



In 2019, the Washington State Recycling Development Center (Center) was created within the Department of Ecology (Ecology) in partnership with the Department of Commerce (Commerce) ([Chapter 70A.240](#) Revised Code of Washington (RCW)).

In July 2020, at the beginning of the pandemic, the Center [posted](#) its initial work plan. The advisory board’s approved [charter](#) is available on its website. In July 2020, the advisory board approved a series of [goals and metrics](#) for the Center. In January 2021, the Center [published](#) its first biennial report to the legislature.

## Work Plan Overview

**Ecology and Commerce provide staff and resources to conduct the work of the Center, including support to the advisory board. This work plan describes the following Center efforts.**

This plan details the Center’s efforts, goals, and planned actions for the following elements:

Washington data	Legislative report
NextCycle Washington	Outreach
Washington’s Materials Marketplace	Market research
Advisory board	Prioritization

## Work Plan Elements

### Washington data

State law requires the Center to develop a work plan that identifies “*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.*”

Our understanding of the materials in Washington’s municipal solid waste (MSW) stream comes from two sources:

- **Disposal data:** Disposed materials are determined using the results of waste characterization studies. Every five years, Ecology conducts a waste characterization study of municipal solid waste (MSW) from residential, commercial, and self-hauled sources. The most recent waste characterization study was completed in 2021.<sup>1</sup> The proportion of each material from the study is applied to the total MSW for years when a study is not conducted. The data in Figure 1 reflect 2018 disposal data.
- **Recycling data:** Every year, solid waste handling facilities report to Ecology on the materials they manage. That data comes from a variety of facilities and sources that encompass the solid waste and recycling systems in Washington.<sup>2</sup> Data reported to Ecology through 2018 are publicly available.

Figure 1 provides a visual comparison of disposal and recovery data for selected material categories. The materials within these categories can differ between disposal and recovery. For example, disposed glass includes glass containers, flat glass, and ceramics; but only glass containers are recovered in significant amounts. The

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<sup>1</sup> [Waste Characterization Study](#)

<sup>2</sup> [Solid waste & recycling data - Washington State Department of Ecology](#)

disposed plastic category includes plastic products, like furniture or electronics, while recovered focuses on plastic packaging. As a result, there are ten times more plastics in the disposal category.

