

APPENDIX A

STATEMENT OF WORK AND DELIVERABLES

Introduction

The 2019 Washington State Legislature found that unwanted products should be managed with priority on prevention and reduction, followed by recycling and reuse, before energy recovery or landfilling. The Legislature also found that producers of plastic packaging should consider design and management of their packaging in order to reduce environmental impacts. With these findings, [Chapter 70.380 RCW Plastic Packaging—Evaluation and Assessment](#) directs Ecology to identify options to reduce plastic packaging in the waste stream that are capable of being established and implemented by January 1, 2022.

As directed in Chapter 70.380 RCW, Ecology is hiring the Contractor to conduct a study of the impacts of plastic packaging in Washington. In this study, within the project schedule and available resources and data as outlined or amended by mutual agreement, the CONTRACTOR will:

- Include consultation with producers, providers of solid waste management services, and stakeholders.
- Assess the amount and types of plastic packaging currently produced in or coming into the state.
- Assess the full cost of managing plastic packaging waste including costs to ratepayers, business, local governments, and others.
- Assess the final disposition of plastic packaging sold into the state.
- Assess costs and savings to all stakeholders in existing product stewardship programs for plastic packaging where they have been implemented including where available the specific costs for the management of plastic packaging.
- Assess the infrastructure needs to manage plastic packaging.
- Assess the contamination and sorting issues facing the plastic packaging recycling stream.
- Assess existing organizations and databases for managing plastic packaging that could be employed for use in developing a program in the state.
- Compile a list of the programs and activities in the state currently managing plastic packaging, including end-of-life management and litter and contamination cleanup.
- Compile a list of existing studies of the final disposition of plastic packaging and materials recovery facilities' residual composition including data on cross-contamination of other recyclables, contamination in compost, and brand data in litter when available.
- Review and identify businesses in Washington that use recycled plastic material as feedstock or components of products.
- Review of industry and domestic or international efforts and innovations to reduce, reuse, recycle, chemically recycle plastic packaging, including technologies such as pyrolysis and gasification processes to divert recoverable materials away from landfills and into valuable raw, intermediate, and final products.
- Provide sources of information, including peer reviewed science, relied upon in the development of the report or assessment must be cited.

The CONTRACTOR report must include recommendations, consistent with the federal Food, Drug, and Cosmetic Act, to meet the goals of reducing plastic packaging through industry initiative and product stewardship to:

- Achieve 100 percent recyclable, reusable, or compostable packaging in all goods sold in Washington by January 1, 2025.
- Achieve at least 20 percent postconsumer recycled content in packaging by January 1, 2025.
- Reduce plastic packaging when possible, optimizing the use to meet the need.

In coordination with Ecology, the CONTRACTOR will conduct all aspects of research and work as defined in Chapter 70.380 RCW Plastic Packaging—Evaluation and Assessment. This includes coordinating engagement with interested Washington, national and international stakeholders.

The ultimate goals of the contract are to:

- a. Meet the requirements of Chapter 70.380 RCW.
- b. Engage interested stakeholders in a consultative process to inform options to reduce plastic packaging in the waste stream.
- c. Draft a report that evaluates and assesses the amount and types of plastic packaging sold into the state as well as the management, disposal and clean-up of plastic packaging.
- d. Provide recommendations for options to reduce plastic packaging in the waste stream through industry initiative or product stewardship or both, that are capable of being implemented by January 2022 for Ecology to submit to the Legislature by October 2020.

The source of funds for this Contract is the Waste Reduction, Recycling, and Litter Control Account and may include other available funding sources as well.

Applicable Documents

[Chapter 70.95 RCW](#) is the guiding statute for solid waste management in Washington. Under this statute, waste reduction is stated as a fundamental strategy of solid waste management and it is necessary to change manufacturing and purchasing practices and waste generation behaviors to reduce the amount of waste that becomes a governmental responsibility. In 2019 the legislature passed [Chapter 70.380 RCW Plastic Packaging—Evaluation and Assessment](#). This is the main law this contract is to implement.

