018 Waste Management Sustainability Report](#)). The 2016 Waste Characterization Study provides an honest accounting of plastic packaging in the material stream from residential sources and the 2020 report distorts and overstates that data.<sup>1</sup>

WRRRA supports transparency in the waste and recycling stream. A lack of mandatory reporting requirements for recyclables is also cited in the report as a barrier to data collection. In addition to better data, Washington needs timely data. As of August 2020, the most recent statewide recycling data available from the Department is from 2017. This data pre-dates National Sword and similar measures adopted around the world. Washington cannot make meaningful decisions without current data.

The report places demand for recyclables first when discussing the necessary infrastructure needed to create a plastic packaging recycling system that delivers environmental benefits. WRRRA agrees. Real recycling requires markets. More so than any other policy, developing strong markets for recyclables is crucial. WRRRA also supports harmonizing program material lists to reduce contamination in the waste stream and using life-cycle analysis to make decision about what materials are collected. As discussed in our other comments on this report, WRRRA supports several of the Department's recommendations that can be accomplished within the existing regulatory structure.

Respectfully submitted,



Brad R. Lovaas

Executive Director

<sup>1</sup> The report claims on page 36 "Due to data limitations, it is impossible to completely distinguish between packaging and non-packaging plastic or plastic products in generation estimates for various categories, but this distinction has been made where possible." The underlying data does distinguish between packaging and non-packaging plastic products in many cases.

## Advanced Medical Technology Association (AdvaMed)

The Advanced Medical Technology Association represents over 400 medical technology providers.

Medical technology is extensively regulated by the US Food & Drug Administration for safety, quality and effectiveness, including all products and their packaging.

The legislature should consult with industry on any plastic regulation proposal to ensure patient access to safe and effective medical products.

## Oregon Beverage Recycling Cooperative

Please see attached letter in PDF format.

09/04/2020

To: Washington State Department of Ecology

From: Jules Bailey, Chief Stewardship Officer and Director of External Relations

Re: Comments on plastic packaging study and Cascadia report

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As a not-for-profit cooperative made up of members from the beverage industry, Oregon Beverage Recycling Cooperative (OBRC) is the industry steward of Oregon's nationally recognized beverage container deposit program. We help keep Oregon beautiful by providing outstanding services to our partner distributors and retailers, and to the public for the recovery, reuse, and recycling of beverage containers. OBRC provides consumer access to fast and convenient container returns through BottleDrop, and container pick-up service to over 2,500 retailers. We recycle millions of beverage containers every day at no cost to taxpayers. We invite you to come see our operations as you look at the future of EPR and a possible DRS in Washington State.

As the first DRS in the United States and the only one that is solely privately run, Oregon's system is an EPR system. Unlike other "bottle bills," in Oregon's system the beverage industry incurs the full life-cycle costs and benefits of recovery, recycling, and reuse of the beverage containers they put into the economy and environment. Our experience has shown that a DRS structured like Oregon's system provides successful outcomes (nearly 90% redemption rate, with all material recycled domestically) at no cost to taxpayers, no risk to public budgets, and at the most efficient cost for industry. By contrast, states with curbside-only have recycling rates of less than 40% for plastic bottles, and much of the resulting material is contaminated, and/or shipped overseas for processing. Quite simply, our system has a track record of getting the best EPR outcomes for the lowest cost.

While many of our members do business in both Oregon and Washington, OBRC is an Oregon-only entity and currently has no direct position on recommendations for an EPR/DRS system in Washington. Our comments today are meant to address and correct misinformation already submitted by other entities. We want to ensure that as you move forward, you have the best information possible.

- First, the Oregon Bottle Bill is not a windfall for industry. In fact, industry pays more in fees than it receives back in unredeemed deposits. Annual reports for the last three years are available publicly at <https://www.obrc.com/Reports>, and they are independently audited by a major accounting firm and reviewed by the Oregon Liquor Control Commission. They clearly show that our budget exceeds unredeemed deposits. For example, in 2018, unredeemed deposits totaled about \$29 million, against a budget of \$43 million. That means every penny of unredeemed deposits was invested back into recycling infrastructure and operations, including supporting innovative new programs like our refillable, reusable bottle program. This is in sharp contrast to other kinds of recycling where large, for-profit companies distribute any extra fees or income back to shareholders.
- The result of all this investment is extremely high quality, "grade A" plastic, metal, and glass material from our system. OBRC produces the highest quality recycled material from beverage containers in the Pacific Northwest.

