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| <p>Subject: RES 753 – Adopting Tacoma-Pierce County Solid and Hazardous Waste Management Plan</p> <p>Proposed Council Action:</p> <p>Adopt Resolution No. 753</p> | <p>Dept. Origin: Mayor’s Office</p> <p>Prepared by: Jennifer Robertson City Attorney’s Office</p> <p>For Agenda of: August 16, 2022</p> <p>Exhibits: RES 753 & Solid and Haz. Waste Management Plan Initial & Date</p> <p>Concurred by Mayor: _____</p> <p>Approved/form by City Atty: <u>JSR/7-28-22</u></p> <p>Approved by _____ Director: _____</p> <p>Approved by Department Head: _____</p> |
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INFORMATION / BACKGROUND

1. Interlocal Agreement for Development of Plan.

Chapter 70A.205 of the Revised Code of Washington requires counties, in coordination with their cities and towns, to adopt comprehensive solid waste plans for the management, handling, and disposal of solid waste, and to keep those plans in a “current” status through periodic review, update, and amendment. Pursuant to Chapter 39.34 RCW and RCW 70A.205.040, the Ruston City Council adopted Resolution No. 735 on November 2, 2021, which authorized the City to enter into the Solid Waste Interlocal Agreement with Pierce County for the purposes of developing an updated Solid and Hazardous Waste Management Plan (hereinafter “ILA”). This ILA designated Pierce County as lead solid waste planning agency.

2. Process of Plan Development.

Pierce County, in coordination with the Pierce County Solid Waste Advisory Committee (SWAC), drafted the 2021 Plan to replace the 2000 Solid Waste Plan. The SWAC, in nine regular meetings which included a Community Conversation portion for public participation, gathered and provided public comment on the 2021 Plan. The SWAC held a public hearing and provided comments and recommended approval of the 2021 Plan. The 2021 Plan was also presented to the public for comment at community events, on the Pierce County website, and through advertisements on social media. The Pierce County Planning Commission reviewed the 2021 Plan for conformance with the Comprehensive Land Use Plan. In addition, the Washington Department of Ecology and the Washington Utilities and Transportation Commission completed reviews pursuant to Chapter 70A.205 RCW and provided comments. The 2021 Plan was submitted to cities and towns of Pierce County for review and comment, with the County providing in-person and telephone briefings to interested officials. Finally, the Pierce County Environmental Official issued A Determination of Nonsignificance (DNS) for the Programmatic

Final Environmental Impact (FEIS) for the 2021 Plan in compliance with Title 18D PCC, “Development Regulations – Environmental”.

3. General Components of Plan.

The full 2021 Plan is included in the Council Packet Materials. The 2021 Plan is a strategic document, identifying goals, objectives, and actions necessary to achieve a community vision. At the outset, Pierce County’s goal was to develop and implement environmentally sound and cost-effective solid waste management programs including waste reduction and recycling programs that reduce greenhouse gas emissions as appropriate from the disposed waste stream in cooperation and consultation with its cities. The 2021 Plan is very detailed and addresses the different types of waste streams, organics, recycling, waste reduction, moderate risk waste, miscellaneous waste streams, solid waste collection, transfer and disposal, meeting environmental goals, financial planning, administration, etc. A few items that may be of particular interest to the Council are:

- Changes in tipping fees over time (See p. 24)
- Planning issues regarding the life of the County landfill which may be forced to close as early as 2032 (See Section 1.4, p. 25)
- Funding options for programmatic needs for solid waste, including alternatives like surcharges, tipping fee changes, creation of a solid waste disposal district, etc. (See Section 1.4, p. 25)
- Options for extending the life of the land fill (See Section 10.3-10.4, pp. 87-88)

4. Adoption of 2021 Plan.

The Pierce County Council adopted the 2021 Plan on April 5, 2022. The 2021 Plan is now complete and ready for adoption by the cities and towns in Pierce County. **The deadline for adoption is August 31, 2022.**

5. Recommitment to Partnership.

Resolution No. 753 also contains a section recommitting the City to partnership with Pierce County on solid waste issues, specifically to implement the goals, policies, recommendations, and disposal methods set forth in the 2021 Tacoma-Pierce County Solid and Hazardous Waste Management Plan.

FISCAL CONSIDERATION

N/A

RECOMMENDATION / MOTION

Adopt Resolution No. 753.

MOTION: I move approval of Resolution No. 753 adopting the 2021 Tacoma-Pierce County Solid and Hazardous Waste Management Plan and recommitting the City of Ruston to its partnership with Pierce County.

RESOLUTION NO. 753

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RUSTON, WASHINGTON, ADOPTING THE 2021 TACOMA-PIERCE COUNTY SOLID AND HAZARDOUS WASTE MANAGEMENT PLAN AND RECOMMITTING THE CITY OF RUSTON TO ITS PARTNERSHIP WITH PIERCE COUNTY.

WHEREAS, Chapter 70A.205 of the Revised Code of Washington requires counties, in coordination with their cities and towns, to adopt comprehensive solid waste plans for the management, handling, and disposal of solid waste, and to keep those plans in a “current” status through periodic review, update, and amendment; and

WHEREAS, Pierce County executed and maintains Solid Waste Interlocal Agreements with the cities and towns of Pierce County pursuant to Chapter 39.34 RCW and RCW 70A.205.040; and

WHEREAS, by adoption of Resolution No. 735 on November 2, 2021, the City Council of the City of Ruston authorized the City to enter into the Solid Waste Interlocal Agreement with Pierce County; and

WHEREAS, said Solid Waste Interlocal Agreements designate Pierce County as lead solid waste planning agency pursuant to RCW 70A.205.040; and

WHEREAS, the 2021 Tacoma-Pierce County Solid and Hazardous Waste Management Plan (2021 Plan) is a strategic document, identifying goals, objectives, and actions necessary to achieve a community vision; and

WHEREAS, the Pierce County Council adopted the 2021 Plan by Ordinance 2022-19s on April 5, 2022; and

WHEREAS, Pierce County, in coordination with the Pierce County Solid Waste Advisory Committee (SWAC), drafted the 2021 Plan to replace the 2000 Solid Waste Plan; and

WHEREAS, the SWAC, in nine regular meetings which included a Community Conversation portion for public participation, gathered and provided public comment on the 2021 Plan; and

WHEREAS, the SWAC held a public hearing and provided comments and recommended approval of the 2021 Plan; and

WHEREAS, the 2021 Plan was also presented to the public for comment at community events, on the Pierce County website, and through advertisements on social media; and

WHEREAS, the Pierce County Planning Commission reviewed the 2021 Plan for conformance with the Comprehensive Land Use Plan; and

WHEREAS, the Washington Department of Ecology and the Washington Utilities and Transportation Commission completed reviews pursuant to Chapter 70A.205 RCW and provided comments on October 28, 2021 and December 16, 2021; and

WHEREAS, the 2021 Plan was submitted to cities and towns of Pierce County for review and comment, with the County providing in-person and telephone briefings to interested officials; and

WHEREAS, the Pierce County Environmental Official issued A Determination of Nonsignificance (DNS) for the Programmatic Final Environmental Impact (FEIS) for the 2021 Plan in compliance with Title 18D PCC, “Development Regulations – Environmental”; **NOW THEREFORE,**

THE CITY COUNCIL OF THE CITY OF RUSTON, WASHINGTON, DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Adoption of Plan. The 2021 Tacoma-Pierce County Solid & Hazardous Waste Management Plan is hereby adopted as the comprehensive solid waste management plan for the City of Ruston.

Section 2. Commitment to Partnership. The City of Ruston recommits to a partnership with the County to implement the goals, policies, recommendations, and disposal methods set forth in the 2021 Tacoma-Pierce County Solid & Hazardous Waste Management Plan.

RESOLVED this 16th day of August, 2022.

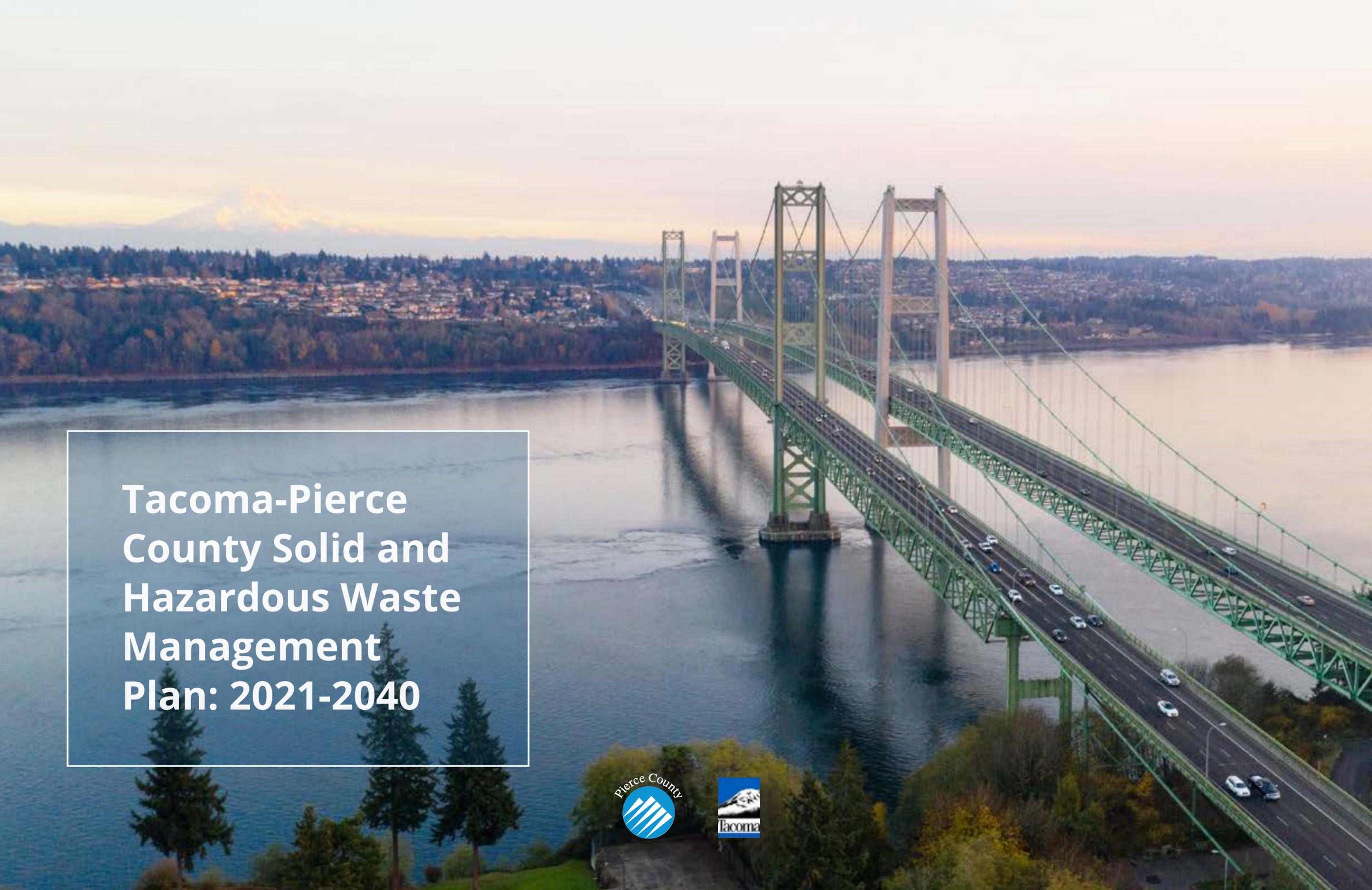
APPROVED:

Bruce Hopkins, Mayor

ATTEST/AUTHENTICATED:

Judy Grams, City Clerk

FILED WITH THE CITY CLERK: _____
PASSED BY THE CITY COUNCIL: _____
RESOLUTION NO.: 753



Tacoma-Pierce County Solid and Hazardous Waste Management Plan: 2021-2040



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Introduction

Our Vision:

A solid waste system that is equitable, protects human and environmental health, and is resilient to the known and unforeseen changes that are coming our way.

Acknowledgments

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Derek Young, Chair
Hans Zeiger

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LeMay Enterprises
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University Place Refuse

Municipal Partners

City of Bonney Lake
City of Buckley
Town of Carbonado
City of DuPont
Town of Eatonville
City of Edgewood
City of Fife
City of Fircrest
City of Gig Harbor
City of Lakewood
City of Milton
City of Orting
City of Puyallup
City of Roy
City of Ruston
Town of South Prairie
Town of Steilacoom
City of Sumner
City of University Place
Town of Wilkeson



Introduction

The Pierce County solid waste system faces significant challenges, but we can make better choices moving forward by creating the lowest impact solid waste system that keeps our environment clean, works equitably with all our communities, and is more resilient to the known and unforeseen changes that are coming our way.

Pierce County Planning and Public Works (PPW), referred to as Pierce County throughout the document, sponsored this Solid and Hazardous Waste Management Plan (SHWMP) in coordination with our partners, to replace the adopted 2000 plan, as well as the 2008 and 2016 supplements. RCW.70A.205.045 requires each county within Washington to prepare a coordinated, comprehensive solid waste management plan to arrange for solid waste and materials reduction, collection, and handling and management services and programs throughout the state, designed to meet the unique needs of each county in the state. This plan builds on the success and progress partners have made through our existing programs and practices and with the support of our residents and community. It establishes a long-term vision for Pierce County and its materials management system for the next 20 years. According to RCW.70A.205.075 this plan will be reviewed and revised every five years. The process for amending and updating the SHWMP is detailed in *Appendix X*.

Relationship to Other Plans

The Washington State Department of Ecology (Ecology) is required to develop and regularly update a state solid and hazardous waste plan that provides direction for residents, businesses and governments to more wisely manage waste and materials. The current plan, [The State Solid and Hazardous Waste Plan – Moving Washington Beyond Waste and Toxics](#), is currently being updated and is expected to be finalized sometime in 2021. The plan guides the management of waste and materials in the state and directs local governments as they develop local solid and hazardous waste plans, such as this SHWMP. Ecology has also issued [solid](#) and [hazardous](#) waste planning guidelines which specify many of the issues and topics addressed in the plan.

This SHWMP must also be viewed in context of the overall planning process within all jurisdictions in Pierce County. As such, it must function in conjunction with various other plans, policy documents, and studies. Included among these are the comprehensive land use plans of each jurisdiction, development codes (zoning), shoreline management regulations and groundwater plans. Of specific importance are the groundwater or watershed management plans adopted by the County and other jurisdictions that contain specific recommendations for coordinated educational efforts about solid waste, groundwater pollution, and utility support systems.

The SHWMP's goals and policies must comply and coordinate with the goals and policies of the [Pierce County Comprehensive Plan](#) as well as those of other jurisdictions. Pierce County's Comprehensive Plan summarizes the solid waste plan in its utilities element and includes the County's six-year capital facilities plan, which is updated annually. The land use plans of other cities and towns either summarize the solid waste plan or reference it. Additional related plans include:

- [Sustainability 2030: Pierce County's Greenhouse Gas Reduction Plan](#)
- [Tacoma Environmental Action Plan 2016](#)
- [Tacoma's Sustainable Materials Management Plan](#)
- The Tacoma-Pierce County Health Department's [Communities of Focus](#) strategy

Process of Updating the Plan

Convening the Project Management Team

Pierce County and partners collaborated to develop a plan that moves the County's goals and objectives forward, including emerging policy challenges surrounding the topics of food waste, greenhouse gas (GHG) emission reductions, recycling contamination, and household hazardous waste.

Partners from Pierce County, the City of Tacoma, the Tacoma-Pierce County Health Department, Murrey's Disposal, LeMay Enterprises, University Place Refuse, Land Recovery, Inc. (LRI), and Washington State Department of Ecology convened bi-weekly over the course of a year to develop the plan. The project management team used their expertise to:

- Provide meaningful input on technical issues and related policies.
- Identify gaps in knowledge and research.
- Develop actions that are feasible for Pierce County that help achieve outlined goals.
- Contribute to the production of a plan document through writing, analysis, and direction on presentation of information.
- Collaborate with county stakeholders to review working products and ensure that diverse perspectives are reflected in the plan document.





