## Producer Responsibility Program for Statewide Recycling

Recommendation Prepared for the Joint Budget Committee
March 12, 2024

COLORADO
Department of Public
Health \& Environment

## What is EPR?

A policy approach and practice in which producers take responsibility for management of the products and/or packaging they produce at the end of their useful life.

-….....

33 States


## HB22-1355 Goals



Increase recycling \& reuse


Strengthen local supply chain


Statewide collection list


Save local governments money


Decrease climate pollution


Incentivize sustainable packaging


Free \& equitable recycling for all


Education \& outreach

## PRO Founding Members

The State of Colorado designated Circular Action Alliance as the Producer Responsibility Organization (PRO) in May of 2023 to coordinate, fund, and manage this statewide recycling system.
 COMPANY

- Keurig

Kraftケeinz
L'ORÉAL

MARS
.Mondelezz.
SNACKING MADE RICHT

## Program Timeline



## PRO Appointed

Executive Director appointed Circular Action Alliance as Colorado's, and the nation's, first PRO


Needs Assessment Commences
Executive Director approves
Contractor for Needs
Assessment \& work begins


Needs Assessment Due
Needs Assessment statutory deadline

March
2024

## Joint Budget Committee

Department presents
recommended scenario
from Needs Assessment


Program Plan Due
Department approves
PRO's program plan


Plan Implementation
Producers begin paying dues, CDPHE eligible for reimbursement, plan implementation begins

## Needs Assessment Requirements

This needs assessment is part of the program's goal to develop a convenient, cost-effective program that provides free and equitable recycling of packaging and paper products for all Coloradans.

Circular Action Alliance was required to conduct a needs assessment which:

Evaluates the recycling infrastructure, services, and costs throughout all geographic areas of the state

Proposes a standardized list of materials to be accepted at all recycling facilities

Proposes three scenarios for increasing Colorado's collection and recycling rates by 2030 and 2035, and the anticipated costs associated with each

## Needs Assessment Objectives

- In-depth study assessing Colorado's existing recycling systems and identifying opportunities for growth and improvement of the system
- Foundation for establishing goals and cost estimates for the PRO's program plan
- HB22-1355 specifies components that the needs assessment must analyze, which the consultant broke into the following elements:
- Element 1 - Residential Collection
- Element 2 - Service Costs
- Element 3 - Demographics
- Element 4 - Contamination
- Element 5 - Nonresidential Collection
- Element 6 - Processing Capacity
- Element 7 - Opportunities \& Costs
- Element 8 - Minimum Recyclables List \& Additional Materials
- Element 9 - End Markets
- Element 10 - New Technologies
- Element 11 - Reuse and Refill
- Element 12 - Education
- Element 13 - Scenarios \& Exemptions Impacts
- Element 14 - Compost


## Needs Assessment Findings

## ONLY *25\%

of consumer packaging and paper products in Colorado are being recycled today

## ONLY 20\% OF HOUSEHOLDS

in rural areas currently have curbside recycling services

## 10-20\% CONTAMINATION RATES

were reported at recycling \& compost facilities
Hospitality locations in Colorado reported a generation rate of 20-50\% RECYCLABLE MATERIALS

Colorado currently has 52 EXISTING REUSE \& REFILL OPERATIONS

Colorado recycling facilities have the potential to INCREASE EXISTING RECYCLING CAPACITY by 60\%

## Projected Scenarios

- Develop 3 scenarios and estimate their impacts on collection and recycling rates of covered materials in Colorado, to be met by 2030 and 2035, including associated operating and capital costs
- Modeling is a culmination of findings from the other elements
- Identified factors that impact collection and costs:
- Access
- Collection
- Materials
- Education
- Infrastructure
- Waste generation
- Using these factors, "low", "medium", and "high" scenarios were developed



