

Recycling Frameworks Feedback Survey Report

May 2020



**Land Quality Division,
Materials Management
Program**

700 NE Multnomah St.
Suite 600
Portland, OR 97232
Phone: 503-229-5696
800-452-4011
Fax: 503-229-6124
Contact: Tom Lang

www.oregon.gov/DEQ

DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.



State of Oregon
Department of
Environmental
Quality

This report prepared by:

Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232
1-800-452-4011
www.oregon.gov/deq

Contact:
Tom Lang
503-229-5478

Acknowledgments

This feedback survey and subsequent report are related to DEQ's involvement with the Recycling Steering Committee, a collaborative stakeholder group that DEQ convened in 2018. Thanks to members of the Stakeholder Engagement Subcommittee who provided feedback on survey design, including: Beth Vargas Duncan (ORRA), Pam Peck (Metro), Will Posegate (Garten Services), Amy Roth (Association of Oregon Recyclers), Timm Schimke (Deschutes County), David Skakel (Tri-County Hazardous Waste & Recycling Program) and Eric Stephens (Recology). DEQ personnel who contributed to survey design and the final report include: David Allaway, Abby Boudouris, Tom Lang and Sanne Stienstra.

DEQ can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email deqinfo@deq.state.or.us.

Table of Contents

Acknowledgments	2
Background and Summary	4
Section 1: Introduction	6
1.1 Research Purpose	6
1.2 Stakeholder Input	6
1.3 Recycling Frameworks Survey	6
Section 2: Survey Results	7
2.1 Description of Sample Population.....	7
2.2 Assessment of Current Recycling System.....	10
2.3 Future Desired Functions.....	11
2.4 Future System Preferences	12
Program Funding.....	12
Performance Requirements & Enhanced Access.....	15
Scenario Rating.....	18
Group One: Government-Managed Scenarios.....	18
Group Two: Producer-Managed Scenarios	20
Appendices	24

Background and Summary

This document describes the results and findings from the Oregon Department of Environmental Quality's Recycling Frameworks Feedback Survey. This feedback survey was conducted as part of DEQ's involvement in the Recycling Steering Committee, which first convened in 2018 to make recommendations for modernizing Oregon's recycling system. The overarching goal of this report is to identify the range of stakeholder priorities and interests to help inform DEQ as it engages in deliberation and consensus seeking with the Recycling Steering Committee.

Following a January 2020 information session about possible future recycling system frameworks, DEQ distributed an online survey to recycling stakeholders from across the state. The results of that survey – as described in this report – are one of several sets of data that help identify stakeholder attitudes and concerns as they relate to Oregon's recycling system. The survey asked respondents to provide feedback regarding their impressions of the current recycling system, and to rate five framework scenarios that could be used to guide the development of Oregon's future recycling system. While the survey represents a convenience sample and was not necessarily representative of all parties involved in Oregon's recycling system, the feedback from stakeholders is important. Results provide some insights into attitudes and concerns from stakeholders, including some that are not otherwise well represented on the Recycling Steering Committee.

Some of the key findings of the feedback survey include:

- Respondents rank Oregon's current recycling system as most effective at "preventing negative impacts to the environment" and "protecting the health and safety of industry workers." The system is viewed as least effective at "educating system users to reduce contamination."
- The top-most desired functions of a future recycling system in Oregon are: "optimize the benefits of recycling considering life-cycle impacts and costs," "ensure materials are managed responsibly and reach end markets," and "provide sustainable and equitable financing for stable operations and capital investments."
- There is widespread support (and very little opposition) for:
 - Parallel recycling access for all types of waste generators (providing recycling collection service wherever garbage is collected),
 - Statewide requirements on MRFs to meet specific performance and accountability standards,
 - Enhanced funding for markets and infrastructure, and
 - Environmental health and safety standards for end markets.
- A smaller number of respondents – but still a large majority – also support disposal bans, product bans, and the use of state contracts for processing of mixed recyclables. However, these options generated more opposition than the elements listed above.

- Respondents were asked to indicate who they believe should have primary responsibility for funding a variety of activities. In Oregon, ratepayers currently have primary (and sometimes exclusive) responsibility for funding most recycling-related activities. Most survey respondents do not prefer the current funding approach. Rather, survey respondents generally expressed stronger support for funding models that require a greater role for producers (either shared responsibility between producers and ratepayers, or primary responsibility assigned to producers).
- The concept of extended producer responsibility (EPR) garnered more support than opposition, but only for scenarios that provide for higher levels of local control (Scenarios 3 and 4). In contrast, the idea of full producer responsibility, such as exists in British Columbia (similar to Scenario 5), generated equal degrees of opposition and moderate or strong support.

Section 1: Introduction

In the spring of 2018, Oregon DEQ convened a collaborative process that seeks to improve the state's 30-year-old recycling system. That process began with the development of the Recycling Steering Committee (RSC), a group of stakeholders charged with examining and making recommendations to modernize Oregon's recycling system in order to:

- Optimize the environmental benefits of managing materials at the end of life using a life cycle perspective;
- Create a recovery system that is strong and resilient to changes in supply and demand;
- Restore and maintain public trust in the system through education and engagement with the public.

This report provides detailed stakeholder input that can inform DEQ and other RSC members.

1.1 Research Purpose

The purpose of this research was to systematically gather stakeholder feedback regarding Oregon's recycling system – both as it exists today and possible changes to it. The aim of inquiry within the survey focused on the following topics:

- Impressions of the current recycling system;
- System features and funding mechanisms in the future;
- Preferences for conditions within the five recycling framework scenarios evaluated by consultancy Resource Recycling Systems (RRS), on behalf of the RSC;
- Stakeholder motivations to update the recycling system.

1.2 Stakeholder Input

This survey was created for DEQ to better understand the interests of system stakeholders from across the state. Presently, service providers and residents across 36 counties work together in nearly 110 municipalities in order to recover for recycling a variety of the products and packaging that flow through Oregon's material economy. Due to limitations in the state's recovery system – some of which were highlighted by recent disruptions in recycling markets – DEQ convened a Recycling Steering Committee to make recommendations for modernizing that system. Within a collaborative decision-making process of this scale, the input and feedback of stakeholders from all parts of the system is critically important. The Recycling Frameworks Survey was developed to provide an opportunity for stakeholders to express their priorities and concerns regarding possible changes to the state's system. While the 17 members of the Recycling Steering Committee represent a cross-section of current actors and interests in Oregon's recycling system, not all interests across the state are well represented. The survey was designed to seek out perspectives from a larger number of stakeholders, reflecting the breadth of economic, geographic, functional and generational components within Oregon's recycling system.

1.3 Recycling Frameworks Feedback Survey

DEQ staff, with input from members of the RSC's Stakeholder Engagement Subcommittee, designed the Recycling Frameworks Feedback Survey in part to gather stakeholder responses to foundational concept research conducted by RRS in late 2019 and early 2020. Originally, the survey was designed to be a product of the Recycling Steering Committee itself, which strives to make decisions using principles of consensus. The survey included questions about stakeholder views of current system features, impressions of five different options that RRS proposed for a future legal and relational framework in Oregon, and other future possibilities. The survey was constructed using the web-based research platform Qualtrics. An earlier draft of the survey was shared with members of the Stakeholder Engagement Subcommittee, and a revised draft was shared with members of the full Recycling Steering Committee. In both cases, feedback provided by subcommittee and committee members was reviewed by DEQ. In many cases, DEQ staff incorporated feedback into revisions to the survey. Ultimately, however, the Recycling Steering Committee was not able to reach a timely consensus on the scope and direction of the survey.

With a major public-facing information session rapidly approaching, and no other mechanism available to seek feedback from parties not on the Recycling Steering Committee, DEQ decided to implement the survey as a DEQ project, rather than a Recycling Steering Committee project. DEQ sent the feedback survey to everyone who signed up for the in-person or webinar version of a January 31, 2020 information session, excluding Recycling Steering Committee members themselves.

Section 2: Survey Results

This section provides an overview of the descriptive statistics from the Recycling Frameworks Feedback Survey. The results are outlined in four segments: description of the sample population that participated in the survey, an assessment of the current recycling system in Oregon, future desired functions of the updated system, and finally, future system preferences reported by respondents.