Organization of the Plan

Chapters of this plan include a common structure:

Introduction

Background information to provide readers with a foundation of knowledge to better understand topics discussed throughout the chapter.

Conditions Assessment

An assessment of the existing conditions, organization, infrastructure, and programs that support existing solid and hazardous waste system functions.

Planning Issues

Issues and policies that were considered in defining the actions and recommendations for each element of the solid and hazardous waste system. Planning issues are framed as questions, many of which will continue to be relevant and evolve over the lifespan of this plan, informing ongoing deliberation and adaptation. Note that some chapters also explore alternatives related to these planning issues and/or recommended actions.

Actions

Recommended actions, reflecting specific planning issues and the broader plan framework of vision, goals, and objectives. Recommendations from each chapter are summarized in the plan's *Action Implementation* table at the end of this chapter.

Emerging Issues

In previous versions of this plan, there has been a clear focus on end-of-life management and disposal methods. But the majority of environmental impacts occur long before a material's end of life. Pierce County and the City of Tacoma have shifted from focusing only on end-of-life issues and have developed a more holistic view of materials management by considering a product's entire life cycle and greenhouse gas implications.

Examining a product or material's entire life cycle provides us with a more thorough understanding of its environmental implications. This is especially important considering that a majority of GHG emissions occur during the creation of products. All products require natural resources to bring them to market (i.e., the energy and materials used to extract, process, manufacture, package and transport the product). Extracting resources is costly — economically, socially, and environmentally. The goal of a materials management philosophy is to conserve as much of these raw materials, water, and energy as feasible through a range of practices.

The most efficient of these practices is to reduce waste by not creating it in the first place (see Materials Management Hierarchy figure). Encouraging a collective effort to reduce waste generated on all scales (individual, commercial, etc.) can lessen our dependence on costly refuse and recycling disposal facilities. Small changes, like choosing bulk purchases, can lead to large impacts. For example, a fast-food restaurant chain can avoid 68 million pounds of packaging every year by pumping soft drink syrup directly from a delivery truck into tanks at the restaurant, instead of shipping the syrup in cardboard boxes (donellameadows.org).

To fully implement the materials management philosophy, our community must recognize that all products and packaging have intrinsic value because of the energy and natural resources invested in their production. Used materials are not just waste, they are useful materials that must be managed and reused accordingly. This approach to solid waste management relates to several emerging policies that influence our planning and implementation.

MATERIALS MANAGEMENT HIERARCHY

MOST DESIRABLE

Reduce



Reuse



Recycle/Compost



Recover/Energy-from-Waste



Dispose/Landfill



LEAST DESIRABLE

Source: Environmental Protection Agency

Shifting Responsibility from Government and Consumers to Producers

Pierce County and the City of Tacoma are preparing for significant policy change on the horizon for product stewardship, sometimes called Extended Producer Responsibility (EPR). In this strategy, the manufacturer takes responsibility for managing its product and packaging throughout its whole life cycle. While others along the supply chain (suppliers, retailers and consumers) have roles and responsibilities, the producer has the greatest ability to minimize environmental, social and economic impacts. Numerous states have passed product stewardship legislation shifting the responsibility for the safe collection, transportation, and management of products (particularly those with hazardous waste) away from local governments and to the manufacturers.

The state is currently considering comprehensive EPR legislation that would dramatically shift the financial responsibility away from local government to producers and manufacturers of paper and packaging products. Legislation introduced in the 2021 Washington Legislature did not become law, but both Pierce County and the City of Tacoma will continue to evaluate how future EPR legislation would impact their programs and discuss options for alignment and coordination. See the *Recycling* chapter for more on this topic.

Sustainability and Response to Climate Change

Pierce County and the City of Tacoma realize that the previous form of waste measurement (i.e., diversion rate measured in tons) is not reflective of the overall environmental and/or social benefit. This became especially apparent in the wake of China's National Sword policy, which banned the import of most plastic and other materials in 2018. China previously handled nearly half of the world's recyclable waste. Publicity around China's National Sword policy highlighted how materials are mismanaged and overwhelm communities, particularly in Southeast Asia. As the impacts of climate change continue to grow, communities with the least resources will be most impacted.

Many waste management professionals have started examining alternatives to diversion rates, such as how much particular materials contribute to GHG reduction when properly recycled or composted. See the Waste Reduction chapter for more on this topic. The recently adopted Sustainability 2030: Pierce County's Greenhouse Gas Reduction Plan sets a goal of reducing GHG emissions by 45% by 2030. Consumption and waste reduction comprise one of the plan's primary areas of focus. While end-of-life solid waste accounts for 3% of Pierce County's locally generated GHG emissions, the purchases we make, and their associated GHG emissions likely represent nearly 25% of the County's overall emissions. The City of Tacoma is currently engaged in developing its Climate Action Plan, to be released and adopted in 2021. Numerous strategies in this plan reflect these policy priorities and will continue to drive actions across the solid waste system.

Reducing Food Waste

Reducing food waste is critical to reducing GHG emissions and edible food comprises approximately 10% of solid waste disposed in Pierce County. Pierce County does not currently have a processing system that can accept most food, and the City of Tacoma is working to improve the capture rate of food waste in their system.

In April 2019, the Washington Legislature passed the Food Waste Reduction Act. This law tasks the Washington State Department of Ecology to write a food waste prevention plan, to determine 2015 baseline data figures, and annually measure progress towards the food waste reduction goals. While there is still much to learn about Washington's food system, it is clear there are actionable priority recommendations that will help build momentum towards reducing food waste by 50% by 2030. The report is anticipated to be delivered to the Legislature in December 2021. Best management practices for food waste prevention, as well as better coordination between the traditional solid waste system and new partners such as large generators, food security safety net and social services, and community and economic development will help identify opportunities to improve existing food waste reduction efforts.

Relevant Statewide Legislation and Programs

Pierce County and the City of Tacoma work together to stay up to date on relevant statewide legislation or solid waste developments. When there is an opportunity for messaging, solid waste employees from both organizations often collaborate to ensure consistency. PaintCare is one such example where Pierce County and City of Tacoma employees met to discuss items like benefits of the program, impacts on current operations, and more. More recently, we have been meeting to discuss and prepare for the plastic [bag ban](#) that went into effect in October 2021.

Connecting on new and anticipated [statewide legislation](#) such as laws related to plastics, the HEAL act, the Climate Commitment Act, and more and programs is essential to providing our residents with additional opportunities and ensuring we remain current.

Improving Equitable Outcomes

Pierce County and the City of Tacoma recognize the importance of centering underrepresented and under-served communities in identifying ongoing priorities for our solid waste system, and we will continue to strive for equitable outcomes. The Pierce County Sustainability 2030: Greenhouse Gas Reduction Plan calls for an equity assessment to be complete by 2023. This equity assessment will inform which actions throughout the plan should be prioritized. The results from the sustainability equity assessment will be applicable to the SHWMP and guide efforts to evolve into a more equitable solid waste system.

In addition, the Tacoma-Pierce County Health Department (TPCHD) has a place-based [health equity strategy](#) called [Communities of Focus](#) to address social, economic, and environmental conditions of health through four strategies: customer service, partnerships, investments, and civic engagement. They use this equity approach to public health in six communities: East Tacoma, South Tacoma, Springbrook, Key Peninsula, White River, and Parkland. Pierce County and the City of Tacoma recognize an opportunity to partner with TPCHD to advance equity in solid waste management planning in the County.



Principles of Our Vision

Equitable – *actions that dismantle systems of racism and oppression that have led to inequitable decision-making and uneven distribution of benefits, resources, and burdens in our communities.*

Equity is achieved when everyone can reach their fullest potential regardless of race, ethnicity, gender, sexual orientation, income, neighborhood, or other social condition. Pierce County and the City of Tacoma are working to make sure solid waste services are provided equitably. We recognize the importance of prioritizing the voices of under-served communities as we implement actions outlined in this plan and in future updates. We will continue to evaluate and improve our solid waste programs to make sure they reflect the diverse needs of all Pierce County communities.

Protects Human and Environmental Health – *actions specifically aim to protect human and environmental health, primarily through pollution prevention, including GHG emissions, and toxics reduction.*

Protection of human and environmental health is at the core of solid waste management and encompasses a wide range of programs and infrastructure. This includes activities that continue to reduce waste before it ever enters the system, and ongoing improvements to manage the impacts of solid and hazardous waste, including: reducing litter in our communities, managing stormwater quality, safe handling of household hazardous waste materials, and reducing GHG emissions from waste streams and facilities.

Resilient – *actions that improve the ability to survive, recover, cope and be flexible amid unforeseen changes in environment, markets and conditions.*

In 2018, local partners were forced to react to China’s National Sword policy, collaborating on solutions and highlighting the need for an adaptive solid waste system. Pierce County and the City of Tacoma need to be able to respond to and recover from future market disruptions and other unforeseen events such as the COVID-19 pandemic.

Goals and Objectives

Our vision is supported by goals focused on sustainability, resources, communication and education, partnerships, and system and infrastructure. While the goals are interconnected and interdependent, each goal will be reached through specific and measurable objectives and accompanying actions. This collection of vision, goals, objectives and actions creates the framework that guides our work.

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| GOALS |
| OBJECTIVES |
| ACTIONS |

| Sustainability Goal: | Resources Goal: | Communication and Education Goal: | Partnerships Goal: | System and Infrastructure Goal: |
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| Implement economically feasible and sustainable waste management practices. | Identify fiscally responsible, self-sustaining funding and other resources for an integrated SHWM system. | Empower communities to help transform our solid and hazardous waste management system through inclusive collaboration, accessible communication and meaningful education. | Foster strong working relationships among the agencies and partners responsible for managing the solid and hazardous waste system. | Provide the infrastructure and other resources to meet our growing solid waste needs. |
| S1: | R1: | CE1: | P1: | SI1: |
| Reduce waste and improve recycling effectiveness. | Develop plans for securing adequate funding and resources to build, operate and maintain a solid and hazardous waste management system for the next 20 years. | Proactively engage and collaborate with impacted stakeholders (including businesses, residents, and agencies) to make informed decisions and improve our recycling and solid waste system. | Support collaboration and coordination across key partners, stakeholders and community members in Pierce County. | Regularly assess and identify future system expansion needs, improve services and address impacts. |
| S2: | | CE2: | | SI2: |
| Protect the environment and human health by reducing GHG emissions and delivering solid waste services. | | R2: | | Ensure any communications regarding the solid waste management system are clear and accessible to all people. |
| S3: | R3: | CE3: | | SI3: |
| Make the solid and hazardous waste system more accessible and equitable for all Pierce County customers. | Develop systems and strategies for prioritizing what services should be provided, how they are to be funded and resourced, and recognize and respond quickly to rising costs due to unforeseen conditions. | Establish meaningful topics of education that enable participants to better understand and engage in the solid and hazardous waste system. | | Develop a Pierce County Illegal Dumping and Littering Reduction Action Plan. |

The following table identifies recommended actions documented throughout the plan’s chapters, including their anticipated implementation schedule and lead agency. Each action fits within our framework of goals, as indicated by the related plan objective. Each action is deemed an important step toward achieving successful

implementation and advancing the principles embodied in the plan’s vision: to improve outcomes for social and racial equity, prevent pollution, and promote resilience in the face of changing conditions. Recommended actions are contingent on funding.

| | | |
|--------|------------|-----------|
| Timing | Short-term | 2021-2022 |
| | Mid-term | 2022-2025 |
| | Long-term | 2025+ |

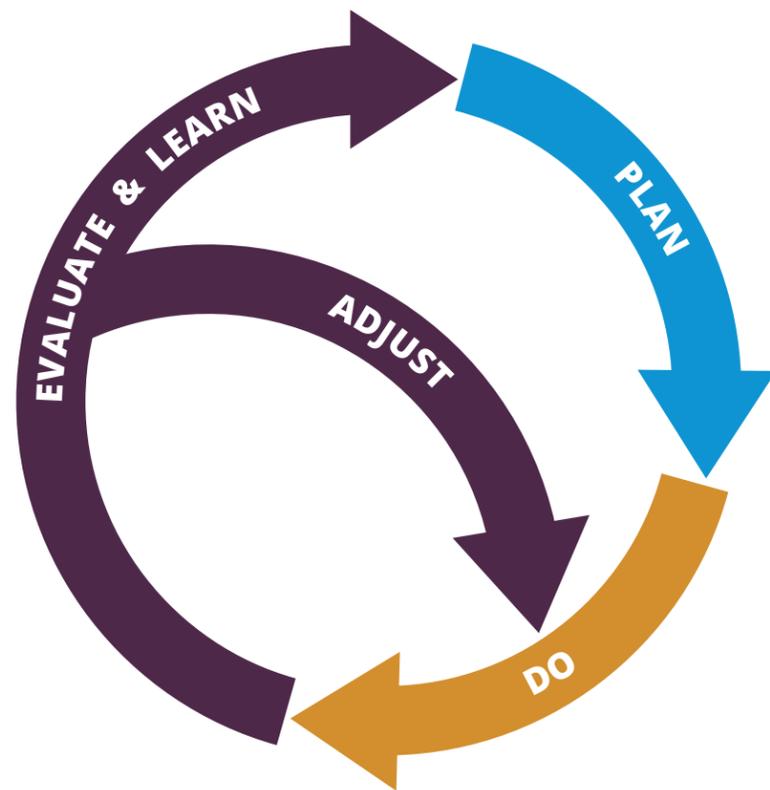
| Actions | Chapter | Timing | Objective | Agency Leads and Partners |
|--|----------------|-------------------|-----------|--|
| Administration Action 1: Assess funding, including current funding sources, grants, rates and fees, for different areas of the system on an annual basis to recommend potential improvements. | Administration | Short and ongoing | R1 | Pierce County City of Tacoma |
| Administration Action 2: Explore potential EPR legislation to ensure it works for Pierce County. | Administration | Mid | R1 | Pierce County City of Tacoma Contract Partners |
| Administration Action 3: Convene a stakeholder round-table to conduct periodic reporting, review and discussion of system waste stream trends; identify additional actions and improvements for services; address adjustments for system or market conditions; and perform resource planning. | Administration | Short and ongoing | R2 | Pierce County City of Tacoma Contract Partners |
| Administration Action 4: Employ Pierce County measurement tool to evaluate, compare and inform decisions on priority projects and programs; update to include GHG, equity, and other criteria. | Administration | Short and ongoing | R2 | Pierce County |
| Administration Action 5: Actively recruit Solid Waste Advisory Committee (SWAC) members to ensure broader representation, particularly from Black, Indigenous and people of color (BIPOC), low-income, and other under-served communities. | Administration | Short and ongoing | P1 | Pierce County |
| Administration Action 6: Develop, recommend, and promote a discounted garbage rate or a more equitable community cleanup program by 2022. | Administration | Short and ongoing | S3 | Pierce County |
| Administration Action 7: The Pierce County Planning and Public Works Department, Sheriff’s Department, and other appropriate entities are to collaboratively develop a plan with strategies to help remove, prevent, and reduce illegal dumping and littering, and to improve current enforcement and clean-up efforts. | Administration | Mid | SI3 | Pierce County |