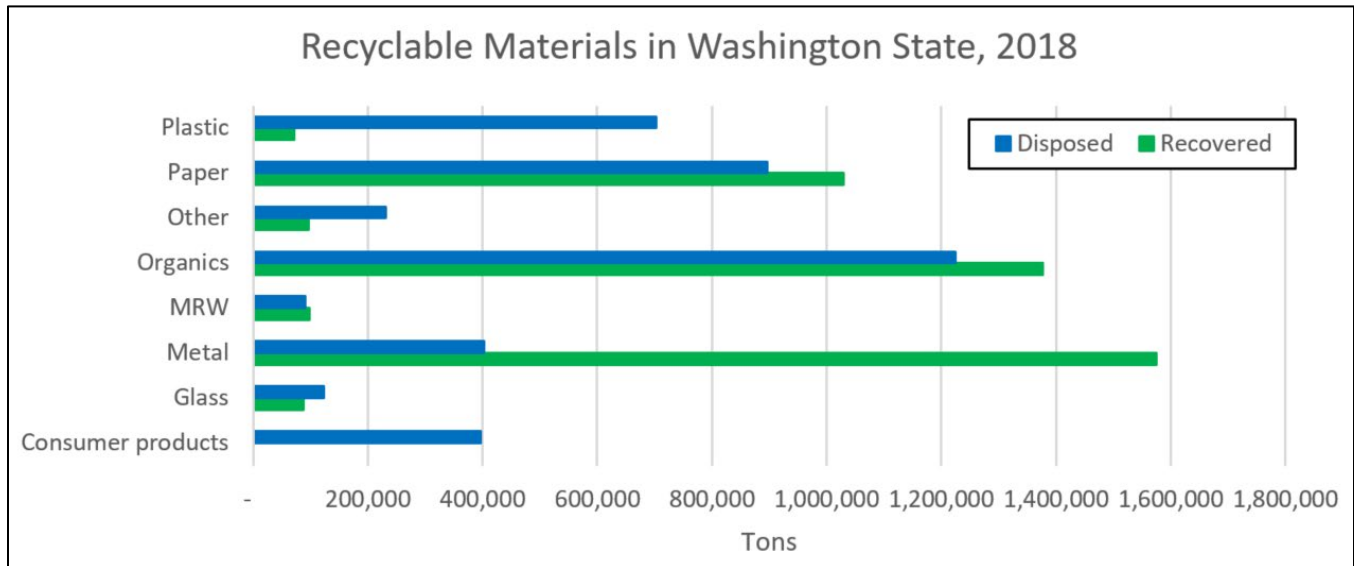


Figure 1: Materials disposed and recovered in 2018, in tons, excluding construction and demolition debris.

A few other notes about the data shown in Figure 1:

- Reuse of consumer products is not tracked nor reported at the state level.
- Moderate risk waste or MRW includes materials in the waste stream that are hazardous and collected from households and small quantity generators, examples include batteries, pesticides, and used oil.
- “Other” materials includes items like textiles, tires, carpet, and mattresses.
- Construction and demolition debris (asphalt, concrete) recovered (4 million tons) and disposed (1.3 million tons) is not included in the figure due to scale.

**GOAL:** Analyze available data in order to provide useful information to support market development. We are using the data from Ecology’s reports and searching to supplement with additional information.

**ACTIONS**

- Continue to track recycling and disposal data.
- Analyze trends in the data to determine impacts from Center supported efforts.
- Identify additional data needs and develop strategies to obtain more robust data.

**NextCycle Washington**

In 2021, the Center provided King County’s Solid Waste Division with a \$50,000 one-time grant to research approaches to advance economic development opportunities for recycling markets<sup>3</sup>. As a result of that research, King County contracted with [RRS Consulting](#) to establish the [NextCycle](#) market development online platform to support King County’s zero waste, climate, and equity goals. The Center joined King County



<sup>3</sup> <https://kingcounty.gov/~media/depts/dnrp/solid-waste/linkup/documents/material-concierge-recommendations.ashx?la=en>

and City of Seattle to support RRS Consulting’s NextCycle Washington platform for innovators working on waste prevention and reduction, repair, recycling, and composting.

The NextCycle business accelerator platform is owned, trademarked, and operated by [RRS Consulting](#). A business accelerator is a program that gives developing companies access to mentorship, investors and other support that help them become stable, self-sufficient businesses. Companies that use business accelerators are typically start-ups that have moved beyond the earliest stages of development.

The Center is committing \$600,000 in resources in Fiscal Year 2022 to NextCycle Washington that will fund RRS’ work as well as offer seed grants to eligible businesses. Support of RRS’ work is funded through an interagency agreement with King County Solid Waste Division. NextCycle Washington seed grants will be offered by Commerce under the existing interagency agreement with Ecology.

NextCycle Washington’s public launch date is March 23, 2022. The first round of micro grants and accelerator support are scheduled for fall 2022. NextCycle will be a major focus for Center grants, outreach, and market stimulation in the coming years.

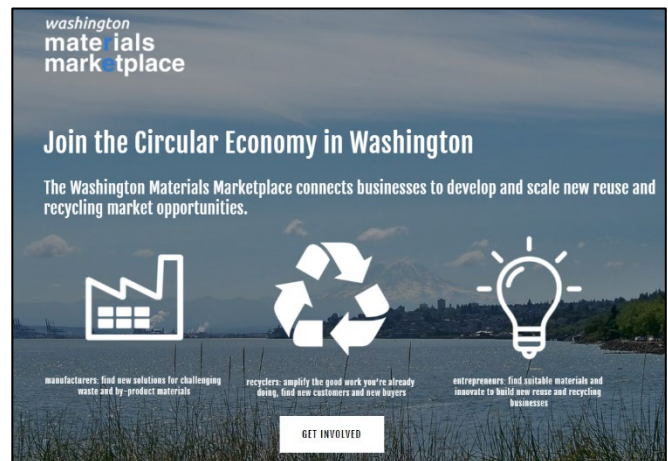
**GOAL:** To support entrepreneurs focused on reduction, reuse, recycling, and growing the circular economy. Establish NextCycle’s micro grants and accelerator opportunities to support waste reduction, reuse and recycling innovations across the state.