2.1 Description of Sample Population

The population of interest for this study was recycling system stakeholders who attended (in-person or via webinar), or later became aware of, the January 31, 2020 recycling frameworks information session in Salem. The unit of analysis within this study is individual recycling system stakeholders. The sampling method used in this study is considered convenience sampling. A convenience sample is “a nonrandom sampling method in which the researcher uses some convenient group or individuals as the sample” (Sproull, p.119).¹ For the purpose of this study, a convenience sampling method offered several benefits that increase time-effectiveness and allowed for greater ease of access to the desired population of recycling system stakeholders. The limitation a convenience sample presents is one of sampling error, which is the extent to which a sample is limited in its ability to accurately describe a specific population because some, rather than all, of the elements in the population are sampled (Vaske, 2008).² Because the resulting data from this study is not a representative sample of recycling system users from across the State of Oregon, the analysis and results of this study do not aim to make generalized claims about the sample population. Instead, the sample population provides systematic feedback about modernizing Oregon’s recycling system from a group of highly invested and informed stakeholders.

Survey Response Rate: 32 percent

Following the January 31, 2020 recycling frameworks information session, stakeholders were emailed a link to participate in the survey. The survey was open for three weeks, and two reminder emails were sent to non-respondents before the February 21, 2020 closing date.

In total, 270 individuals received a link to the survey. Of the 270 potential respondents, 87 people entered the survey portal, resulting in a response rate of 32 percent.

Survey Completion Rate: 62 percent

Subsequently, of the 87 individuals who entered the survey portal, 54 surveys were either fully or partially completed; resulting in a completion rate of 62 percent.

¹ Sproull, N. (2003). *Handbook of Research Methods: A Guide for Practitioners and Students in the Social Sciences* (2nd ed.). Lanham, MD: Scarecrow Press.

² Vaske, J. J. (2008). *Survey Research and Analysis: Applications in Parks, Recreation and Human Dimensions*. Venture Publications.

Sample Population

In order to gather an understanding of the stakeholders who provided feedback through the survey, respondents were asked to answer the following three questions:

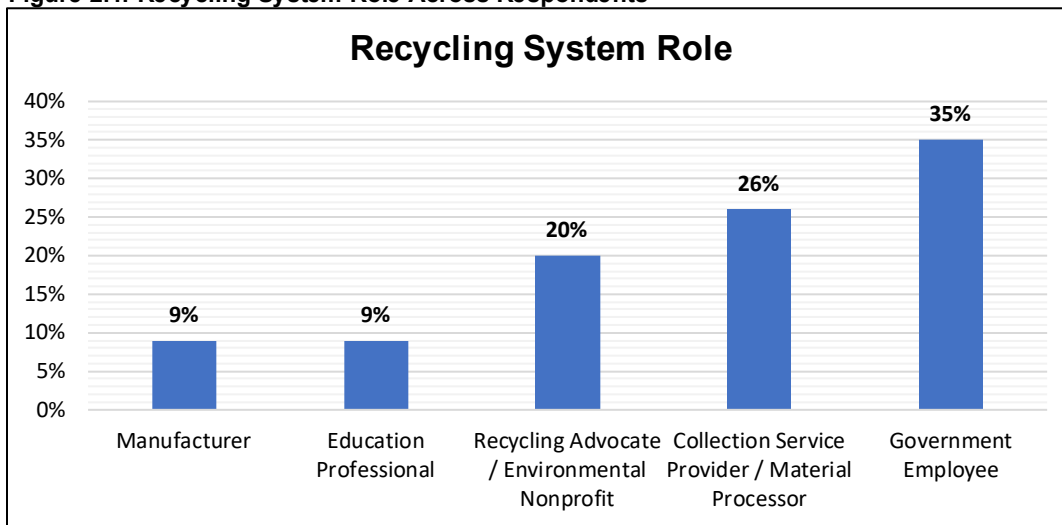
What is your current role in Oregon's recycling system?

Of the 54 respondents, 33 (61 percent) identified as either government employees or collection service providers/material processors. These populations are generally well represented on the Recycling Steering Committee. The remaining 21 respondents (39 percent) identified as manufacturers, education professionals, environmental nonprofits or other recycling advocates (not associated with collection service providers, material processors, or government employees). These respondents generally do not have as much representation on the Recycling Steering Committee. Table 2.1 provides a breakdown of survey respondents according to their reported role in the recycling system.

Table 2.1: Respondents According to Recycling System Role

Recycling System Role	Count	Percentage
Manufacturer	5	9%
Education Professional	5	9%
Recycling Advocate / Environmental Nonprofit	11	20%
Collection Service Provider / Material Processor	14	26%
Government Employee	19	35%
Total	54	100%

Figure 2.1: Recycling System Role Across Respondents



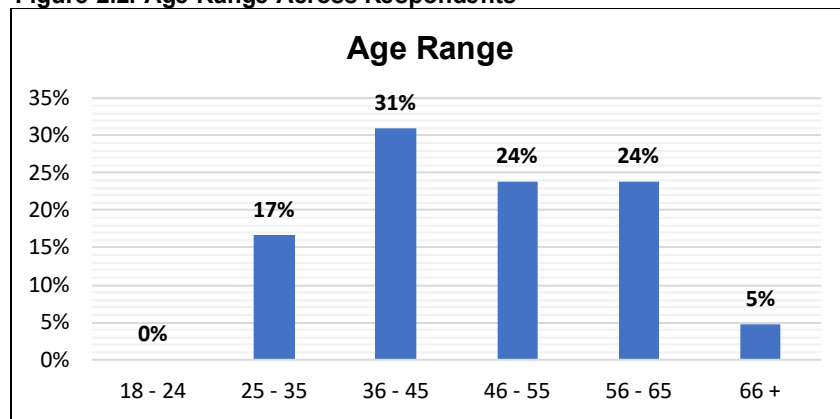
What is your age?

Of the 42 respondents who answered this question, 23 (55 percent) were within the 36 to 55 age range. The survey did not receive any responses within the 18 to 24 age range. Table 2.2 provides a breakdown of survey respondents according to their reported age range.

Table 2.2: Respondents According to Age Range

Age Range	Count	Percentage
18 - 24	0	0%
25 - 35	7	17%
36 - 45	13	31%
46 - 55	10	24%
56 - 65	10	24%
66 +	2	5%
Total	42	100%

Figure 2.2: Age Range Across Respondents



Where in Oregon are you based?

Of the 54 survey respondents, 52 (96 percent) were based in Oregon. Table 2.3 provides a description of survey respondents by region, while Figure 2.3 provides a visual of regional participation.

Figure 2.3: Map of Regional Participation

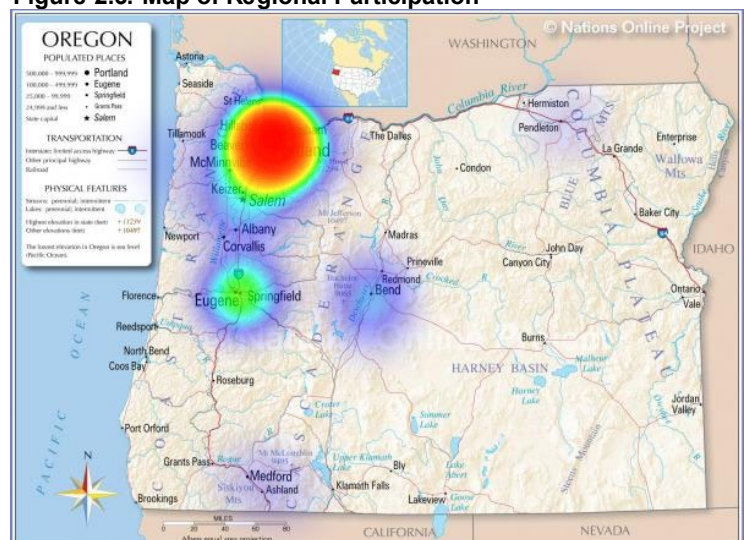


Table 2.3: Respondents According to Region

Region	Count	Percentage
Metro Region	30	58%
Other Willamette Valley	15	29%
Central & Eastern Oregon	5	10%
Southwestern Oregon	2	3%
Total	52	100%

While survey respondents skew heavily towards the Portland Metro region and the larger Willamette Valley, this somewhat mirrors the distribution of Oregon’s population. According to the Oregon Population Research Center’s Certified Population Estimates for 2019, the three Metro-area counties are home to 44 percent of Oregon’s population, and the remainder of the Willamette Valley counties are home to an additional 27 percent.

2.2 Assessment of Current Recycling System

This section of the survey asked respondents to provide feedback regarding the current recycling system in Oregon. The following prompt served as a lead-in for respondents to rate five separate system functions.