Other reference documents include:

- [Engrossed Second Substitute Senate Bill 5397](#)
- [Senate Bill 5397 \(original bill\)](#)
- [Product Stewardship Institute's Packaging EPR Toolkit](#)
- [Canadian Council of Ministers of the Environment: Strategy On Zero Plastic Waste](#)
- [Publications from The New Plastics Economy](#)
- [Analyzing Product Stewardship Policies for Packaging and Printed Paper in Washington State](#)
- [Packaging and Paper Product Extended Producer Responsibility Plan](#)
- [Oregon DEQ Plastics Recovery Assessment Project](#)

Requirements and tasks

CONTRACTOR shall hold a project kick off meeting, as directed by Ecology via phone, skype, teleconference or webinar with Ecology staff within 2 weeks of contract execution. Date of meeting may be amended upon mutual agreement of both parties.

Meetings with Ecology may be conducted via phone, skype, teleconference or webinar (as directed by Ecology, per meeting).

In coordination with Ecology, the CONTRACTOR will conduct all aspects of research as defined in [Chapter 70.380 RCW](#) and will assure completion of the following tasks:

Task 1: Research and compile data on plastic packaging in Washington

- a. Assess the amount and types of plastic packaging currently produced or coming into the state by category, with the greatest specificity that is available.

Wherever possible, categories will distinguish between the following attributes:

- Type – Bottles, non-bottle rigid packaging, film, other
 - Resin – PET, HDPE, LDPE, PP, PS, other
 - Color – natural/translucent, colored
 - Other – multi-material, typically soiled
- b. Compile existing available data on all programs, activities and entities that currently manage plastic packaging in Washington State including all documented:
- Recycling services, MRFs and plastic processors
 - End-of-life management including landfill disposal and incineration
 - Litter cleanup
 - Contamination cleanup¹
- c. Assess the quantities and final disposition of all plastic packaging sold or entering into the state. This can include the following at a minimum, if available:
- End markets for specific resins
 - Disposal locations
 - Litter
 - Contamination in other recyclables
 - Contamination at organics processing facilities and in compost
 - Other disposition
- d. Research existing studies and sources of data, with a preference for Washington-based data, on plastic packaging contamination including:
- Composition and amount of plastic packaging in residuals from material recovery facilities (MRFs)
 - Data on cross-contamination of plastic packaging in other recyclable commodities
 - Data on plastic packaging contamination in compost
 - Data on brand-specific plastic packaging identified in litter
- e. Estimate the full cost of managing plastic packaging materials, including consideration given to costs that are determined by volume or weight. Define rationale for why providing costs by volume or weight:
- Ratepayers

¹ For the purposes of this study, Ecology defines *contamination cleanup* as reducing plastics contamination in recycling streams. For example, optimizing recycling processing facilities to more effectively produce marketable commodities.

- Producers
 - Solid waste handling companies
 - Local governments
 - Other businesses
 - Other impacted stakeholders
- f. Assess the infrastructure necessary for the complete management of plastic packaging in the state according to the waste management hierarchy. This may include:
- Methods to reduce the amount of plastics used
 - Need for a plastic recovery facility (PRF)
 - Need for a secondary material recovery facility (secondary MRF)
 - Need for a plastic processing facility (that makes pellets) or chemical recycling facility, etc.
 - Depot and/or drop off systems to supplement curbside collection
 - Need for changes to existing curbside programs (materials accepted, collection frequency, collection methods etc.)
- g. Assess the contamination and sorting issues facing the current plastic packaging recycling system. This will include drawing on the results from subtasks 1c and 1d, contamination and sorting issues currently facing Washington's recycling system, such as:
- a. The specific types of materials causing the most significant concerns,
 - b. The primary drivers of these issues as they relate to plastic packaging,
 - c. The losses (financial and material) estimated to be resulting,
 - d. Actions identified in prior research to address these issues, and
 - e. Policies that might connect to these actions.

Deliverables: Written report compiling all Task 1 findings. Per SB 5397, all data sources, peer-reviewed research, and assumptions will be documented for reference.

Due date: CONTRACTOR will submit the draft Task 1 deliverable by May 15, 2020.

