

STRATEGIC PRIORITY TITLE: Continue Efforts to Divert Waste

Branch/Division: Solid Waste LOB/Planning & Program Management (PPM) Division

Executive Sponsor: Jeff Fowler

Project Manage/Lead: Hans Van Dusen/Lead varies based on Program

Priority/Action Type:

- 2018-2023 Existing Action Plan with **continued** funding for 2021-2026
- 2018-2023 Existing Action Plan with **increased** funding for 2021-2026
- New Priority requiring new funding (*building on existing funding*)
- Priority with existing funding

Summary of the priority or issue.

- *What is the issue or problem and why is it important? What data do we have that indicates this an important problem or issue to address? Use charts, graphs, and tables.*

SPU is an internationally recognized leader in recycling and composting, having worked for decades to build a strong diversion ethic for recyclables and organics in Seattle. It is critical to continue our focus on waste diversion to maintain and grow that ethic and associated behaviors. Examples of continued efforts that will be built upon as priorities include:

- **Supporting Extended Producer Responsibility** - Extended Producer Responsibility (EPR) requires that producers of products and packaging take financial responsibility for the end-of-life management of the products and packaging that they put into the marketplace and the environment. Currently throughout the country, local governments were expected to determine how to manage all waste and have their rate payers cover the cost, though they have nothing to do with the design and characteristics of the products sold into their jurisdiction. Design decisions and the profits made by sales rest with the producer who determines materials, toxicity, ease of recycling or composting, complexity, recycled content, etc. of their products and packaging. Producers, through EPR programs, are engaged in the organization of collection, processing, and end-of-life management of their products, leading to system efficiencies and market pull for recycled content unachievable by government programs.

EPR is a powerful tool to expand the environmentally sound and socially responsible management of products and packaging, increase accessibility to services, reduce or replace government costs, reduce or eliminate rate payer costs, increase infrastructure, and drive system innovations and upstream product design changes. Stakeholder engagement, especially with producers, other governments and non-governmental organizations, is required. Once legislation is passed, there is on-going work to ensure successful implementation of stewardship programs that meet the needs of our customers and reduce costs for ratepayers.

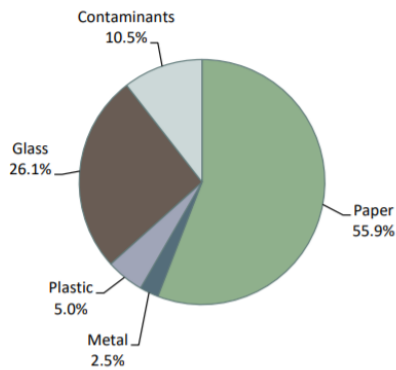


Seattle has a long history of EPR leadership and collaboration including researching, developing proposals, engaging stakeholders, advocating for, and helping pass EPR legislation. In the late 1990s it was a founding member of the Northwest Product Stewardship Council (NWPSC). In 2000 it was a founding member of the Product Stewardship Institute (PSI). Some key results include:

- 2006 First in the nation full EPR law passed for TVs, monitors, computers, e-readers. (E-cycle WA)
 - In 2018, the program collected 1,678 tons in Seattle through about \$1,678,000 in funding from producers.
- 2010 EPR law passed for mercury lighting. (LightRecycle WA)
 - In 2018, the program collected about 417,000 mercury lights at 49 locations in Seattle.
- 2013 one of the nation’s first local EPR laws passed for pharmaceuticals. (King County Secure Medicine Return)
 - In 2018, the program collected and removed from harm’s way 11,621 lbs. at 37 locations in Seattle.

- **Targeting Contamination and Improving the Quality of Recyclables** – Contamination in the Recycle and Compost streams increases cost and time for processing and decreases the value of the end product. Maintaining stable and the sustainable revenue for the brokered recyclables and compost is essential for maintaining a viable affordable price for processing services, which directly translates into affordable rates for our rate payers.