- The Oregon system often benefits low income people who have an incentive to pick up containers, reduce litter, and make sure material makes it back for a refund. Especially during COVID, many Oregonians have been grateful to be able to rely on income from collecting bottles and cans, and many non-profits have used it as a way to stay afloat. In April and May of 2020, OBRC and BottleDrop raised \$200,000 in donated containers to support the Oregon Food Bank, providing critical services to low income Oregonians, and we have raised well over \$1 million for non-profits this year. Rather than a concern, we see the value these containers bring to low income people as a benefit, and one that costs taxpayers nothing.

Only Washington can decide if EPR is right for your state. But, should you decide to move forward with EPR, and decide an industry-led, private-sector DRS is the most efficient way to accomplish EPR for the beverage industry, we believe a well-designed system should include coordination between our states, which share a significant border. We would welcome the opportunity to offer our support based on our 50 years of experience.

# Appendix J. Comments Received via Study Email

**Table 8**      **Comments Received Via Study Email**

#	Date received	Organization	Comment
1	6/8/2020	Rubatino	<p>My input is in general and is given to support the goal of preventing Loopholes.                      Legislative goals cannot be attained because of cv19.                      What will replace plastics? Markets for recycled plastic depend on high oil prices.                      The goal of recycling plastics has many faces and should be travel carefully.                      Collection is only the start of recycling it must be reused or have a market.                      Plastics biggest problem is domestic littering but mainly international littering.                      Recycling has many faces and the product will not all find a market, it's disposal must be guaranteed.                      Ed Rubatino</p>
2	6/15/2020	King County Solid Waste Division	<p>Dear Madame / Sir,</p> <p>I have responded to your survey regarding the options identified in report "Successful Plastic Packaging Management Programs and Innovations", but I would like to also provide the following comments and suggestions for amendment:</p> <p>General comments on the report:</p> <ul style="list-style-type: none"> <li>• The report aims to set out "the comparative costs and savings to different stakeholders of packaging stewardship programs in other jurisdictions", but does this in a superficial and incomplete manner. It is not always easy to obtain the costs of EPR programs, but there is more information available about the cost effectiveness of EPR schemes in this report:  <a href="https://ec.europa.eu/environment/waste/pdf/target_review/Guidance%20on%20EPR%20-%20Final%20Report.pdf">https://ec.europa.eu/environment/waste/pdf/target_review/Guidance%20on%20EPR%20-%20Final%20Report.pdf</a> The report should attempt to report consistently on the</li> </ul>

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Date received	Organization	Comment
			<p>effectiveness (how well did it achieve the objectives) and efficiency (what were the costs / resources used to achieve the objectives) of each program reviewed, and attempt to compare them with each other.</p> <ul style="list-style-type: none"> <li>• The report does not consistently report on the “the comparative costs and savings to different stakeholders of packaging stewardship programs”. Often only one stakeholder (typically the producer) is mentioned. The costs and savings to customers, retailers, local government and waste haulers should have been analyzed.</li> <li>• For each policy measure, relevant questions were formulated as “Key considerations”. It would have been good if these were attempted to be answered in the context of Washington State. The “Applicability to Washington” asks more questions than it answers...</li> <li>• Blockchain technology is interesting, but the report omits all the existing approaches for monitoring, reporting and verifying waste management supply chain information. It should have at least described how existing EPR programs are reported and audited – as well as the costs and administrative burden of these.</li> <li>• The EPR database of producers is just a long list. It would have been good to provide an analysis of the most relevant producers for Washington State.</li> </ul> <p>Specific comments on the report:</p> <ul style="list-style-type: none"> <li>• page v: “Policymakers have two broad types of instruments available for changing consumption and production habits: command and control regulatory approaches; and incentives, or market-based policies.” There are more than two types of instruments available for policy-makers, e.g. mandatory reporting, technical standards, labeling, educational and informational instruments, etc. The report should have considered some of these instruments.</li> <li>• page 18: It is strange that Washington State’s litter tax and bag fees (SB 5323) are not mentioned, but a UK Plastic Packaging Tax that has not yet come into effect is...</li> <li>• page 50: “Under the Norwegian system, beverage producers and importers that do not participate in the DRS are required to pay a fixed fee of NOK 0.97 (\$0.09 USD) plus an environmental fee of NOK 4.74 (\$0.46 USD) per can and NOK 2.85 (\$0.27 USD) per plastic bottle [81].” This information is outdated, see</li> </ul>