## Projected Scenarios - Modeling Summary

## Access

| Control | Control Options | Low | Medium | High |
| :---: | :---: | :---: | :---: | :---: |
| Access |  |  |  |  |
| Residential recycling access equivalency to trash | Achieved by 2030 | Achieved by 2030 | Achieved by 2030 | Achieved by 2030 |
| Recycling for non-residential covered entities | Offered to all by 2030 | Offered to all by 2030 | Offered to all by 2030 | Offered to all by 2030 |

## Collection

| Control | Control Options | Low | Medium | High |
| :--- | :--- | :--- | :--- | :--- |

## Collection

Collection method for newly provided service (no changes to existing service)

Frequency of collection

Single stream

| No change to existing, |
| :--- |
| Weekly, |
| Bi-weekly for new |
| service \& existing |
| Minor, Medium, Major |


| Single stream | Single stream | Single stream |
| :--- | :--- | :--- |
| No change to existing, <br> Bi-weekly for new <br> service | Weekly in Front Range, <br> Bi-weekly in other regions | Weekly in all regions |
| Minor | Medium | Medium |

## Projected Scenarios - Modeling Summary

## Materials

| Control | Control Options | Low | Medium | High |
| :---: | :---: | :---: | :---: | :---: |
| Materials |  |  |  |  |
| Collection of hard to recycle packaging | Drop Off, Events | Drop off by 2030, Events | Drop off by 2030, Events | Drop off by 2030, Events |
| Minimum recyclables list collection | achieve goal by 2030 or 2035 | 2030 | 2030 | 2030 |
| Additional materials list collection | achieve goal by 2030 or 2035 | 2030 | 2030 | 2030 |

## Projected Scenarios - Modeling Summary

## Materials

| Control | Control Options | Low | Medium | High |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | Materials |  |  |  |  |
| Flexible plastics <br> collection | None, <br> Curbside, <br> Drop off | None | Drop off by 2035 | Drop off and curbside by <br> 2035 |  |
| Glass collection and glass <br> clean up systems <br> installed at MRFs | Current, <br> Curbside, <br> Drop-Off | Curbside, Drop-off | Curbside, Drop-Off |  | Curbside, Drop-Off |

## Projected Scenarios - Modeling Summary

## Infrastructure

| Control | Control Options | Low | Medium | High |
| :---: | :---: | :---: | :---: | :---: |
| Infrastructure |  |  |  |  |
| Drop off sites | Expand, new | Expand all regions; New in Mountains, Eastern, and Western | Expand and new in all regions | Expand and new in all regions |
| MRF upgrades | Low, Medium. High | Medium (\$15m) | Medium/High (\$85m) | High (\$100m) |
| Composting facility upgrades | Low, Medium, High | Low (\$25m) | Medium (\$50m) | High (\$100m) |
| Flexible Film Processing | Low, Medium, High | None | None | High (\$50m) |

## Projected Scenarios - Results

| Statewide Estimated Recycling Rates \& Performance/Cost |  | 2030 | 2035 |
| :---: | :---: | :---: | :---: |
| Low | Recycling rate (\%) | 35\%-41\% | 48\% - 54\% |
|  | Recycling rate (k tons) | 490 | 670 |
|  | \% Performance increase over baseline | 51\% | 102\% |
|  | \% Cost increase over baseline | 44\% | 69\% |
| Medium | Recycling rate (\%) | 38\% - 44\% | 52\% - 58\% |
|  | Recycling rate (k tons) | 530 | 720 |
|  | \% Performance increase over baseline | 62\% | 119\% |
|  | \% Cost increase over baseline | 72\% | 105\% |
| High | Recycling rate (\%) | 39\%-45\% | 54\%-60\% |
|  | Recycling rate (k tons) | 540 | 750 |
|  | \% Performance increase over baseline | 66\% | 127\% |
|  | \% Cost increase over baseline | 75\% | 125\% |

