



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

## **Work Plan for the Washington State Recycling Development Center**

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### **Working document**

- First draft – April 2020, Advisory Board review
- Second draft – May 2020, Board member comments
- Third draft – July 2020, revised plan

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**Note about this work plan:**  
Development of the Recycling Development Center’s (Center) first work plan occurred over several months in 2020 (April to July).

July Revision

### The Center

The Washington State Recycling Development Center (Center) was created within the Department of Ecology (Ecology) in partnership with the Department of Commerce (Commerce) ([Chapter 70.370](#) Revised Code of Washington (RCW)). State law requires the Center to develop a work plan identifying **“actions and recommendations for developing markets for commodities comprising a significant percentage of the waste stream and having potential for use as an industrial or commercial feedstock, with initial focus on mixed waste paper and plastics”** (RCW 70.370.030 (3)(a)).

The scope of potential Center tasks include:

- Evaluate, analyze, and make recommendations regarding state policies that may affect markets for recyclable materials.
- Work with manufacturers and producers of packaging and other difficult to recycle materials to increase recyclability of their products in Washington, including other prevalent and difficult to recycle materials.
- Initiate, conduct, and/or contract studies relating to market development for recyclable materials/products, including but not limited to applied research, processing/recycling, technology, life-cycle analysis, and pilot demonstration projects.
- Obtain and disseminate information relating to market development for recyclable materials from other state and local agencies and other sources.
- Provide grants or contracts to local governments, state agencies, or other public institutions to further the development or revitalization of recycling markets in accordance with applicable rules and regulations.
- Provide business and marketing assistance to public and private sector entities within the state.
- Work to create a regional recycling development council that will work across either state or provincial borders, or both.
- Advocate for policies that create a circular economy and deter from abundant linear supply chains.

Work of the Center supported by Commerce includes:

- Provide assistance to recycling businesses that may include:
  - Development of business plans;
  - Market research and planning information;
  - Referral and information on market conditions; and
  - Information on new technology and product development.
- Conduct outreach and surveys to manufacturers establish barriers and solutions to the increased use of recycled materials in products and product development;
- Inventory, support, promote, and identify research and development to stimulate new recycling technologies and products using recycled materials;
- Actively promote manufacturing with recycled commodities, as well as purchasing of recycled products by state agencies consistent with and in addition to the requirements of chapter [43.19A](#) RCW and RCW [39.26.255](#), local governments, and the private sector;
- Undertake studies on the unmet capital and other needs of reprocessing and manufacturing firms using recycled materials, such as financing and incentive programs; and
- Conduct research to understand the waste stream supply chain and incentive strategies for retention, expansion, and attraction of innovative recycling technology businesses.

## Center Organization

The Center works in consultation with a fourteen-member Advisory Board; membership is outlined in the law ([Chapter 70.370 RCW](#)). Additionally, whenever needed, the Center will work with material recovery facility operators; public and private sector reuse, recycling, and solid waste industries; packaging manufacturers and retailers; local governments; environmental organizations; interested colleges and universities; and state agencies, including the department of commerce and the utilities and transportation commission.

Every other year, the Center will submit a report to the legislature on the progress of achieving the center's purpose and performing the center's activities. The first report to the legislature is due in December of 2020. That report will summarize effects on state recycling rates or rates of utilization of postconsumer materials in manufactured products that can reasonably be attributed, at least in part, to the activities of the Center.

## Center Agency Team

Ecology and Commerce partner in the work of the Recycling Development Center.

Primary contacts for Ecology and Commerce are:

Ecology	Commerce
<ul style="list-style-type: none"> <li>• Kara Steward</li> <li>• 360-407-7643 w / 564-999-0555 c</li> <li>• kara.steward@ecy.wa.gov</li> </ul>	<ul style="list-style-type: none"> <li>• Brian Young</li> <li>• 206-256-6139</li> <li>• brian.young@commerce.wa.gov</li> </ul>

## Advisory board

The law details the representation of the board and directs the board to meet at least quarterly ([RCW 70.370.040](#)). The advisory board provides advice and support to Ecology and Commerce as they implement the work of the Center. In October 2019, the Directors of Ecology and Commerce invited the representatives listed in Table 1 to participate as advisory board members. The advisory board includes a non-voting representative from the Utilities and Transportation Commission.