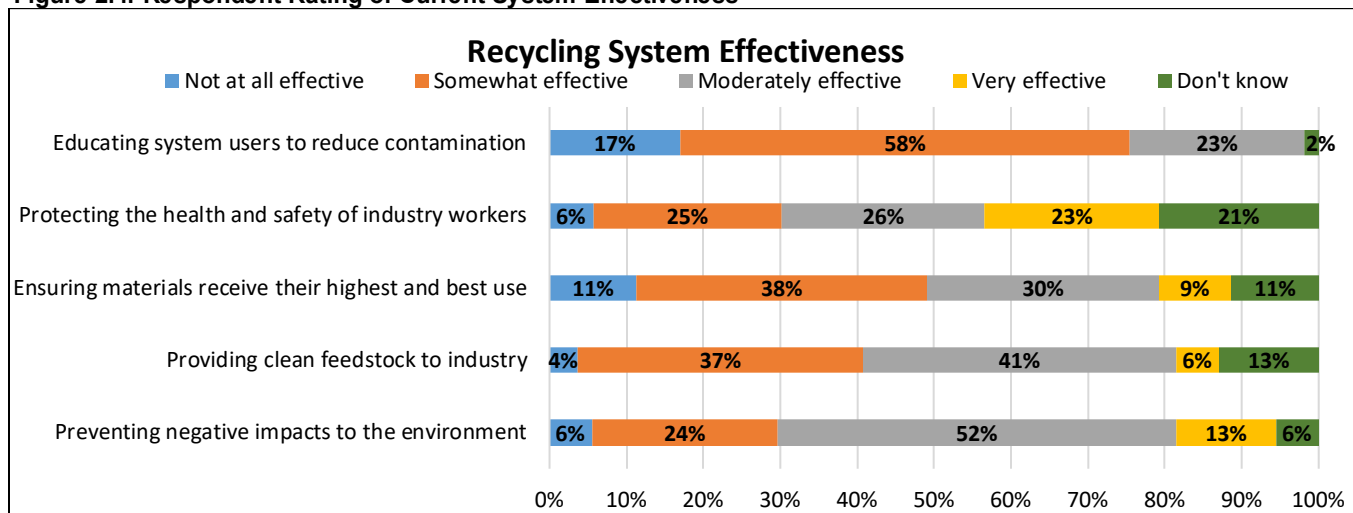
Please rate the effectiveness of Oregon’s current recycling system when it comes to the following:

Respondents ranked Oregon’s current recycling system as most effective at “preventing negative impacts to the environment” (65 percent moderately or very effective vs. 30 percent not at all or somewhat effective) and “protecting the health and safety of industry workers” (49 percent moderately or very effective vs. 31 percent not at all or somewhat effective). “Providing clean feedstock to industry” was ranked in the middle (47 percent moderately or very effective vs. 41 percent not at all or somewhat effective). The lowest rankings for effectiveness within the current Oregon system addressed “ensuring materials receive their highest and best use” (39 percent moderately or very effective vs. 49 percent not at all or somewhat effective) and “educating system users to reduce contamination” (23 percent moderately effective vs. 75 percent not at all or somewhat effective). Table 2.4 and Figure 2.4 further describe the breakdown of responses.

Table 2.4: Respondent Rating of Current System Effectiveness

System Effectiveness Questions	Not at all effective	Somewhat effective	Moderately effective	Very effective	Don't know
Preventing negative impacts to the environment	6% (3)	24% (13)	52% (28)	13% (7)	6% (3)
Providing clean feedstock to industry	4% (2)	37% (20)	41% (22)	6% (3)	13% (7)
Ensuring materials receive their highest and best use	11% (6)	38% (20)	30% (16)	9% (5)	11% (6)
Protecting the health and safety of industry workers	6% (3)	25% (13)	26% (14)	23% (12)	21% (11)
Educating system users to reduce contamination	17% (9)	58% (31)	23% (12)	0% (0)	2% (1)

Figure 2.4: Respondent Rating of Current System Effectiveness



Open Ended Responses

Respondents were asked the following two open ended questions regarding the current recycling system in Oregon:

Which aspects of the current recycling system do you believe work well?

Respondents generated many answers to this question. The three most commonly cited topics were the consistency/quality/availability of **collection services**, Oregon’s **Bottle Bill**, and **public participation** in recycling (also described as “Oregon’s recycling ethos”). Other topics that were cited several times (but with less frequency) included collaboration among partners, local control, education and information programs, end markets, and processing infrastructure.

Which aspects of the current recycling system do you believe need improvement?

The three most commonly cited aspects needing improvement were **contamination**, the **lack of a modern processing infrastructure**, and **public information** for waste generators. Many other aspects were also mentioned. Those mentioned by at least several respondents include: the inconsistency of collection lists across the state, a variety of issues related to plastics, a lack of domestic markets and potential for exporting harm, lack of transparency and accountability post-collection, lack of producer involvement, equity considerations and potential harm to people (such as system workers), commingling materials (as a cause of contamination), confusing or complicated instructions for participants, and challenges specific to rural areas and multifamily settings.

2.3 Future Desired Functions

The Recycling Steering Committee has identified various key functions that members would like to see achieved in the future recycling system. Respondents were asked to rank the top four desired functions they believed are most important to help guide the development of Oregon’s future recycling system.

DEQ summarized or combined the 16 functions identified by the Recycling Steering Committee into 11 key functions for survey respondents to rank. This shorter list was provided for greater ease of understanding and accessibility. From the 11 key functions that were summarized, the top four most selected functions by respondents are described in Table 2.5.

Table 2.5: Top Four Desired Functions According to Respondents

RSC Desired Functions	Count
Optimizes the benefits of recycling considering life cycle impacts and costs	26
Ensures materials are managed responsibly and reach end markets	20
Provides sustainable and equitable financing for stable operations and capital investments	18
Includes mechanisms to reduce upstream impacts of materials	16

From the 11 key functions in the survey, only the following function was not selected by any respondent: “Engages the public to understand the benefits of recycling, and how to use the system properly.” For a complete table of all responses, see Appendix A.

When looking specifically at the responses of the two largest sub-groups within the sample population (government employees and collection service providers/material processors), the following tables compares the top three selected functions across groups. One function – “optimizes the benefits of recycling considering life cycle impacts and costs” – was common to both groups. For a complete table of all responses, see Appendix A.

Table 2.6: Top Ranked Desired Functions of Collection Service Providers / Material Processors

RSC Desired Functions	
1.	Ensures materials are managed responsibly and reach end markets
2.	Optimizes the benefits of recycling considering life cycle impacts and costs
3.	Identifies beneficial materials acceptable for collection programs

Table 2.7: Top Ranked Desired Functions of Government Employees:

RSC Desired Functions	
1.	Optimizes the benefits of recycling considering life cycle impacts and costs
2.	Includes mechanisms to reduce upstream impacts of materials
3.	Designed for equity – examining the burdens and benefits across the state

2.4 Future System Preferences

This portion of the survey had the most questions and explored a number of issues, including responsibility for funding and a variety of policy framework elements that could be introduced into Oregon.

Program Funding

Respondents were asked to indicate who they believe should have primary responsibility for funding six different activities – sustainable product design, recycling material collection, recycling education and outreach, litter control and prevention, material sorting and processing, and marketing/selling processed materials.

A majority of respondents replied that producers should have primary responsibility for funding “*sustainable product design*” (85 percent) and “*marketing/selling processed materials*” (53 percent).

Looking specifically at recycling-related activities, ratepayers currently provide most of the funding for these activities in Oregon. Yet survey respondents generally prefer either shared responsibility or giving producers primary responsibility for funding the recycling system:

- 60 percent favored shared responsibility for “*recycling education & outreach*” vs. 26 percent favoring ratepayer/taxpayer responsibility (the current standard in Oregon)
- 42 percent favored shared responsibility for “*recycling material collection*” and 21 percent favored producer responsibility vs. 37 percent favoring taxpayer/ratepayer responsibility (the current standard in Oregon)
- 76 percent favored shared or producer-funded responsibility (in equal portions) for “*material sorting and processing*” vs. 21 percent favoring taxpayer/ratepayer responsibility.
- 53 percent favored producer responsibility and another 25 percent favored shared responsibility for “*marketing/selling processed recyclables*” vs. 11 percent favoring taxpayers/ratepayers having primary responsibility for that activity.

Tables 2.8 through 2.13 show all responses to the following question.

