



# PROPOSED RULE MAKING

## CR-102 (July 2022) (Implements RCW 34.05.320)

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FILED

DATE: May 02, 2023

TIME: 8:28 AM

WSR 23-10-062

Agency: Department of Ecology-AO #21-09

- Original Notice
- Supplemental Notice to WSR \_\_\_\_\_
- Continuance of WSR \_\_\_\_\_

- Preproposal Statement of Inquiry was filed as WSR 21-22-111 ; or
- Expedited Rule Making--Proposed notice was filed as WSR \_\_\_\_\_; or
- Proposal is exempt under RCW 34.05.310(4) or 34.05.330(1); or
- Proposal is exempt under RCW \_\_\_\_\_.

**Title of rule and other identifying information:** (describe subject) The Washington Department of Ecology (Ecology) proposes a new chapter in the Washington Administrative Code—Chapter 173-925 WAC – Post-consumer Recycled Content in Plastic Containers. This new chapter implements Chapter 70A.245.010 – 050 and .090 RCW.

For more information on this rulemaking, visit: <https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC-173-925>.

### Hearing location(s):

Date:	Time:	Location: (be specific)	Comment:
June 8, 2023	10:00 a.m. PST	Register in advance for the online hearing: <a href="https://waecy-wa.gov.zoom.us/meeting/register/tZcsdeytqTojHtQHdBZHJwVh58F-Si6NTow3">https://waecy-wa.gov.zoom.us/meeting/register/tZcsdeytqTojHtQHdBZHJwVh58F-Si6NTow3</a>	Ecology is hosting this event online and will provide a summary of the proposed rule, a question-and-answer session, and a formal hearing. You may attend this event from any device with internet access. <b>Please register in advance. After registering, you will receive a confirmation email containing information about joining the meeting.</b>
June 15, 2023	1:00 p.m. PST	Register in advance for the online hearing: <a href="https://waecy-wa.gov.zoom.us/meeting/register/tZlqduMtrDggGNaoWKtz9C0zvtEPB7awTOBD">https://waecy-wa.gov.zoom.us/meeting/register/tZlqduMtrDggGNaoWKtz9C0zvtEPB7awTOBD</a>	Ecology is hosting this event online and will provide a summary of the proposed rule, a question-and-answer session, and a formal hearing. You may attend this event from any device with internet access. <b>Please register in advance. After registering, you will receive a confirmation email containing information about joining the meeting.</b>

**Date of intended adoption:** October 29, 2023 (Note: This is **NOT** the effective date)

### Submit written comments to:

Name: Shannon Jones  
 Address: Send US mail to:  
 Department of Ecology  
 Solid Waste Management Program  
 PO Box 47600, Olympia, WA 98504-7600  
 Email: [rerecycledcontent@ecy.wa.gov](mailto:rerecycledcontent@ecy.wa.gov)  
 Fax: N/A

Other: Website: <https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC-173-925>  
 e-Comment portal:  
<https://swm.ecology.commentinput.com/?id=gDMcKl>  
 By (date) July 1, 2023

### Assistance for persons with disabilities:

Contact [Ecology ADA Coordinator](#)  
 Phone: 360-407-6831

Fax: N/A  
 TTY: For Washington Relay Service or TTY call 711 or 877-833-6341  
 Email: [ecyADAcordinator@ecy.wa.gov](mailto:ecyADAcordinator@ecy.wa.gov)

Other: Visit <https://ecology.wa.gov/accessibility>  
 "Request for reasonable accommodation form:  
<https://ecology.wa.gov/About-us/Accountability->

**Purpose of the proposal and its anticipated effects, including any changes in existing rules:**

The new rule will implement the requirements in chapter 70A.245 of the Revised Code of Washington (RCW) – Recycling, Waste, and Litter Reduction - to establish a post-consumer recycled content (PCRC) program for covered products. Producers of covered products will have to meet the PCRC requirements as well as annually register, pay agency fees, and report.

The law requires the Department of Ecology (Ecology) to:

- Prepare an annual workload analysis identifying the agency cost to implement, administer and enforce the law, and offer the analysis for public comment.
- Adopt rules that establish a PCRC program for producers of covered products and require them to annually register, pay agency fees, and report.

The rule will:

- Define terms and clarify intent of the law.
- Establish equitable producer fees required to fund Ecology’s administration and oversight of the PCRC program for covered products.
- Specify the information producers are required to provide at registration and in annual reports.
- Establish the process Ecology will follow for:
  - Conducting audits and investigations of producers’ annual reports.
  - Measuring the amount and methods for assessing PCRC.
  - Reviewing and adjusting PCRC rates.
  - Excluding certain plastic containers or elements of containers from PCRC requirements.
  - Determining technical feasibility of meeting PCR content rates.
  - Establishing corrective action requirements for producers out of compliance.
  - Determining penalty reductions

**Reasons supporting proposal:**

The 2021 Legislature passed chapter 70A.245 RCW to increase recycled content in specific types of plastic packaging to improve plastic packaging collection, processing, and markets. Rules are required to establish the process and procedures for regulatory compliance, producer payment of annual fees, and Ecology oversight.

Many consumer brands have committed to voluntary recycled content standards for their plastic bottles, but very few have met those commitments. Mandated PCRC requirements are presumed to motivate increased recovery of plastic packaging in order to provide recyclable feedstock for producers to meet these requirements. Use of recycled content plastic will reduce the production and use of virgin plastic to manufacture plastic containers, thereby reducing associated greenhouse gas emissions.

The law provides for adjustment of the PCRC targets, exclusions from meeting the targets under certain conditions, and corrective action plans to help noncompliant producers reach the targets, as well as penalty reductions.