| Actions | Chapter | Timing | Objective | Agency Leads and Partners |
|---|------------------|-------------------|-----------|---|
| <p>Public Outreach Action 1: Regularly evaluate outreach programs for effectiveness using both quantitative (e.g., website visitors, number of mailed materials, surveys) and qualitative (e.g., interviews, storytelling) data.</p> | Public Outreach | Short and ongoing | CE1 | Pierce County City of Tacoma Tacoma-Pierce County Health Department |
| <p>Public Outreach Action 2: Expand technical assistance through education and resources to multi-family customers and large-volume-generating commercial customers.</p> | Public Outreach | Short and ongoing | CE1 | Pierce County City of Tacoma |
| <p>Public Outreach Action 3: Engage with and invest in underrepresented and underserved communities. Partner with other public, private, and non-profit entities as appropriate to reach multicultural communities.</p> | Public Education | Short and ongoing | CE1 | Pierce County City of Tacoma |
| <p>Public Outreach Action 4: Explore new techniques to reach targeted audiences and obtain public input.</p> | Public Outreach | Short and ongoing | CE2 | Pierce County City of Tacoma |
| <p>Public Outreach Action 5: Develop targeted campaigns to promote waste reduction, recycling materials with the highest GHG reduction impact and keeping recyclable materials out of the landfill.</p> | Public Outreach | Short and ongoing | CE3 | Pierce County City of Tacoma |
| <p>Waste Reduction Action 1: Support legislation at the state-level (e.g., legislative agenda for council) that promotes packaging with the lowest life-cycle GHG emissions.</p> | Waste Reduction | Mid | S2 | Pierce County |
| <p>Recycling Action 1: Develop new metrics by 2025 that prioritize GHG emissions reduction rather than diversion tonnage (recycling diverted from the waste stream going to the landfill).</p> | Recycling | Mid | S2 | Pierce County |
| <p>Recycling Action 2: Support and promote efforts throughout Pierce County to build a more circular economy and encourage businesses to use waste produced from one industry as raw materials for another industry (industrial symbiosis) through tools such as the Washington Materials Marketplace.</p> | Recycling | Mid | SI1 | Pierce County |
| <p>Recycling Action 3: Increase commercial recycling participation by improving the current business technical assistance program.</p> | Recycling | Mid | SI1 | Pierce County |

| Actions | Chapter | Timing | Objective | Agency Leads and Partners |
|--|---------------------|-------------------------|-----------|--|
| Organics Action 1: Determine options and recommendations, including GHG analysis, for residential and commercial food waste subsidies, fees, and disposal. | Organics | Mid | S11 | Pierce County City of Tacoma Contract partners |
| Organics Action 2: Review and adopt system and infrastructure best practices once the Washington State Food Waste Reduction Plan/Use Food Well Plan is released. | Organics | Short | S11 | Pierce County City of Tacoma |
| Organics Action 3: Maximize the amount of GHG captured at the LRI landfill. | Organics | Mid | S2 | Pierce County Contract partners |
| MRW Action 1: Survey Moderate Risk Waste (MRW) customers and businesses on service and needs. | Moderate Risk Waste | Short, mid, and ongoing | S3 | Tacoma-Pierce County Health Department |
| MRW Action 2: Actively promote EPR programs at MRW facilities. | Moderate Risk Waste | Short, mid, and ongoing | S3 | Tacoma-Pierce County Health Department Pierce County City of Tacoma Contract partners |
| MRW Action 3: Ensure annual waste trends analysis identifies and classifies MRW making it to landfill. | Moderate Risk Waste | Short and ongoing | S3 | Tacoma-Pierce County Health Department Pierce County |
| MRW Action 4: Review scope and scale of regional MRW programs and services. | Moderate Risk Waste | Mid, and ongoing | S3 | Tacoma-Pierce County Health Department |
| MRW Action 5: Review regional MRW funding and funding sources. | Moderate Risk Waste | Mid | R1 | Tacoma-Pierce County Health Department |
| MRW Action 6: Continue to implement education programs and develop new resources to educate residents and businesses on toxic reduction and MRWs, including a potential standalone website for Pierce County Hazardous Waste Program. | Moderate Risk Waste | Short, mid, and ongoing | CE3 | Tacoma-Pierce County Health Department |

| Actions | Chapter | Timing | Objective | Agency Leads and Partners |
|--|-----------------------|-------------------|-----------|--|
| MRW Action 7: Continue to track and support federal, state and local legislation that reduces use of toxic materials and supports EPR initiatives. | Moderate Risk Waste | Short and ongoing | P1 | Tacoma-Pierce County Health Department |
| Miscellaneous Waste Action 1: Work with stakeholders to increase salvage, reuse, and recycling of construction and demolition debris (major contributor to GHG emissions in the solid waste management system). | Miscellaneous Waste | Short and ongoing | S2 | Pierce County |
| Collection Action 1: Develop a plan (including tasks and an implementation timeline) by 2025 for lowest GHG collection, disposal, and transport of Miscellaneous Solid Waste (MSW) in collaboration with contract partners. | Collection | Mid | S2 | Pierce County City of Tacoma Contract partners |
| Collection Action 2: Improve access to solid waste and recycling facilities at new commercial and multi-family developments by incorporating design standards into the Pierce County Code and possibly integrating hauler review into the permitting process. | Collection | Short and ongoing | SI1 | Pierce County City of Tacoma |
| Collection Action 3: Research community needs, conduct policy analysis and report findings to inform a recommendation for level of service ordinance for multi-family residences by 2023. | Collection | Mid | S3 | Pierce County |
| Transfer and Disposal Action 1: Meet at least twice annually to evaluate options and preferred strategies for planning and developing infrastructure for the transport and disposal of waste after the closure of the LRI County landfill in Graham. | Transfer and Disposal | Mid | SI2 | Pierce County City of Tacoma |
| Transfer and Disposal Action 2: Work together to divert waste by rail to maximize the landfill's life. | Transfer and Disposal | Mid and long | SI2 | Pierce County Contract partners |
| Transfer and Disposal Action 3: Evaluate options to meet transfer station capacity across Pierce County. | Transfer and Disposal | Mid | SI1 | Pierce County Contract partners |

The Adaptive Management Cycle



Plan Governance and Adaptation

Ongoing management of the plan and accountability among partners are critical to successful implementation. Actions will be tracked and monitored for progress toward each of the defined goal areas. In addition, several actions call for baseline assessments or data gathering to better understand solid waste system conditions and evaluate options to inform effective improvements. A venue for ongoing collaboration among partners will help ensure the actions identified in the plan are regularly considered and adapted, as needed.

Stakeholder Round-table

A stakeholder round-table will be formed with representation from Pierce County, the City of Tacoma, and contract partners to meet periodically to share updates on the state of the solid and local hazardous waste systems, to conduct reporting and review of actions identified in the SHWMP, and to further collaborate on system improvements. Areas of focus for this forum include:

- Review of SHWMP progress on actions, annual work plans, and emerging policy needs.
- Presentations of current waste audit and other survey data, future trends/market conditions analysis, and discussion of population growth and demographics, equity indices, and other factors.
- Periodic review of materials included in recycling programs to make sure products are economically feasible to be recycled and reduce environmental impacts.
- Improvements to programming and facilities related to municipal solid waste, recyclables, organics (both food and yard waste), moderate risk waste and miscellaneous waste streams.
- Funding and resource planning, including current funding sources, rates, and fees for different areas of the system.
- Defining minimum or “essential” services to document the hierarchy of solid waste management services to be maintained and how resources should be distributed in the event of unforeseen conditions.
- Monitoring and reporting on relevant state and federal legislation, as well as policy developments in other communities that may advance Pierce County’s goals.

Results of condition and trends analyses or recommendations resulting from the stakeholder round-table sessions should be summarized and shared with the Pierce County Solid Waste Advisory Committee (SWAC) and published for community review and education.



The round-table mechanism may also be used to address emerging conditions and convened upon request of any of the principal partners (Pierce County Sustainability Resources administrator, City of Tacoma Solid Waste Management division manager, LRI District Manager, LeMay/Murrey’s/UP Refuse managers). For example, during China’s National Sword market crisis of 2018, partners convened to discuss and make decisions around their collective response in a rapid manner. This flexibility to address emerging issues in real time is critical to the resilience of the solid waste system and plan adaptation.



Chapter 1: Administration





1.1 Introduction

As described in much more detail in the [2000 Plan](#), Pierce County privatized its waste disposal system in 1977 when four local waste haulers purchased the Hidden Valley Landfill which Pierce County had been operating (but never owned) for at least a decade. At the same time, Pierce County contracted with the consortium of haulers to operate county-owned transfer sites. With the private sector running facilities, the Tacoma-Pierce County Health Department managing environmental controls, and Pierce County having no state-authorized role in waste collection, it was not until the late 1980s that Pierce County formed an agency to manage waste.

The 2000 Plan was adopted by Pierce County, the City of Tacoma and all cities and towns. After adopting the plan, cities and towns then entered into interlocal agreements with Pierce County for planning and management services. Both the Pierce County Council and the Tacoma City Council will adopt the 2021 plan. The other cities and towns will concur with the changes through a resolution or letter of concurrence.

1.2 Conditions Assessment

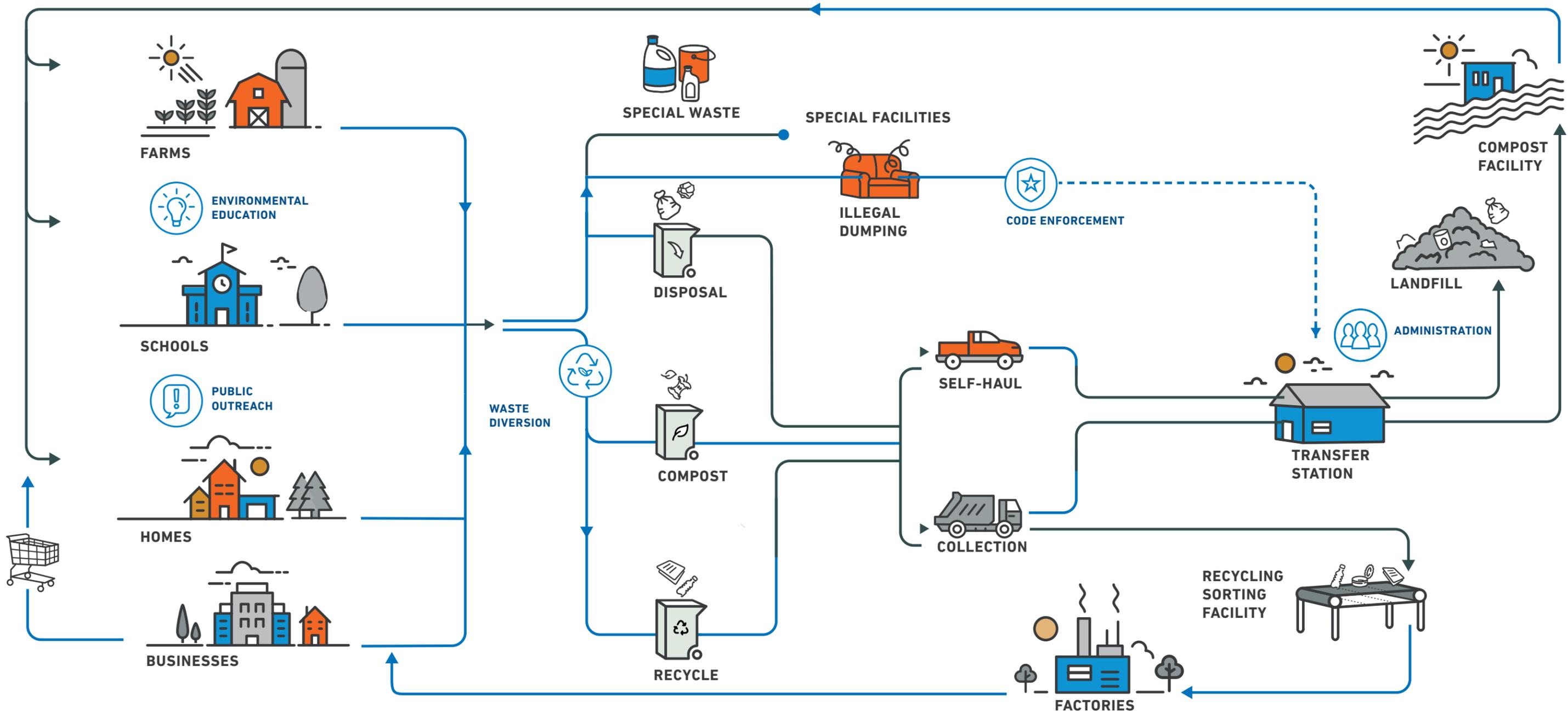
1.2.1 Agencies and Organizations – Three Management Systems

The three solid waste management systems are 1) Pierce County 2) City of Tacoma 3) Joint Base Lewis-McChord (JBLM). Pierce County and the City of Tacoma coordinate activities with the military, which has its own solid waste system and solid waste management plan. This is referred to as the JBLM system and falls under the Washington Utilities and Transportation Commission's (WUTC) jurisdiction. Tribal lands that are in Pierce County are included in the Pierce County solid waste management system.

In 2016, Pierce County released a [Solid Waste Management Plan Supplement](#) to the 2000 Plan that represented a refreshed effort to build upon Pierce County's many successes and to tackle some of the biggest challenges in solid waste.

This graphic illustrates different components of Pierce County's interconnected solid and hazardous waste management systems and their relationship to residential, business, and other sectors; the role of programming for

education and outreach; the collection, transfer and disposal of different waste streams; and the relationship to administration and code enforcement.





1.2.2 City of Tacoma

The [City of Tacoma's Environmental Services Department Solid Waste Management Division](#) provides solid waste management services under the direction of the Tacoma City Council for all residents and businesses within Tacoma city limits. These services include municipally owned and operated residential and commercial curbside collection systems for garbage, recycling, yard and food waste; a public recycling center; a household hazardous waste facility; and a transfer station.

The City of Tacoma has the following contracts for processing, and sale or disposal, of various material streams:

- **Municipal Solid Waste** – contract with Waste Connections/LRI for landfill disposal of municipal solid waste. Effective through February 1, 2030. Pierce County Recycling, Composting and Disposal, doing business as Land Recovery, Inc. (LRI), and owned by parent company Waste Connections, is an integrated solid waste management services company that provides transfer, disposal, composting and landfill services across Pierce County.
- **Recyclables** – contract with Waste Management (DBA JMK Fibers) for processing, marketing and shipping of commingled recyclables and old corrugated containers (OCC). Effective through July 31, 2026.
- **Organics** – contract with Waste Connections (DBA LRI) for composting and marketing of organic yard and food waste. Effective through November 30, 2022.



1.2.3 Pierce County

The Pierce County Planning and Public Works Department (PPW) Sustainable Resources Division is the Pierce County government agency charged with solid waste and recycling planning for the Pierce County management system. This system serves the unincorporated areas of the County as well as cities and towns which have interlocal agreements to participate in the County's disposal system. This is referred to as the County system. (Note: while having territory and population within Pierce County, the cities of Auburn and Pacific are wholly in the King County solid waste system. The City of Enumclaw has territory but no population in Pierce County, and is also in the King County system. Conversely, the King County portion of Milton is in the Pierce County system.)

1.2.4 Tacoma-Pierce County Health Department (TPCHD)

This agency, which is separate from County government, administers the solid waste permit process to ensure all solid waste handling activities comply with state and local codes and ordinances. It is referred to as the Health Department or TPCHD.

1.2.5 Washington State Department of Ecology

This state agency is responsible for final approval of this plan, state waste regulations and the state solid and hazardous waste management plan. It is sometimes referred to as Ecology. Washington's 2015 Solid Waste Management Plan revision is called "Moving Washington Beyond Waste and Toxics" and includes longterm strategies to systematically reduce waste and use of toxic substances. The state plan is currently being updated. The first comment period was in winter 2020/2021. Currently, edits are being incorporated for the release of a second draft.

1.2.6 Pierce County Solid Waste Advisory Committee (SWAC)

The Pierce County Solid Waste Advisory Committee (SWAC) serves in an advisory and technical capacity to the Pierce County Council and PPW on matters relating to management of recycling services and solid waste disposal. SWAC members are community members, members of public interest groups, professionals from the business community, operators of solid waste collection and recycling companies, and representatives of local governments. For a description of how the SWAC was involved in the creation of the SHWMP, see *Appendix B*.

The County plans to revise SWAC operating guidelines on an annual basis to ensure a meaningful, transparent, and effective process, while continuing to meet the state guidelines for SWACs. Pierce County also plans to maintain a schedule of regular updates at SWAC from diverse solid waste partners (Ecology, WRRRA, WSRA, WACSWM, etc.) in Pierce County, including relevant information from regional and state industry meetings. Pierce County will annually update SWAC on SHWMP progress.