## Projected Scenarios - Producer Costs

| Projected PRO Implementation Costs |  | 2022 AVG | 2030 AVG | 2035 AVG |
| :---: | :---: | :---: | :---: | :---: |
| Low | Total Annualized Cost (\$ million) | 110 | 170 | 210 |
|  | PRO Cost Per Household (\$) | 75 | 80 | 95 |
|  | PRO Cost Per Ton Recycled (\$) | 345 | 355 | 310 |
| Medium | Total Annualized Cost (\$ million) | 110 | 210 | 250 |
|  | PRO Cost Per Household (\$) | 75 | 95 | 115 |
|  | PRO Cost Per Ton Recycled (\$) | 345 | 395 | 350 |
| High | Total Annualized Cost (\$ million) | 110 | 210 | 275 |
|  | PRO Cost Per Household (\$) | 75 | 95 | 125 |
|  | PRO Cost Per Ton Recycled (\$) | 345 | 395 | 365 |

- Program funding is managed by the PRO and funded by producers
- There is no monetary request by the state for this program
- "Cost per household" is a per unit implementation cost for the PRO


## Projected Scenarios - Opportunities

- Increase recycling from $25 \%$ up to $60 \%$ for consumer packaging / paper by 2035
- 500,000 additional households in municipalities will receive curbside recycling services
- 100,000-200,000 additional households will receive recycling service in other in census-designated places and rural areas
- Areas with lowest income per capita will experience largest increase in access
- Multi-family housing and rural communities experience increase in access
- Standardized list for recycling with consistent statewide education
- Recycling an additional 350,000-440,000 tons per year by 2035
- End market expansion, particularly for glass, creating closed-loop systems



## Producer Responsibility Advisory Board Input

## 13 Advisory Board meetings reviewing elements of the needs assessment

- Comments from Board members:
- Proposed list of materials:
- Background information on how scoring was completed
- Thermoforms, glass, flexible plastic, metals, compostable packaging

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Collection \& processing investments needed with infrastructure:
■ Material recovery facilities (MRFs), secondary processing facilities, compost facilities

- Need more variability in scenarios
- Need glass investments starting in low scenario, with more options for collections
- Compost element:
- More investment in source separation, rather than back-end sorting
- Calculation of contamination is different with compostables than it is for minimum recyclables list
- One board member recommends the medium or high scenario; one board member recommends any of the scenarios


## Public Comment

## Over 100 public comments were received on the needs assessment

- Majority of comments expressed strong support, including:
- Convenience for consumers: Increasing equitable access to recycling will have a dramatic impact
- Cost effective and efficient: Local governments, communities, households, \& businesses will benefit $\& \in$ save money
- Environmental outcomes and sustainability: Producers will have reliable supply chains for domestic recycled material to meet their sustainability goals and lead to a circular economy, by incentivizing materials with lower environmental impacts
- $5 \%$ of comments expressed opposition or concern, including:
- Infrastructure buildout: Capital costs are estimated and may be higher; adding staff and capital resources will take time
- Implementation details: Additional implementation details, including producer dues and service provider reimbursement formulas, and have yet to be developed (Note: Dues and formulas will be addressed under the program plan)


## Scenario support from public comments

## Low 2

Medium 5* (one letter signed by 10 NGOs)
High 3

## Scenario Recommendation

## The Department recommends selecting the medium scenario

Recommendation basis:

- Recycling rate increases from $25 \%$ to $44 \%$ by 2030 and up to $58 \%$ by 2035
- Program performance exceeds program cost (\% increase) in the medium scenario
- Adds the option for weekly curbside recycling for the Front Range region, where over $80 \%$ of the waste in Colorado is generated, with existing infrastructure
- Develops convenient access and equitable recycling services in rural regions, while allowing for a phased buildout of infrastructure and collection resources
- Funding for recycling facility upgrades results in increased efficiency, including glass recovery for a closed-loop system
- Funding for compost facility equipment upgrades to manage contamination and produce high-quality products