Task 2: Assess businesses using or capable of using post-consumer recycled plastic packaging in Washington

Review and identify businesses in Washington that:

- a. Use post-consumer recycled plastic packaging as a feedstock or component of a product produced by the company. Identify what plastic resins are used, if available
- b. Use pre-consumer and/or post-industrial, or other recycled plastic packaging
- c. Could potentially use post-consumer plastic packaging

Deliverables: Assessment of all businesses in Washington that use post-consumer recycled content plastic packaging material, use other recycled plastic materials, or could use post-consumer recycled content plastic packaging material. The deliverable will be in a cross tabular format that also tracks resin type, origin of material, product sector, and tons/year of potential use, based on available information. Suggestions by those companies interviewed on the barriers to higher recycled content incorporation (cost, lack of quality, lack of supply, consumer acceptance, health and safety standards, etc.) will be identified in the project report.

Due date: CONTRACTOR will submit the draft Task 2 deliverable by April 30, 2020.

Task 3: Research successful plastic packaging management programs and innovations

- a. Conduct a review of industry and other domestic or international efforts and innovations to reduce, reuse, recycle, or otherwise successfully manage plastics and plastic packaging. This may include:
 - Extended producer responsibility systems
 - Chemical recycling facilities, pyrolysis and gasification processes to divert recoverable polymers
 - Utilizing recycled content in plastic packaging
 - Other innovative programs, systems, or technologies to manage plastics or to divert recoverable polymers and other materials away from landfills and into valuable raw, intermediate, and final products
- b. Identify costs and savings to stakeholders in existing product stewardship programs where they have been implemented including, where available, the specific costs for the management of plastic packaging.
- c. Identify existing organizations² capable of managing plastic packaging that could be employed for use in developing a program in the state.
- d. Identify existing databases of plastic packaging producers that were used in other product stewardship programs.

Deliverables: CONTRACTOR will deliver a compilation and summary of information detailed in the task. This will include organizing findings and analysis in case studies. The review will summarize examples of best management practices and the best case studies describing how efforts and innovations are being applied to effectively manage plastics and plastic packaging.

Due date: CONTRACTOR will submit the draft Task 3 deliverable by March 31, 2020.

Task 4: Conduct Stakeholder Consultations

² For the purposes of this study, *organizations* include businesses, producer responsibility organizations, non-profit organizations, and trade organizations.

- a. CONTRACTOR will work with Ecology staff to identify key stakeholders, consult with them on the research and findings, gather information, keep them informed, and provide opportunities for feedback in the development of the final recommendations.
 - Stakeholders include packaging producers and manufacturers, consumer goods companies, solid waste management services and collection companies, recycling facilities, plastic recyclers, non-profit environmental groups, litter and marine debris clean-up programs, local government solid waste or recycling personnel, Ecology management, other state agencies, legislators, and other interested parties.
- b. CONTRACTOR will conduct a consultative process with interested stakeholders, to gather data and get input and feedback as the CONTRACTOR develops options to reduce plastic packaging in the waste stream.
- c. At a minimum, in a consultative process:
 - Stakeholders may provide information and data needed to inform the research;
 - Stakeholders are provided with effective and timely notice of consultation opportunities;
 - Stakeholders can periodically see draft findings and recommendations in order to determine the implications to their interests;
 - Stakeholders are provided with sufficient time to respond to draft documents;
 - CONTRACTOR will provide a comment summary and a brief statement of how the comments were used. All comments will be collected and posted on the website.
 - Proceedings and results of activities that are part of the consultation process are properly documented and available for public review.

Deliverables: CONTRACTOR will deliver:

- A documented summary of proposed consultative process
- List of stakeholders
- Stakeholder comments and responses to be published on a designated website³ for public viewing
- Summary document of the consultative process and findings

Due dates: CONTRACTOR will submit stakeholder consultative process outline with dates within one week of kick-off meeting. Stakeholder process will be held throughout project, January-June 2020.

Task 5: Report with findings and draft recommendations to meet plastic reduction goals, and options for legislative consideration.

- a. Make recommendations to meet the goals to:

³ Ecology-hosted website.

- Achieve one hundred percent recyclable, reusable, or compostable packaging in all goods with plastic packaging that are sold in Washington by January 1, 2025.
- Achieve at least twenty percent postconsumer recycled content in plastic packaging by January 1, 2025.
- Reduce plastic packaging when possible optimizing the use to meet the need.
- In developing these recommendations, ensure consistency with federal food, drug and cosmetic act (21 U.S.C. Sec. 301 et. seq.)