1.2.7 City of Tacoma Environmental Services Commission

The [Environmental Services Commission](#) (ESC) was created to review and make recommendations to the City Council, City Manager and City staff on wastewater, surface water and solid waste rates and rate structures, as well as services, policies and programs developed by Environmental Services.

The ESC's 15 members represent a cross section of Tacoma's residential, business and regulatory communities. The commission has 13 voting members and two ex-officio non-voting members, all appointed by the city manager. Membership includes representatives from large and small businesses, developers, government entities, multi- and single-family residents, regulatory agencies and other groups.

1.2.8 Tacoma-Pierce County Interlocal Agreements

The City of Tacoma and Pierce County entered an interlocal agreement in January 2011 to formalize their partnership for the purposes of developing and operating under a joint Solid Waste Management Plan (SWMP) for the state. The agreement was set to expire at the end of 2020, however, the development of the new 20-year SWMP is in process, and is anticipated to be completed in 2021. The agreement was amended to extend the term one year, to the end of 2021, to allow the plan update to be completed. Then, a new agreement or amendment can be developed with a more thorough update based on the new SWMP.

The City of Tacoma and Pierce County have an interlocal agreement to allow Pierce County residents to use the City of Tacoma's Household Hazardous Waste facility to coordinate and consolidate household hazardous waste collection in Pierce County. The current agreement, which expires at the end of 2022, establishes a mechanism for Pierce County to reimburse the City of Tacoma for the costs of services provided to Pierce County residential customers.

1.2.9 City of Tacoma Capital Facilities

The City of Tacoma prepares a six-year Capital Facilities Plan (CFP) that develops a budget and allocates funding resources for new construction and improvements of capital facilities and procurement of vehicles and equipment. This plan is updated every two years in the biennial budget process. A link to the most recent CFP is in *Appendix S*.

1.2.10 Pierce County Capital Facilities

Pierce County and LRI work together annually during the rate setting period to agree on needed capital facilities improvements. Pierce County is responsible for paying for improvements at County-owned facilities and LRI is responsible for improvements at their own facilities. The six-year Capital Facilities plan is in *Appendix S*.

1.2.11 Permitting and Enforcement

In 2016 Pierce County took over residential solid waste enforcement. The Health Department provides enforcement for permitted and permit exempt solid waste handling facilities.

For a full list of operators and service areas see *Appendix D*, as well as further discussion in the *Collection* chapter.

1.2.12 Service Providers

Curbside garbage and recycling service is provided by three private companies in Pierce County and depends on location. Residents can find their service provider on Pierce County's [Curbside Recycling & Garbage Service webpage](#).

1.2.13 Regional Planning

Pierce County has begun working with other counties through the Washington Association of Counties Solid Waste Management initiative. This will help Pierce County share our own expertise as an early adopter and take advantage of new processes and programs being used by other counties. Pierce County and the City of Tacoma can also participate in harmonizing systems in use across the state to give more people access to the best programs. Pierce County will continue to communicate with the cities and towns in our solid waste system to improve regional solid waste services.



1.3 Tipping Fee

The tipping fee is the rate charged per ton of municipal solid waste (MSW) in the County solid waste system. The fee is made up of five components and a County program cost. The tipping fee covers: the costs of MSW transportation; recycling; operation & maintenance of the LRI landfill; operation & maintenance of all County-owned and Company owned facilities; plus long-haul procurement. Note that the tipping fee is distinct from the hauler fee, discussed in the *Collection* chapter.

Component A - Transfer Facilities, Recycling, and Transportation Services

Component A covers the cost for all system material that is transported from a transfer facility to the County landfill or to an out-of-county landfill through an intermodal facility. This component is based on annual County system MSW tonnage. There is also a cost-of-living adjustment to this component each year.

Component B - County Diversion Program

Component B covers the cost to compost all diversion material (primarily yard waste) that comes into a transfer station. This

component is based on the annual system diversion material tonnage (primarily yard waste) and the annual system MSW tonnage. This component also has a cost-of-living adjustment.

Component C - Disposal Services

Component C covers the cost of final disposal of all county MSW. The calculation for this is like that of Component A in which both system tonnage and cost of living are factored in.

Component D - Community Solid Waste Reduction and Support Programs

Component D covers the costs associated with litter and cleanup programs, HHW, emergency management, environmental management programs, research & development, annual debit/credit card adjustments, and facility improvements.

Component E - Education & Community Outreach

Component E covers the creation of an education and outreach facility at Hidden Valley transfer station. This component has not been implemented.

The County Program Cost

The County program cost covers the programs implemented by Pierce County Planning and Public Works. These programs include Waste Reduction & Recycling, Sustainability, Environmental Education and Code Enforcement.

The County tipping fee has increased every year over the past five years at the same rate as Pierce County's population. To mitigate the effects of this growth, the County is working on new programs and ways to market existing programs to help with waste reduction. The County has also seen an increase in yard waste disposal. The County has always taken yard waste for free and therefore yard waste growth rates have doubled those of garbage. The County is working on changing that trend to help reduce the overall tipping fee.

Table 1. County Tipping Fee

| | Mar '17 - Feb '18 | Mar '18 - Feb '19 | Mar '19 - Feb '20 | Mar '20 - Feb '21 | Mar '21 - Feb '22 |
|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Component A | \$ 45.99 | \$47.30 | \$48.84 | \$50.01 | \$50.89 |
| Component B | \$ 34.55 | \$35.21 | \$37.19 | \$38.70 | \$35.61 |
| Component C | \$ 58.60 | \$60.53 | \$63.80 | \$62.37 | \$64.58 |
| Component D | \$ 1.54 | \$1.64 | \$1.26 | \$1.55 | \$2.18 |
| County Program Cost | \$ 12.80 | \$12.70 | \$13.25 | \$14.75 | \$15.25 |
| Tipping Fee Total | \$ 153.48 | \$157.38 | \$164.34 | \$167.38 | \$168.51 |



1.4 Planning Issues

What changes will be needed when the County's current waste handling contract expires?

Pierce County's current waste handling agreement with LRI ends in 2036. This agreement includes the collection system, transfer and disposal operations and infrastructure, and customer service and billing. The landfill in Pierce County is owned and operated by LRI and a key element of this agreement. The landfill may close before 2036, depending on economic and population growth and waste generation rates. Changes to the waste handling agreement may be required.

Renewing or replacing a long-term waste handling agreement is a challenging undertaking, but also offers opportunities for change. Planning for this process should start many years before the current contract expires.

Should Pierce County and the City of Tacoma partner on a new waste disposal contract in preparation for the eventual closure of the existing LRI landfill in Pierce County?

The LRI landfill has been a valuable and reliable resource for waste disposal for both the County and the City of Tacoma for many decades. However, this landfill is projected to be filled and closed sometime during the 20-year term of this SHWMP. There may be

advantages, such as economies of scale and shared infrastructure, in procuring a new waste disposal contract. Pierce County and the City of Tacoma should begin evaluating if a shared contract is viable, and if so, what is the desired timeline, process, and structure for this procurement.

What will future supplements address and how will they be affected by changes in the waste handling agreements?

The end of Pierce County's current waste handling agreement and the opportunity for the City of Tacoma and Pierce County to partner on a new long-term disposal contract could significantly change elements of the County's SHWMP. The timing and scope of these changes should be addressed in future supplements to the SHWMP as they develop.

How will Pierce County fund programmatic needs for solid waste?

In 2008, Pierce County and LRI negotiated a 25-year waste handling agreement. Until December 2036, LRI will provide waste disposal services to Pierce County and access to the Hidden Valley Transfer Station. The company will also operate the County-owned yard waste composting facility and the County's four publicly owned transfer stations. LRI will remit a portion of tipping fees to Pierce County for use in programs including education, recycling, and administration (i.e., the County administrative cost component of the tipping fee). In addition, Pierce County has recently created a new Sustainability 2030 plan that identifies many solid waste concerns and areas of improvement. An increase in funding and creation of a sustainable funding source would help reach the goals outlined in the sustainability plan. If Pierce County and LRI fail to maintain the current waste handling agreement, or if Pierce County is unable to negotiate a contract with a disposal vendor that provides for a sharing of tipping fee revenue to benefit County programs, the County will need to explore alternative means to fund core solid waste management programs.

Alternatives Include:

- **Explore using the Solid Waste Collection surcharge:** State law authorizes counties to impose fees on solid waste collection services. The revenue generated by this fee, which the County Council can set for customers within unincorporated Pierce County, can fund the "administration and planning expenses that may be incurred by the County in complying with the requirements in 70A.205.045." (RCW 36.58.045) Pierce County could set a per-customer fee to fund just Sustainable Resources Division management functions or expand the scope of the fee to offset some of the costs of County-owned facilities. City of Tacoma residents and self-haulers to facilities not owned by Pierce County would not pay the fee. To overcome these obstacles, Pierce County could consider expanding the base of fee-paying customers by forming a solid waste collection district (see additional detail, below) and/or request the cities and towns to impose an equal surcharge within their jurisdictions.
- **Set tipping fees so transfer stations pay for themselves:** To avoid having ratepayers in one part of Pierce County subsidize transfer stations they don't use, the County could set tipping fees at each transfer station that would more accurately reflect the specific costs of each facility. Alternatively, Pierce County may have to consider privatizing or closing the transfer stations.
- **Form a Solid Waste Disposal District:** A solid waste disposal district is a governmental entity authorized by RCW 38.58. Disposal districts may collect taxes to fund solid waste disposal activities. Cities and towns may choose to participate in a disposal district formed by Pierce County, but state law places all administrative and legislative control of such a district under the County Council.
- **Use General Fund for Code Enforcement:** Find another revenue source for the code enforcement program by way of the general fund and use the funds collected for solid waste and sustainability programming.

1.5 Actions

- ➔ **Administration Action 1:** Assess funding, including current funding sources, grants, rates and fees, for different areas of the system on an annual basis to recommend potential improvements.
- ➔ **Administration Action 2:** Explore potential Extended Producer Responsibility (EPR) legislation to ensure it works for Pierce County.
- ➔ **Administration Action 3:** Convene stakeholder round-table to conduct periodic reporting, review and discussion of system waste stream trends; identify additional actions and improvements for services; address adjustments for system or market conditions; and perform resource planning.
- ➔ **Administration Action 4:** Employ Pierce County's measurement tool to evaluate, compare and inform decisions on priority projects and programs; update to include greenhouse gas reduction, equity, and other criteria.
- ➔ **Administration Action 5:** Actively recruit Solid Waste Advisory Committee (SWAC) members to ensure broader representation, particularly from Black, Indigenous and people of color (BIPOC), low-income, and other under-served communities.
- ➔ **Administration Action 6:** Develop, recommend, and promote a discounted garbage rate or a more equitable community cleanup program by 2022.
- ➔ **Administration Action 7:** The Pierce County Planning and Public Works Department, Sheriff's Department, and other appropriate entities are to collaboratively develop a plan with strategies to help remove, prevent, and reduce illegal dumping and littering, and to improve current enforcement and clean-up efforts.

Chapter 2: The Planning Area



2.1 Introduction

This chapter discusses the geography, demographics, population and waste streams related to Pierce County's solid waste system. As discussed in the Administration chapter, solid and hazardous waste in incorporated and unincorporated areas of Pierce County are managed under several different and coordinated sub-systems.

2.1.1 Relationship to Growth Management

At the same time the Pierce County Council adopts, amends or supplements the Tacoma-Pierce County Solid and Hazardous Waste Management Plan, they will also codify the plan in two locations: as chapter 8.28 within the Health and Welfare title of the County Code; and as chapter 19D.90 as a planning document related to the Comprehensive Plan for Pierce County.

As such, the Tacoma-Pierce County Solid and Hazardous Waste Management Plan must build upon, and be consistent with, high-level policy described by two goals found in the Utilities Element of the Comprehensive Plan:

- Provide reliable and cost-effective service as detailed in the most recent update of the Tacoma-Pierce County Solid Waste Management Plan.
- Support efforts to reduce solid waste and increase recycling and diversion of waste to assure disposal capacity, reduce emissions and prevent pollution.

Pierce County also provides for the development and adoption of community plans, some of which also include policy objectives relating to waste reduction and recycling, the siting of solid waste and recycling facilities, and enforcement issues. Planning and Public Works staff participation in comprehensive plan and community plan updates helps ensure consistency between planning documents and ensure that solid waste and recycling facilities develop to meet the need of changing and growing populations.

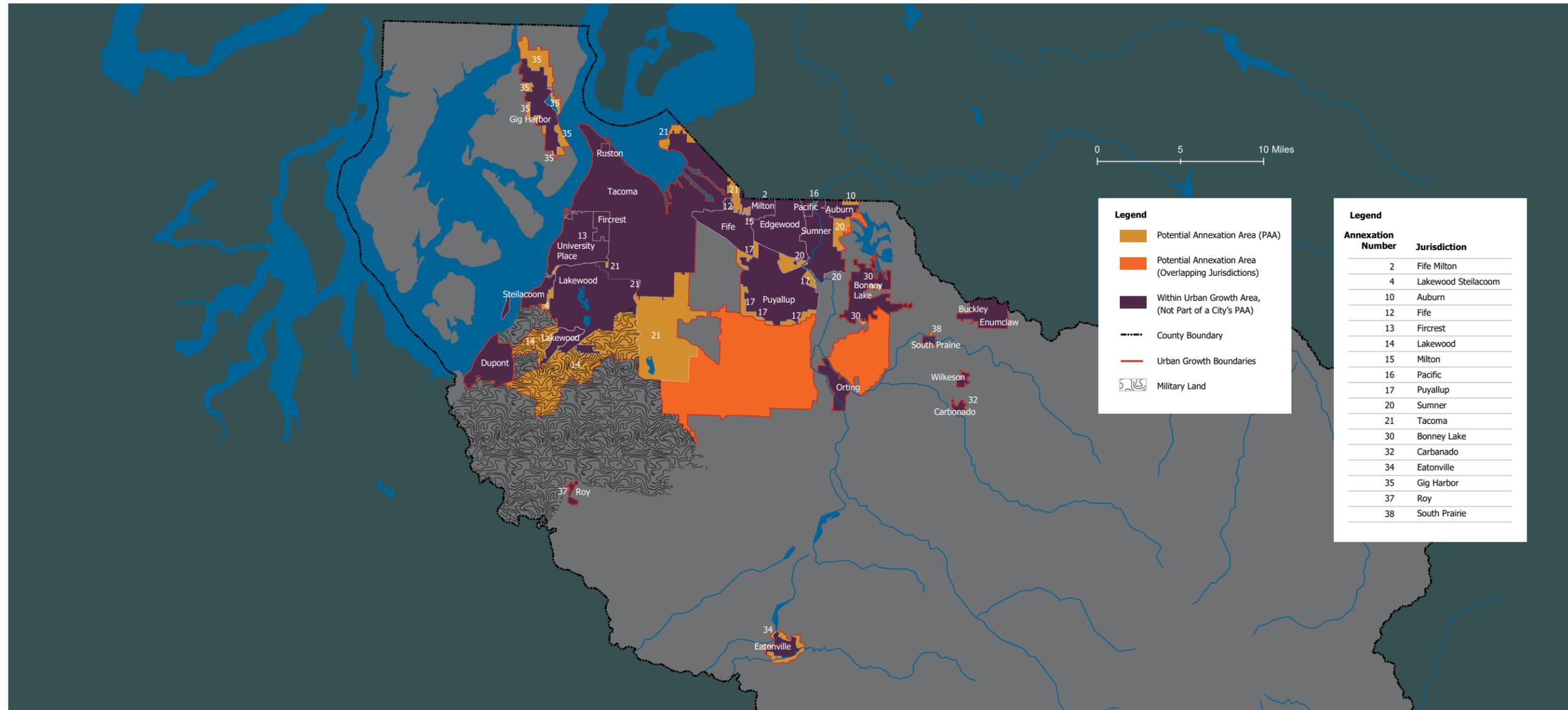


2.2 Conditions Assessment

During the last 20 years, Pierce County has grown by 32% with a much higher rate during the last decade. That growth has a significant impact on the solid waste system and how Pierce County and the City of Tacoma will manage it over the next 20 years. Pierce County is using a forecast of 35% growth over the life of this Solid and Hazardous Waste Management Plan,

which will add over 240,000 new residents to the system. Pierce County and the City of Tacoma will both need to look at changes to infrastructure, system improvements, reduction programs, and new recycling markets to maximize the life of the Pierce County landfill.