**Statutory authority for adoption:** Chapter 70A.245.020 and .090 RCW – Recycling, waste, and litter reduction

**Statute being implemented:** Chapter 70A.245.(010 – 050 and .090) RCW – Recycling, waste, and litter reduction

**Is rule necessary because of a:**

Federal Law?  Yes  No

Federal Court Decision?  Yes  No

State Court Decision?  Yes  No

If yes, CITATION:

**Agency comments or recommendations, if any, as to statutory language, implementation, enforcement, and fiscal matters:**

**Type of proponent:**  Private  Public  Governmental

**Name of proponent:** (person or organization) Department of Ecology

**Name of agency personnel responsible for:**

	Name	Office Location	Phone
Drafting:	Shannon Jones	Lacey, WA	360-742-9874
Implementation:	Shannon Jones	Lacey, WA	360-742-9874

Is a school district fiscal impact statement required under [RCW 28A.305.135](#)?  Yes  No

If yes, insert statement here:

The public may obtain a copy of the school district fiscal impact statement by contacting:

- Name: N/A
- Address: N/A
- Phone: N/A
- Fax: N/A
- TTY: N/A
- Email: N/A
- Other: N/A

Is a cost-benefit analysis required under [RCW 34.05.328](#)?

Yes: A preliminary cost-benefit analysis may be obtained by contacting:

- Name: Shannon Jones
- Address: Department of Ecology  
Solid Waste Management Program  
PO Box 47600, Olympia, WA 98504-7600
- Phone: 360-742-9874
- Fax: N/A
- TTY: For Washington Relay Service or TTY call 711 or 877-833-6341
- Email: rerecycledcontent@ecy.wa.gov
- Other: N/A

No: Please explain:

**Regulatory Fairness Act and Small Business Economic Impact Statement**

Note: The [Governor's Office for Regulatory Innovation and Assistance \(ORIA\)](#) provides support in completing this part.

**(1) Identification of exemptions:**

This rule proposal, or portions of the proposal, **may be exempt** from requirements of the Regulatory Fairness Act (see [chapter 19.85 RCW](#)). For additional information on exemptions, consult the [exemption guide published by ORIA](#). Please check the box for any applicable exemption(s):

This rule proposal, or portions of the proposal, is exempt under [RCW 19.85.061](#) because this rule making is being adopted solely to conform and/or comply with federal statute or regulations. Please cite the specific federal statute or regulation this rule is being adopted to conform or comply with, and describe the consequences to the state if the rule is not adopted.

Citation and description:

This rule proposal, or portions of the proposal, is exempt because the agency has completed the pilot rule process defined by [RCW 34.05.313](#) before filing the notice of this proposed rule.

This rule proposal, or portions of the proposal, is exempt under the provisions of [RCW 15.65.570](#)(2) because it was adopted by a referendum.

This rule proposal, or portions of the proposal, is exempt under [RCW 19.85.025](#)(3). Check all that apply:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> <a href="#">RCW 34.05.310</a> (4)(b)<br>(Internal government operations) | <input checked="" type="checkbox"/> <a href="#">RCW 34.05.310</a> (4)(e)<br>(Dictated by statute)  |
| <input type="checkbox"/> <a href="#">RCW 34.05.310</a> (4)(c)<br>(Incorporation by reference)                | <input type="checkbox"/> <a href="#">RCW 34.05.310</a> (4)(f)<br>(Set or adjust fees)  |
| <input checked="" type="checkbox"/> <a href="#">RCW 34.05.310</a> (4)(d)<br>(Correct or clarify language)    | <input type="checkbox"/> <a href="#">RCW 34.05.310</a> (4)(g)<br>((i) Relating to agency hearings; or (ii) process requirements for applying to an agency for a license or permit) |

This rule proposal, or portions of the proposal, is exempt under [RCW 19.85.025](#)(4) (does not affect small businesses).

This rule proposal, or portions of the proposal, is exempt under RCW \_\_\_\_\_.

Explanation of how the above exemption(s) applies to the proposed rule:

**(2) Scope of exemptions: Check one.**

The rule proposal is fully exempt (*skip section 3*). Exemptions identified above apply to all portions of the rule proposal.

The rule proposal is partially exempt (*complete section 3*). The exemptions identified above apply to portions of the rule proposal, but less than the entire rule proposal. Provide details here (consider using [this template from ORIA](#)): Ecology baselines are typically complex, consisting of multiple requirements fully or partially specified by existing rules, statutes, or federal laws. Where the proposed rule differs from this baseline of existing requirements, it is typically subject to (i.e., not exempt from) analysis required under the Regulatory Fairness Act (RFA; Chapter 19.85 RCW) based on meeting criteria referenced in RCW 19.85.025(3) as defined by the Administrative Procedure Act in RCW 34.05.310. The Small Business Economic Impact Statement (SBEIS) below includes a summary of the baseline for this rulemaking, and whether or how the proposed rule differs from the baseline. We identify relevant RFA exemptions (if any) for each set of requirements.

The rule proposal is not exempt (*complete section 3*). No exemptions were identified above.

**(3) Small business economic impact statement:** *Complete this section if any portion is not exempt.*

If any portion of the proposed rule is **not exempt**, does it impose more-than-minor costs (as defined by RCW 19.85.020(2)) on businesses?

No Briefly summarize the agency's minor cost analysis and how the agency determined the proposed rule did not impose more-than-minor costs. \_\_\_\_\_

Yes Calculations show the rule proposal likely imposes more-than-minor cost to businesses and a small business economic impact statement is required. Insert the required small business economic impact statement here:

This Small Business Economic Impact Statement (SBEIS) presents the:

- Compliance requirements of the proposed rule.
- Results of the analysis of relative compliance cost burden.
- Consideration of lost sales or revenue.
- Cost-mitigating action taken by Ecology, if required.
- Small business and local government consultation.
- Industries likely impacted by the proposed rule.
- Expected net impact on jobs statewide.

