

Appendix D: Anticipated Program Costs

This Appendix describes Crowe's Anticipated Program Cost methodology. ORS 459A.923(1)(a) defines anticipated program costs as "all additional costs related to any new requirements of sections 1 to 43 of this 2021 Act that are anticipated prior to the next review of the processor commodity risk fee". There are significant unknowns related to anticipated program costs. First, many of the requirements are not yet formally defined. Many of the requirements are currently under active discussion as part of proposing performance standards and other permit conditions as part of rule concept development. As a result, there will be some give-and-take between development of permit rules and estimation of anticipated program costs. This will be an iterative process and will include scenarios or options reflecting potential performance standards, permit conditions, and differing levels of capital investment. Another uncertainty is that there is no set date for the next review of the processor commodity risk fee, other than within the next five years (although likely this review would be sooner).

Crowe will prepare and ask a series of questions related to categories of anticipated program costs during the facility visits. In addition, we will conduct follow-up telephone interviews with commingled recycling processing facilities (CRPFs) in late 2023 to identify anticipated program costs that may be identified as the rulemaking requirements are further defined (e.g., defining living wage and supportive benefits for CRPF workers and permit standards). Anticipated costs could include, but are not limited to, the following:

- Administrative and reporting requirements necessary to comply with permits, including disposition reporting and responsible end market standards
- Operational changes necessary to add sorting capability for materials listed on the Uniform Statewide Collection List
- Quality enhancements necessary to comply with permit requirements including costs associated with:
 - Re-running material through the sort line
 - Adding employees (or reducing employees)
 - Equipment
 - Capacity expansions
- Cost estimations to satisfy contamination standards ultimately established during the rulemaking process (which may vary by bale type, e.g., 1%, 2%, 3%, etc.)
- Cost estimates to satisfy the capture rates standards ultimately established during the rulemaking process.
- Living wage and supportive benefits requirement, though requirement does not take effect until January 1, 2027.
- Potential changes to material disposition, such as eschewing existing end markets that may not meet future standards for "responsible end markets" and/or sending partially-processed materials on to another commingled recycling processing facility (or other entity) for secondary processing.

A. Approach

Crowe's approach to identifying anticipated program costs for CRPFs will include the following activities:

- Development of a questionnaire to be completed during the CRPF facility visits. The questionnaire, provided below, will include the following categories:
 - Administration and reporting
 - Living wage and supportive benefits
 - Employment changes
 - Equipment updates

- Operational/quality changes
- Capacity and material acceptances changes
- Validation of survey data
- Research on facility upgrades and equipment prices through:
 - Existing studies and reports
 - Trade literature
 - Equipment vendors
 - Interviews with out-of-state processors (beyond the Oregon CRPFs)
- Follow-up meetings with CRPFs in Fall 2023
- Compilation and categorization of survey data
- Development of models and scenarios that depict high-tech and low-tech approaches to upgrading facilities
- Presentation of aggregated results across RMA cost categories, Crowe's methodology categories, and separately for high-tech and low-tech scenarios.

Exhibit 37 provides an overview of Crowe's approach to conducting the anticipated program costs activities. In conducting this work, our overall goal is to be:

- Comprehensive in capturing and evaluating a wide range of costs and cost trade-offs
- Transparent in describing our methodology, data inputs, categories, scenarios, and assumptions
- Consistent in following our general methodological approach and categorization of costs
- Conservative in determining the minimum costs required to meet proposed RMA requirements and/or scenarios
- Focused on capturing costs supported by documentation where possible (e.g., equipment price quotes)
- Distinguishing anticipated costs required to comply with the RMA from costs that a CRPF would otherwise have to incur to run its business absent the RMA.