Map: Community/land use context



With continued growth in population comes a growth in housing. Currently, Pierce County housing is 75% single family. Multifamily housing is increasing every year as incorporated areas and the Urban Growth Areas (UGA) have less land for development. The housing trend looks to continue in that manner. Since 2000, housing has increased by 30%, and over the next 20 years that rate should stay consistent, leading to as many as 80,000 new residences. The high demand for housing in Pierce County is reflected in a 5% vacancy rate, down from 6.5% in 2000. As multifamily housing is added, Pierce County must have new infrastructure and programs in place to support it.

Pierce County has become much more diverse over the last 20 years as well, and population data should be used in determining how to prioritize improvements. Factors like race, age, and wealth affect how communities relate to the solid and hazardous waste system. Today, almost 25% of the population is under 18 and 15% is over 65. The overall poverty rate in the County is 10.5%.

2.2.1 Quantity and Characterization of Solid Waste

For three weeks each summer, Pierce County staff sorts through the County's garbage to get a better understanding of exactly what goes into the landfill and to track how it changes over time. The Waste Trends Analysis (WTA) captures just how much garbage going into the landfill from homes and businesses could be reduced, reused or recycled. The data collected, when combined with customer feedback and information from other regional studies, is a critical source of data for evaluating system needs, and creating effective strategies for reducing waste and increasing recycling in Pierce County.

Based on data from the 2019 WTA (see Table 2), Pierce County produces 1,748 tons of solid waste per day. Approximately 25% of the total waste stream (or 500 tons per day) is garbage that cannot be diverted. However, remaining waste streams, including paper and cardboard, metal glass and plastics, food and yard waste, construction and demolition debris and other waste have significant recyclable content. Table 2 shows the proportion of these waste streams that is currently diverted for recycling or reuse, and what

Table 2. Where Pierce County Waste Goes Today (based on 2019 Waste Trends Analysis data)

| Total Waste | 1748 Tons/day | | | Diverted | Refused |
|---------------------------|---------------|------------------------|---------|----------|---------|
| Recyclables | 1247 Tons/day | Plastic/Cardboard | 8% | 37% | 63% |
| | | | 166 T/d | 62 T/d | 104 T/d |
| | | Metal, Glass, Plastics | 11% | 9% | 91% |
| | | | 213 T/d | 19 T/d | 194 T/d |
| | | Textiles | 3% | 4% | 96% |
| | | 60 T/d | 2 T/d | 58 T/d | |
| Other | | 3% | 4% | 96% | |
| | | 63 T/d | 3 T/d | 60 T/d | |
| Organics | | 28% | 66% | 34% | |
| | | 572 T/d | 376 T/d | 196 T/d | |
| Construction & Demolition | | 22% | 0% | 100% | |
| | | 173 T/d | 0 T/d | 173 T/d | |
| Trash | 501 Tons/day | Non-Divertible | 25% ww | 0% | 100% |
| | | | 501 T/d | 0 T/d | 501 T/d |

continues to the landfill. WTA will continue to inform opportunities for diversion in specific waste streams. However, diversion rate is not the only measure of system performance or the best approach to understand impacts. For many years, Pierce County and the City of Tacoma have operated under the belief that diversion of materials from the landfill was always a good thing. For many years recyclables from developed countries were shipped to Asia in the hope that they would be recycled. Today, Pierce County and the City of Tacoma know better.

There must be a focus on the lowest GHG methods for dealing with waste. This additional measure may lead to the conclusion that some waste does not make sense to recycle and laws must be changed to either incentivize the purchase of recycled goods or allow them to go to the landfill. The years of relying on diversion rates and shipping

recyclables abroad must come to an end. Moving forward, the emphasis should be placed on end-of-life methods with the lowest emissions.

However, most of the emissions related to a product are released in the manufacturing process and not at the end of life. Education and outreach should be focused on reducing unnecessary products to limit waste creation and reduce GHGs. By the time a product gets to the solid waste system it is too late to do much about its environmental impact.

The SHWMP supports the state's solid waste management plan and solid waste priorities. While the state plan is not yet finalized, we know from the first draft that Pierce County's goals of shifting from measuring the recycling rate to focusing more on waste reduction align with Ecology's goals.

Chapter 3: Public Outreach



3.1 Introduction

Pierce County has a history of strong and effective public outreach dating back to the first curbside recycling program established in 1990. In recent years, Pierce County has worked to share messaging that is simple, realistic, and transparent. Curbside recycling programs were designed to be convenient for consumers and past messaging urged participation and emphasized quantity, which enforced the notion that recycling was doing a good thing for the planet. Only recently, this narrative transitioned to highlighting the importance of quality of material over quantity in the bin.

In addition, the role that location plays in a recycling program has been overlooked. Nationwide recycling campaigns and product packaging claiming to be recyclable disregard the local aspect of recycling, which truly drives the entire program in a jurisdiction. This is especially important in Pierce County where many people are new to the area and may not be familiar with local recycling programs. Pierce County's overall population also continues to grow (see chapter 2.2). Educating new and future residents about the local program is essential to recycling messaging.

Pierce County is continuing to improve outreach methods to include populations who have historically been underrepresented and under-served. 2021 was the first year that Pierce County Sustainable Resources provided educational materials in different languages. These efforts will continue so that messaging is accessible to all community members.

3.1.1 Coordination Efforts

As recycling markets shifted in the wake of China's National Sword policy (refer to the Recycling chapter for more information), greater coordination between Pierce County and the City of Tacoma was needed when conducting education and outreach.

The goal of this coordination was to decrease confusion among residents who do not live their lives by jurisdictional boundaries. Staff from both entities' solid waste and communications divisions have had larger discussions on harmonizing accepted materials lists, sharing of images for materials, and developing key talking points. Additionally, outreach staff from Pierce County and the City of Tacoma have identified opportunities for tabling side-by-side at events to share resources and have conversations with residents

about the differences in the two systems. As Pierce County and the City of Tacoma work to implement the new SHWMP, there will be further emphasis on collaboration and coordination across jurisdictions to increase clarity in communications to residents, reduce overall contamination in the recycling stream, and promote best practices for waste reduction.



The above recycling fliers are one example of how Pierce County and the City of Tacoma worked to improve cohesion in messaging about recycling. Nearly all images and terms are the same on the fliers, which has helped to reduce confusion for residents.

3.2 Conditions Assessment

Pierce County, the City of Tacoma and contract partners engage in multiple solid waste education activities for a broad range of customers and audiences. Table 3 provides a summary of these efforts. For a full list of Pierce County public education programs, see *Appendix E*.

| Program Lead | Name | Online Resource | In Person/Tangible Resource |
|---|---|-----------------|-----------------------------|
| Pierce County Education Efforts | | | |
| Sustainable Resources - Solid Waste Team | Recycling Website | ✓ | |
| Sustainable Resources - Solid Waste Team | PC Recycle and Phone Line | ✓ | |
| Sustainable Resources | EarthMatters Newsletter | ✓ | ✓ |
| Sustainable Resources - Solid Waste Team | Mailings | | ✓ |
| Sustainable Resources - Environmental Education | School Programs | ✓ | ✓ |
| Sustainable Resources - Environmental Education | Community Programs | ✓ | ✓ |
| Sustainable Resources - Solid Waste Team | Social Media | ✓ | |
| Sustainable Resources - Solid Waste Team | School Technical Assistance Program | ✓ | ✓ |
| Sustainable Resources - Solid Waste Team | Multifamily Support | | ✓ |
| Sustainable Resources - Solid Waste Team | Business Technical Assistance Program | ✓ | ✓ |
| Sustainable Resources | Event Tabling | | ✓ |
| Sustainable Resources - Solid Waste Team | Meet with Community Groups | ✓ | ✓ |

Table 3. Pierce County Education Efforts

Table 3. Education Efforts (continued)

| Program Lead | Name | Online Resource | In Person/Tangible Resource |
|--|---|-----------------|-----------------------------|
| Pierce County Education Efforts | | | |
| Waste Connections - LeMay | New Customer Welcome Kit | | ✓ |
| Waste Connections - LeMay | Annual UTC Letter | | ✓ |
| Waste Connections - LeMay | ReCollect - Materials Search + Schedule Finder | ✓ | |
| Waste Connections - LeMay | Facebook Page | ✓ | |
| Waste Connections - LeMay | Event Tabling | | ✓ |
| Waste Connections - Murrey's | New Customer Welcome Kit | | ✓ |
| Waste Connections - Murrey's | Annual UTC Letter | | ✓ |
| Waste Connections - Murrey's | ReCollect - Materials Search + Schedule Finder | ✓ | |
| Waste Connections - Murrey's | Facebook Page | ✓ | |
| UP Refuse | Annual Calendar and Newsletter + Welcome Packet (New Customers) | | ✓ |
| UP Refuse | Website | ✓ | |
| UP Refuse | Facebook Page | ✓ | |

Table 3. Education Efforts (continued)

| Program Lead | Name | Online Resource | In Person/Tangible Resource |
|--|---|-----------------|-----------------------------|
| City of Tacoma Education Efforts | | | |
| City of Tacoma - Solid Waste Management (SWM) | Website | ✓ | |
| City of Tacoma - Environmental Services Department | EnviroTalk | ✓ | ✓ |
| City of Tacoma - SWM | Mailings | | ✓ |
| City of Tacoma - SWM | Event Tabling | | ✓ |
| City of Tacoma - Office of Environmental Policy and Sustainability | EnviroChallengers | ✓ | ✓ |
| City of Tacoma - SWM | Multifamily Support | ✓ | ✓ |
| City of Tacoma - SWM | Commercial Support | ✓ | ✓ |
| City of Tacoma - SWM | Community Group Meetings Presentations | ✓ | ✓ |
| City of Tacoma - SWM | Recycle Reset Community Ambassadors | ✓ | ✓ |
| City of Tacoma - SWM | Tagging and Lid Lifts | | ✓ |
| City of Tacoma - SWM | Sort the Sound Waste Game | ✓ | |



3.3 Planning Issues

How can we broaden and improve our reach?

It is imperative that Pierce County and the City of Tacoma identify the proper audiences when implementing education and outreach campaigns. In doing so, and by using appropriate communication channels, both entities will be able to reach the largest audience in their area with relevant information. In future planning, it is important to consider who we are trying to inform, why they are the target audience over others, and whether we are using communication channels and techniques that will resonate with that group. Additionally, Pierce County has unintentionally neglected populations by limiting aspects of our outreach materials and methods. As we work to build a more equitable Pierce County, it is important to continue working on expanding our reach and ensuring our materials are accessible to all people.

Are we utilizing the most efficient and effective modes of communication?

In future planning for education and outreach efforts, it is necessary to understand how identified audiences want to receive communications from Pierce County and the City of Tacoma. We should continue to use internal resources for communications development and outreach efforts, but sometimes it will be necessary to work directly with communities that may receive communications differently than many of our residents and customers.

How do we incorporate lessons learned during the COVID-19 pandemic to balance virtual and in-person offerings?

The COVID-19 pandemic drastically changed the way we do our work. Education efforts that were once done in-person had to pivot to online platforms. Offering these opportunities online resulted in higher participation numbers and we learned that the online platform was sometimes more accessible and preferred to in-person classes. As we transition out of the pandemic and have the option to return to in-person offerings, we will want to consider if this is an efficient use of our resources or if residents are better served online.

How can we ensure our resources are being used effectively?

Pierce County and the City of Tacoma lend a lot of resources to their respective public outreach methods. To ensure time and money are being spent efficiently, we need to track the effectiveness of these efforts (when viable). Tracking this information can also contribute to making informed decisions around campaigns and will make it easier to identify where residents' priorities lie compared to division priorities.

How can we encourage participation in educational opportunities and motivate residents to make personal changes?

We must consider how we can save people time and money to encourage their understanding and stewardship of the recycling program. Utilizing both positive (e.g. public recognition or saving money) or negative (e.g. additional fees or reporting requirements) reinforcement tools also improves our reach in the community.

How can we increase commercial recycling participation?

There are no minimum service requirements for commercial recycling in Pierce County. This leads to recyclable materials ending up in our landfill. Convincing businesses to recycle will take time and resources and needs to be a high priority to be effective. We would need to identify service gaps and better understand moderate-risk waste generation, use of services, convenience, value and accessibility.



| 3.4 Actions | |
|-------------|--|
| ➔ | Public Outreach Action 1: Regularly evaluate outreach programs for effectiveness using both quantitative (e.g. website visitors, number of mailed materials, surveys) and qualitative (e.g. interviews, storytelling) data. |
| ➔ | Public Outreach Action 2: Expand technical assistance through education and resources to multifamily and large volume-generating commercial customers. |
| ➔ | Public Outreach Action 3: Explore new techniques to reach targeted audiences and obtain public input. |
| ➔ | Public Outreach Action 4: Develop targeted campaigns to promote waste reduction, recycling materials with the highest GHG reduction impact and keeping recyclable materials out of the landfill. |
| ➔ | Public Outreach Action 5: Engage with and invest in underrepresented and under-served communities. Partner with other public, private, and non-profit entities as appropriate to reach multicultural communities. |

Chapter 4: Waste Reduction



4.1 Introduction

Waste reduction is defined as actions taken to either reduce or completely prevent the generation of waste before it happens. Some further divide this term into categories such as waste prevention, avoidance, and minimization. In this document, the term “reduction” includes these other categories. From a waste management perspective, waste reduction is one of the most effective ways to address waste issues. Reducing the amount of waste generated can lead to a decrease in costly disposal and recycling facilities, as well as collection programs to divert toxic or specialty materials.

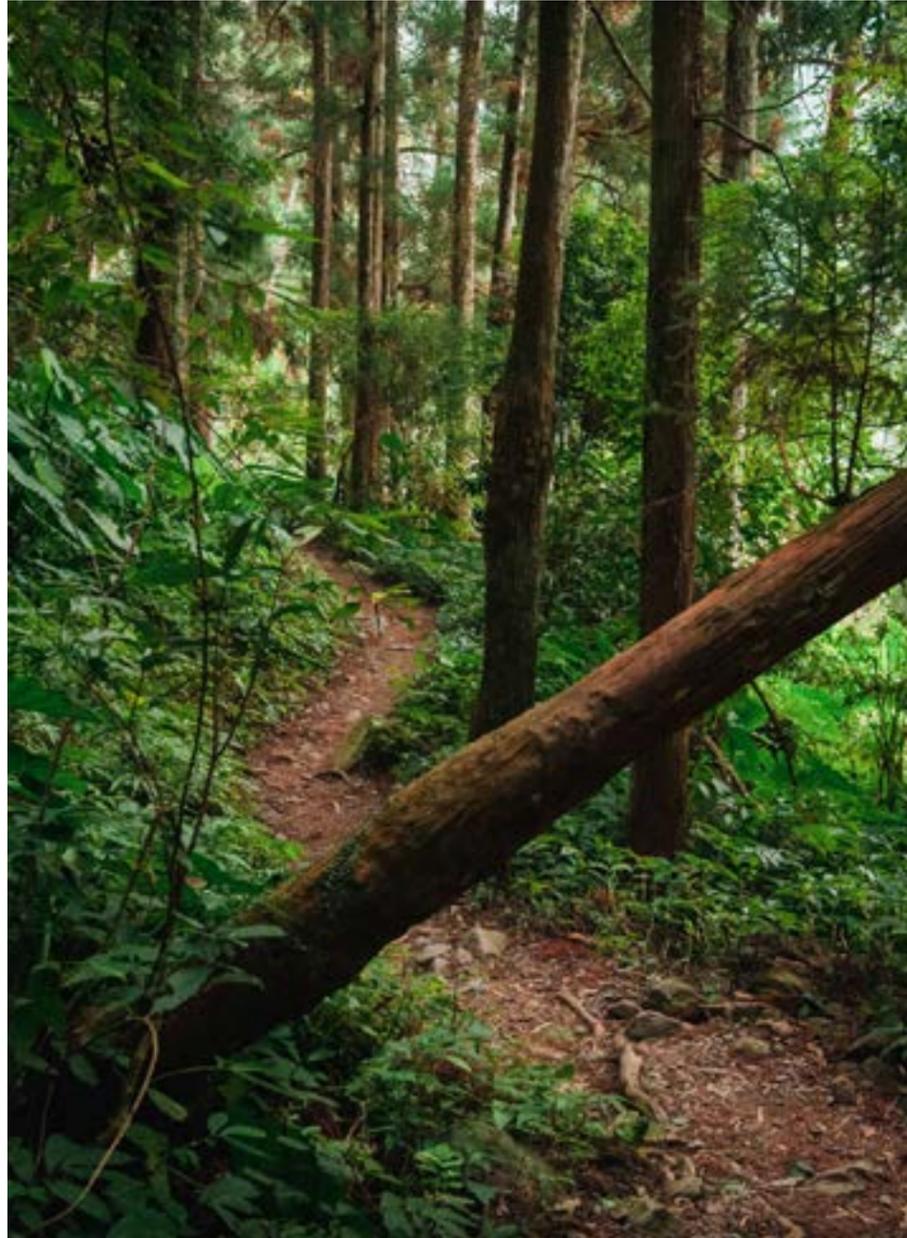
Manufacturers can minimize waste through product design, using less packaging, and making products more durable and/or designed for recycling. Designing products in a way that minimizes their long-term environmental impacts is becoming increasingly prevalent. These principles are often termed product stewardship or extended producer responsibility (EPR), which is discussed further in the recycling chapter. Pierce County anticipates a statewide EPR legislation during the next 20 years. Implementation of EPR policies can have several benefits as they hold producers accountable rather than consumers.