A small business is defined by the Regulatory Fairness Act (chapter 19.85 RCW) as having 50 or fewer employees. Estimated costs are determined as compared to the existing regulatory environment—the regulations in the absence of the rule. The SBEIS only considers costs to “businesses in an industry” in Washington State. This means that impacts, for this document, are not evaluated for government agencies.

The existing regulatory environment is called the “baseline” in this document. It includes only existing laws and rules at federal and state levels.

This information is excerpted from Ecology's complete set of regulatory analyses for this rulemaking. For complete discussion of the likely costs, benefits, minimum compliance burden, and relative burden on small businesses, see the associated Regulatory Analyses document (**Ecology publication no. 23-07-031, April 2023**). We have retained section numbers to facilitate cross-referencing.

## **COMPLIANCE REQUIREMENTS OF THE PROPOSED RULE, INCLUDING PROFESSIONAL SERVICES**

### **Baseline for this rulemaking**

The baseline for our analyses generally consists of existing rules and laws, and their requirements. This is what allows us to make a consistent comparison between the state of the world with and without the proposed rule.

For this rulemaking, the baseline includes:

- RCW 70A.245.010 – Definitions
- RCW 70A.245.020 – Postconsumer recycled content
- RCW 70A.245.030 – Producer reporting requirements
- RCW 70A.245.040 – Penalties for postconsumer recycled content requirements—Penalty
- RCW 70A.245.050 – Penalties for registration, labeling, and reporting
- RCW 70A.245.090 – Department duties—Rulemaking

### **The proposed rule**

#### **2.3.1 Adding or Clarifying Definitions Necessary for Implementation of the Rule**

We don't expect the proposed definitions to result in significant impacts in the aggregate. The proposed definition of a producer provides more clarity on the scope of producers relative to the baseline interpretation:

- Producer: This definition would shift compliance burden to brand owners of products manufactured by other entities. Overall compliance burden would be the same, but redistributed to different parties, including retailers that are brand

owners. Associated costs and/or benefits are reflected in estimates that are based on the number and types of producers. Affected industries, as well as output and employment impacts of costs distributed across them are discussed in Chapter 7.

The proposed definition of a household cleaning product provides more clarity on the scope of covered products depending on baseline interpretation:

- Household cleaning product: The baseline includes “household cleaning product” as a subset of its definition of “household cleaning and personal care product” but does not offer any specificity. The proposed definition would clarify what is meant by “household” in this context, and would potentially expand the coverage of the program, depending on the interpretation of the baseline statutory language. Associated costs and/or benefits are reflected in estimates that are based on the number and types of producers.

The impact of these proposed definitions depends on the context of how they are used in the rest of the rule, and their resulting costs and/or benefits (see sections below). Other proposed definitions would add or clarify technical terms needed to implement the proposed rule. This section of the proposed rule provides clarifications, which are exempt under RCW 34.05.310 (4)(d).

### **2.3.2 Setting requirements for registration and reporting**

We expect this section of the proposed rule to result in costs of additional producer effort during registration and reporting, and benefits of full information about producers to facilitate accurate data and any needed interactions related to implementation and enforcement. The proposed rule would not require all producers to certify their reports beyond attestation as to their accuracy – this would be a decision made by the producer – and this flexibility would also impact Ecology oversight costs by affecting the need for data checking, audits, and other quality assurance activities. This section of the proposed rule includes elements dictated by statute, which are exempt under RCW 34.05.310 (4)(e).

### **2.3.3 Establishing fee allocation methods and billing procedures**

This section of the proposed rule would establish the methods and procedures required for rule implementation regarding fee calculation, allocation, billing adjustments, and due date setting for the payments. We expect this section of the proposed rule to result in costs of producer fees, as well as benefits of meeting the statutory requirement to fully fund program costs, and the added value they provide to producers in meeting the baseline law. Transparency in the fee process also potentially improves the ability of producers to plan. Division of fees into the Program Administration and Oversight Fee categories gives producers confidence that they are only paying into the portion of oversight which actively applies to them within a given reporting year (meaning producers not yet required to meet PCRC minimum requirements would only have to pay the overall Program Administration fee and not the PCRC Oversight Fee). This section of the proposed rule includes elements dictated by statute, which are exempt under RCW 34.05.310 (4)(e).

### **2.3.4 Adding specific requirements for PCRC weight calculations**

This section of the proposed rule would establish standard options for PCRC weight and percentage calculation for reporting. We do not expect these additional specifications to result in costs as compared to the baseline, as:

- The statute requires the reporting itself, with the implicit expectation that it be accurate.
- The proposed rule facilitates compliance by specifying data calculation methods that meet accuracy requirements, but also allows producers to use alternative methods if they are accurate.

We do not expect this section of the proposed rule to result in benefits beyond reducing potential time it might take under the baseline for producers and Ecology to align data and expectations (which would result in additional interactions and potentially delay verification of compliance or identification of issues with compliance). This section of the proposed rule includes elements dictated by statute, which are exempt under RCW 34.05.310 (4)(e). It also clarifies language, which is exempt under RCW 34.05.310 (4)(d).

### **2.3.5 Establishing requirements for temporary exclusion and adjustment requests**

We expect this section of the proposed rule to result in costs of providing necessary documentation in support of exclusions and adjustments. It would also result in benefits of better balance between the compliance requirements and economic conditions that may limit the ability of producers to comply with the rule. Market or technical barriers to compliance could result in non-compliance and failure to achieve the goals of the law. If companies comply with the proposed rule despite significant market or technical barriers, it could instead result in upward pressure on product prices or even in shortages (depending on the ability of consumer demand and prices to adjust to changes in the volumes of products supplied in Washington). This section of the proposed rule includes elements dictated by statute, which are exempt under RCW 34.05.310 (4)(e).