Please indicate who you believe should have primary responsibility for funding the following activities:

Sustainable Product Design

Table 2.8: Sustainable Product Design – Responses by Sub-Population

	Collection Service Provider / Material Processor	Education Professional	Recycling Advocate / Environmental Nonprofit	Government Employee	Manufacturer	All Respondents
Producers	11 (79%)	4 (80%)	9 (82%)	19 (100%)	3 (60%)	46 (85%)
Shared Responsibility	2 (14%)	0 (0%)	1 (9%)	0 (0%)	1 (20%)	4 (7%)
Taxpayers / Ratepayers	1 (7%)	0 (0%)	0 (0%)	0 (0%)	1 (20%)	2 (4%)
Don't know	0 (0%)	1 (20%)	1 (9%)	0 (0%)	0 (0%)	2 (4%)

Recycling Material Collection

This question generated some of the most divergent responses among all feedback received. Collection service providers/materials processors (92 percent) and manufacturers (75 percent) overwhelmingly favor taxpayer/ratepayer funding for recycling material collection, which is the current funding model in Oregon. The majority of government employees (63 percent) favor shared responsibility. Large majorities of government employees (89 percent) and recycling advocates/environmental nonprofits (91 percent) favor engaging producers in either shared or full responsibility for funding collection services.

Table 2.9: Recycling Material Collection – Responses by Sub-Population

	Collection Service Provider / Material Processor	Education Professional	Recycling Advocate / Environmental Nonprofit	Government Employee	Manufacturer	All Respondents
Producers	0 (0%)	2 (40%)	3 (27%)	5 (26%)	1 (25%)	11 (21%)
Shared Responsibility	1 (8%)	2 (40%)	7 (64%)	12 (63%)	0 (0%)	22 (42%)
Taxpayers / Ratepayers	12 (92%)	1 (20%)	1 (9%)	2 (11%)	3 (75%)	19 (37%)
Don't know	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Recycling Education & Outreach

Government employees (68 percent), recycling advocates/environmental nonprofits (73 percent), and education professionals (80 percent) overwhelmingly favor shared responsibility for recycling education and outreach. Collection service providers/material processors favored taxpayer/ratepayer funding with a plurality of 43 percent, although a majority of collection service providers (57 percent) favored some role for producers (either shared or primary responsibility). Manufacturers were evenly split between shared responsibility (50 percent) and taxpayer/ratepayer funding (50 percent).

Table 2.10: Recycling Education & Outreach – Responses by Sub-Population

	Collection Service Provider / Material Processor	Education Professional	Recycling Advocate / Environmental Nonprofit	Government Employee	Manufacturer	All Respondents
Producers	3 (21%)	0 (0%)	1 (9%)	3 (16%)	0 (0%)	7 (13%)
Shared Responsibility	5 (36%)	4 (80%)	8 (73%)	13 (68%)	2 (50%)	32 (60%)
Taxpayers / Ratepayers	6 (43%)	1 (20%)	2 (18%)	3 (16%)	2 (50%)	14 (26%)
Don't know	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Material Sorting & Processing

Answers varied on this question. Government employees (63 percent) and education professionals (60 percent) favor producer funding, while recycling advocates/environmental nonprofits (64 percent) favor shared responsibility. A large majority of manufacturers (80 percent) and a plurality of collection service providers/material processors (46 percent) prefer taxpayer/ratepayer funding.

Table 2.11: Material Sorting & Processing – Responses by Sub-Population

	Collection Service Provider / Material Processor	Education Professional	Recycling Advocate / Environmental Nonprofit	Government Employee	Manufacturer	All Respondents
Producers	0 (0%)	3 (60%)	4 (36%)	12 (63%)	1 (20%)	20 (38%)
Shared Responsibility	5 (38%)	1 (20%)	7 (64%)	7 (37%)	0 (0%)	20 (38%)
Taxpayers / Ratepayers	6 (46%)	1 (20%)	0 (0%)	0 (0%)	4 (80%)	11 (21%)
Don't know	2 (15%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (4%)

Litter Control & Prevention

Table 2.12: Litter Control & Prevention – Responses by Sub-Population

	Collection Service Provider / Material Processor	Education Professional	Recycling Advocate / Environmental Nonprofit	Government Employee	Manufacturer	All Respondents
Producers	0 (0%)	3 (60%)	2 (18%)	4 (21%)	0 (60%)	9 (17%)
Shared Responsibility	5 (36%)	1 (20%)	7 (64%)	9 (47%)	2 (40%)	24 (44%)
Taxpayers / Ratepayers	6 (43%)	1 (20%)	2 (18%)	5 (26%)	3 (60%)	17 (31%)
Don't know	3 (21%)	0 (0%)	0 (0%)	1 (5%)	0 (0%)	4 (7%)

Marketing/Selling Processed Materials

Respondents were less confident in answering this question (11 percent selected “Don’t know”) and the responses varied widely. A large majority of government employees (84 percent), as well as a plurality of recycling advocates/environmental nonprofits (45 percent) favor producer funding. Collection service providers/material processors, manufacturers and education professionals were generally split across the options.

Table 2.13: Marketing/Selling Processed Materials – Responses by Sub-Population

	Collection Service Provider / Material Processor	Education Professional	Recycling Advocate / Environmental Nonprofit	Government Employee	Manufacturer	All Respondents
Producers	3 (23%)	2 (40%)	5 (45%)	16 (84%)	2 (40%)	28 (53%)
Shared Responsibility	4 (31%)	2 (40%)	3 (27%)	3 (16%)	1 (20%)	13 (25%)
Taxpayers / Ratepayers	4 (31%)	0 (0%)	0 (0%)	0 (0%)	2 (40%)	6 (11%)
Don't know	2 (15%)	1 (20%)	3 (27%)	0 (0%)	0 (0%)	6 (11%)

Performance Requirements & Enhanced Access

In this section, respondents were asked to provide feedback on possible new statewide requirements that could be used to help modernize Oregon’s recycling system.

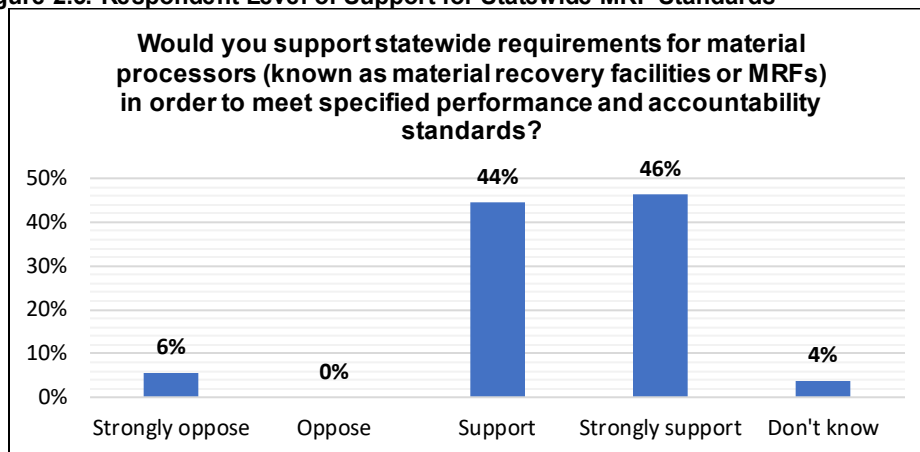
Would you support statewide requirements for material processors (known as MRFs) in order to meet specific performance and accountability standards?

- 90 percent of respondents reported that they *support* or *strongly support* the establishment of statewide requirements in order for MRFs to meet specific performance and accountability standards

Table 2.14: Level of Support for Statewide MRF Standards – All Responses

Question	Strongly Oppose	Oppose	Support	Strongly Support	Don't know
Would you support statewide requirements for material processors (known as MRFs) in order to meet specific performance and accountability standards?	(3) 6%	0 (0%)	24 (44%)	25 (46%)	2 (4%)

Figure 2.5: Respondent Level of Support for Statewide MRF Standards



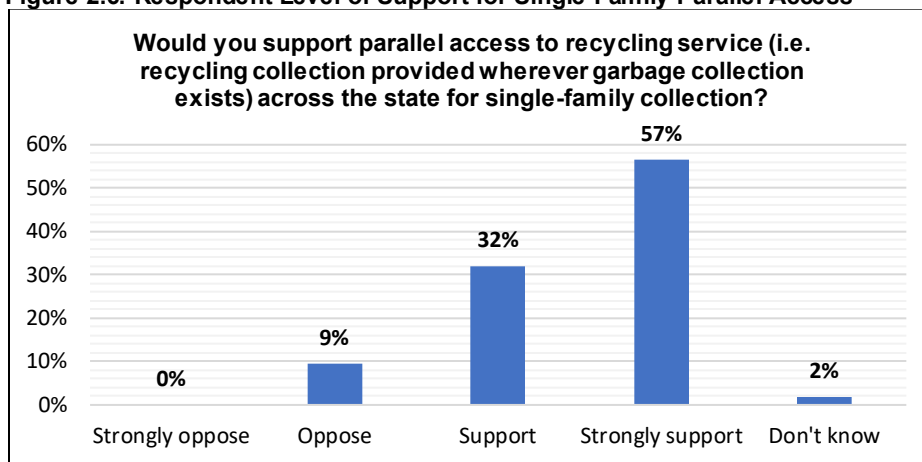
Would you support parallel access to recycling service (i.e. recycling collection provided wherever garbage collection exists) across the state for single-family collection?