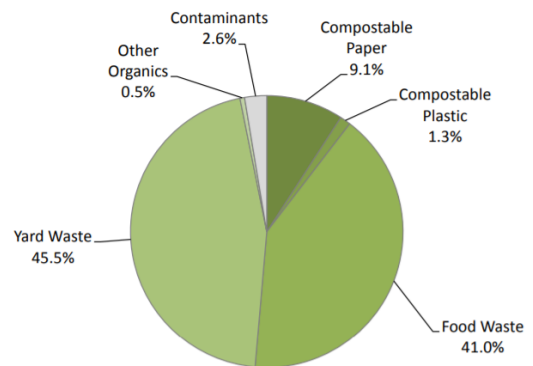
Figure 2-1: Overview of Composition Estimates: Overall (January 2015 – December 2015)



Recycling contamination was at 10.5% as of the 2015 Recycling Composition Study. (See Figure 2-1 from the Study to the right.) Since then, standards for quality of recyclable materials has increased significantly, while commodity prices have fallen. Minimizing contamination is vital to getting the highest price for recyclable materials.

Compost contamination was at 2.5%, as of the 2016 Organics Composition Study. (See Figure 2 from the Study to the right.) Contaminants are not easily removed during the composting process. Plastic and glass are broken down into smaller particles that persist in the finished product, decreasing the value and introducing glass and plastic back into the environment.

Figure 2. 2016 Organics Composition by Broad Material Class – Overall



- **Expanding Programs for Food Rescue and Diversion** – Seattle is one of the fastest growing cities in the US, which presents both opportunities and challenges. As more people and businesses enter the City, more food enters our waste stream. Food is nearly 30% of what is going to the landfill. Seattle businesses are putting their food scraps into compost collection in vast volumes. While this is a significant step – it avoids creating greenhouse gas emissions caused by decaying food in landfills – more can be done. Some of that food is safe,

edible, healthy food that could help address hunger. Food rescue is one solution that uses the food as it was originally intended – to be eaten – and diverts it to individuals and families in need.

Food rescue is the process of collecting good, nutritious, surplus food from retail establishments and donating it to organizations that serve people who need it the most. Food banks and meal programs are examples of these organizations. Food rescue requires partnerships with businesses, non-profits and public agencies to tackle complex problems like transportation, logistics, food safety, communication, timing, storage, and distribution. Feeding America estimates that over a quarter of a million King County residents don't have sufficient food to lead healthy lives. More than one quarter are children. Capturing good surplus food from Seattle businesses and providing it to community organizations such as food banks and meal programs helps to address local food insecurity while also diverting food out of our waste stream.



In 2019 Washington State enacted the Food Waste Reduction bill establishing the statewide goal to cut food waste by 50% by 2030. A key part of this act is to reduce waste by increasing food rescue across the state. Seattle has also committed to this same goal and is convening stakeholders to develop more innovation solutions that would address challenges in food rescue while keeping the human impacts of food insecurity at the center. Over the past two years, SPU has partnered with Mary's Place a local non-profit organization that provides shelter and services to families experiencing homelessness, to convene a series of stakeholder engagement sessions. The resulting **Food Rescue Innovation Initiative** has engaged over 80 stakeholders from over 50 organizations.

In addition, SPU contracted with the University of Washington's Supply Chain Transportation and Logistics Center to explore how their expertise in transportation logistics might suggest more effective transportation, logistics and storage across Seattle's food rescue operations.