### **2.3.6 Limit timing for providing necessary audit documentation**

This section of the proposed rule would facilitate producers providing audit documents with enough information for Ecology to verify compliance status. Producers could incur costs associated with providing needed

documentation for the audit without delays that they may have incurred under the baseline. This section of the proposed rule includes elements dictated by statute, which are exempt under RCW 34.05.310 (4)(e). It also clarifies language, which is exempt under RCW 34.05.310 (4)(d).

### **2.3.7 Specifying procedures for warnings and penalties for noncompliance**

We expect this section of the proposed rule to result in benefits of clear expectations of how many notices Ecology will send before taking further enforcement action. As a result, it potentially affects the timing of when producers incur the costs of coming into compliance, and benefits of earlier compliance. Baseline elements are specifically dictated by statute, and exempt under RCW 34.05.310 (4)(e). This part of the proposed rule also addresses internal government operations, which are exempt under RCW 34.05.310 (4)(b).

#### **COSTS OF COMPLIANCE: EQUIPMENT**

Compliance with the proposed rule, compared to the baseline, is not likely to impose additional costs of equipment.

#### **COSTS OF COMPLIANCE: SUPPLIES**

Compliance with the proposed rule, compared to the baseline, is not likely to impose additional costs of supplies.

#### **COSTS OF COMPLIANCE: LABOR**

### **3.2.2 Setting requirements for registration, reporting, and de minimis notifications**

We expect this section of the proposed rule to result in costs of additional producer effort during registration and reporting. There would also be costs associated with de minimis notifications.

#### **Range of impacted producers**

We estimated a range of producers potentially covered by the proposed rule.

- To estimate a low-end number of likely producers of covered PCRC products, we identified 297 producers that have registered with Ecology as of January 2023 under the law. This included 262 producers who had already registered with Ecology in addition to 35 other producers that were identified by brands in retail stores and public engagement attendees.
- To estimate a high-end number of likely producers of covered PCRC products, we began by identifying industries that were most likely to have businesses covered by the proposed rule. This resulted in a starting population of 8,107 businesses globally. Using the Dun & Bradstreet database, we filtered this population for:
  - 22 different industry North American Industry Classification System (NAICS) codes (see section 7.6).
  - Businesses making over \$1,000,000 annually in US sales.
  - A low financial stress marketing score: A proprietary multivariate index developed by Dun & Bradstreet, and an indicator of business vulnerability to increased costs, market pressures, and other disruptions. We filtered out high financial stress marketing scores as a proxy for small producers in other states or other countries that were not likely to export to Washington.
- This number was then scaled down depending on how competitive the market for the product was and the Washington market share. For example, a small number of grocery stores own a large percentage of the products sold at these locations, so we estimated that only 1.2% of these businesses were likely to have covered products. This resulted in a high-end estimate of 623 producers of covered PCRC products.

According to ecology's record, of those, 262 registered with Ecology, 155 met de minimis status (only 40.8% required to comply). So, we estimate the high end and low end range of producer need to comply as 40.8% of 297 to 40.8% of 623 (i.e., 121 to 254).

Correspondingly, we expect the remaining 176 (297 minus 120) or 369 (623 minus 254) businesses to meet de minimis status requirements or to simply not be covered by the rule. As we could not discern the two in our data, we chose to potentially overestimate these costs.

#### **Registration and reporting costs**

We estimated an annual cost of registration and reporting of approximately \$123 for a single producer required to comply with PCRC requirements. Based on this per-producer cost, we estimate total annual costs of registration and reporting between approximately \$14,823 and \$31,115 for all producers. The 20-year present value of the range of total annual costs is \$272,873 to \$572,808.

#### **De minimis notifications**

Ecology requires de minimis producers to annually notify Ecology of their de minimis status, however, they are exempted from annual reporting and registration requirements.

We estimate annual cost of approximately \$31 (per entity) for de minimis notification. Based on the above ranges of de minimis producer (i.e., 176 to 369), we estimated total annual costs of de minimis notification between approximately \$5,391 and \$11,302 for all producers. Ecology reflects streams of costs and benefits over time using present values, which adjust future impacts for inflation and the opportunity cost of having funds later instead of now. The 20-year present value of the range of total annual costs for all producers is between approximately \$99,243 to \$208,072.

#### **Total costs for registration, reporting, and de minimis notification**

Across the full range of likely producers of covered PCRC products, we estimated a total annual cost of reporting, registration, and de minimis notification approximately \$20,213 to \$42,417. The corresponding 20-year present values are approximately \$372,116 to \$780,880.

#### **3.2.3 Establishing fee allocation methods and billing procedures**

This section of the proposed rule would establish the methods and procedures required for rule implementation regarding fee calculation, allocation, billing adjustments, and due date setting for the payments. We expect this section of the proposed rule to result in costs of producer fees that match the value of the benefits they fund (since fees equal program costs, and wages are a way to approximate the value of services provided; see Chapter 4).

We estimated these costs based on Ecology's current workload analysis required under statute (Fiscal Year (FY) 2024 – July 2023 through June 2024). Ecology estimated total workload costs of approximately \$578,000 during FY 2024. These total costs are the sum of \$299,000 in Program Administration costs (including the cost of rulemaking), and \$279,000 in PCRC Oversight costs.

For each producer, Ecology's workload analysis used the producer reported total covered product plastic resin weight and weight of plastic resin subject to PCRC content requirements, and calculated the share of program costs incurred by producers belonging to each covered product category, based on producer registration data (pounds of plastic) submitted in calendar year 2022.