- 89 percent of respondents reported that they *support* or *strongly support* parallel access to recycling service across the state for single-family collection

Table 2.15: Level of Support for Single-Family Parallel Access – All Responses

Question	Strongly Oppose	Oppose	Support	Strongly Support	Don't know
Would you support parallel access to recycling service (i.e. recycling collection provided wherever garbage collection exists) across the state for single-family collection?	0 (0%)	5 (9%)	17 (32%)	30 (57%)	1 (2%)

Figure 2.6: Respondent Level of Support for Single-Family Parallel Access



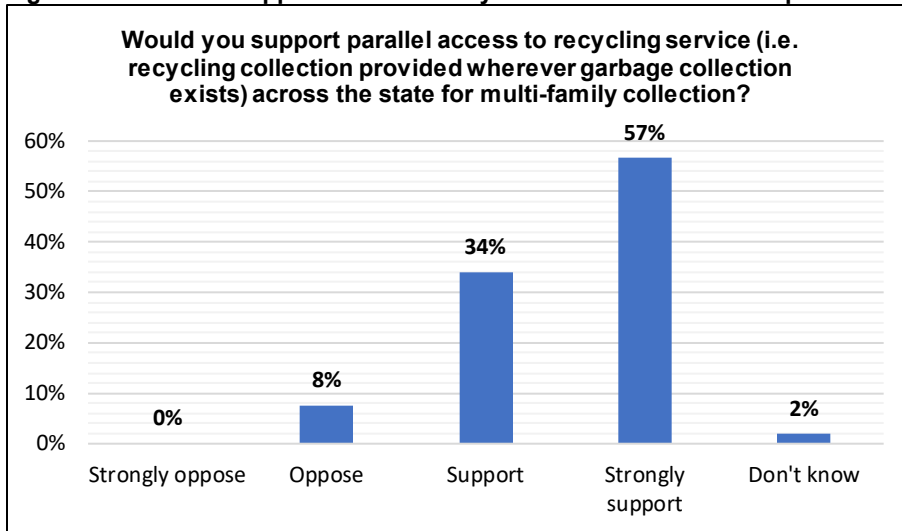
Would you support parallel access to recycling service (i.e. recycling collection provided wherever garbage collection exists) across the state for multifamily collection?

- 91 percent of respondents reported that they *support* or *strongly support* parallel access to recycling service across the state for multifamily collection

Table 2.16: Level of Support for Multifamily Parallel Access – All Responses

Question	Strongly Oppose	Oppose	Support	Strongly Support	Don't know
Would you support parallel access to recycling service (i.e. recycling collection provided wherever garbage collection exists) across the state for multifamily collection?	0 (0%)	4 (8%)	18 (34%)	30 (57%)	1 (2%)

Figure 2.7: Level of Support for Multifamily Parallel Access – All Responses



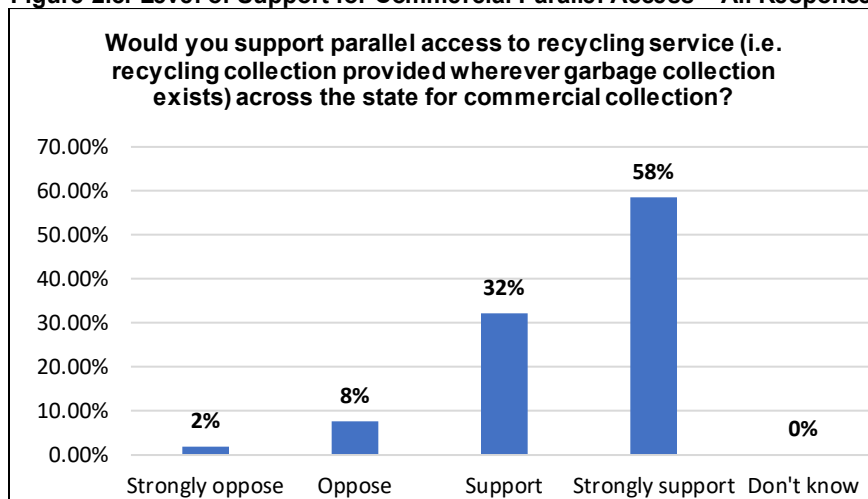
Would you support parallel access to recycling service (i.e. recycling collection provided wherever garbage collection exists) across the state for commercial collection?

- 90 percent of respondents reported that they *support* or *strongly support* parallel access to recycling service across the state for commercial collection

Table 2.17: Level of Support for Commercial Parallel Access – All Responses

Question	Strongly Oppose	Oppose	Support	Strongly Support	Don't know
Would you support parallel access to recycling service (i.e. recycling collection provided wherever garbage collection exists) across the state for commercial collection?	1 (2%)	4 (8%)	17 (32%)	31 (58%)	0 (0%)

Figure 2.8: Level of Support for Commercial Parallel Access – All Responses



Scenario Rating

This section of the survey asked respondents to provide feedback regarding the five scenarios and elements covered during the January 2020 information session. The five scenarios were divided into two groups: government-managed (scenarios 1 and 2) and producer-managed (scenarios 3-5). Respondents ranked their level of support for individual elements in the government-managed scenarios, and then ranked their level of support for whole scenario in the producer-managed group.

Group One: Government-Managed Scenarios

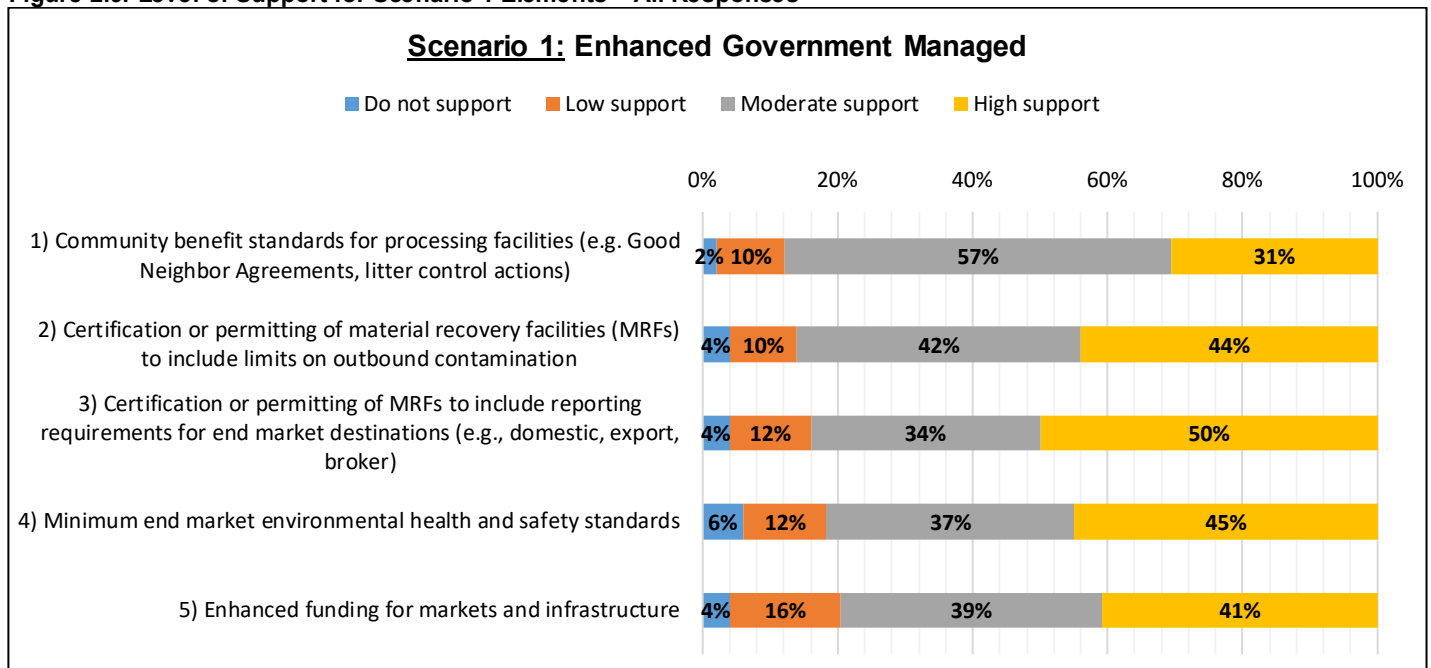
Within scenarios 1 and 2, what is your level of support for the following elements?