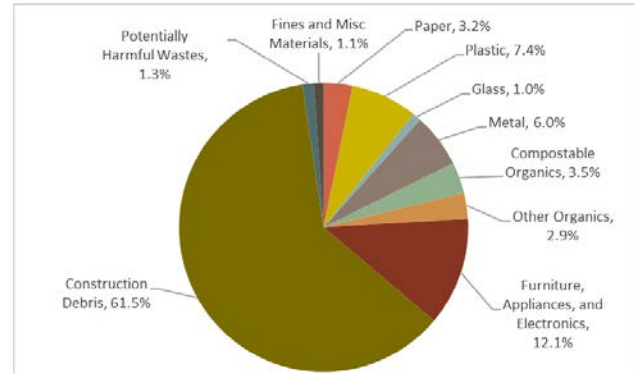
Finally, SPU's work around food rescue was selected as one of five 2020 projects for the Mayor's [Innovation Advisory Council](#) (IAC). The IAC is comprised of local technology companies such as Amazon, Microsoft, Tableau, and Expedia who are volunteering their expertise and innovative approaches to help address City challenges. Amazon has been identified as SPU's partner for food rescue. We don't yet know what we'll develop and test, but this will be an exciting way of bringing Amazon's expertise into play and will hopefully lay the foundation for work that will expand in 2021 and beyond.

- **Expanding Opportunities for Self-Haul and Construction Waste and Salvage** – There are currently unequal levels of service when comparing the North and South Transfer Stations. There are many opportunities to increase recycling and reuse at the facilities, and a high percentage of recyclable and reusable materials can be found in the self-haul waste stream. See Table 1 and Figure 3 below.

Table 1. Top Ten Most Prevalent Materials in Self-Haul Waste at South Station

Material	Est. Percent	Cum. Percent	Est. Tons
Clean Dimension Lumber	9.2%	9.2%	5,649
Furniture	8.2%	17.4%	5,077
Contaminated Wood	7.6%	25.0%	4,696
New Painted Wood	6.9%	32.0%	4,282
Clean Engineered Wood	5.9%	37.9%	3,666
Carpet	5.9%	43.9%	3,665
Other Treated Wood	4.1%	47.9%	2,503
Demo Gypsum Scrap	4.0%	51.9%	2,457
Mixed Metals/Material	3.7%	55.6%	2,280
Other Construction	3.7%	59.3%	2,260
Total	59.3%		36,534

Figure 3. Composition Summary: South Transfer Station Self-Haul Waste



Part 2. Targeted Commitments and Performance Measures (next 3-6 years).

- *What are we doing, or will we do to address the priority problem or issue?*
- *What are the short- and long-term metrics for measuring progress? How will you measure whether the action has been successful?*
- **Supporting Extended Producer Responsibility** – SPU will continue to provide leadership as described above to bring about EPR programs for additional hard-to-handle or hazardous materials, as well as for all printed paper and packaging and additional non-hazardous products.

Progress in the arena of EPR will be measured by:

- Number of sites/collection opportunities and amounts of products/packaging collected in existing EPR programs.
- Development of new EPR proposals.
- Passage of EPR local and state legislation.
- Implementation of new EPR programs, and their accessibility and results.

In the next 3-6 years the following will be done:

- Continue coordination with and support for NWPSC and PSI.
- Continue stakeholder and industry engagement and dialogue.
- Engage with the establishment of newly legislated programs.
- Research and report on EPR model for all printed paper and packaging throughout state, including how container deposit mechanisms work as part of EPR system.
- Participate in or take lead for development and refinement of EPR proposals for all printed paper and packaging, all moderate risk waste materials, additional or all electronics, additional lighting products, batteries, carpet, mattresses, vaping devices and possibly tobacco litter (applying EPR approach to clean up litter.)

- **Targeting Contamination and Improving the Quality of Recyclables** – SPU will continue to focus on preventing contamination and improving the quality of recyclables via the following ways:
 - Providing education, outreach, and media campaigns to highlight customer behaviors and solid waste sorting solutions for better sorting of recycling, compost, and garbage into the correct stream.
 - Focusing efforts on highlighting key contaminants in the recycle and compost stream.
 - Continuing to enforce the current food packaging ordinance since food packaging is a large source of contamination in recycle and compost streams.
 - Continuing coordination and partnership with other municipalities to ensure consistent messaging focused on high value recyclable commodities and keeping recyclables *Empty, Clean, and Dry*.