The workload analysis notes that, "At the time of registration during [calendar year] CY 2022, Ecology did not require beverage container producers to specify which portions of their plastic resin weight data were related to the subsets of beverage containers that wouldn't be required to meet PCRC requirements until CY 2028 (187 mL wine bottles and dairy milk containers). The amount of plastic resin attributed to dairy milk containers and 187 mL plastic wine bottles is unknown. When this plastic weight is provided separately during registration in CY 2023, it will reduce the amount of plastic resin in the beverage containers category, compared to the current data. Fees will be calculated based on the registration data submitted by April 1, 2023."

Based on the above note, we assumed that the distribution of fee burden would change each year an added category of products is required to meet PCRC content minimums. Household and personal care product industries would assume a share of the PCRC Oversight costs beginning with the FY 2026 workload analysis, and producers of dairy milk and 187 mL wine products would have a share of PCRC Oversight costs beginning with the FY 2029 workload analysis. Since the quantities of plastic resin and PCRC plastic resin are currently unknown for the dairy milk and 187 mL wine product category, we made a range of assumptions in Chapter 7 reflecting potential redistributions across the industries that would pay fees under the proposed rule.

The costs illustrated in the workload analysis table represent total costs for each category of product. Each producer within a given product category would have a unique fee covering a portion of the category costs, based on each producer's weight of plastic resin for the category. The workload analysis provides the estimated cost per total pound of plastic resin in Washington State. The estimated Program Administration cost is \$0.0015 per pound of total plastic resin (PCRC and virgin plastic), and the estimated PCRC Oversight cost is \$0.0016 per pound of total plastic resin for eligible product categories. FY 2023 actual fees ranged from roughly \$11 for producers with the lowest plastic resin weights, to nearly \$90,000 for producers with the highest plastic resin weights in the registration data submitted in calendar year 2022.

Of the currently estimated costs of \$578,000 in fiscal year 2024 (FY 2024), approximately \$96,000 is attributed to the completion of rulemaking and the development of the PCRC content reporting portal. These costs would be removed from the workload analysis in future years. However, we also anticipate an increased workload beginning in FY 2026 related to increased need for compliance support and auditing, and enforcement actions, currently estimated to be \$66,000 per year. The fiscal note for the current law accounted for one-time and future costs and estimated ongoing annual costs of \$664,944 beginning in FY 2026. This estimate provides a high-cost basis for conservatively estimating future fee impacts for members of the regulated community.

We calculated 20-year present value costs of \$11.9 million for this element of the proposed rule. Present values convert streams of costs or benefits over time to a single comparable current value, accounting for inflation as well as the

opportunity cost of having funds later versus now. Ecology uses a long-run average real (inflation-adjusted) discount rate in present value calculations, which is currently 0.89 percent.

**Comparison of equity under the baseline and proposed rule**

Under both the baseline and proposed rule, fees must be sufficient to fund program administration and oversight. This means total fees would be the same under the proposed rule and the baseline. The difference in the proposed rule is in how fees are allocated across producers – based on resin weight. While the baseline does not define an allocation structure, we assumed baseline requirements for equitable distribution could be interpreted as charging each producer an equal share of total fees.

The proposed rule specifies the equations by which the two costs in the workload analysis are distributed among registered non de minimis producers based on their total weights of plastic resin for covered products sold or distributed in Washington State the previous calendar year, as submitted during annual registration or reporting. Each producer has a unique fee proportionate to the producer’s reported plastic resin weights.

In calendar year 2022, Ecology estimated total Program Administration costs of \$603,144 in the FY 2023 Workload Analysis, for which no PCRC Oversight costs were estimated. Of the total producers who registered in calendar year 2022, 108 exceeded the de minimis thresholds and were required under law to pay a fee to cover the total estimated costs. Fees were allocated using reported total plastic resin weight and ranged between roughly \$11 for the producers with the smallest plastic resin weights, to nearly \$90,000 for producers with the highest weights of plastic resin. If all fee-paying producers had been required to pay an equal fee, the fee for each producer to cover FY 2023 estimated costs would have been nearly \$5,585 for each producer. Assuming this would be the fee amount under baseline conditions, the rule’s method for distributing costs as a fee resulted in cost savings for 87 producers with plastic resin weights under the mean plastic resin weight value across all 108 fee-paying producers, and cost increases for 21 producers with plastic resin weights above the mean value. The tables below summarize average fee impacts for producers by weight range and total weight relative to the mean value.

**Table 1. Fee impacts of rule cost distribution by registered plastic resin weight ranges, compared to an equal fee for each producer, based on FY 2023 fees.**

<i>Total Plastic Resin Weight Range</i>	Number of Producers in Range	Average Fee (Rule-Based Calculation)	Average Fee based on Number of Producers only	Average Fee Cost impact of Rule
<i>2,001 - 200,000 lbs.</i>	<b>50</b>	<b>\$181.84</b>	<b>\$5,584.67</b>	<b>-\$5,402.83</b>
<i>200,001 - 500,000 lbs.</i>	<b>16</b>	<b>\$1,007.27</b>	<b>\$5,584.67</b>	<b>-\$4,577.39</b>
<i>500,001 - 1,000,000 lbs.</i>	<b>13</b>	<b>\$2,185.88</b>	<b>\$5,584.67</b>	<b>-\$3,398.79</b>
<i>1,000,001 - 1,500,000 lbs.</i>	<b>5</b>	<b>\$4,166.96</b>	<b>\$5,584.67</b>	<b>-\$1,417.71</b>
<i>1,500,001 - 2,000,000 lbs.</i>	<b>3</b>	<b>\$4,807.69</b>	<b>\$5,584.67</b>	<b>-\$776.98</b>
<i>2,000,001 - 3,000,000 lbs.</i>	<b>5</b>	<b>\$7,467.01</b>	<b>\$5,584.67</b>	<b>\$1,882.35</b>
<i>3,000,001 - 10,000,000 lbs.</i>	<b>13</b>	<b>\$19,866.30</b>	<b>\$5,584.67</b>	<b>\$14,281.64</b>
<i>10,000,001 - 30,000,000 lbs.</i>	<b>3</b>	<b>\$72,888.15</b>	<b>\$5,584.67</b>	<b>\$67,303.48</b>