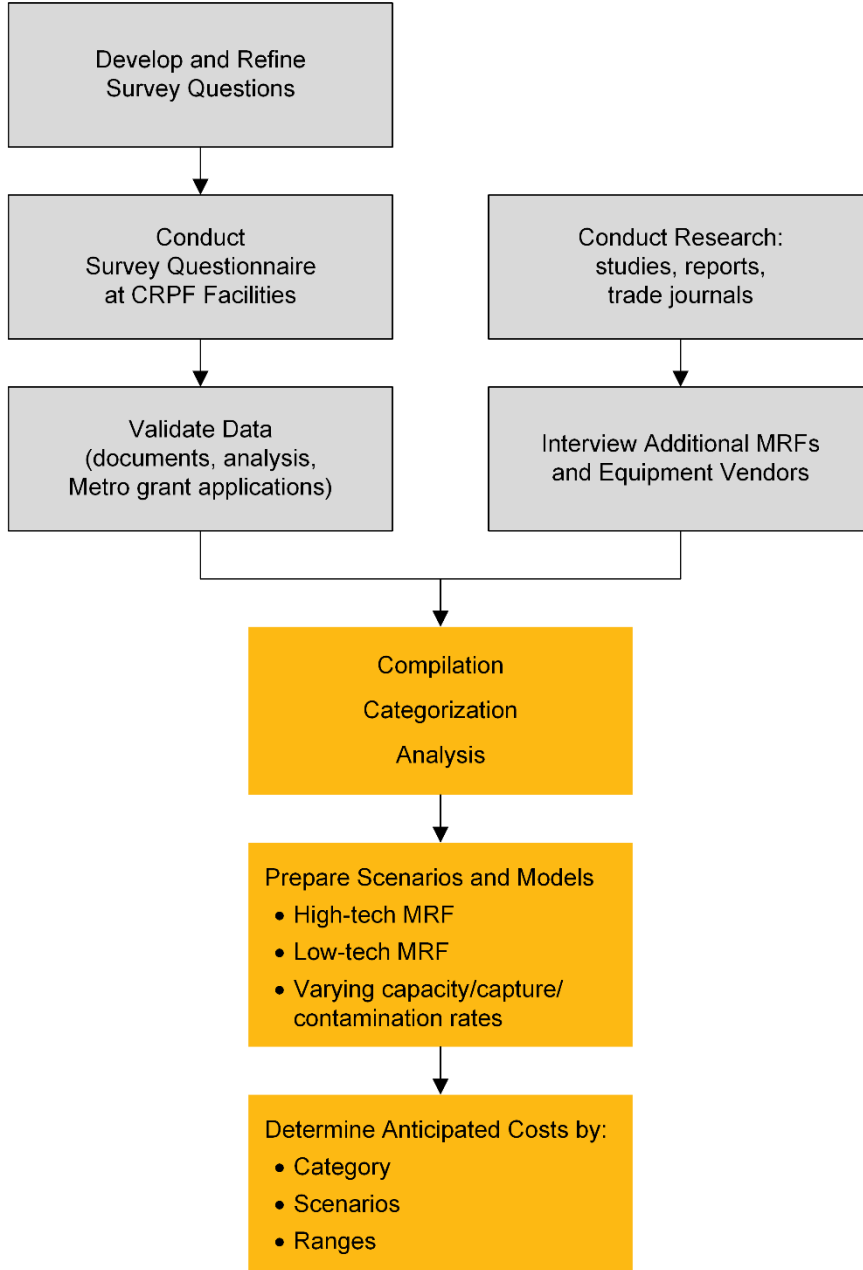
Crowe will present anticipated program costs in several categories. First, we will determine total anticipated program costs across each of the broad RMA areas outlined above (administration/reporting, living wage and supportive benefits, capacity/material acceptance, and capture rates/contamination rates). Utilizing this approach will more easily allow for updates to any of these categories as rulemaking proceeds. The second set of categories will align with the 15 cost categories described in our methodology. The cost categories most likely to apply for the anticipated cost analysis are:

- Direct labor
- All other labor/overhead
- General business overhead¹
- Depreciation
- Disposal
- Supplies; and
- Maintenance.

Where it is possible without revealing proprietary information, Crowe will summarize the current and planned capabilities of Oregon's CRPFs related to sorting capabilities, degree of automation, and capacity.

¹ We will compute an overhead rate based on current costs and apply an overhead percentage as other costs change.

Exhibit 1
Overview of Anticipated Program Costs Methodology



B. Anticipated Program Costs Survey

As a component of each CRPF facility site visit, Crowe will conduct a survey to identify potential anticipated program costs. Crowe will follow the same confidentiality procedures with anticipated program costs as with facility cost and associated data provided during this study. The remainder of this section provides the draft anticipated program costs survey. We will complete the anticipated program cost survey with the CRPF after we have conducted the site tour and reviewed financial and labor information. At this point we will have a good understanding of the facility's operations and ability to meet future performance standards. The first two questions will frame the conversation and allow our team to focus questions on the types of anticipated costs most applicable to each CRPF. For example, if a facility has stated that they will not be upgrading equipment in response to question #2, we will not ask the questions related to new equipment.

In order to target the quality levels that will be required for permit compliance, we are starting with two assumptions: a 5% or a 2% outbound contamination rate on average (for all materials combined), with corresponding capture rates that support the facility meeting the 5% or 2% targets². Should a different contamination rate be determined during the rulemaking process, Crowe will reach out to reevaluate the estimates CRPFs provide. We expect that we will be following up with each CRFP to further discuss anticipated costs in the Fall of 2023.