Scenario 1: Enhanced Government Management

Table 2.18: Level of Support for Scenario 1 Elements – All Responses

Question	Do not support	Low support	Moderate support	High support
1) Community benefit standards for processing facilities (e.g. Good Neighbor Agreements, litter control actions)	2% (1)	10% (5)	57% (28)	31% (15)
2) Certification or permitting of material recovery facilities (MRFs) to include limits on outbound contamination	4% (2)	10% (5)	42% (21)	44% (22)
3) Certification or permitting of MRFs to include reporting requirements for end market destinations (e.g., domestic, export, broker)	4% (2)	12% (6)	34% (17)	50% (25)
4) Minimum end market environmental health and safety standards	6% (3)	12% (6)	37% (18)	45% (22)
5) Enhanced funding for markets and infrastructure	4% (2)	16% (8)	39% (19)	41% (20)

Figure 2.9: Level of Support for Scenario 1 Elements – All Responses



Open-Ended Responses: Please explain why you do, or do not, support these elements?

A wide variety of sentiments were expressed in the comments for this question, although most showed general support for the elements in Scenario 1. The four most commonly mentioned themes were: support for increasing MRF **accountability**, support for improving **health and safety** for workers and/or end markets, opposition to **MRF reporting** and desire to **maintain competition** in the marketplace. Several respondents mentioned that the elements in Scenario 1 do not go far enough to solve the issues and some mentioned that producer involvement is needed. Several also mentioned the need for consistency and stability.

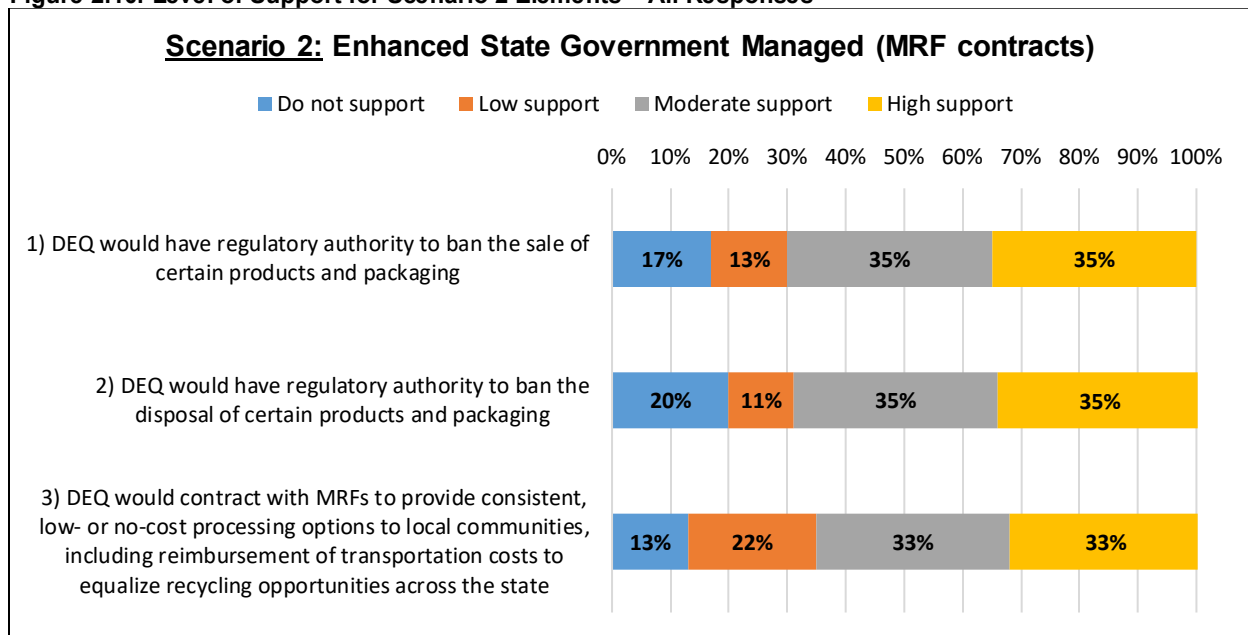
As an example, one comment that was generally in favor of the elements reads: “All of these actions [above] help reduce harm to the environment and people, ensuring long term success of our recycling system. Standardization of these processes is important for achieving those ends. So I'm in favor of all of these options, but don't think this goes far enough to ensure meaningful change in the system.” One comment that was more critical reads: “Do not support reporting requirements since this will diminish competition within the marketplace on a commodity good.”

Scenario 2: Enhanced State Government Management (MRF Contracts)

Table 2.19: Level of Support for Scenario 2 Elements – All Responses

Question	Do not Support	Low Support	Moderate Support	High Support
1) DEQ would have regulatory authority to ban the sale of certain products and packaging	17% (8)	13% (6)	35% (16)	35% (16)
2) DEQ would have regulatory authority to ban the disposal of certain products and packaging	20% (9)	11% (5)	35% (16)	35% (16)
3) DEQ would contract with MRFs to provide consistent, low- or no-cost processing options to local communities, including reimbursement of transportation costs to equalize recycling opportunities across the state	13% (6)	22% (10)	33% (15)	33% (15)

Figure 2.10: Level of Support for Scenario 2 Elements – All Responses



Open-Ended Responses: *Please explain why you do, or do not, support these elements?*

Again, the comments submitted in response to this question were diverse. The most commonly mentioned sentiment was an expression of **support for disposal bans** on certain products. Following that, several respondents also expressed **opposition to disposal bans** and several mentioned **concerns about the costs** involved with this scenario. At least three respondents mentioned the need for producer responsibility, concern about the burden on DEQ of administering this scenario, and skepticism of subsidized transport costs.

One comment generally in support of bans reads: “If a product is toxic or not recyclable, the state should be able to ban it from being sold, and the producers should be responsible for their own waste.” One comment opposed to disposal bans reads: “I feel disposal bans are very hard to monitor and could be a waste of resources to do so. Particularly for non-toxic or non-hazardous materials.” A comment in support of the general scenario reads: “The[se] are critical components to effective change. Processors & consumers are not likely to comply without regulatory enforcement.” A comment in opposition of the general scenario reads: “I don't believe getting DEQ more involved in regulating this is the solution. Going this direction will create more costs and paperwork / processes from what new regulations DEQ will create.”

Group Two: Producer-Managed Scenarios

What is your level of support for the following scenarios?

Scenario 3: Post-Collection Producer Responsibility

Table 2.20: Level of Support for Scenario 3 – All Responses

Scenario	Do Not Support	Low Support	Moderate Support	High Support
<u>Scenario 3: Post-Collection Producer Responsibility</u>	24% (11)	7% (3)	52% (24)	18% (8)

Figure 2.11: Respondent Level of Support for Scenario 3

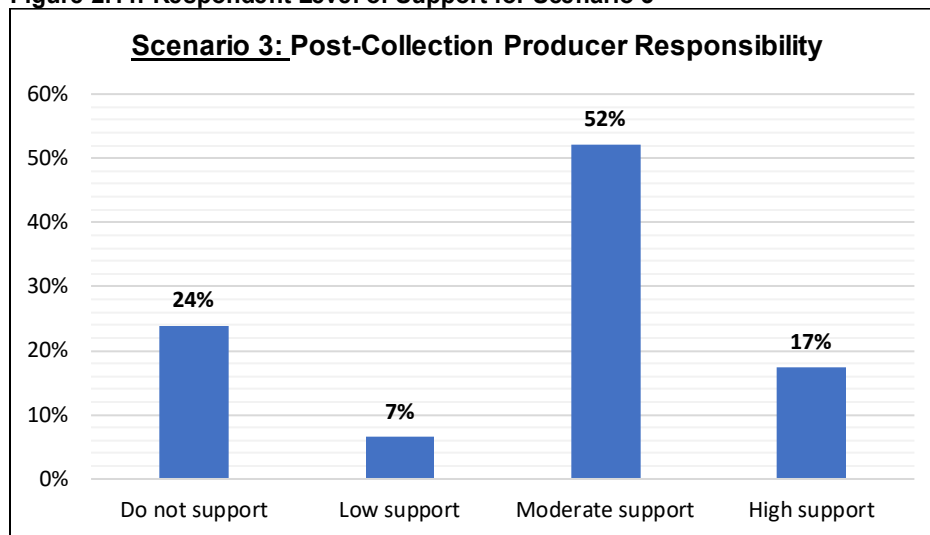


Table 2.21: Level of Support for Scenario 3 – Responses by Sub-Population

	Collection Service Provider / Material Processor	Education Professional	Recycling Advocate / Environmental Nonprofit	Government Employee	Manufacturer
Do not support	7 (54%)	0 (0%)	2 (20%)	1 (6%)	1 (33%)
Low support	1 (8%)	0 (0%)	1 (10%)	0 (0%)	1 (33%)
Moderate support	4 (31%)	1 (50%)	6 (60%)	12 (66%)	1 (33%)
High support	1 (8%)	1 (50%)	1 (10%)	5 (28%)	0 (0%)
Total	13 (100%)	2 (100%)	10 (100%)	18 (100%)	3 (100%)

Open-Ended Responses: *Please explain why you do, or do not, support this scenario?*

The most common sentiment expressed in these comments was general **support for producer responsibility and producer funding**. The next most prevalent ideas expressed were skepticism about **inefficiency and increased costs**, and desire to **maintain local control**.