**Table 2. Fee impacts of rule cost distribution by plastic resin weights compared to the mean resin weight value among all producers, compared to an equal fee for each producer, based on FY 2023 fees.**

<i>Above/Below Mean Weight?</i>	Number of Producers	Average Fee (Rule-Based Calculation)	Average Fee based on Number of Producers only	Average Fee Cost impact of Rule
<i>Above</i>	<b>21</b>	<b>\$24,488.64</b>	<b>\$5,584.67</b>	<b>\$18,903.97</b>
<i>Below</i>	<b>87</b>	<b>\$1,021.64</b>	<b>\$5,584.67</b>	<b>-\$4,563.03</b>



Based on total annual costs of approximately \$664,944 from the fiscal note, the following tables summarize the cost impacts of the rule-based fee distribution, assuming the same set of producers and resin weight from the FY 2023 fee calculations.

**Table 3. Fee impacts of rule cost distribution by registered plastic resin weight ranges, compared to an equal fee for each producer, based on ongoing annual cost estimates from the fiscal note.**

<i>Total Plastic Resin Weight Range</i>	Number of Producers in Range	Average Fee (Rule-Based Calculation)	Average Fee based on Number of Producers only	Average Fee Cost impact of Rule
<i>2,001 - 200,000 lbs.</i>	<b>50</b>	<b>\$200.47</b>	<b>\$6,156.89</b>	<b>-\$5,956.42</b>
<i>200,001 - 500,000 lbs.</i>	<b>16</b>	<b>\$1,110.48</b>	<b>\$6,156.89</b>	<b>-\$5,046.41</b>
<i>500,001 - 1,000,000 lbs.</i>	<b>13</b>	<b>\$2,409.85</b>	<b>\$6,156.89</b>	<b>-\$3,747.04</b>
<i>1,000,001 - 1,500,000 lbs.</i>	<b>5</b>	<b>\$4,593.92</b>	<b>\$6,156.89</b>	<b>-\$1,562.97</b>
<i>1,500,001 - 2,000,000 lbs.</i>	<b>3</b>	<b>\$5,300.30</b>	<b>\$6,156.89</b>	<b>-\$856.59</b>
<i>2,000,001 - 3,000,000 lbs.</i>	<b>5</b>	<b>\$8,232.11</b>	<b>\$6,156.89</b>	<b>\$2,075.22</b>
<i>3,000,001 - 10,000,000 lbs.</i>	<b>13</b>	<b>\$21,901.87</b>	<b>\$6,156.89</b>	<b>\$15,744.98</b>
<i>10,000,001 - 30,000,000 lbs.</i>	<b>3</b>	<b>\$80,356.50</b>	<b>\$6,156.89</b>	<b>\$74,199.61</b>

**Table 4. Fee impacts of rule cost distribution by plastic resin weights compared to the mean resin weight value among all producers, compared to an equal fee for each producer, based on ongoing annual cost estimates from the fiscal note.**

<i>Above/Below Mean Weight?</i>	Number of Producers	Average Fee (Rule-Based Calculation)	Average Fee based on Number of Producers only	Average Fee Cost impact of Rule
<i>Above</i>	<b>21</b>	<b>\$26,997.82</b>	<b>\$6,156.89</b>	<b>\$20,840.93</b>
<i>Below</i>	<b>87</b>	<b>\$1,126.32</b>	<b>\$6,156.89</b>	<b>-\$5,030.57</b>

### 3.2.5 Establishing requirements for temporary exclusion and adjustment requests

We expect this section of the proposed rule to result in costs for producers related to providing the necessary documentation in support of exclusions and adjustment requests. We note that businesses or industries would undertake these activities only if they expected a net benefit (a net cost-savings) of doing so, either due to avoiding noncompliance or avoiding lost sales due to necessary changes in products and/or business practices to comply.

#### Temporary exclusions

Producers may submit an annual temporary exclusion request (RCW 245.70A.20) to Ecology to get temporary exclusion from the minimum PCRC requirement for upcoming year any types of covered products in plastic containers for which a producer demonstrates that the achievement of PCRC requirement in the container material is not technically feasible to comply with federal health and safety requirements. However, we could not confidently assess how frequently exclusion requests would occur. We assumed that producers would file temporary exclusion requests in two situations; to avoid the noncompliance associated with technical infeasibility, or for very specific types of federally regulated products. As compared to the baseline, temporary exclusion requests would result in minimal additional costs. We estimate annual cost of approximately \$245 for filling temporary exclusion request for a single producer.

CalRecycle follows that, at a maximum, 74 percent of affected entities would file for reduction in noncompliance penalties based on producers' progress in meeting PCRC minimum requirements. However, currently, we do not have detailed information regarding technical barriers to achieving minimum PCRC rates. This results in uncertainty about the proportion of affected producers that would benefit from temporary exclusion request.

To address this uncertainty, we assumed three different scenarios regarding the percentage of producers (75 percent, 50 percent, and 25 percent) that would submit exclusion request.

In addition, we conducted sensitivity analysis to estimate the increased (decreased) cost due to increase (decrease) in exclusion request over time. First, we assume that over 20 years, the exclusion request would drop from 75 percent to 5

percent (decreases annually by 5 percent and remains constant once it reaches 5 percent) and estimate 20-year present value cost of \$148,836 to \$298,215 for exclusion requests. Similarly, we estimate 20-year present value annual cost of \$471 to \$972,411 for exclusion request assuming if exclusion request increases from 75 percent up to 95 percent (increases annually by 5 percent and remains constant once it reached 95 percent) over 20 years.