Exhibit 38 provides the initial draft of the anticipated program costs survey. It is important to emphasize that Crowe understands and expects that the initial responses to these questions will be just that, initial responses, and estimates. Responses to this survey will provide a starting point for the iterative process that will unfold over the remainder of 2023.

² There is ongoing discussion around outbound contamination rate targets to be incorporated into performance standards. Proposals under discussion include, but are not limited to 5%, APR or ISRI Grade A, a 20% improvement over ISRI or APR standards, and commodity specific versus average rates.

Exhibit 2
Anticipated Program Costs Survey

Section	Question No.	Question
1. Primary Concerns	1a	What are your primary concerns in meeting new requirements for Materials accepted?
	1b	Capture rates?
	1c	Contamination rates?
	1d	Living wage and supportive benefits?
	1e	Other requirements of the RMA?
2. Considerations Meeting RMA Requirements	2a	What are your facility's considerations related to meeting the RMA requirements through: Moving materials to another CRPF?
	2b	Adding employees?
	2c	Adding equipment/technology? What documentation do you have related to future equipment purchases (quotes, plans, proposals, etc.)?
	2d	Other?
3. Administration and Reporting	3a	How much time does your facility currently spend on reporting to Oregon DEQ? To Metro (if applicable)?
	3b	Of that time, how much time is spent on tonnage reporting?
	4	Are there any other reporting categories you currently report on? If yes, please specify and provide the amount of time spent on each.
	5a	How much additional labor cost or other expenses do you anticipate incurring for administration and reporting for permit /certification compliance?
	5b	Reporting related to the living wage and supportive benefits wage compliance?
	5c	Responsible end-market compliance?
	5d	Tonnage and contamination reporting?
	5e	Participation in audits and inspections?
	5f	Fee invoicing?
5g	Other (please specify)?	
4. Living Wage and Supportive Benefits	6	PTO - How many days of paid time off (including holidays, sick days, and vacation) are provided to workers in a year?
	7a	Does your facility provide health benefits? (If yes, provide specifics on premium levels, co-pays, deductibles)
	7b	Dental benefits? (Yes/No)
	7c	Vision benefits? (Yes/No)
	7d	Retirement benefits? (Yes/No)
	7e	Training and education benefits? (Yes/No)
	7f	Other benefits? (Yes/No, please specify)
	8	Estimate the total annual cost per employee for all benefits provided by your facility. Provide by employee category or job classification if there are differences.
	9	Estimate the current average percentage that benefits represent of salaries and wages by worker category.
	10	Do you expect an increase in temporary agency staffing use and related administration fees? If yes, how are benefits calculated for these temporary laborers? Will their benefits increase? How will temporary agency fees be increased?
	11	Have you considered wage compression implications? If yes, describe how they will impact your labor costs across all employees, on average, using a hypothetical 25% increase from current entry-level rates (e.g., \$20/hour to \$25/hour).

Section	Question No.	Question
5. Capacity and Material Acceptance	12	What changes will be required to accept additional materials as part of the Uniform Statewide Collection List (USCL), as currently proposed?
	13	What is your current daily capacity in tons per day (all materials combined)? Please provide documentation.
	14	Can you provide documentation of any planned capacity increases?
	15	What are the reasons for any planned capacity increases?
6. Current Quality Levels	16	What is your current average bale contamination rate (all materials combined)? Please provide documentation. Please provide average contamination rates for each commodity (OCC, mixed paper, HDPE (natural/color), PET, tin, aluminum, etc.)
7. Operational Changes	17	Are you planning additional sorting procedures? If yes, will they be primarily manual or automated?
	18	What other procedural changes do you anticipate?
	19	What changes do you expect in the number of employees due to reductions from automation?
	20	What changes do you expect in the number of employees due to increases in manual labor needs?
	21	How do you expect your residual/ disposal costs to change due to higher quality outputs?
8. Equipment Changes	22	Are you planning to invest in new equipment to meet the materials on the USCL and/or performance standards starting July 1, 2025 (assume 5% and 2% contamination rates)? If yes, please identify the types and quoted prices for each equipment.
	23	Are you planning to apply for grants (matching or otherwise) from Metro, Carton Council, or other organizations for new equipment?
	24	If new equipment is being or will be purchased, do you plan to perform facility upgrades to incorporate the new equipment? If yes, describe the upgrades needed and estimated costs. Provide quotes if possible.
	25	Are there any staffing changes which would result from adding new/upgraded equipment?
	26	If certain processes will be automated, how do you anticipate reallocation of resources with automation?
	27	Will equipment maintenance costs be impacted? If yes, provide an estimate of the additional costs or cost savings.
	28	If new equipment is being purchased, does it require ongoing subscription costs (for example, monthly software/support for advanced equipment)? If yes, provide an estimate of how much monthly costs would be.