**Table 1 Recycling Development Center Advisory Board**

Board Member	Organization	Phone	Email
<b>Scott Morgan,</b> Board Chair	The Evergreen State College	360-867-6913	<a href="mailto:morgans@evergreen.edu">morgans@evergreen.edu</a>
<b>Karl Englund,</b> Board CoChair	Washington State University	509-335-5077	<a href="mailto:englund@wsu.edu">englund@wsu.edu</a>
<b>Corinne Drennan</b>	Pacific Northwest National Laboratory	509-372-6330	<a href="mailto:Corinne.Drennan@pnnl.gov">Corinne.Drennan@pnnl.gov</a>
<b>Kyla Fisher</b>	AMERIPEN	602-540-7544	<a href="mailto:kyla@threepeaksustainability.com">kyla@threepeaksustainability.com</a>
<b>Deb Geiger</b>	Spokane County Solid Waste	509-238-6607	<a href="mailto:dgeiger@spokanecounty.org">dgeiger@spokanecounty.org</a>
<b>Margo Gillaspy</b>	Skagit County Public Works Department	360-416-1400	<a href="mailto:margog@co.skagit.wa.us">margog@co.skagit.wa.us</a>

## Recycling Development Center work plan

Board Member	Organization	Phone	Email
<b>Nina Goodrich</b>	Sustainable Packaging Coalition	866-904-9666	<a href="mailto:nina.goodrich@greenblue.org">nina.goodrich@greenblue.org</a>
<b>Sego Jackson</b>	Seattle Public Utilities	206-615-0706	<a href="mailto:sego.jackson@seattle.gov">sego.jackson@seattle.gov</a>
<b>Allen Langdon</b>	Encorp Pacific – Returnit	604-473-2416	<a href="mailto:alangdon@returnit.ca">alangdon@returnit.ca</a>
<b>Mike Range</b>	Waste Management	253-344-8594	<a href="mailto:mrange@wm.com">mrange@wm.com</a>
<b>Derek Ruckman</b>	Recology	206-619-0892	<a href="mailto:DRuckman@recology.com">DRuckman@recology.com</a>
<b>Tim Shestek</b>	American Chemistry Council	916-448-2581	<a href="mailto:Tim_Shestek@americanchemistry.com">Tim_Shestek@americanchemistry.com</a>
<b>Jay Simmons</b>	North Pacific Paper Company (NORPAC)	360-636-6485	<a href="mailto:Jay.simmons@norpacpaper.com">Jay.simmons@norpacpaper.com</a>
<b>Heather Trim</b>	Zero Waste Washington	206-441-1790	<a href="mailto:heather@zerowastewashington.org">heather@zerowastewashington.org</a>
<b>Jason Lewis*</b>	Utilities and Transportation Commission	360-338-8837	<a href="mailto:Jason.lewis@utc.wa.gov">Jason.lewis@utc.wa.gov</a>

\* non-voting board member

Advisory board meetings are offered with conference calls or webinar options to allow for public participation. Following the initial advisory board meeting, January 2020, the impact of the COVID-19 resulted in a shift of board meetings to remote attendance only. Public attendance and comment opportunities are offered at all board meetings.

- Ecology schedules and facilitates board meetings in consultation with the advisory board Chair and Cochair.
- Information about advisory board meetings is available online<sup>1</sup>.
- An email list offers updates regarding advisory board activities and Center efforts<sup>2</sup>.

**Table 2 Center Advisory Board Meeting Schedule**

Meeting	Date	Location	Email
<b>Quarter 1</b>	January 9, 2020	Des Moines WA	Board meeting
<b>Quarter 2</b>	April 14, 2020	Webinar	Board meeting
	June 22, 2020	Webinar	EPR webinar*
<b>Quarter 3</b>	July 13, 2020	Webinar	Board meeting
<b>Quarter 4</b>	October 13, 2020	Webinar	Board meeting

\* additional meetings offered to the board include public attendance options.