### **Adjustments**

Producers or PCRC product industry representatives may annually submit requests for consideration by the Ecology to temporarily adjust the annual PCRC minimum percentages for the following year. However, this adjustment request would occur no more frequently than annually, and the activity would start beginning January 1, 2024, or when rule making is complete, whichever is sooner.

We estimate a total annual cost of approximately \$6,309 for submitting adjustment request (submitted by an industry group), with an average annual cost of approximately \$25 to \$54 for a single producer. However, producers may ultimately submit one element of the activities listed in the above table, or a subset of these research activities (b-e in the table above), depending on the nature for their reason for submitting an adjustment request. This means our estimates are likely to be overestimates of actual costs of adjustment requests.

We estimate the 20-year present value of adjustment request costs for industries with producers of covered products, across all product categories, as about \$116,140. Based on this we estimated the 20-year present value adjustment request costs per producer of about \$457 (low) to \$960 (high) on average.

### **COSTS OF COMPLIANCE: PROFESSIONAL SERVICES**

Compliance with the proposed rule, compared to the baseline, is not likely to impose additional costs of professional services.

### **COSTS OF COMPLIANCE: ADMINISTRATIVE COSTS**

Where applicable, Ecology estimates administrative costs (“overhead”) as part of the cost of labor and professional services, above.

### **COSTS OF COMPLIANCE: OTHER**

#### **3.2.6 Limit timing for providing necessary audit documentation.**

This section of the proposed rule would facilitate producers providing audit documents with enough information for Ecology to efficiently verify compliance status without delays (within 30 days, compared to no time limit under the baseline). Producers could incur costs associated with provision of the needed documentation within the time limit, relative to when they might submit it under the baseline. We note that the proposed rule does not add requirements regarding what information must be provided during audits, just that it must be provided by the time limit. If producers were to provide documentation within 30 days under the baseline, regardless, this section of the proposed rule would not have any impacts. We could not confidently assess how frequently this element of the proposed rule would result in avoided delays in provision of audit information, or the degree to which delays would be reduced. We note, however, these would not be significant additional costs, as compared to the baseline, but rather opportunity costs of equivalent expenditures at different times.

#### **3.2.7 Specifying procedures for warnings and penalties for noncompliance**

We expect this section of the proposed rule to result in benefits of clear expectations of how many notices Ecology will send before taking further enforcement action. As a result, it potentially affects the timing of when producers incur the costs of coming into compliance.

We could not confidently assess how frequently noncompliance would occur and result in multiple warnings and/or penalties, or the degree of noncompliance (and associated costs of coming into compliance). We note, however, these would not be significant additional costs, as compared to the baseline, but rather opportunity costs of expenditures at different times, as producers would be expected to comply under the baseline regardless of the proposed rule.

### **COMPARISON OF COMPLIANCE COST FOR SMALL VERSUS LARGE BUSINESSES**

We calculated the estimated per-business costs to comply with the proposed rule, based on the costs estimated in Chapter 3 of this document. In this section, we estimate compliance costs per employee.

Businesses that are most likely required to comply with the rule are larger businesses that own brands for beverages, household cleaners, personal care products, and trash bags. There are fewer small businesses (companies that have 50 or fewer employees) that have their own brand, sell more than \$1 million dollars or 1 ton of plastic resin in Washington State (exceeding the de minimis threshold) to be impacted by the rule.

The average affected small business likely to be covered by the proposed rule employs approximately 17 people. The largest ten percent of affected businesses employ an average of 12,165 people. Based on cost estimates in Chapter 3, we estimated the following compliance costs per employee.

**Table 5. Compliance costs per employee.**

Type of cost (or total cost)	Low	High
<i>Small business cost per employee</i>	<b>\$2,136</b>	<b>\$6,113</b>
<i>Largest business cost per employee</i>	<b>\$2.99</b>	<b>\$8.54</b>

We conclude that the proposed rule is likely to have disproportionate impacts on small businesses, and therefore Ecology must include elements in the proposed rule to mitigate this disproportion, where legal (including the stated objectives of the law on which the rule is based) and feasible.

**CONSIDERATION OF LOST SALES OR REVENUE**

Businesses that would incur costs could experience reduced sales or revenues if the proposed rule significantly affect the prices of the goods they sell. The degree to which this could happen is strongly related to each business’s production and pricing model (whether additional lump-sum costs would significantly affect marginal costs), as well as the specific attributes of the markets in which they sell goods, including the degree of influence each firm has on market prices, as well as the relative responsiveness of market demand to price changes.

We used the REMI E3+ model for Washington State to estimate the impact of the proposed rule on directly affected markets, accounting for dynamic adjustments (e.g., price levels and wages, employment, purchases of inputs and services, population, and labor force attributes) throughout the economy. The model accounts for: inter-industry impacts; price, wage, and population changes; and dynamic adjustment of all economic variables over time.

The results of the REMI E3+ model shows that the rule would minimally impact a variety of businesses (see 7.6, below) and that it would initially cost less than \$1,000,000 in output (total amount of goods and services produced by Washington businesses) across all sectors in the state annually. This would be a minor annual impact to output from directly impacted industries and would not significantly affect total statewide output across all industries.<sup>1</sup> While industries would incur direct costs of compliance – which would put downward pressure on their output – these impacts would not significantly differ from their baseline output. The table below lists the percentage impacts to output, as compared to the baseline, reflecting impacts between 0% and about 1/100<sup>th</sup> of one percent.