**ACTIONS**

- Fund Commerce for the NextCycle seed grants through the existing inter-agency agreement.
- Develop strategy on how best to provide seed grants into the future.

**Washington Materials Marketplace**

The Center funded the City of Tacoma with a one-time grant in 2021 to establish the [Washington Materials Marketplace](#).<sup>4</sup> The Washington Materials Marketplace creates a collaborative network of businesses, organizations and entrepreneurs where one participating member’s hard-to-recycle waste and by-products become another’s raw material. In addition to diverting waste from landfills, these recovery activities generate significant cost and energy savings, as well as create new jobs and business opportunities. The Marketplace platform is managed by [Rheaply](#) under an agreement with the [Seattle Good Business Network](#).



The Washington Materials Marketplace offers free online service for participants to easily share details on materials available or desired, identify reuse opportunities, and exchange underutilized materials. Over 2,700 companies - large and small - academic institutions, non-profits and entrepreneurs are using the Materials Marketplace around the world. The Washington Materials Marketplace has been operational since June 2021. This work is ongoing.

**GOAL:** To provide an online platform for any company or organization in the region that wants to explore new opportunities to transform waste materials into new products, or secure recycled material streams to reduce use of virgin feedstocks. Offer the services of the Washington Materials Marketplace at no cost to businesses and organizations in Washington State.

<sup>4</sup> [Washington Materials Marketplace](#)

## ACTIONS

- Develop strategy to utilize Washington Materials Marketplace to support a centralized, on-line “warehouse” of recyclable materials.
- Coordinate with Industrial Symbiosis Program at Commerce to share and use this resource.

## Advisory board

The Center advisory board is comprised of 14 members appointed by the Director of Ecology in consultation with the Director of Commerce. The advisory board [website](#) identifies the current representatives, and provides summaries of prior meetings and zoom links to upcoming meetings.<sup>5</sup> Since early 2020, the Center advisory board has been meeting remotely, hosted by Ecology. We welcome interested parties to attend and offer an opportunity to participate at each meeting.

Advisory board members provide advice and support to Ecology and Commerce as we implement the work of the Center. Ecology hosts and manages meeting logistics for the board. Board members have the option to participate in subcommittee efforts. Currently, there is one board subcommittee, which offers support to Ecology and Commerce staff through developing board meeting agendas, providing reviews of draft research papers, and discussing data needs. The subcommittee meets on the first Thursday of each month at 4 p.m. Pacific time.



Board meetings occur on the second Wednesday of the month, from 9 a.m. to 12 p.m. Pacific time. Board meetings for calendar year 2022 are scheduled for February 9, April 13, June 8, September 14, and December 14. Depending on the status of COVID-19, the board may return to in-person board meeting, starting in June of 2022. In-person board meetings will include facility tours for board members and others. A virtual option will be offered for board members and interested parties at any in-person board meetings.

**GOAL:** Regularly convene the board to discuss recycling market topics, get updates from Ecology and Commerce, and provide feedback on Center work and priorities. Review research and reports, host presentations on recyclable materials, and receive board member advice to Ecology and Commerce on Center work.

## ACTIONS

- Regularly convene the advisory board and related subcommittees.
- Coordinate board meetings with facility tours.