## Scenario Recommendation

## Medium scenario economic impacts: Jobs creation

Direct $\&$ indirect jobs associated with management of covered materials:

|  | 2030 | 2035 |
| :--- | :---: | :---: |
| Low | 5,500 | 7,200 |
| Medium | 5,700 | 7,900 |
| High | 6,100 | 8,600 |

Economic impact estimated from 410,000 additional tons recycled annually

- $\$ 31$ million increase in annual wages


## Scenario Recommendation

Medium scenario economic impacts: Local governments

Total cost savings for City and County of Denver expected with EPR are estimated at $\mathbf{\$ 1 4 . 2}$ million in 2030 and up to $\mathbf{\$ 1 6 . 3}$ million in 2035


## Scenario Recommendation

## Medium scenario environmental impacts

Waste Diversion:

- 720,000 tons of covered materials recycled annually by 2035
- 410,000 additional tons recycled under the program
- $119 \%$ increase from 2022 baseline recycling

Greenhouse Gas Emissions Avoided:

- Additional 1.3 million metric tons of $\mathrm{CO}_{2} \mathrm{e}$ avoided annually from baseline
- Emissions equivalent to 278,000 additional cars removed annually by 2035


## Summary

The medium scenario will:

- Increase recycling rates of paper and packaging from $\sim 25 \%$ up to $58 \%$ by 2035
- Expand curbside recycling to 500,000 additional households, at no cost to residents or the state
- Reduce waste by 410,000 tons annually by 2035
- Reduce emissions equivalent to over 280,000 vehicles annually by 2035
- Result in new jobs in the circular economy

Strong support for the medium scenario was received in public comments, and the Department firmly believes the medium scenario is the best option to advance recycling in Colorado

The Department recommends the medium scenario for Circular Action Alliance to implement within the program plan


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## Questions?



## Appendix: Additional Information

## Proposed Minimum Recyclables List

|  | Packaging Type | Collection <br> Method |
| :--- | :--- | :--- |
| 1.1 | Paper for General Use (uncoated) | Curbside |
| 1.2 | "Low grade" Printing and Writing Paper (e.g., bulk mail, <br> envelopes, notebooks, cards) | Curbside |
| 1.3 | Other Printed Paper (e.g., flyers, calendars, brochures) | Curbside |
| 1.4 | Newspaper, Newsprint | Curbside |
| 1.5 | Magazines and Other Coated Paper (e.g., catalogs) | Curbside |
| 1.6 | Bound Directories (e.g., telephone) | Curbside |
| 1.7 | Packaging Paper | Curbside |
| 1.9 | Corrugated Cardboard (except wax coated) | Curbside |
| 1.11 | Kraft Packaging (e.g., paper padded mailers, grocery <br> bags) | Curbside |
| 1.12 | Paperboard Boxes and Packaging | Curbside |
| 1.13 | Molded Pulp Packaging excluding Food Serviceware <br> (e.g., egg cartons, other protective packaging) | Curbside |
| 1.18 | Gable-Top | Curbside |
| 1.19 | Aseptic Cartons | Curbside |
| 1.20 | Non-Metalized Gift Wrap | Curbside |


|  | Packaging Type | Collection <br> Method |
| :--- | :--- | :--- |
| 2.1 | Clear PET Bottles, Jars and Jugs (including Transparent <br> Green or Blue) | Curbside |
| 2.3 | Clear PET Thermoform Containers (including <br> Transparent Green or Blue) | Curbside |
| 2.5 | Natural HDPE Bottles, Jars and Jugs | Curbside |
| 2.6 | Colored HDPE Bottles, Jars and Jugs | Curbside |
| 2.7 | Other Polyethylene (PE) Packaging (e.g., ice cream / <br> butter containers) Except Pails and Lids and Squeezable | Curbside |
| 2.8 | Polypropylene (PP) Packaging Except Pails and Lids <br> (e.g., deli containers, cleaning products) | Curbside |
| 2.16 | Large HDPE \& PP Pails \& Lids (e.g., cat litter) | Curbside |
| 4.1 | Steel Aerosol Containers (empty) | Curbside or <br> Drop off |
| 4.2 | Steel Containers | Curbbide |
| 4.3 | Aluminum Aerosol Containers (empty) | Curbside or <br> Drop off |
| 4.4 | Aluminum Non-Beverage Containers | Curbside |
| 4.6 | Aluminum - Beverage Containers | Curbside |
| 5.1 | Clear or Colored Glass | Curbside or <br> Drop off |