**Table 6. Impact to the value of statewide and industry output.**

Industry	Initial Output Impact	Output Impact in 10 years	Output Impact in 20 years
<i>All industries</i>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>
<i>Soap, cleaning compound, and toilet preparation manufacturing</i>	<b>0.00%</b>	<b>-0.001%</b>	<b>-0.001%</b>
<i>Plastics product manufacturing</i>	<b>0.00%</b>	<b>-0.001%</b>	<b>-0.001%</b>

**MITIGATION OF DISPROPORTIONATE IMPACT**

The RFA (19.85.030(2) RCW) states that:

“Based upon the extent of disproportionate impact on small business identified in the statement prepared under RCW 19.85.040, the agency shall, where legal and feasible in meeting the stated objectives of the statutes upon which the rule is based, reduce the costs imposed by the rule on small businesses. The agency must consider, without limitation, each of the following methods of reducing the impact of the proposed rule on small businesses:

- a) Reducing, modifying, or eliminating substantive regulatory requirements;
- b) Simplifying, reducing, or eliminating recordkeeping and reporting requirements;
- c) Reducing the frequency of inspections;
- d) Delaying compliance timetables;
- e) Reducing or modifying fine schedules for noncompliance; or
- f) Any other mitigation techniques including those suggested by small businesses or small business advocates.”

We considered all the above options, the goals and objectives of the authorizing statutes (see Chapter 6), and the scope of this rulemaking. We limited compliance cost-reduction methods to those that:

- Are legal and feasible.
- Meet the goals and objectives of the authorizing statute.
- Are within the scope of this rulemaking.

Modifying regulatory requirements, changing reporting requirements, reducing the frequency of inspections, or delaying compliance timetables would not meet statutory objectives or are not feasible and within the scope of this rulemaking. Finally, we included the following elements of the law, in the proposed rule, to reduce costs to small businesses. Businesses are not required to meet annual reporting, PCRC, or fee requirements of covered products if they are below the de minimis threshold. The de minimis threshold considers sales, distribution, or import in or into Washington that:

- Generates less than \$1,000,000 in gross revenue in a single category of a covered product annually.
- Sells or distributes less than one ton of a single category of a covered product annually.

We note also that to the extent that small producers (in terms of resin weight) are owned by small businesses, their costs would also be smaller. This is particularly the case for fees, which the proposed rule would reduce for small producers, compared to an assumed equal allocation of fees across all producers.

### **SMALL BUSINESS AND LOCAL GOVERNMENT CONSULTATION**

We involved small businesses and local governments in our development of the proposed rule, using:

- Four informational webinars in February and March 2022.
- Seven rule advisory committee meetings that were open to all interested parties and provided opportunities for comments in April, June, July, and September 2022.
- More than 15 individual meetings requested by stakeholders.
- 17 e-mails to subscriber list and listserv, which had 1,134 subscribers at the time of this analysis.
- Online access to each revised version of the draft rule language with opportunities to provide comments.

### **NAICS CODES OF INDUSTRIES IMPACTED BY THE PROPOSED RULE**

The proposed rule likely impacts the following industries, with associated NAICS codes. NAICS definitions and industry hierarchies are discussed at <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?chart=2017>.

- 311411 Frozen Fruit, Juice, and Vegetable Manufacturing
- 311421 Fruit and Vegetable Canning
- 311930 Flavoring Syrup and Concentrate Manufacturing
- 312111 Soft Drink Manufacturing
- 312112 Bottled Water Manufacturing
- 722513 Limited-Service Restaurants
- 311351 Chocolate and Confectionery Manufacturing from Cacao Beans
- 311920 Coffee and Tea Manufacturing
- 445298 All Other Specialty Food Retailers
- 424490 Other Grocery and Related Products Merchant Wholesalers
- 311511 Fluid Milk Manufacturing
- 311514 Dry, Condensed, and Evaporated Dairy Product Manufacturing
- 424430 Dairy Product (except Dried or Canned) Merchant Wholesalers
- 312130 Wineries
- 424820 Wine and Distilled Alcoholic Beverage Merchant Wholesalers
- 325611 Soap and Other Detergent Manufacturing
- 325612 Polish and Other Sanitation Good Manufacturing
- 325620 Toilet Preparation Manufacturing
- 456120 Cosmetics, Beauty Supplies, and Perfume Retailers
- 326111 Plastics Bag and Pouch Manufacturing
- 445110 Supermarkets and Other Grocery Retailers (except Convenience Retailers)
- 455110 Department Stores

### **IMPACT ON JOBS**

We used the REMI E3+ model for Washington State to estimate the impact of the proposed rule on jobs in the state, accounting for dynamic adjustments throughout the economy.

The proposed rule would result in transfers of money within and between industries, as compared to the baseline. The modeled impacts on employment are the result of multiple small increases and decreases in employment, prices, and other economic variables across all industries in the state.

The results of the model show an estimated 1 job lost annually across all industries in Washington from the implementation of this rule. It should be noted that the REMI E3+ model does not account for jobs that may be created because of the

<sup>1</sup> REMI E3+ baseline forecast, model version 3.0.0.


overall implementation of the statutory and rule requirements and estimates employment impacts of only the elements of the rule in which Ecology had discretion. Industries outside of those with covered products may be impacted, as the REMI model is a model of the entire state economy. Industries that are typically highly impacted include those with higher sensitivity to changes in prices and market activity, such as construction and local government revenues. As shown in the table below, most of the industries in Washington are minimally impacted by the rule and were modeled to experience job losses of between zero and one full time employee (FTE).

We note that the employment impacts above are modeled based only on compliance costs, and do not reflect any broader or systemic changes that result from the law or proposed rule. Improvements in local economic activity related to a circular plastics economy would mitigate these estimated losses, through employment and economic activity resulting from:

- Plastics recycling and processing
- Production and marketing of PCR resin
- PCRC or plastic-alternative packaging
- Market adjustments to consumer products and their packaging

The public may obtain a copy of the small business economic impact statement or the detailed cost calculations by contacting:

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