Because we live in a linear economy, pursuing a low-waste lifestyle as a consumer comes with many challenges. The current system encourages unnecessary consumption and then leaves responsible disposal up to the individual with little to no direction. Pierce County and the City of Tacoma recognize that systemic change is necessary to redefine the system. However, by practicing conscious consumption, individuals can reduce their waste output. Some ways to practice conscious consumption include:

- 1. Avoid single-use items.** Choose a durable option like a reusable shopping bag or travel mug for your groceries and coffee.
- 2. Consider the packaging.** If you have an opportunity to purchase an item you need in a package that can be recycled curbside in your area, choose that.
- 3. Purchase items made from recycled content.** Consumers drive the market.

Learn more tips for reducing waste on the [Pierce County website](#).





Pierce County recognizes that waste reduction practices tend to place responsibility on individual actions by consumers rather than influence systemic change. Additionally, waste reduction practices have been a habit in many communities for hundreds of years – these important perspectives should be included in programs and messaging.

4.1.1 Life Cycle Analysis

One way to examine how different materials can contribute to GHG reduction is through a process known as life cycle analysis. This process attempts to capture the total amount of GHG emitted during the production, transportation, and end-of-life phases of various materials. Many life cycle analysis tools exclude the “use phase” from their analysis as there are too many variables to consider when thinking about what a consumer does with a material between purchasing it and disposing of it. Regardless, life cycle analysis tools can help waste management professionals make strategic decisions on how to manage materials based on their impact to GHG emissions and, therefore, climate change.

The Environmental Protection Agency’s WARM Model is used by many waste management professionals and is similar to the life cycle analysis tool. This software allows professionals to input tonnages of different materials diverted from the landfill to get estimates of GHG emission reductions. This tool is somewhat limited because it does not account for a material’s production phase, which often consumes the most energy and emits the most GHG. Another tool developed by the Oregon Department of Environmental Quality is the Waste Impact Calculator (WIC), which does consider production impacts on GHG emissions, as well as eight other indicators (e.g., energy demand, eutrophication, human toxicity). Like the WARM Model, the WIC allows professionals to input their own solid waste data in tons to generate an analysis of how various materials will impact the indicators at current or “optimal” levels.

Tools like the WIC can help Pierce County and the City of Tacoma determine how to allocate resources to improve recycling recovery and identify which materials would have greater impact from a waste reduction perspective. They also allow solid waste professionals to align waste management goals with their jurisdiction’s, and the State’s broader climate goals when both are measured in terms of GHG reduction. Pierce County and the City of Tacoma will continue to coordinate with Washington Department of Ecology to ensure that City and County goals are in alignment with the State’s materials management goals and that everyone is capturing similar metrics to allow for a meaningful comparison.

4.2 Conditions Assessment

Pierce County and the City of Tacoma support many waste reduction programs. Table 4 summarizes these efforts. For a detailed list of these programs, see *Appendix F*.



Table 4. Waste Reduction Programs

| Program Lead | Name | Online Resource | In Person/Tangible Resource |
|---|---|-----------------|-----------------------------|
| Pierce County Education Efforts | | | |
| Sustainable Resources - Solid Waste Team | Reduce Waste Website | ✓ | |
| Sustainable Resources - Solid Waste Team | Waste Less Wednesday Tips | ✓ | |
| Sustainable Resources | Water Bottle Filling Station Grant Program | | ✓ |
| Sustainable Resources - Solid Waste Team | Waste Reduction Actions in Sustainability 2030: Greenhouse Gas Reduction Plan | ✓ | |
| Sustainable Resources - Environmental Education | Waste Reduction Classes | ✓ | ✓ |
| Sustainable Resources - Environmental Education | What's for Dinner? Tips to Waste Less Food | ✓ | ✓ |
| City of Tacoma Waste Reduction Programs | | | |
| City of Tacoma – SWM and Office of Environmental Policy and Sustainability (OEPS) | Waste Free 253 Webpage | ✓ | |
| City of Tacoma – SWM and OEPS | Preventing Wasted Food | ✓ | ✓ |
| City of Tacoma – OEPS | Bring Your Own Mug (BYOM) | ✓ | ✓ |
| City of Tacoma – SWM and OEPS | Bring Your Own Bag (BYOB) | ✓ | ✓ |
| City of Tacoma, in partnership with Tacoma-Pierce County Health Department – OEPS | EnviroStars | ✓ | ✓ |
| City of Tacoma – OEPS | Waste Reduction Actions in Environmental Action Plan | ✓ | |



4.3 Planning Issues

How do we transition our measuring methods away from diversion toward reduction?

Historically, the success of a recycling program has been determined by quantity rather than quality of materials. The onset of China’s National Sword policy provided an opportunity to reexamine our waste reduction and recycling messaging and highlighted a need to focus on quality over quantity while emphasizing the importance of waste reduction. To ensure we are aligned with the division’s reduction over diversion priorities, we may need to choose new metrics that will inform our efforts going forward.

Are we ensuring that our waste reduction messaging is sensitive and inclusive to all Pierce County?

There is not a one-size-fits-all model for waste reduction strategies, and numerous factors must be considered to ensure equitable outcomes. Additionally, public education campaigns for waste reduction face challenges that may prevent effective behavior change and ultimately drain program resources. Not only are these campaigns difficult to measure, but also they must overcome a culture of consumerism. Successful waste reduction messaging accounts for sensitivity to financial situations, available resources, removing pressure from the individual consumer, etc.

How can we best support structural changes to recycling systems to ensure that manufacturers are held responsible for the waste they create?

As local government entities, Pierce County, the City of Tacoma and TPCHD are limited in how representatives can interact with the legislative process, but they can still evaluate legislation to prepare for how it may impact the community and operations, or align with broader organizational goals. Our first responsibility is to our residents and customers. It is important to consider how legislation at any level could impact operations or the services our customers receive.

Can we reinforce the fact that reusable options are safe in a post-COVID-19 world?

As many people became more aware of spreading germs, the safety of single-use plastics during a pandemic was a hot topic of discussion. There has also been a surge in single use items like masks and gloves contributing to increased contamination levels in recycling. Finally, with many people at home, there has been a massive increase in the amount of online shopping. These topics will need to be addressed in future messaging.



4.4 Actions

- ➔ **Waste Reduction Action 1: Support legislation at the state level (e.g., legislative agenda for council) that promotes packaging with the lowest life-cycle GHG emissions.**

For more food waste-related recommendations, please see the Organics chapter.

Chapter 5: Recycling



5.1 Introduction

True recycling happens when material is collected, sorted, and sold to reliable, consistent markets. For an item to be truly recycled, it must be re-manufactured into a new product. Many items that are technically “recyclable” are not recycled for a variety of reasons: collection may be too complicated or expensive; sorting the material accurately with the existing processing technology might not be feasible; there may not be viable markets for the material; or the value of the material may not justify its collection and processing costs. The decision to recycle a material must consider economic, environmental, and societal impacts.

There are two main recycling systems in Pierce County. Collected recyclables from the City of Tacoma and Pierce County flow to two separate materials recovery facilities (MRFs) located in the County—JMK Fibers, operated by Waste Management and located in the Port of Tacoma, and Pioneer Recycling Services located in Frederickson. The City of Tacoma and Pierce County identify materials that are good candidates for recycling based on the likelihood of the material being truly recycled. The City of Tacoma and the private haulers providing service to the rest of the County have a commingled recycling system. Recyclable materials are placed in one container (commingled) at a residence, business or other commercial establishment, such as a school or hospital. The recyclables are transported to a MRF where a combination of hand and mechanical sorting separates the different materials. They are then baled and transported to manufacturing plants.

When Pierce County transitioned to a commingled system in 2007, the County experienced a large increase in the amount of material collected. Customers find it more convenient to throw recyclables into one container rather than having to separate different materials into different recycling containers. The trade-offs of a commingled system, however, are two-fold: 1) certain recyclable materials, such as plastic bags and glass containers, cause problems at the MRF and 2) materials collected have a higher contamination rate, meaning that many items that are not accepted for recycling end up in the recycling.

In recent years, Pierce County and the City of Tacoma have worked together to make the systems more similar. This includes a recycling menu that is nearly identical, moving to a single stream commingled container, and creating glass drop-off locations to make it easier for residents to recycle anywhere in the County. The move towards harmonizing the systems is also leading Pierce County and the City of Tacoma to cross reference information about each system on websites and social media which improves access to accurate recycling information for all county residents.

Pierce County currently has a reduction and recycling recovery rate of 45%. With a harmonized system Pierce County believes it's possible to reach the County goal of 60% reduction and recycling in the next 20 years.



5.2 Conditions Assessment

5.2.1 China's National Sword Policy

For decades the world relied on China as the main buyer of its recyclables, but heavily contaminated recycling created vast environmental and public health concerns for China and other importing countries. China cracked down on this contamination by restricting imports of most recyclables, with global repercussions. As bales of sorted material piled up, local governments and solid

waste companies faced rising costs. When no markets can be found, much of the material collected for recycling must be landfilled. Washington's recycling system has been especially hurt, since according to the Department of Ecology more than 60% of our recycled material was shipped to China.

As a result of China's National Sword policy, Pierce County examined all the materials on the accepted materials list and removed only three in April of 2019: shredded paper, paper gable-top cartons, and plant pots. Because Pierce County has never accepted marginally recyclable items, the County was in a better position than many other jurisdictions. The attention China's National Sword brought to recycling highlighted how many items (particularly plastic items) people purchase that are not truly recyclable. Those items were never on our accepted materials list and contributed to contamination.

In response to China's National Sword, Washington State's short and long-term solutions have focused on the following key issues:

- Reducing recycling contamination
- Finding new buyers for Washington's recyclables
- Working with partners to develop domestic markets, educate consumers, and identify other improvements to Washington's recycling system.

In 2019, House Bill 1543 was signed into law to address sustainable recycling issues in Washington. The act created [The Recycling Development Center](#) to expand regional markets for recycled commodities and products, and it required the Department of Ecology to create and implement a statewide recycling contamination reduction and outreach plan (CROP) based on best management practices. The act also requires most counties in the state, including Pierce County, to include a CROP in their local solid waste management plans (SWMP). Pierce County's CROP is described later

in this chapter, and can be found in its entirety in *Appendix H*.

5.2.2 Recycling Culture

While research shows that recycling is highly valued by many community members in Pierce County due to its ability to create jobs, protect the environment, and reduce garbage costs for customers, there are many cultural challenges that impact Pierce County and City of Tacoma staffs' ability to encourage waste reduction and proper recycling. In many parts of the United States, a culture of consumerism and convenience often contradicts waste reduction and recycling goals. Much of the economy is based on consumerism, and people help the economy by purchasing goods and services. Durable products often have expensive upfront costs that render products economically inaccessible for many community members, even if they would like to reduce their waste.

As society becomes even more connected, there is increased pressure to purchase products that encourage convenience and promote time saving qualities. Often these products come with packaging that is not recyclable and create waste. When speaking with residents and customers about waste reduction and recycling it is important to acknowledge the limitations of these efforts relative to that individual's current financial situation. Also, it is imperative that solid waste professionals in leadership positions identify opportunities to address the root causes of our community's inherent conflict between environmental action and the immense variety of products and packaging they are inundated with daily.

Geographic location also plays a critical role in residential curbside recycling programs. What is recyclable depends on your location and your area's access to viable recycling markets. This vital piece is overlooked by nationwide recycling campaigns and products marked by brands as recyclable, which may not be true locally. Pierce County and the City of Tacoma attempt to educate residents that recycling is local and that their program may differ from those outside of the County. However, it is not always easy for residents to adjust to a program that differs from what is familiar to them. With a military base and a rapidly growing population in Pierce County, it is especially important to emphasize the role of geographic location in a recycling program.





Finally, recycling has been promoted as an individual solution to a systemic problem. Looking ahead, the challenge of dealing with materials at end-of-life will likely shift from local waste systems to manufacturers.

5.2.3 Extended Producer Responsibility (EPR) or Product Stewardship

Product stewardship, sometimes called extended producer responsibility (EPR), is a philosophy and strategy where the manufacturer takes responsibility for managing its product and packaging throughout its whole life cycle. While others along the supply chain (suppliers, retailers and consumers) have roles and responsibilities, the producer has the greatest ability to minimize environmental, social and economic impacts. Numerous states have passed product stewardship legislation shifting the responsibility for the safe collection, transportation, and management of products (particularly those with hazardous waste) away from local

governments and to the manufacturers.

E-Cycle Washington, LightRecycle Washington, and PaintCare are three product stewardship programs in Washington that stem from this type of legislation. The state is currently considering comprehensive EPR legislation that would dramatically shift the financial responsibility away from local governments to producers and manufacturers of paper and packaging products. This type of legislation would immensely impact the financial structure and governance of the State's recycling system, but could impact Pierce County and the City of Tacoma slightly differently.

Legislation introduced in the 2021 Washington State Legislature did not become law, but it would have primarily impacted Pierce County through the contract negotiation process with its haulers. There would have been a standardized list of accepted materials across the state and an organization of paper and packaging producers would be reimbursing the haulers for their operations at a "reasonable" level. There would have been state oversight by Department of Ecology, statewide communications and educational materials, statewide collection mandates for certain materials, and more transparency in end markets for materials. While this legislation did not move forward, both entities will continue to evaluate how future EPR legislation would impact their programs and will continue to discuss options for alignment and coordination.

The State's pharmaceutical take-back law was passed in 2018 and the program launched in 2020. The Tacoma-Pierce County Board of Health passed a county EPR rule for pharmaceuticals in 2016, obligating over 400 drug companies to pay for collection and disposal of medications generated by county residents. There are currently 60 collection kiosks and options for postage-paid mailers in the County, operated through the stewardship agent, MED-Project. Several Washington counties passed identical rules (2014-2018). Local ordinances and rules will be preempted by the State law in November 2021. There is no established statute for collection of rechargeable and non-rechargeable batteries. However, battery collection has been in place in the County since 1994

through a manufacturer-led stewardship program Call2Recycle (former RBRC).

Materials such as carpet and rechargeable batteries are also under consideration, but appear to be further away from becoming law.