<sup>1</sup> [https://www.ezview.wa.gov/site/alias\\_1962/37596/recycling\\_development\\_center\\_advisory\\_board.aspx](https://www.ezview.wa.gov/site/alias_1962/37596/recycling_development_center_advisory_board.aspx)

<sup>2</sup> <http://listserv.ecology.wa.gov/scripts/wa-ECOLOGY.exe?SUBED1=RECYCLING-CENTER&A=1>

## Center Work Plan

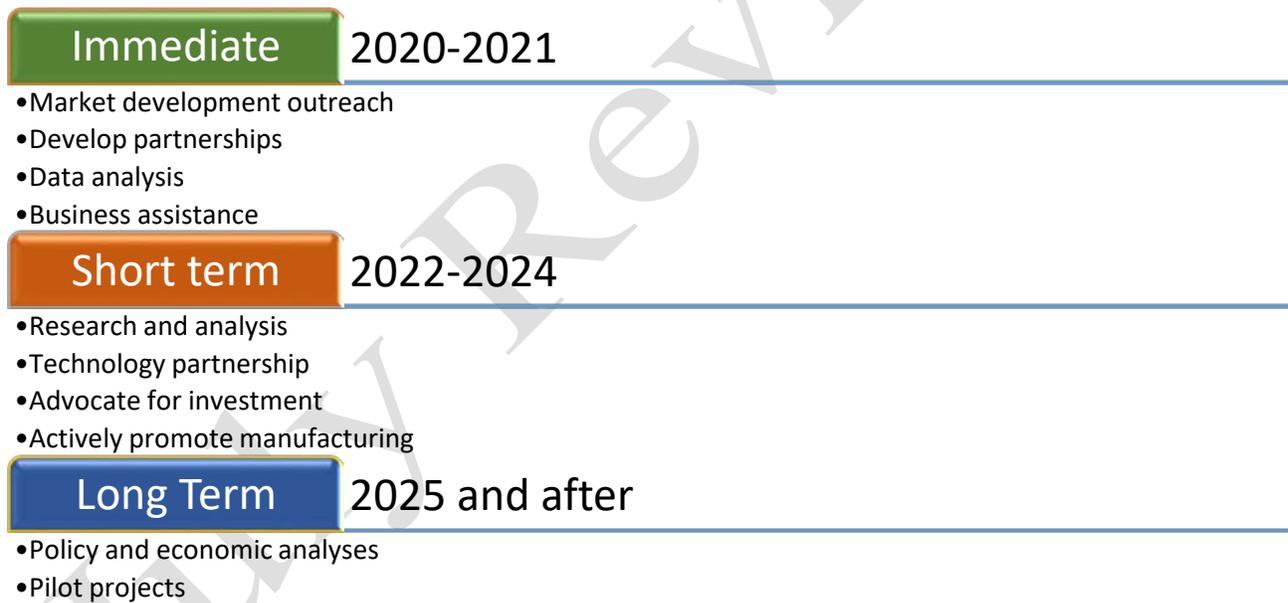
This is the first version of the Center Work Plan. Our intention is it will be a living document to be updated every odd numbered year (opposite from legislative report years) as tasks are completed or evolve.

**ADD GOALS and metrics here**

Since the January 2020 Advisory Board meeting, due to impacts of COVID-19, resources available to Ecology and Commerce to support Center activities have been reduced. Governor Inslee’s proclamation<sup>3</sup> established a statewide freeze on hiring and contracting that affect both Ecology and Commerce.

In light of the Center’s reduced resources, activities in the first year are more narrowly focused. This work plan proposes activities in the three phases outlined in Figure 1. Activities initiated in one phase can, and often will, continue into the next phase, for example partnership development started in the first phase will be ongoing. A summary of the objectives for each activity is provided in Table 3.

**Figure 1 Work plan activities and timeline**



**Table 3 Work plan activities and objectives**

Activity	Objective
Market development outreach	Share information and obtain feedback on the needs of the recycling market in the region.
Develop partnerships	Share resources, align strategies and harmonize communications across regional and national partners.