Considerations when making the recommendations:

- Implications and reality of meeting the above goals, including the needed system to support recycling and composting this much packaging.
 - If possible, to reduce the impacts of plastic packaging in the waste stream.
 - Identify recommended infrastructure necessary for the complete management of plastic packaging in the state according to the waste management hierarchy.
 - Detail regulatory changes that would be required to achieve any of the recommendations. This may include regulatory changes pertaining to the following:
 - Utilities and Transportation Commission-governed waste systems
 - Local recycling contract systems
 - Statute and rule updates including RCW 81.77, RCW 70.95, WAC 480-70, WAC 173-350
- b. Identify legislative options to meet plastic packaging goals that are capable of being established and implemented by January 1, 2022, as well as within 2-5 years.
- The options must include expected estimated costs and benefits of the proposal to state and local government agencies to administer and enforce the rule, and to private persons or businesses by category of the type of person or business affected.

Deliverables: The CONTRACTOR will work with Ecology to develop a report outline and two report drafts documenting the results and recommendations from the entire study. Each round includes one round of consolidated edits from Ecology. The report will include:

- a. Summary of the study findings from all tasks.
- b. Recommendations to meet the goals of reducing plastics packaging through industry initiative and plastic product stewardship.
- c. Options for legislative consideration to meet the plastic packaging reduction goals that can be established and implemented by January 2022, or if that timeline is deemed not possible, recommendations that could be established and implemented within 2-5 years.
- d. Citations of the sources of information including any sources of peer-reviewed science.
- e. Up to three verbal presentations on findings and recommendations for each task to Ecology and interested stakeholders.

Due Date: CONTRACTOR will deliver all final products and deliverables to Ecology by September 1, 2020. There will be two draft cycles allowing Ecology two weeks to review in each cycle. The first draft

will be delivered by July 14, 2020 and the second draft by August 14, 2020. Up to three verbal presentations may be given by December 31, 2020.

Task 6: Project Management

The Contractor must remain in close contact with the Ecology project manager, such as weekly calls, to report progress on the work plan, the status of the budget, update the work plan as necessary, and otherwise get input and approval. All invoices must be accompanied by detailed reports documenting expenditures, by task, and highlighting activities accomplished during the billing period.

Deliverables: CONTRACTOR will deliver kick-off meeting agenda and notes, call agendas and notes, monthly invoices and progress reports.

Due Date: CONTRACTOR will provide deliverables to Ecology as follows:

- Kick-off meeting: CONTRACTOR to submit agenda one week prior to meeting and notes one week after meeting.
- Regular check-in calls: CONTRACTOR to submit agenda 2-3 days prior to each call and notes 2-3 business days after each call.
- Monthly reporting: CONTRACTOR to submit invoice and progress report, itemized by task, by the 10th of the following month. Each invoice and progress report shall identify budget by task, amount spent per task, remaining balance by task. Any preapproved travel expenses shall be itemized by task.

Due dates may be revised, with Ecology preapproval, as long as it does not exceed the Period of Performance end date. To extend the Period of Performance end date, requires an executed amendment between the parties.

All products/reports submitted must be compatible with agency software and equipment. Ecology reserves the right to request additional reports relating to various aspects of the project. CONTRACTOR and Ecology will negotiate additional budget and schedule if additional reports are requested.

DOCUMENT ACCESSIBILITY REQUIREMENTS

ECOLOGY has identified those documents intended to be published, posted, or hosted on ECOLOGY's public web site, namely, the final report and presentation materials. The CONTRACTOR shall provide these documents in both their "native format" (such as Word, Excel, or PowerPoint) and in PDF format (latest version of Adobe Acrobat Pro or compatible). The CONTRACTOR shall run the PDF Accessibility Checker's report and provide the report with the delivered documents. The PDF documents must satisfactorily pass the Adobe Acrobat Pro Accessibility Checker (Full Check). ECOLOGY will review the PDF Accessibility results and may request the CONTRACTOR remedy any known issues. ECOLOGY reserves the right to perform independent testing to validate accessibility and may require the CONTRACTOR remedy any identified issues before acceptance of the documents. For assistance concerning accessibility, visit Washington State Office of the Chief Information Officer, OCIO Policy no. 188, Accessibility (<https://ocio.wa.gov/policy/accessibility>).