Success will be measured through the following activities:

- Reduction of contamination in recycling and compost - evaluated at the cart, through customer reported behaviors, and as reported from the contracted recyclables and compost processors.
- Evaluate the finding of the Residential composition studies happening in 2020-21, which will identify top contaminants to focus on and the approximate % of materials in the waste streams.
- Evaluate the finding of the Organics composition studies happening in 2021-22, which will identify top contaminants to focus on and the approximate % of materials in the waste streams.
- Measuring customer awareness, with a goal of 70%, regarding the top contamination reduction messages and behaviors.

Expanding Programs for Food Rescue and Diversion – SPU plans to deepen collaborative research and evaluation as well as initiate pilots to address the following goals:

- Increase successful redistribution of healthy surplus food to those in need.
- Increase communication between donors and recipient organizations.
- Test different approaches for sorting, storing, and moving surplus food.
- Gather baseline data to better define challenges and opportunities.

In parallel, SPU will:

- Continue stakeholder and food industry engagement and dialogue.
- Share findings that may inform WA State’s Food Waste Reduction Plan.
- Participate or take the lead in policy proposals that arise from food rescue pilots and research.

Progress will be measured through a variety of means, including:

- Number of stakeholders testing and contributing to pilots.
- New or enhanced collaborative partnerships that address lack of communication, data collection, and shared infrastructure.
- Development of baseline data and metrics to measure changes.
- Scaling of pilots with more partners.
- Standardization of food rescue protocols that increase efficiency and divert more food.
- Number of food service businesses participating in food rescue.

- **Expanding Opportunities for Self-Haul and Construction Waste and Salvage** – SPU will open the South Recycling Center and monitor diverted tons before and after opening. In addition to traditional recyclables, SPU will accept batteries, oil, bicycles, sharps, metal, reusable household items, and building materials.

SPU is are working to increase building salvage and deconstruction through education and code changes. Providing a drop-off for reusable materials is part of this longer-term strategy.

Performance measures include:

- Increased tonnage of materials diverted at South Transfer Station
- Increased customer counts and tonnage
- Increased tonnage in Annual Waste Prevention & Recycling Report
- Improved customer satisfaction
- Some reduction in recyclable and reusable tonnage in waste composition data for self-haul at the South Transfer Station



Part 3. Baseline Activities and Anticipated Rate Impact

- *Short description of activities already in the baseline, incremental work.*
 - *What is the anticipated additional rate impact of what we’re planning on doing (if any)?*
- **Supporting Extended Producer Responsibility** – All activities listed above are with existing staff and within the current baseline. There will be no increase in rates due to this activity. Depending on EPR systems legislated and put in place over the next few years, rate payers will have increased access to environmentally and socially improved options but minimal or no rate decrease, or, if EPR for printed paper and packaging is enacted, the rate payer costs of collecting and processing those materials will be significantly reduced, which may ultimately be able to be passed onto the rate payers. One main reason is that SPU would no longer be subject to market risk with commodity values fluctuation.
 - **Targeting Contamination and Improving the Quality of Recyclables** – The following activities are with existing staff and within the current baseline. There will be no increase in rates due to this activity. Activities include:
 - Customer outreach to single family, multifamily, and commercial customers about sorting requirements and best practices via in-person, community events, property managers, community leaders and advocates, high volume waste generators, and customers with high contamination rates.
 - Technical support to all sectors to address waste sorting and best use of solid waste services.
 - Keeping updated print, digital, and social media communication channels with latest information for customers to access waste sorting information.
 - **Expanding Programs for Food Rescue and Diversion** – All activities listed above are with existing staff and within the current baseline. There will be no increase in rates due to this activity.