One comment generally in opposition to this scenario reads: “Producers aren’t experts at recycling. They are experts in producing their products. They can be encouraged to provide products and packaging that are recyclable. Let the market decide. Having producers involved in the whole process of recycling, especially with funding, will create more problems.” A comment in support of this scenario reads: “I offer high support for transportation subsidies, and further support producers funding and implementing a marketing program. I also believe [local governments] should maintain a role in the collection process to provide accountability for its residents. No matter the outcome, DEQ oversight seems to be necessary.”

Scenario 4: Producer Responsibility with Local Control

Table 2.22: Level of Support for Scenario 4 – All Responses

Scenario	Do Not Support	Low Support	Moderate Support	High Support
<u>Scenario 4: Producer Responsibility with Local Control</u>	24% (11)	11% (5)	36% (16)	29% (13)

Figure 2.12: Level of Support for Scenario 4 – All Responses

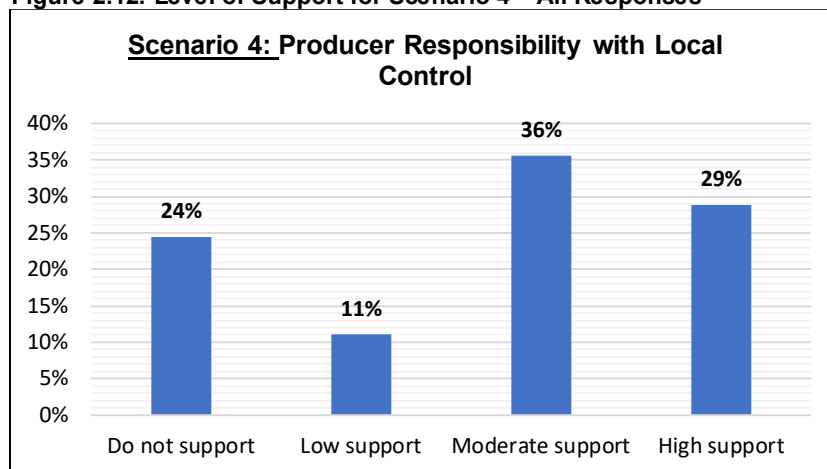


Table 2.23: Level of Support for Scenario 4 – Responses by Sub-Population

	Collection Service Provider / Material Processor	Education Professional	Recycling Advocate / Environmental Nonprofit	Government Employee	Manufacturer
Do not support	6 (50%)	0 (0%)	1 (10%)	1 (6%)	3 (75%)
Low support	1 (8%)	0 (0%)	5 (50%)	7 (39%)	0 (0%)
Moderate support	3 (25%)	1 (100%)	1 (10%)	0 (0%)	0 (0%)
High support	2 (17%)	0 (0%)	3 (30%)	10 (56%)	1 (25%)
Total	12 (100%)	1 (100%)	10 (100%)	18 (100%)	4 (100%)

Open-Ended Responses: *Please explain why you do, or do not, support this scenario?*

There were three main sentiments expressed in reaction to Scenario 4 – **support for local involvement** in the recycling system, **support for more producer accountability**, and on the other end of the spectrum, **opposition to producers getting involved** in Oregon’s system.

As examples, a comment in favor of this scenario reads: “EPR with local influence hits highest elements of equity, accountability, and resiliency in a future recycling system.” A respondent who was not in favor of this scenario wrote: “I don’t believe producers should be implementing Oregon’s recycling system. Their priorities are different and likely would be at odds with Oregon, our local governments, residents etc.”

Scenario 5: Full Producer Responsibility with Optional Local Involvement

Table 2.24: Level of Support for Scenario 5 – All Responses

Scenario	Do Not Support	Low Support	Moderate Support	High Support
<u>Scenario 5: Full Producer Responsibility with Optional Local Involvement</u>	42% (19)	16% (7)	22% (10)	20% (9)

Figure 2.13: Level of Support for Scenario 5 – All Responses

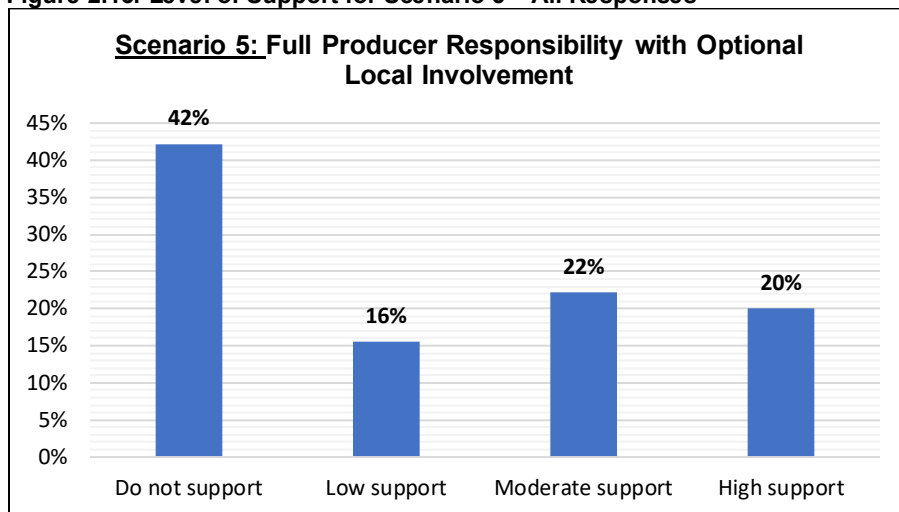


Table 2.25: Level of Support for Scenario 5 – Responses by Sub-Population

	Collection Service Provider / Material Processor	Education Professional	Recycling Advocate / Environmental Nonprofit	Government Employee	Manufacturer
Do not support	11 (92%)	1 (100%)	3 (30%)	2 (11%)	2 (50%)
Low support	1 (8%)	0 (0%)	2 (20%)	4 (22%)	0 (0%)
Moderate support	0 (0%)	0 (0%)	2 (20%)	6 (33%)	2 (50%)
High support	0 (0%)	0 (0%)	3 (30%)	6 (33%)	0 (0%)
Total	12 (100%)	1 (100%)	10 (100%)	18 (100%)	4 (100%)

Open-Ended Responses: *Please explain why you do, or do not, support this scenario?*

Nearly all the comments in response to this scenario were opposed or somewhat skeptical. The comments mainly touched on fear of **too much producer control** and the need for **more local involvement**. Several comments also touched on the need for strong state oversight, and a concern that this scenario is too complex to be successful.

One comment that exhibits some of the main sentiments shared in this question reads: “Concerned about too much producer control over system. Incentive of producers (industry) is not environmental and social outcomes, that is government’s mandate. State would be required to regulate to a standard that may not be high/low enough for a State as diverse as Oregon.”

Final Comments

Below are just a few examples of comments that respondents provided when asked for any final feedback about modernizing Oregon’s recycling system. These remarks help illustrate the complexity of the issues associated with this effort, and the range of perspectives that must be considered when developing recommendations for the future. For the complete list of comments, see Appendix B.