<sup>3</sup> <https://www.governor.wa.gov/sites/default/files/20-05%20-%20Hiring-PS%20Contracts-Purchasing%20%28tmp%29.pdf>

Activity	Objective
Data analysis	Develop foundational knowledge about the current conditions of recycled materials.
Business assistance	Support new and established businesses and technologies to process and use recycled materials in the region.
Research and analysis	Develop knowledge about recycling markets and related policies to inform program planning and strategies.
Technology partnership	Establish a forum for evaluating recycling technologies.
Advocate for investment	Create opportunities and market conditions which encourage the increased use of recycled materials in manufacturing.
Actively promote manufacturing	Foster the growth and development of technologies which increases the processing capabilities for and the use of recycled materials in manufacturing.
Policy and economic analyses	Develop knowledge about policies and economic impacts to recycling markets.
Pilot projects	Support innovation in partnership with industry

The Center will regularly update the advisory board at its quarterly public meetings. Reports and summaries shared with the advisory board will be posted on the board website for public review.

### Immediate efforts

Immediate work plan efforts will focus available agency resources on outreach, partnerships, data analysis, and business assistance. This work is proposed as the focus for calendar years 2020 and 2021. These efforts will continue into the short and long term phases.

**Outreach:** Center staff will reach out to the recycling and market development community in 2020. Outreach will involve material recovery facility operators; public and private sector recycling and solid waste industries; packaging and product manufacturers and retailers and their associations; local and tribal governments; local economic development agencies; environmental organizations and associations; colleges and universities; and state agencies. Center staff will conduct phone calls, conference calls, or other personal connections to gather feedback from these entities related to recycling and market development. The information will be reported back to the Advisory Board at quarterly meetings.

**Develop Partnerships:** In the process of conducting the outreach described above, Center staff will develop relationships and partnerships. These efforts will be provided to the Advisory Board at quarterly meetings. Center staff will:

- Engage with other recycling councils<sup>4</sup> and coalitions to identify work that the Center could conduct to assist and improve collection, processing and market development in Washington or the Pacific Northwest.
- Communicate with Oregon Department of Environmental Quality, CalRecycle and British Columbia Ministry of Environment advisory councils and staff to identify and potentially act on

<sup>4</sup> <https://nerc.org/projects/completed-projects/>

opportunities for regional collaboration on recycling market efforts, economic development and green jobs.

- Reach out to other entities involved in recycling (for example, the Ocean Conservancy, The Recycling Partnership, and Ellen MacArthur Foundation) as well as regional universities, laboratories, associations, municipalities to collaborate on research and development of recycling related activities.

**Data Analysis:** Commerce staff initiated a study of glass recycling in Washington State. This study involves surveying experts in the market and supply chain and analyzing current trends. A report will be prepared in the fall of 2020 summarizing unmet capital and other needs of reprocessing and manufacturing firms using recycled glass. This report will be provided to the Advisory Board at a quarterly meeting.

The results and recommendations of Ecology's contracted plastics study will be shared with the Advisory Board. Ecology will evaluate existing solid waste data and research supply chain data to identify the volume or weight and movement of recyclable materials (curbside, industrial, commercial, institutional) to processing operations and domestic or international end markets.

**Business assistance** – Upon request, provide business assistance to existing, new, and expanding businesses involved in recycling and use of recovered materials. Share recycling data and assist with regulatory compliance to interested businesses looking to expand into Washington State.

### Short Term efforts

**Research and Analysis:** Depending on available resources, contract for research and analysis that may include:

- Strengths, weaknesses, opportunities, and threats (SWOT) analysis of the recycling infrastructure in Washington. To identify needs for material recovery facilities, how to improve collection and sortation, which materials are most difficult to recover, where are end markets lacking.
- Market analysis of waste stream supply chain and incentives, including policy changes to facilitate the retention, expansion, and attraction of recycling businesses, innovative technology businesses, in addition to assistance for waste reduction innovations for businesses.
- Other analysis to understand trends and demographics that impact recycling, for example immigration impacts, housing statistics, equity and social justice issues.