5.2.4 Curbside Programs

Curbside recycling is available county-wide and in all the cities within Pierce County. In addition to curbside recycling programs provided by the City of Tacoma and the private haulers providing service to the rest of the County, Pierce County has various locations where residents can drop off materials to recycle for no fee. Additional information about curbside service is found in the *Collection* chapter.

5.2.5 Recycling Centers

There are currently nine recycling centers located throughout the County where residents can drop off glass, cardboard, mixed paper, cans and plastic containers. For a full list of recycling centers, see *Appendix G*.

Beyond keeping glass separate throughout Pierce County, each recycling center has a different approach to source separation. There are some centers with separate containers for glass, cardboard, and mixed recycling (accepted plastics, paper and metals). There are also centers with more separation of materials accepted in curbside recycling—plastic, cans, and cardboard—and centers where additional items like scrap metal, plastic film and holiday lights that are not accepted in curbside programs can be dropped off. The degree of source separation depends on the location and which entity is handling the recycled materials.

5.2.6 Glass Drop-Off

Glass has never been collected in Pierce County's commingled recycling system, and it was removed from the City of Tacoma's dual stream system at the beginning of January 2021. According to the 2020 Washington State Department of Commerce report to the legislature, "[Washington's Glass: Half Full or Half Empty?](#)", the best way to collect glass in order to maximize the value of all the recyclables is separately

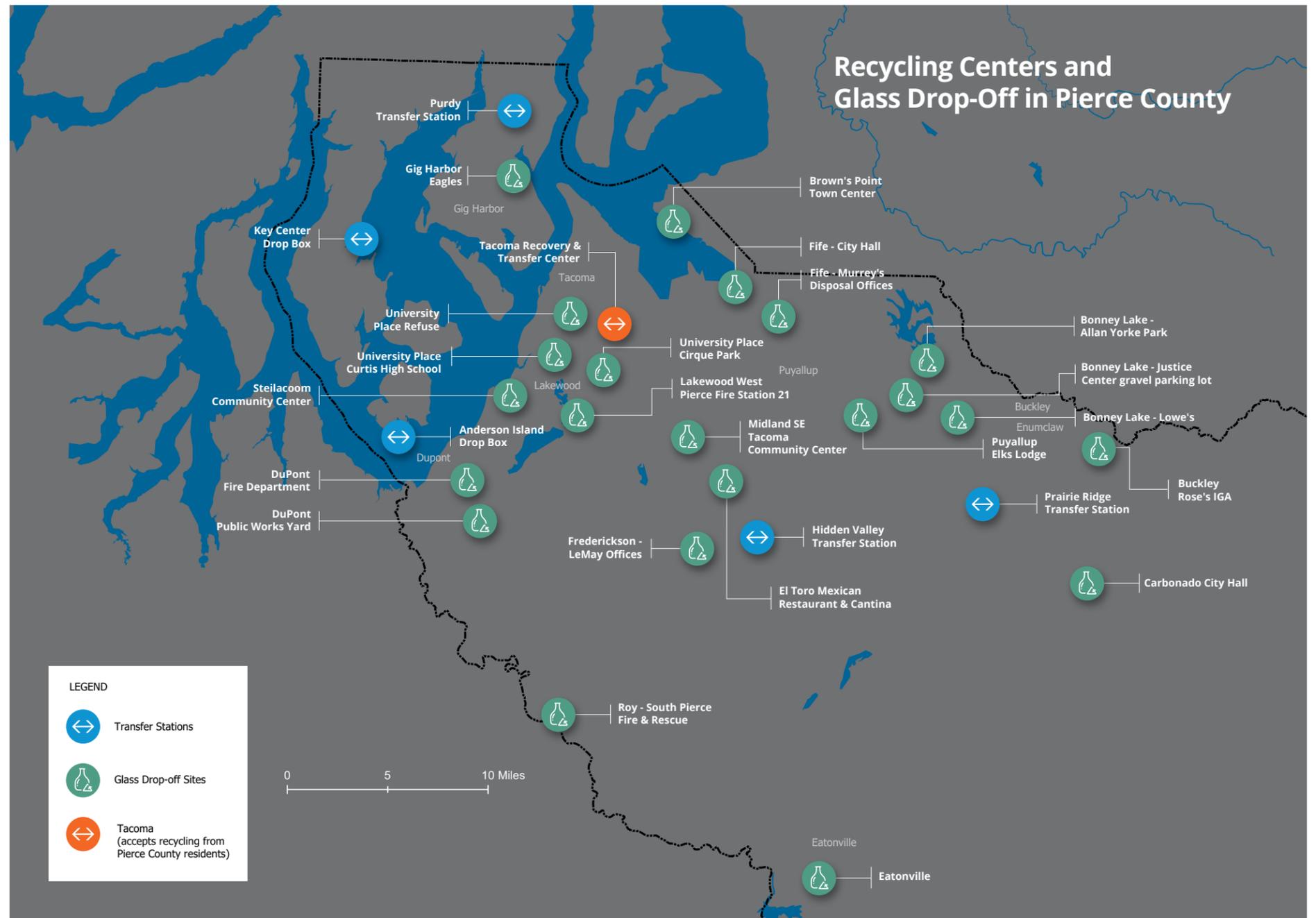
from other items. When collected with other items, glass breaks and glass shards contaminate paper recycling.

While glass is infinitely recyclable, it is relatively heavy and therefore expensive to transport. It does not make environmental sense for multiple trucks to drive separate glass routes around the entire county just for this material. Pierce County is fortunate to be located near a glass-to-glass recycling facility in Seattle. Source separated glass collected within the County is taken to [Strategic Materials](#) in Seattle for processing and ultimately ends up at [Ardagh Group](#) to be recycled into new products.

The glass collected at drop-off locations in Pierce County and the City of Tacoma is taken directly to this facility in Seattle where recovered glass is cleaned, sorted, and turned into new glass bottles. In addition to the nine recycling centers where Pierce County residents can drop off glass, there are 21 additional glass drop-off sites throughout the County. In January 2021, the City of Tacoma also opened four new glass drop-off locations, in addition to the Tacoma Recovery and Transfer Center. New glass drop-off locations can be difficult to locate. Ideally, they are in visible areas so that they are not used as illegal dumping sites. They also should not be near residential development because dumping glass into larger containers is loud and residents dump glass throughout the day and night.

5.2.7 Shred Events

Shredded paper was removed from Pierce County's recycling program in April 2019. Documents that residents shred at home are too small to be sorted at the MRF due to current shredding technology. Pierce County hosts free shred events for residents where private information remains secure and the shredded paper collected at the events is recycled. Pierce County had 16 shred events scheduled throughout the County for 2020, which were canceled due to COVID-19. Once public events are possible again, Pierce County anticipates offering a similar number of public events every year between April and October.



Map: combined map of glass drop-off



5.2.8 Source Separation Strategies

Commingled curbside service is available to Pierce County residents and is financially incentivized by the UTC (it costs less to have both trash and recycling rather than just trash). Additionally, there are five transfer stations and several glass drop-off sites throughout the County. The accepted materials list of recyclables is concise, nearly universal, and closely matches the City of Tacoma's list. Having a succinct list offers some resilience in an industry with swiftly changing markets. Pierce County recycling ends up at Pioneer Recycling in Frederickson, WA. Paper, cardboard, and metals have steady markets compared to plastics. Pierce County meets the Urban Rural Designation RCW requirements because curbside pickup is available for all communities.

5.2.9 Materials Accepted for Recycling

Materials accepted for curbside recycling in Pierce County are defined in [Pierce County Code – Chapter 8.29.030](#) “Minimum Levels of Curbside Recyclables Service for Single-family Residences” which states that the following items, at minimum, be collected: cardboard, metal cans, mixed-waste paper, newspaper, plastic bottles and jars. Per the code, prior to proposing any amendments to the list of materials collected for recycling Pierce County must discuss any proposed changes with the service providers.

Materials accepted for curbside recycling in the City of Tacoma are based on the approval of the Solid Waste Division manager and Environmental Services director. The current list includes: cardboard, mixed paper, newspaper, aluminum cans, steel cans, and plastic bottles, tubs, and jugs.

For a full list of materials accepted for recycling in Pierce County, see *Appendix I*.

For a full list of materials accepted for recycling in City of Tacoma, see *Appendix J*.

5.2.10 Contingency Plan

Recycling markets fluctuate, but we try to keep the items accepted for recycling as consistent as possible to reduce confusion among residents. In the case of future recycling market collapses, we would respond in the same way we adjusted to the global market fluctuations resulting from China’s National Sword. Pierce County met repeatedly with partners on an ad hoc basis to review each item on our accepted materials list and then announced changes across the system with the publication of our EarthMatters newsletter in April 2019. Periodic review of materials, with the goal of only accepting items with reliable markets that actually get made into new products, will also be part of the Stakeholder Round-table group

5.3 Contamination Reduction and Outreach Plan (CROP)

RCW 70A.205.045(10) states that counties with a population of more than 25,000, and cities within these counties with independent Solid Waste Management Plans (SWMP), must include a Contamination Reduction and Outreach Plan (CROP) in their local SWMP by July 1, 2021. Local governments can either adopt the State CROP or create their own. Pierce County has chosen to create its own.

Under RCW 70A.205.045(10), a local jurisdiction’s CROP must include the following elements:

1. A list of actions to reduce contamination in existing recycling programs for single-family and multifamily residences, commercial locations, and drop boxes.
2. A list of key contaminants identified by the jurisdiction or Ecology.
3. A discussion of problem contaminants and their impact on the collection system.
4. An analysis of the costs and other impacts on the recycling system from contamination.
5. An implementation schedule and details on conducting outreach.

Contamination reduction outreach may include improving signage, educating drop box customers about contamination and sharing community-wide messaging through newsletters, articles, mailers, social media, websites and community events.

Pierce County and the City of Tacoma have already implemented, or are in the process of implementing, many of the education and outreach strategies in the statewide CROP that are designed to fight recycling contamination, including:

- Accepted materials lists focused on the priority materials identified by Ecology for recovery (paper, cardboard, plastic bottles and jugs, and steel and aluminum cans)
- Unified messaging from our partners including using the same images for recyclable materials
- Color consistency for large garbage and recycling containers, where practical
- Consistent labeling scheme for large garbage and recycling containers across the County
- Free outreach materials and technical assistance to support multifamily recycling programs

The goal of our CROP is to identify and plan for appropriate community outreach, education and engagement strategies to reduce contamination and help optimize Pierce County’s recycling system. The full CROP can be found in *Appendix H*.

5.4 Planning Issues

How can we respond efficiently and effectively to fluctuating markets?

Recycling is based on fluctuating commodity markets. Despite these constant changes, we try to keep the items accepted for recycling as consistent as possible to reduce confusion among residents. We only accept items with reliable markets, so there are always buyers for our collected materials. This ensures those items are turned into new products instead of just taking a long, expensive trip through the MRF to the landfill.

Are there additional opportunities to align our program with neighboring jurisdictions?

Recycling is made more confusing for residents by having different regulations based on zip code. The more that cities, haulers, and the County can align programs and messaging, the easier things will be for customers.

Are we prepared to deliver honest answers to difficult or uncomfortable questions?

In recent years, conversations about recycling dependability, plastic pollution, and other similar topics have gained massive popularity. Consumers lose trust in the recycling system when articles and statistics circulate that emphasize the messiness and disappointing reality of recycling. To create a sustained and healthy program it is imperative that we have a trusting relationship with our MRFs (Pioneer Recycling and JMK Fibers) and can proudly share information regarding our collected recyclables and their fate in the market.



5.5 Actions

- ➔ **Recycling Action 1:** Develop new metrics by 2025 that prioritize GHG emissions reduction rather than diversion tonnage (recycling diverted from the waste stream going to the landfill).
- ➔ **Recycling Action 2:** Support and promote efforts throughout Pierce County to build a more circular economy and encourage businesses to use waste produced from one industry as raw materials for another industry (industrial symbiosis) through tools such as the [Washington Materials Marketplace](#).
- ➔ **Recycling Action 3:** Increase commercial recycling participation by improving the current business technical assistance program.

Chapter 6: Organics Management



6.1 Introduction

The 2018 Pierce County WTA data show that 20% of materials disposed of in the landfill are yard waste and food waste organic materials, and the 2015 City of Tacoma Waste Stream Composition Study shows that over 30% of landfill materials from Tacoma's system are organic materials. This portion of the waste stream is diverse, ranging from things that were very recently grown such as yard waste, to food waste and land-clearing debris.

Organic materials include, but are not limited to:

- Edible food
- Inedible food (e.g., bones, shells, pits, coffee)
- Yard waste
- Other organics (e.g., pet waste, hair)

Diverting organics through composting has the potential to maximize recovery of materials from the municipal waste stream. Compost has many benefits. When used as a soil amendment it enhances soil structure, increases soil nutrient retention, holds moisture, adds beneficial microbes to the soil ecosystem, and serves as a natural filter by mitigating or offsetting environmental harm caused by petroleum contaminants in storm water or carbon dioxide released by vehicle exhaust. Compost or other organic products such as biochar that end up back in the soil can also sequester carbon.

The Pierce County Environmental Education Team promotes managing organics at personal residences, when feasible, and provides classes on how to properly do this. These courses provide instruction on managing yard waste and certain food scraps at home rather than relying on the curbside yard waste system. The Institute for Local Self-Reliance hierarchy (see figure "How to Reduce Food Waste and Grow Community" on next page) supports the notion that at-home composting is preferred to relying on a centralized composting system. Continuing to encourage at-home composting for residents could result in numerous environmental benefits.



Along with efforts from the Environmental Education Team, Pierce County offers free meal planning notepads for residents as part of the *What's for Dinner?* program. Meal planning can help reduce food waste at the source by focusing on purchasing only necessary quantities of items. Residents can submit a form to request a free meal planning notepad and guide to get started. Residential yard waste in Pierce County does accept certain organics including fruit and vegetable trimmings and we work to make this messaging clear and easy to understand. With more and more “compostable” and “biodegradable” options in the market, it can be difficult for a consumer to know what can go in their yard waste cart.

An important challenge is matching the right part of the organics stream to the right technology. Studies such as the [Food Waste Reasonable Management Practices Study](#) explore the difference between organics compatible with existing composting technologies and those that are incompatible, or can be handled only with greater cost or community impact. Allowing other types of organics into City of Tacoma and Pierce County composting programs has the potential to degrade the quality of finished compost now being produced and may require taking organics to another facility.

Pierce County and the City of Tacoma recognize the importance of the state goal to reduce food waste by 50% by 2030. Pierce County does not have the appropriate infrastructure to handle food waste in existing composting facilities which are already at capacity with the currently accepted organics materials stream. Food waste, which is heavy, wet, and inconsistent by nature, takes more time to break down and could create problems in our current system that would result in a poorer quality of compost for end users. Pierce County proposes focusing on reducing food waste on the front end through education and targeted food waste reduction programs. The second approach is to maximize the capture of GHG at our landfills and sewer treatment facilities. By reducing on the front end and making sure that GHGs are captured at the end of life, we are making the most of our current system. Should future grant funding be available, Pierce County will look at new technologies, like biodigesters, to handle food waste.

On a periodic basis, at least every five years, the SHWM stakeholders will review emerging technologies for organics and food waste processing. Feasible options for implementation will be evaluated

through the research and development portion of Pierce County's contract with LRI and/or through grant funding from the state or other sources.





6.2 Conditions Assessment

6.2.1 City of Tacoma

In Tacoma, residential food and yard waste is picked up on the opposite weeks of garbage and recycling. There is no extra charge to receive bi-weekly collection of up to two 90-gallon brown yard/food waste containers. A third yard/food container is available for \$3/month. Residential customers may also take yard waste directly to the [Tacoma Recovery & Transfer Center](#).

Commercial customers in Tacoma can take advantage of the yard/food waste program. This program helps businesses and multifamily dwellings of three or more units become more sustainable by reducing the waste we send to the landfill and processing organic materials into compost. For more information, visit our [Commercial Food Waste](#) page.