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Date received	Organization	Comment
			<p><a href="https://infinitem.no/english/the-environmental-tax-system">https://infinitem.no/english/the-environmental-tax-system</a>                      The basic tax is set at NOK 1.23 per bottle or can. The environmental tax is set at NOK 5.99 for cans and NOK 3.62 for recyclable bottles.</p> <ul style="list-style-type: none"> <li>• page 52: "As a result of the higher deposit value, Infinitem expects the return rate to return to above 90 percent for 2019." The return rates were just below 90% for 2019</li> </ul> <p><a href="https://infinitem.no/arsmelding-vis/27/c7d2cfa03eab48e2053906b0f40a5321/Infinitem_Arsrapport_2019.pdf">https://infinitem.no/arsmelding-vis/27/c7d2cfa03eab48e2053906b0f40a5321/Infinitem_Arsrapport_2019.pdf</a></p> <ul style="list-style-type: none"> <li>• page 53: "There is also currently strong political opposition to a DRS program" in WA. It would be good to know what are the arguments against a DRS in WA.</li> <li>• page 68: "The map in Figure 6 shows the location of different technologies in the U.S. and Canada and indicates if they are at the commercial, pre-commercial (pilot plant), or R&amp;D stage, and what type of plastics recycling process is being used." It would be good to know which of these facilities are actually relevant for Washington State.</li> <li>• page 78, Table 3-1: "Cost Data Across EPR Programs" – There is more data available in this report: <a href="https://ec.europa.eu/environment/waste/pdf/target_review/Guidance%20on%20EPR%20-%20Final%20Report.pdf">https://ec.europa.eu/environment/waste/pdf/target_review/Guidance%20on%20EPR%20-%20Final%20Report.pdf</a></li> </ul> <p>Comments to the survey:</p> <ul style="list-style-type: none"> <li>• The question "How helpful do you think each policy / technology option would be in reducing plastic packaging in the waste stream?" could have been more specific. It is not clear if this means how effective the policy option will be to reduce plastic packaging waste generated AND sent to landfill. Recycled content and recycling technologies do not reduce plastic packaging in the waste stream (it does however create a market for recycled materials)....</li> </ul> <p>Feel free to contact me, should you have questions or need clarification.</p> <p>Kind regards, Adrian</p>