## Proposed Additional Materials List

The Additional Materials List is a list of materials that may collected in different geographic areas through curbside services, drop-off centers or other means.

|  | Packaging Type | Collection Method |  | Packaging Type | Collection Method |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1.8 | Shredded Paper (bagged) | Curbside or Drop off or Other Means |  |  | Curbside |
| 1.14 |  | Curbside or Drop off or Other Means | 3.1 | pouches) | or Drop off or Other Means |
| 1.15 | Paper Cups, Coated and Uncoated | Curbside or Drop off or Other Means |  |  | Curbside or Drop off or Other Means |
| 1.16 | Other Polycoated Packaging (e.g., some freezer and butter boxes) | Curbside or Drop off or Other Means | 4.5 | Other Aluminum Packaging (Foil and Foil Trays) | Other Means Curbside |
|  | Paper Laminate (e.g., paper/aluminum wrappers, poly-lined |  | 4.7 | Other Metal Packaging | Other Means |
| 1.17 | deli wrap, and other plastic coated paper wrappers, including burger wraps) | Curbside or Drop off or Other Means |  |  |  |
| 1.21 | Paper "cans" (spiral-wound containers) with steel ends | Curbside or Drop off or Other Means |  |  |  |
| 2.2 | Colored Opaque PET Bottles, Jars and Jugs | Curbside or Drop off or Other Means |  |  |  |
| 2.4 | Colored opaque PET Thermoform Containers | Curbside or Drop off or Other Means |  |  |  |
| 2.12 | PE Squeezable Tubes (e.g., toothpaste, lotions/sunscreens) | Curbside or Drop off or Other Means |  |  |  |
| 2.13 | LDPE Colored Nursery Containers (e.g., pots, trays, etc.) | Curbside or Drop off or Other Means |  |  |  |
| 2.15 | PP Nursery Containers (e.g., pots, trays, etc.) | Curbside or Drop off or Other Means |  |  |  |

## Program Exemptions

Covered materials exemptions include:

- Packaging materials for long-term storage/durable products,
- Unsafe or unsanitary paper products,
- Vital documents required to be printed,
- Bound books,
- Beverage containers subject to a container deposit,
- Industrial or manufacturing processes packaging materials,
- FDA drug, medical, supplement packaging materials,
- Animal biologics packaging materials,
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
- Paint stewardship packaging materials,
- Poison prevention act packaging materials,
- News and current event paper products, or
- Infant formula and medical food.

Packaging materials exemptions include:

- Transportation or distribution packaging for nonconsumers,
- Business to business packaging,
- Packaging materials not sold or distributed to covered entities, or
- Packaging materials used for products sold or distributed outside the state.

Producer exemptions include:

- A person with less than 5 million dollars in realized gross total revenue,
- A person who uses less than one ton of covered materials,
- The state or local government,
- A nonprofit organization,
- An agricultural employer with less than 5 million in realized gross total revenue,
- An individual business operating a retail food establishment located at a physical business location, or
- A builder, a construction company, or construction contractors.