- *“Contamination is very difficult to control, and I would estimate that most people do not know how to properly recycle. I know our local organizations try to do outreach as best as possible, but it seems to only reach the people who already care about recycling and climate issues. Those who do not pay attention do not feel encouraged or motivated to contribute.”*
- *“We can't have our materials being mismanaged causing harm locally or abroad, as the public has put them in the recycling bins in good faith. If that continues, the system will fail.”*
- *“Living in a rural part of the state, there are issues with individuals still burning garbage/recycling items... I would like to see a central location for dropping off items that are normally only recycled in the Portland/Metro area... I also believe that it should be part of the school education as this is (recycling/garbage/natural resource consumption) part of everyone's lives and will affect us all.”*
- *“I think that the rate charges/fees for recycling in the past and present have been much too low to allow for future infrastructure investment. Garbage and recycling collection is one of, if not THE, most inexpensive utility costs for households.”*
- *“Oregon has always been a pioneer when it comes to materials management/recycling, and this is a fantastic opportunity for our state to lead the way in creating a recycling system that address the LCA/environmental impacts around our consumption behaviors, places responsibility on producers to create materials/packaging to streamline the materials that are being generated, and places an emphasis on creating/growing our local/regional economy.”*

Section 3: Appendices

Appendix A: Additional Tables

Table 3.1: RSC Desired Functions – All Responses

RSC Desired Functions	Count
Optimizes the benefits of recycling considering life cycle impacts and costs	26
Ensures materials are managed responsibly and reach end markets	20
Provides sustainable and equitable financing for stable operations and capital investments	18
Includes mechanisms to reduce upstream impacts of materials	16
Resiliently adapts to changes in material supply and end-market demand	15
Produces quality materials that reach end markets	15
Designed for equity – examining the burdens and benefits across the state	13
Shares responsibility for the system among all players	13
Identifies beneficial materials acceptable for collection programs	10
Collects clean materials and ensures processing facilities receive sufficient volumes	10
Engages the public to understand the benefits of recycling, and how to use the system properly	0

Table 3.2 Cross-tabulation of Desired Functions and Sub-Population Responses

RSC Desired Functions	Collection Service Provider / Material Processor	Education Professional	Recycling Advocate / Environmental Nonprofit	Government Employee	Manufacturer
Optimizes the benefits of recycling considering life cycle impacts and costs	6	1	4	13	2
Ensures materials are managed responsibly and reach end markets	7	0	3	8	2
Provides sustainable and equitable financing for stable operations and capital investments	2	1	7	7	1
Includes mechanisms to reduce upstream impacts of materials	0	0	5	10	1
Resiliently adapts to changes in material supply and end-market demand	4	1	4	6	0
Produces quality materials that reach end markets	3	0	3	7	2
Designed for equity - examining the burdens and benefits across the state	1	0	2	9	1
Shares responsibility for the system among all players	2	2	2	5	2
Identifies beneficial materials acceptable for collection programs	6	0	2	1	1
Collects clean materials and ensures processing facilities receive sufficient volumes	4	2	3	0	1
Engages the public to understand the benefits of recycling, and how to use the system properly	0	0	0	0	0

Appendix B: Open-Ended Responses

Below is the full text of comments respondents provided in answer to this question:

Please provide any additional feedback you have regarding the modernization of Oregon's recycling system.

1. Modern = mandatory recycling and composting
2. This is a moon shot initiative which will effectively transform recycling throughout our state. Keep up the good work!
3. We need to consider the costs of transportation in all phases. We shouldn't have loads of cardboard, for example, passing each other going in opposite directions.
4. Thank you for the webinar. I found it informative and useful.
5. Oregon has always been a pioneer when it comes to materials management/recycling, and this is a fantastic opportunity for our state to lead the way in creating a recycling system that address the LCA/environmental impacts around our consumption behaviors, places responsibility on producers to create materials/packaging to streamlines the materials that are being generated, and places an emphasis on creating/growing our local/regional economy.
6. Thank you for all your work on this important project!
7. Why does it have to take so long? It's not rocket science. You're using a lot of man hours talking about it. Make a decision so that the generators, collectors, processors, and end user can go about running the recycling industry.
8. I don't think massive changes to our recycling system are in need given the challenges that we face today. Those challenges have primarily been caused by China closing their markets for recycle based commodities. Markets have and are being developed to accommodate the finished goods produced from the recycling stream. Wholesale change isn't the answer and China will eventually come back to the table with higher standards which will require more infrastructure for processing.
9. I think that the rate charges/fees for recycling in the past and present have been much too low to allow for future infrastructure investment. Garbage and recycling collection is one of, if not THE, most inexpensive utility costs for households. Just think about that. Households have garbage/recycling services at least twice, if not, four times per month. A large truck comes to their homes and rids their households of unwanted materials. Where can you get delivery services like this anywhere else for this cheap? All for the cost of about 5-7/lattes/month at Starbucks.
10. People want to recycle here in Oregon and I think that for a few more dollars/month they would be willing to help invest in modern processing infrastructure. As long as ratepayers know what they're paying for and can trust the system, raising rates is (especially for this utility) a very minor obstacle.
11. We have real property assets to provide and grow processing opportunities for the communities in Oregon. The one component that's prevented infrastructure investment is guaranteed volume. Sourcing is critical to processors. Higher volumes allow for more scaling which results in lower costs.
12. Great work on the Salem event.
13. Already included in the individual responses.
14. No more of our plastics in the Ocean please. No more workers exposed to hazardous conditions too.
15. I don't think it matters how much you educate the public, it takes a few who don't care that contaminate, I really think it's going to have to be monitored and/or rejected at collection sites.
16. I don't think there is enough balance between scenarios 1-2 and scenarios 3-5. I really think there should be more pressure put on producers to make better products, but there doesn't seem to be a middle ground in any of the scenarios where the producer is accountable but doesn't have to pay for the entire thing. I think there should be a better spread of where funding comes from. Producers should be incentivized to make crappy unrecyclable products, but they shouldn't have to carry the whole burden of the system.
17. I am very impressed with the direction DEQ is going with product responsibility and recycling. Very exciting. I do worry however that the make-up of this committee is stacked by stakeholders who are all intertwined with the tipping fees of landfills. Perhaps this is why I see a large gap in the overall goal of this committee. You forgot the main "material" that you should be pushing producers to "manage",

carbon sequestration organic products. Your concepts are so heavily weighted to the front end manipulating the cost and production on materials that can be sold in a upmarket closed loop that you are not paying attention to the ultimate backend goals all products becoming “organic” and thus useful in carbon sequestration. If Oregon only requires that waste collection companies recycle things that make money then why are you not asking them to produce an incentivized organic product that can be capitalized in the compost market? Example: Did you know that there is a coffee cup that is totally organic not PTL, no glue, just heavy brown paper that holds up great to heat and cold and composts FAST! We all know the word “compostable” has been irreparably bastardized but the word organic meaning that which can be useful in sequestration of carbon is still in play. There needs to be a grading system that pushes manufacturers to only make organic materials that can be made into soil. Carbon is sequestered from the formation and decomposition of biological cells therefore all products should be rated for their ability to make compost and thus sequester carbon. Example: A plastic bag does not sequester carbon. A composted paper bag does sequester carbon. Instead of giving products numbers on how they can be recycled it would be much better to give them numbers if they can sequester carbon. A plastic bag would get a SN5 (SEQUETER NUMBER FIVE) for instance, a paper bag would SN1. Or something like that!

Here lies the problem. The Committee is stacked with Landfill companies and a regulatory body that is paid by the tipping fees from Landfills. We all have our POVs but the best way to get to a fair consensus is to have the full spectrum of POVs right from the beginning of the decision making... Many of you know my POV but I am not seeing anyone even close to my experience on this panel. It had to be intentional. People such as myself who come at this field from a point of view of peril (Riverbend Landfill) and not just from the “bottom line” world often innovate to survive. We have our perspective and you have excluded it. Example: Yamhill county has three points of trash collection. Newberg transfer Station, Riverbend Landfill, and Recology Greenlands in McMinnville. All three of them will be affected by your study. Waste Management owns NBT and RBL and there is no composting available at those sites. They are represented on this panel. A paper bag is not being composted there. Recology Greenlands has composting. Paper bags are composted there. They are not represented on this panel. Zero Waste McMinnville was formed because we have a composting facility and non-landfill waste company in our town. Perhaps if there were on the committee you would have added in a sequestration component in the material management of the goods and services of our waste.

18. Recycling in Oregon is not broken. In fact, the current system has done an outstanding job of adjusting to the departure of China from the market for post consumer recyclables. The consuming mills are also rapidly adjusting to China's action by adding new capacity at existing mill and building new mills. Achieving better outbound quality and a better understanding of material flows can be quickly achieved with additional thoughtful regulation. Adopting a radical new approach is not necessary, would jeopardize existing investments and would be very expensive and time consuming to develop and administer.
19. Living in a rural part of the state, there are issues with individuals still burning garbage/recycling items. I would like for there to be more stringent rules on burning garbage. I would like to see a central location for dropping off items that are normally only recycled in the Portland/Metro area- an hour drive to recycle items will cost more in the gas to transport than to just throw the item away at home. I also believe that it should be part of the school education as this is (recycling/garbage/natural resource consumption) part of everyone's lives and will affect us all.
20. We have got to develop a system for recycling plastic bags and film or require producers to switch to recyclable alternative packaging.
21. We can't have our materials being mismanaged causing harm locally or abroad, as the public has put them in the recycling bins in good faith. If that continues, the system will fail.
22. Reduce consumption, reimagine production.