Seattle’s recycling rate is weight-based and calculated by determining the percentage of Municipal Solid Waste (MSW) and Construction and Demolition (C&D) waste diverted from the landfill through reuse, recycling, and composting. Seattle currently recycles ~57% of its MSW and 64% of its C&D waste. The current diversion goals are:

- MSW recycle 70% by 2022
- C&D recycle 70% by 2020

- **Expanding Opportunities for Self-Haul and Construction Waste and Salvage** – Capital costs and O&M costs for the South Recycling Center are already in the baseline and there is no rate increased due to these activities. The timing for this activity has shifted due to project delay. Additional spending will be \$0 in 2021 and \$45,000 in 2022 for grants supporting salvage lumber retail and use. Annual grant funding will continue through 2026. Additional funding in 2023 or later could also support two workforce development trainings for business expansion to recover higher volumes.

Part 4. Alternatives Considered & Race and Social Justice Considerations

- *What alternatives were considered in addition to what is being recommended (if any)? How would these alternatives impact service levels?*
- *Identify possible race and social justice implications of work to address this priority. Will this impact service equity?*
- **Supporting Extended Producer Responsibility** – The alternatives to EPR are business as usual: regardless of what products and packaging producers put into the marketplace, whether or not they help or harm the recycling system, are toxic, are difficult to take apart or handle, etc. SPU will be responsible for their end-of-life management and costs will be passed onto our rate payers. There are many issues that, without EPR, Seattle cannot solve. A simple example: if a PVC plastic sleeve is put on a highly recyclable PET bottle for advertising purposes, that bottle cannot be properly sorted for recycling. There is nothing SPU or our rate payers can do about that, but an EPR system would prevent it.

EPR systems, as highlighted above, provide far more locations and options for collection of hard-to-handle, dangerous, or toxic products than government is able to provide. Drug stores serve as pharmaceutical take back locations, paint stores collect paint, charities such as Goodwill are the primary collectors for electronics, and reuse and repair shops can be part of the system. Most EPR programs have legislated convenience levels and SPU continues to push for greater convenience and access. Greatly improved accessibility itself increases service equity.

In addition to increased accessibility standards, SPU is also requesting text such as this be included in EPR legislation: *“Conduct outreach and education to the diverse ethnic populations of Washington state through translated and culturally appropriate materials and targeted outreach in appropriate languages.”*

- **Targeting Contamination and Improving the Quality of Recyclables** – Solid Waste outreach currently prioritizes working with customers in culturally relevant ways, including outreach materials that are transcreated to preferred language/cultural group, printed materials provided in language, and in-person outreach done in preferred languages at multifamily residents and businesses. This has gone a long way to provide more equitable service to Seattle customers, as efforts in the past have largely focused on the mainstream customers.
- **Expanding Programs for Food Rescue and Diversion** – The alternatives to food rescue are both up and downstream from food rescue. SPU is already working upstream with food retailers and the Pacific Coast Collaborative on the West Coast Food Waste Reduction project. This aims to prevent and reduce the amount of surplus food in the first place. However, there will always be some amount of good surplus food. If SPU chooses not to engage around food rescue, then businesses will continue to be encouraged to compost

surplus food. This would be a missed opportunity to keep surplus food at its highest value which is to feed people.

Food rescue is one significant way SPU can use its expertise in solid waste to reduce food insecurity in our City. Nationally, people of color are 2-3 times more likely to experience food insecurity. Seattle-King County Public Health and local food banks point to a growing number of food insecure seniors who live on fixed income and experience increased costs of healthcare and housing. Food bank and meal program clients overall are frequently trying to save money on food so that they can afford other essential living costs. SPU's stakeholder convenings and pilots seek to leverage multi-sector solutions that center on present-day food insecurity challenges experienced by Seattlites.

- **Expanding Opportunities for Self-Haul and Construction Waste and Salvage** – SPU considered not developing a recycling center at the old South Transfer Station site and concluded that failure to develop the South Recycling Center would have resulted in institutionalized service inequity for the south end residents.

Expanding salvage and deconstruction has the following potential race and social justice considerations:

- Reduced environmental and public health impacts from demolition.
- Increased job opportunities and worker training for entry level positions.
- Affordability of reusable building materials compared to new materials.