Needs Assessment: Generation (Supply of Covered Materials)


## Requirements of the Act

708 (1) Producer requirements EFFECTIVE JULY 1, 2025, A PRODUCER SHALL NOT SELL OR DISTRIBUTE ANY PRODUCTS THAT USE COVERED MATERIALS IN THE STATE UNLESS THE PRODUCER IS PARTICIPATING IN THE PROGRAM...A PRODUCER MUST REPORT THE DATA NECESSARY TO MEET ITS PLAN OBLIGATIONS

> 709 1(a) Producer responsibility dues BY A DATE DETERMINED BY THE ORGANIZATION THAT IS NO LATER THAN JANUARY 1, 2026, AND ANNUALLY THEREAFTER BY A DATE DETERMINED BY THE ORGANIZATION, A PRODUCER SHALL PAY PRODUCER RESPONSIBILITY DUES TO THE ORGANIZATION BASED ON THE FUNDING MECHANISM DESCRIBED IN THE PLAN PROPOSAL

714 Restriction on fees A PERSON SHALL NOT CHARGE ANY KIND OF POINT-OF-SALE OR POINT-OF-COLLECTION FEE TO CONSUMERS TO RECOUP ITS COSTS IN MEETING THE OBLIGATIONS OF OR COMPLYING WITH THIS PART 7.

## Needs Assessment vs. Program Plan

- The data collected in the Needs Assessment informed the development of the three proposed scenarios.
- The Program Plan is modeled off the approved scenario, while maintaining the ability to make adjustments based on new information gathered and to set additional targets for postconsumer recycled content.

| Element | Needs Assessment | Program Plan |
| :--- | :--- | :--- |
| Education | Establish the education needs in the state (25-17-705 <br> $3(a)(X I I))$. | Describe how education and outreach program will be <br> implemented (25-17-705 4(y)) |
| Materials | A proposed list of covered materials for inclusion in the <br> minimum recyclable list and additional materials (25-17-705 <br> $3(a)(V I I I))$. | Include the minimum recyclable list (25-17-705 4(o)). Shall <br> update the minimum recyclable list and submit updates for <br> inclusion in annual report. |
| Targets | Develop at least three recycling scenarios, including <br> recycling rates and collection rates the state could meet by <br> Jan. 1, 2030 and Jan. 1, 2035 including capital costs and <br> operational costs(25-17-705 3(a)(XIII)). | Set targets for the minimum collection rates, minimum <br> recycling rates and minimum postconsumer recycled content <br> $(25-17-705$ 4(p)) |
| Reimbursement | Explain demographic and other factors to be considered in <br> the development of reimbursement rates for service <br> providers (25-17-705 3(a)(III)). | Create a a schedule of reimbursement rates for service <br> providers that elect to participate (25-17-705 4(l)) |

## Cost comparison: EPR packaging and paper programs

## Cost per ton

Colorado: \$394
Alberta: \$426*
British Columbia: \$539*
*converted from metric tonnes to tons and CAD to USD
$\mathrm{https}: / /$ recyclebc.ca/wp-content/uploads/2023/06/RecycleBC AR2022 FINAL.pdf
https://recyclebc.ca/wp-content/uploads/2023/06/RecycleBC_AR2022_FINAL.pdf

## 1/30/24 first draft: cost estimates per scenario

|  |  | Baseline (2022) Lower | $\begin{aligned} & \hline \text { Baseline } \\ & \text { (2022) } \\ & \text { Upper } \\ & \hline \end{aligned}$ | $2030$ <br> Lower | 2030 <br> Upper | $\begin{aligned} & 2035 \\ & \text { Lower } \end{aligned}$ | 2035 <br> Upper |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Low | Total Annualized Cost (\$ millions) | 80 | 140 | 130 | 200 | 160 | 250 |
|  | Cost Per Household (\$) | 60 | 90 | 60 | 90 | 70 | 110 |
|  | Cost Per Ton Recycled (\$) | 260 | 430 | 280 | 450 | 240 | 380 |
| Medium | Total Annualized Cost (\$ millions) | 80 | 140 | 130 | 210 | 160 | 260 |
|  | Cost Per Household (\$) | 60 | 90 | 60 | 90 | 70 | 120 |
|  | Cost Per Ton Recycled (\$) | 260 | 430 | 260 | 430 | 230 | 370 |
| High | Total Annualized Cost (\$ millions) | 80 | 140 | 150 | 240 | 180 | 290 |
|  | Cost Per Household (\$) | 60 | 90 | 70 | 110 | 80 | 130 |
|  | Cost Per Ton Recycled (\$) | 260 | 430 | 270 | 430 | 240 | 390 |