## Legislative report

The Center is required to prepare a report to the legislature every other year. The next report is due December 2022. Each report will be prepared in consultation with the advisory board. It will provide a summary of work completed in the prior two years, identify Center highlights and research results, and recommend policy actions to develop markets for recyclable materials.

Advisory board review of the draft legislative report is scheduled for August 2022. The legislative report is due in December 2022.

<sup>5</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)

**GOAL:** Provide timely and clear communication on what the Center has accomplished and learned. Offer research and data driven policy solutions for the state to consider.

**ACTIONS**

- Meet the two-year requirement for reporting to the legislature.
- Provide a summary of the Center’s work and policy recommendations to improve recycling markets. Empower leadership with information to enact positive changes in Washington State.

## Outreach

Center staff responds to inquiries about our work. We often provide presentations to curious audiences on Center updates. Outreach efforts include discussions and presentations to in-state and national organizations and events, companies, universities, local governments, and others.

**GOAL:** Share the work of the Center, connect and develop relationships with parties involved in recycling, including manufacturers, collectors, processors, and end users. Develop relationships with recycling market businesses. Identify recycling market needs and questions.

**ACTIONS**

- Develop specific outreach for the public and policy makers on the results of the NextCycle effort.
- Continue map development of businesses and other entities that participate in the collection, sorting and reuse of the recycling waste stream in Washington.

## Market research

Center staff researches recyclable materials markets and provides information to the advisory board. Recyclable material series reports have been prepared for [paper](#), [glass](#), and [plastic packaging](#). Additional material research topics will be identified in consultation with the advisory board. The Center also funded a King County one-time grant to map the [recycling infrastructure](#) of Washington.

Center research into recyclable materials identified data gaps in our understanding of Washington’s recycling system. We identified the need to establish a baseline of the status of recycling markets and assess equity in the recycling system. The Center contracted for an economic analysis and equity assessment of recycling markets in Washington State with Western Washington University’s [Center for Economic and Business Research](#).

This assessment will establish the market baseline to measure change over time. The study will also evaluate equity across the recycling system. The contract has a total value of \$130,000. The economic analysis and equity assessment report is scheduled to be completed by September 2022.

**Goal:** Provide data analysis to the board and use that information to develop markets for recyclable materials. Provide essential baseline market data from which to direct actions to spur markets and evaluate the success of those actions.

**Planned actions:**

- Refine the recycling infrastructure maps with the support from US EPA’s contractor ERG.
- Provide detailed research into recyclable materials and markets in Washington State. Identify and examine report recommendations regarding next steps on improving recycling markets and advancing environmental justice.
- Create a baseline recycling industry report, analysis of existing and potential benefits, and assessment of equity and environmental justice in the solid waste and recycling system.

## Prioritization

Washington data illustrates the variety of materials in our waste stream. The Center is researching approaches to determine which actions result in positive impacts on the circular economy. Center research and analysis into waste streams provide context of the impacts from recycling materials. Examples of include the [EPA’s waste reduction model](#), [consumption based emissions inventory](#), and/or [life cycle assessments](#).

**GOAL:** Use a tool to analyze recycling markets to prioritize Center decisions and actions.

### ACTIONS

- Identify and select analytical tools and apply that analysis to Center work.
- Use data from market and baseline research efforts to prioritize actions for success.

## Staff lead and funding commitments

Work plan task	Lead staff	Contracts/interagency agreements
Washington data	Mya Keyzers	WISERTrade export data for \$3,000 per year
NextCycle Washington	Tina Schaefer	King County interagency agreement for \$360,000 Commerce interagency agreement for \$300,000
Materials Marketplace	Tina Schaefer	Commerce funding for \$30,000
Advisory board	Kara Steward	None
Legislative report	Kara Steward	None
Outreach	Tina Schaefer	None
Market research	Mya Keyzers	WWU interagency agreement for \$130,000
Prioritization	Mya Keyzers	To be determined
Commerce support	Rob Duff, Kirk Esmond	Interagency agreement with Ecology for \$495,752 for the biennium (for 1.5 FTE)