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Date received	Organization	Comment
3	6/16/2020	King County Solid Waste Division	<p>Hi Marie,</p> <p>You are welcome. Happy to provide any other input. I also had a look at the other report: "Recycled Content Use in Washington" and I have these comments:</p> <p>General comments on the report:</p> <ul style="list-style-type: none"> <li>• The report focuses on "how to increase the use of post-consumer recycled content in Washington", but has no mention at all about the technical and practical feasibility for the State to monitor and verify the use of post-consumer recycled content. It also does not discuss the potential environmental and safety concerns of 'legacy chemicals' (i.e. substances that have been banned in products and packaging, but still exist in some products still in circulation) that could potentially make their way back into plastic packaging with PCR.</li> </ul> <p>Specific comments on the report:</p> <ul style="list-style-type: none"> <li>• page 15: "the ISO 14021 standard that requires material to be generated by residential, commercial, industrial, and institutional facilities and excludes scrap material from manufacturing processes" – this is misleading. ISO 14021 is a voluntary standard for "Environmental labels and declarations — Self-declared environmental claims (Type II environmental labelling)" <a href="https://www.iso.org/obp/ui/#iso:std:iso:14021:ed-2:v1:en">https://www.iso.org/obp/ui/#iso:std:iso:14021:ed-2:v1:en</a> Only companies that choose to follow the standard are required to respect the requirements.</li> <li>• page 16 - : although companies may not disclose their current use of PCR, it would have been good to provide the latest turnover / number of employees of each company to get an idea of the size of their operations. Also check if they have already set goals for PCR, e.g. Amcor goals 1) to develop all our packaging to be recyclable or reusable by 2025; 2) to achieve 10% use of post-consumer recycled materials across Amcor's global product.</li> <li>• page 43: The respective headers "Increased Recovery and Yield" &amp; "Improve Production Tolerances" and subsequent paragraphs do not match, i.e. the paragraph under "Improve Production Tolerances" does not even mention production tolerances...</li> </ul>

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Date received	Organization	Comment
			<p>• page 49: "The reality is more nuanced, and includes the notion that it is solely lack of information that prevents consumers from making informed decisions or requests." I am not sure that it is "solely lack of information" that prevents consumers from making decisions...</p> <p>For discussions on the technical and regulatory issues of mandatory recycled content, see:</p> <ul style="list-style-type: none"> <li>• <a href="https://www.rdcenvironment.be/wp-content/uploads/2017/11/2665-Ministrie-Infra-Milieu-Ecodesign-1.pdf">https://www.rdcenvironment.be/wp-content/uploads/2017/11/2665-Ministrie-Infra-Milieu-Ecodesign-1.pdf</a> (Material efficiency by marking in EU Ecodesign - Marking to control a mandatory plastic Post-Consumer Recycled content (PCR))</li> <li>• <a href="http://ec.europa.eu/DocsRoom/documents/105/attachments/1/translations/en/renditions/native">http://ec.europa.eu/DocsRoom/documents/105/attachments/1/translations/en/renditions/native</a> (page 98 - 100, section on B. Information on recycled content/materials with sustainable origin)</li> </ul> <p>All the best with your continued work!</p> <p>Kind regards, Adrian</p>
4	8/17/2020	City of Gig Harbor	<p>Plastic is not needed in the environment. If it must be here the retailer must accept responsibility for getting rid of it. My suggestion is every retailer who sells product in plastic must provide an unwrapping table for citizens to unwrap the plastic from the purchased item. The item may then be put in the citizen's container should they choose to bring one from home or purchase at the retail location. We don't need plastic in the environment!</p> <p>Thank you Jeni Woock</p>

## Plastic Packaging Management Study Stakeholder Consultation Process

#	Date received	Organization	Comment
5	8/26/2020	Washington Refuse & Recycling Association	<p>Plastic Study Team,</p> <p>Thank you for your efforts on this important issue. We understand this is a very complex issue, as our members have worked on EPR and PS as it relates to recycling issues for over 15 years. While we know this issue is of national significance we hope your final recommendations will respect the “Washington Way”: our companies, our employees, our local control and accountability and our place in the supply chain.</p> <p>We are hopeful that any policy changes you recommend will continue to use the Washington State private sector collection and processing infrastructure already in place, and respect our right to continue to provide those services to our local communities. We better than any other stakeholder know how to collect, process and market plastic material collected at the curb. Our system is one of the most modern and resilient recycling systems in the nation. It has continued without hesitation through both National Sword and COVID-19 in the recent years and is positioned to continue to do so into the future. Short of a PRO, all of the initiatives proposed can be accommodated within the current regulatory structure and the study should reflect that fact.</p> <p>Lastly we hope that your study and its recommendation(s) will come with detailed costs and a detailing of issues related to implementation, as a Producer Run Organization will shift in a radical fashion the control and the funding of Washington’s recycling system.</p> <p>Best Regards,</p> <p>Brad</p> <p>Brad Lovaas Executive Director</p>