## 1/30/24 first draft: outcomes per scenario

| Low |  | Recycling Rate (\%) | $22 \%-28 \%$ | $\mathbf{2 0 3 0}$ |
| :--- | :--- | :---: | :---: | :---: |
|  | Recycling Tonnage (kaseline) <br> tons) | $\sim 310$ | $32 \%-38 \%$ | $\mathbf{2 0 3 5}$ |
| Medium | Recycling Rate (\%) | $22 \%-28 \%$ | $\sim 450$ | $\sim 660$ |
|  | Recycling Tonnage (k <br> tons) | $\sim 310$ | $34 \%-40 \%$ | $51 \%-57 \%$ |
|  | Recycling Rate (\%) | $22 \%-28 \%$ | $\sim 480$ | $\sim 710$ |
|  | Recycling Tonnage (k <br> tons) | $\sim 310$ | $\sim 550$ | $54 \%-60 \%$ |

Table 8: Monthly Household Cost of Curbside Recycling When Priced Individually

|  | Minimum <br> $(\$)$ | $95 \%$ <br> Confidence <br> Interval <br> (Lower) | Mean (\$) | $95 \%$ <br> Confidence <br> Interval <br> (Upper) | Maximum <br> $(\$)$ |
| :--- | :---: | :--- | :---: | :---: | :---: |
| Front <br> Range | $\mathbf{5}$ | $\mathbf{5}$ | $\mathbf{1 2}$ | $\mathbf{2 1}$ | $\mathbf{2 2}$ |
| Mountains | $\mathbf{2 2}$ | $\mathbf{2 2}$ | $\mathbf{3 9}$ | $\mathbf{6 5}$ | $\mathbf{6 9}$ |
| Westerns <br> Slope | $\mathbf{1 0}$ | $\mathbf{1 0}$ | $\mathbf{1 7}$ | $\mathbf{3 1}$ | $\mathbf{3 4}$ |
| Eastern <br> Plains | $\mathbf{7}$ | $\mathbf{7}$ | $\mathbf{1 2}$ | $\mathbf{2 4}$ | $\mathbf{2 5}$ |

Table 9: Monthly Household Cost of Curbside Recycling When Bundled with Waste

|  | Minimum <br> $(\$)$ | $95 \%$ <br> Confidence <br> Interval <br> (Lower) | Mean (\$) | $95 \%$ <br> Confidence <br> Interval <br> (Upper) | Maximum <br> $(\$)$ |
| :--- | :---: | :--- | :---: | :---: | :---: |
| Front <br> Range | $\mathbf{1 2}$ | $\mathbf{1 3}$ | $\mathbf{2 1}$ | $\mathbf{3 4}$ | $\mathbf{3 5}$ |
| Mountains | $\mathbf{2 8}$ | $\mathbf{3 0}$ | $\mathbf{5 7}$ | $\mathbf{7 9}$ | $\mathbf{8 3}$ |
| Westerns <br> Slope | $\mathbf{1 7}$ | $\mathbf{1 7}$ | $\mathbf{2 6}$ | $\mathbf{4 1}$ | $\mathbf{4 2}$ |
| Eastern <br> Plains | $\mathbf{n / a}$ | $\mathbf{n / a}$ | $\mathbf{n / a}$ | $\mathbf{n / a}$ | $\mathbf{n / a}$ |