**Establish a technology partnership** in Washington and across the west coast within academia, research institutions, government, and industry. This partnership will provide a platform for technology discussions to improve or create new recycling feedstocks and end-markets, based on strategic goals and research results. Use this partnership to review, evaluate and understand technological changes in the recycling industry. Use this partnership to collect information and provide insight about current technology and innovative businesses and proposals for improvements to product or packaging redesign, collection, sortation, reprocessing, and end-use markets. The Center will directly engage technology companies that are currently processing material into new feedstocks and products.

**Advocate for investment in recycling infrastructure.** Identify and evaluate funding opportunities available for recycling infrastructure changes. Advocate for investment in recycling (collection,

sortation, processing, and end use) in existing programs that support infrastructure<sup>5</sup>. This effort will assist with improving and expanding collection and processing infrastructure and establishing sustainable markets for recovered materials. The Center will coordinate with the Washington Economic Development Association and economic development boards in Washington.

**Actively promote manufacturing** with recyclable materials to existing, new, and expanding businesses, based on strategic goals and research results. Share recycling data and assist with regulatory compliance to interested businesses looking to expand into Washington State. Examples of promotional efforts include: recycled content (partner with the Association of Plastic Recyclers Demand Champions effort), reusables, buy recycled, material marketplaces (partner with the Sustainable Business Council).

### Long Term efforts

#### Policy and economic analyses:

- Contract for an analysis of policies, including economic drivers and impacts, that expand and sustain environmentally and socially just reuse and recycling markets, improve processing and remanufacture capabilities, encourage business development, and provide for local green jobs.
- Contract for an analysis of existing solid waste and recycling regulations, identify barriers and opportunities in order to maximize the collection and processing of materials under the current system, based on strategic goals and research results. Include research on policies used in other jurisdictions (for example, the Netherlands, Wales, Germany) and an evaluation of their impact on our current system, including cost/benefits, to identify impacts on local and regional recycling markets. Analysis should include potential cost/benefits to consumers.
- Contract for a study of economic drivers for recycling, financing options, and business incentives that would be effective in Washington.

#### Pilot projects:

- In partnership with industry, like the packaging industry or material recovery facilities, establish pilot projects to test packaging design changes for improved recyclability or technology for improved sortation.
- Work in partnership with product and packaging producers and other regional partners on a pilot project that demonstrates a pathway for a specific material, showing all stages of the supply chain using a circular economy model.

### List of footnotes

- Recycling Development Center Advisory Board EZview website: [https://www.ezview.wa.gov/site/alias\\_1962/37596/recycling\\_development\\_center\\_advisory\\_board.aspx](https://www.ezview.wa.gov/site/alias_1962/37596/recycling_development_center_advisory_board.aspx)
- Ecology solid waste and recycling data website: <https://ecology.wa.gov/Research-Data/Data-resources/Solid-waste-recycling-data>
- Ecology, 2010. 2009 Washington Statewide Waste Characterization Study. Publication 10-07-023. <https://fortress.wa.gov/ecy/publications/SummaryPages/1007023.html>

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<sup>5</sup> <https://www.commerce.wa.gov/building-infrastructure/>

- Ecology, 2018. 2015-2016 Washington Statewide Waste Characterization Study. Publication 16-07-032. <https://fortress.wa.gov/ecy/publications/SummaryPages/1607032.html>
- Recycling Development Center Advisory Board Meeting, 2020. January 9, 2020 board meeting notes. [https://www.ezview.wa.gov/Portals/\\_1962/Documents/rdcab/010920NOTES.pdf](https://www.ezview.wa.gov/Portals/_1962/Documents/rdcab/010920NOTES.pdf)
- Northeast Recycling Council. Webpage listing completed projects. Site accessed in April 2020: <https://nerc.org/projects/completed-projects/>
- Washington State Department of Commerce. Choose Washington website. Site accessed in April 2020: <http://choosewashingtonstate.com/>

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