6.2.2 Pierce County

In Pierce County, [yard waste](#) is subsidized by the garbage rates. Collection is available for a minor fee based on the cost of the transportation. Residents can bring up to a ton of yard waste for free to the yard waste facilities listed in *Appendix K*. Starting in 2021, commercial-sized yard waste loads (exceeding one ton) will pay a fee set by LRI. There is a possibility that this subsidy could be removed in the near future for some or all self-haul yard waste.

Accepted Yard Waste in Pierce County

- Brush, branches and roots (smaller than 4 inch diameter)
- Leaves
- Grass clippings
- Fruit and vegetable trimmings
- Weeds
- Flowers
- Plants
- Shrubs

For a full list of Pierce County yard waste facilities, see Appendix K.



6.2.3 Other Food Waste Reduction Programs

Examples of other food waste programs that handle organics and are not part of the City of Tacoma or Pierce County system:

- **Cedar Grove Commercial Compost** - Cedar Grove collects and composts commercial source-separated food waste from large generators, including schools.
- **Harvest Pierce County and Gleaning** - Pierce County Sustainable Resources supports Harvest Pierce County and the Pierce County Gleaning projects through our partnership with the Pierce Conservation District. Harvest Pierce County helps a network of over 80 community gardens feed local people. The Gleaning Project is a volunteer-powered program of Harvest Pierce County that works to reduce local produce waste, provide more fresh food to those in need, and build community.
- **Nourish Pierce County** - Works to repurpose food waste from grocery stores to provide food for food banks.

6.3 Alternatives

Pierce County is committed to exploring and evaluating alternative waste management technologies. By exploring the wide range of alternatives, the County will better be able to avoid the problems that have arisen in other jurisdictions from utilizing technologies that may not have been fully scrutinized and may not actually meet the needs of the users. The evaluation of each alternative considers economic impacts such as cost of service, environmental impacts, and effects on the County solid waste management system's carbon footprint.

Each alternative (e.g., processing technology and programmatic options) will be evaluated for its feasibility to be implemented as part of Pierce County's solid waste management system. A critical factor will be a successful operating history of similar programs and processing technologies in the United States and North America.

Three identified areas allow evaluations to progress into more detailed analysis:

- **Food Waste Reduction:** focuses on ways to reduce the need for food waste collection and off-site processing through substantially greater attention to reducing the generation of organics at the source and promoting on-site reuse.
- **Sector Based Programs:** defines program elements for the single-family residential, multifamily residential, commercial, and self-haul sectors utilizing composting and anaerobic digestion technologies.
- **Landfill Disposal and Landfill Gas Beneficial Use:** evaluates the current management practice of disposing food waste in the landfill from the landfill perspective and considers the effects of diversion on landfill gas generation and energy production.

Each area is further sub-divided into program elements of various intensities. For example, a low intensity program element may yield a portion of food waste but could be implemented with little cost to

the customer and may result in less impact to the environment and carbon footprint. A high intensity program element may yield greater volume of food waste, but at higher cost to the customer with potentially greater environmental and carbon footprint effects.

Program elements may be implemented alone, or a program may be designed as a combination of multiple elements. Projected outcomes will vary based on the type and intensity of elements selected.

Reasonableness of each program element can ultimately be determined if the costs and environmental and carbon footprint effects do not outweigh the benefit a program element achieves.

6.4 Planning Issues

Given that the current facilities are at capacity, how will Pierce County manage and reduce food waste in the future?

Pierce County and LRI have started to take steps to reduce the tonnage of yard waste coming to Pierce County facilities by putting a price on commercial volumes of yard waste. We are working to avoid composting facilities becoming full as happened during busy parts of 2017-2020. By reducing the subsidy on yard waste, we expect to continue to get fewer tons of yard waste at our facilities and ultimately reduce the cost of garbage service. Additionally, some yard waste materials are going out of Pierce County to LRI's Silver Springs facility for composting.

How can residential and commercial food waste collection programs be designed to better address low customer adoption rates and logistical issues?

Diverting food waste from disposal in the landfill can be challenging because of the characteristics of food waste. The City of Tacoma and Pierce County collections programs allow food waste within some

guidelines to be collected in the yard waste bins for composting, but customer participation has remained limited due to issues with odors, vectors, and the messiness of sorting out food waste from other garbage. There are also concerns that large volumes of post-consumer food waste in the existing compost processing system may negatively impact the composting process and end product.

The source-separated commercial food waste collection programs that have been piloted and established in Pierce County and the City of Tacoma have encountered similar barriers to customer participation. In addition to odors, vectors, and messiness, commercial customers that generate larger volumes of food waste have issues with the weight of food waste exceeding the capacity of collection containers and challenges with containing liquid waste that may be generated. The collection routes, which service a small number of customers spread over a large geographic area, are also inefficient.

How can the City of Tacoma and Pierce County continue to reduce food waste, including supporting the food security outcomes of the state plan?

Reduction of food waste is a broad challenge that extends beyond the scope of the Solid Waste Management systems, which only directly addresses the final stage in the production, distribution, consumption, and disposal life cycle of food waste. Achieving the outcomes of the state plan will depend on partnerships between the different agencies and industries that are involved with all the stages of the life cycle of food production and consumption.

One of the key strategies for reducing food waste is through education and outreach to change consumer behavior and reduce the amount of food that is purchased and ends up being wasted. This can be incorporated in the communication and education messaging that is targeted to our customers. It will be helpful if the messaging that Solid Waste Management is delivering is consistent with messaging from other sectors, which can be coordinated with the state plan.

Food waste reduction efforts should focus on strategies that are upstream in the life cycle, where there is the greatest potential impact. Some of the elements that the State Department of Ecology Food Waste Reduction Act Plan calls for include:

- Recommending regulations that support safe food donations
- Identifying stable funding for food waste reduction efforts and food waste management
- Indicating opportunities for technical support for organizations working in food waste recovery and prevention
- Helping develop K-12 food waste reduction
- Facilitating safe food donations from restaurants and food markets
- Recommending best management practices for local governments to incorporate into their local solid waste management plans
- Continue to offer educational classes to teach at-home composting courses

What are the best options for GHG reduction in dealing with food waste?

Our current compost facilities cannot effectively take more food waste and still create a quality compost product. Pierce County will continue to look at different technology solutions for dealing with food waste including biodigesters. Pierce County is focused on capturing as much methane from the landfill as possible. We are also focused on education to reduce food waste and supporting non-profits who work in this field.



6.5 Actions

➔ **Organics Management Action 1: Review and adopt system and infrastructure best practices once the Washington State Food Waste Reduction Plan/Use Food Well Plan is released.**

➔ **Organics Management Action 2: Determine options and recommendations, including GHG analysis, for residential and commercial food waste subsidies, fees, and disposal.**

➔ **Organics Management Action 3: Maximize the amount of GHG captured at the LRI landfill.**

Chapter 7: Moderate Risk Waste





7.1 Introduction

The Tacoma-Pierce County Local Hazardous Waste Management Plan (LHWMP; or “Plan”) was first created in 1991 in response to the Washington State Hazardous Waste Management Act (RCW 70A.300). This act required local jurisdictions to develop a plan for the safe and responsible management of hazardous wastes generated by residents, businesses, or institutions generating small quantities of hazardous waste.

The 1991 Plan focused on what the Washington State Department of Ecology termed “moderate risk waste” (MRW). MRW is defined as any waste that exhibits the properties of hazardous waste but is categorically or conditionally exempt from regulation solely because the waste is generated in quantities below the threshold for regulation or is generated by households from the disposal of hazardous substances. Additionally, the Plan was further modified to include used oil recycling elements under the Washington State Used Oil Recycling Act (RCW 70A.224.005).

The 1991 Plan provided a comprehensive assessment of MRW generation, handling and disposal practices. It explored existing infrastructure, and financing and identified contaminated sites to provide a broad view of relevant conditions. Recommendations were created as part of this initial Plan and focused primarily on reduction of hazardous substances and proper management of MRW. Through public education initiatives, permanent MRW collection services and technical assistance/compliance programs, many of these goals were achieved and established services we see today.

The plan update carries the process forward reviewing work done in response to the 1991 Plan and more recent efforts. The plan will continue to emphasize a waste management hierarchy in which waste prevention is the top priority followed by recycling, treatment, incineration, solidification/stabilization, and as a last resort, land disposal. Additionally, the Plan update will incorporate new waste reduction strategies and goals to reduce the threat of toxics posed by MRW.

The Tacoma-Pierce County Local Hazardous Waste Management Plan is incorporated into the Pierce County SHWMP.

Integrating the two planning documents will provide consistency with state planning efforts. In 2004, Washington State first combined the solid and hazardous waste plans into a single planning document, entitled Beyond Waste. Beyond Waste focuses on reducing the use of toxic substances, decreasing waste generation, increasing recycling and properly managing those wastes that remain. Additionally, the state plan provides greater focus on partnering between government, industry, non profit, academia and local communities in working to achieve waste reduction goals.

This update, and inclusion in the retitled: Tacoma-Pierce County SHWMP will serve to revise and supersede the Local Hazardous Waste Management Plan approved by the Washington State Department of Ecology in 1991.



7.2 Legal Authority

Tacoma-Pierce County's MRW programs are conducted and regulated under multiple laws, regulations and decrees. This section provides a summary.

7.3 Federal

7.3.1 Resource Conservation and Recovery Act (RCRA)

The 1976 Resource Conservation and Recovery Act (RCRA) provides a comprehensive framework for managing solid and hazardous waste to eliminate or minimize public health threats and environmental contamination. RCRA was modified by the Hazardous and Solid Waste Amendments (HSWA) in 1984. HSWA revised the minimum technical standards for the design and operation of solid waste facilities due to concerns about the disposal of unregulated quantities of hazardous waste at municipal landfills. RCRA Subtitle C, the hazardous waste management program, and Subtitle D, the solid waste program, provide the primary sources of federal regulation associated with household and small quantity generators (SQG) hazardous waste. Subtitle C establishes a framework for managing hazardous waste by regulating generators who produce and accumulate hazardous waste in quantities above limits specified by EPA or state rules; waste transporters; and treatment, storage and disposal facilities (TSDs) handling the waste.

Hazardous waste generated or stored in quantities above the limits specified by EPA or state rules must be tracked by manifest from the point of generation to the ultimate disposal site, better known as "cradle-to-grave" tracking. Household hazardous waste (HHW) is categorically exempt from RCRA regulation. The EPA implements and enforces RCRA, although Subtitle C administration and enforcement may be delegated to states that meet or exceed Subtitle C requirements. Washington State has been authorized to implement the RCRA Subtitle C program, and Ecology administers it. RCRA, Subtitle D, encourages state-governed solid waste

management plans and sets out the minimum technical standards for construction and operation of solid waste disposal facilities. Subtitle D requires a permit program to ensure that landfills receiving HHW and SQG hazardous waste meet minimum standards to prevent the release of contaminants.

7.3.2 Universal Waste Rule

In 1995, the EPA adopted the Universal Waste Rule, 40 CFR Part 273, to allow generators of certain hazardous wastes to use alternative regulatory requirements for those wastes in place of the more complex hazardous waste requirements. Wastes covered by the Universal Waste Rule (UWR) are typically generated in small quantities by numerous businesses. They include batteries, mercury bearing thermostats and fluorescent lamps. The UWR is intended to promote recycling as well as proper disposal, and eases some of the regulatory requirements for storing, collecting, and transporting universal wastes. Since states are free to adopt any portion of the UWR, there is flexibility in regulating the specific waste streams. States may also petition to allow additional wastes to be managed under the UWR at the state level, without having them added to the list of federal universal wastes. The easing of full RCRA Subtitle C regulations for certain universal wastes is intended to encourage more extensive collection and recycling programs for these wastes.

7.3.3 Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), more commonly known as the "Superfund" act, complements RCRA by providing for the cleanup of sites contaminated by hazardous waste. Many of the sites addressed under CERCLA are inactive or abandoned, having been contaminated before RCRA was enacted, when little was known about the effects of hazardous chemicals on human health and the environment. CERCLA

provides EPA with the financial resources and authority to clean up contaminated sites. The EPA, along with state regulatory agencies, may arrange for the cleanup of contaminated sites by entering into agreements with responsible parties, issuing orders to require cleanup, or directly performing the cleanup.

7.4 State

Hazardous Waste Management Act (HWMA) – (Chapter 70A.300 RCW) regulates the transport, treatment, storage and disposal of hazardous waste. The statute requires the development of statewide and local hazardous waste management plans, dangerous waste regulations that address all components of hazardous waste generation, handling and disposal, and criteria for siting hazardous waste management facilities.

Dangerous Waste Regulations – (Chapter 173-303 WAC) implements HWMA statute requirements, including in part 70A.218, 70A.305, 15.54 RCW, and Subtitle C of Public Law 94-580, the Resource Conservation and Recovery Act (RCRA). Washington uses the term “dangerous waste,” while federal law uses the term “hazardous waste.” Washington’s Dangerous Waste Regulations, while based on the federal RCRA, are more protective than federal rules. The term “dangerous waste” includes more wastes than the federal definition.

Model Toxics Control Act (MTCA) – The Model Toxics Control Act (RCW 70A.300) provides for the identification and cleanup of contaminated sites in Washington State. The act assigns liability for damages to the environment and human health, provides enforcement authority to Ecology, and establishes penalties for failure to comply with Ecology orders. The state toxics control account, created by the statute, funds state hazardous and solid waste planning, enforcement and technical assistance, remedial actions, public education, and emergency response training. Local accounts created by the statute provide grants to local governments for remedial actions and local solid waste and hazardous waste programs.

Solid Waste Management Act (SWMA) – Chapter 70A.205 RCW regulates solid waste handling and disposal. This law provides for

the development of a statewide solid waste management plan and local solid waste management plans, establishes minimum functional standards for solid waste handling and disposal and criteria for siting of solid waste facilities. It also establishes a waste management hierarchy where waste reduction and recycling are the most preferred management options, while land filling is least preferred.

Solid Waste Handling Standards – Chapter 173-350 WAC revised in 2018, set a minimum functional performance standard for the proper handling and disposal of solid waste originating from residences, commercial, agricultural and industrial operations and other sources. This chapter is adopted locally as Tacoma-Pierce County Environmental Health Code, Chapter 12 Solid Waste Handling Standards. Established under Tacoma-Pierce County Board of Health Resolution 2019-4601.

Used Oil Recycling Act (UORA) – Chapter 70A.205 RCW required each local hazardous waste management plan to establish used oil collection locations based on local objectives, enforce sign and container requirements, educate the public on used oil recycling, and create funding estimates for used oil collection. Local governments must submit annual reports to Ecology describing the number of collection sites and amounts of used oil collected from households. Requirements for transport, treatment, recycling and disposal of used oil are also stipulated in the Used Oil Recycling Act.

Minimal Functional Standards for Solid Waste Handling (Chapter 173-304 WAC) prohibits the disposal of dangerous wastes, including household hazardous wastes, to landfill. Owners or operators of landfills shall not knowingly dispose, treat, store, or otherwise handle dangerous waste unless the requirements of the dangerous waste regulation, Chapter 173-303 WAC, are met.

7.5 State – Extended Producer Responsibility (EPR)

EPR- Electronic Product Recycling – Chapter 70A.205 RCW Electronic Product Recycling Act created a free, convenient and

environmentally responsible electronics recycling program in 2009. The program offered responsible recycling for common consumer electronics including computers, tablets, monitors, televisions and e-readers. Recycling is free of charge to households, small businesses, school districts, local governments and charities. The program has collected over 426 million pounds of electronic wastes (2021).

Most electronics are disassembled and recycled in Washington state. Toxic materials such as batteries, leaded glass, circuit boards and mercury tubes are managed by approved recyclers, with less than 2% of the total volume going to landfill. The program is producer-funded and was established by legislation under the Electronics Product Recycling Act (RCW 70A.205) and codified by regulation under WAC 173-900.

EPR- Mercury-containing Lights – Chapter 70A.505 RCW Mercury-Containing Lights Act created a producer-funded program for the collection, management and recycling of mercury containing lamps in 2013.

Operated as Light Recycle Washington, over 200 locations are available for both residents and businesses to drop off unwanted fluorescent, CFL and HID lights. Mercury-containing lights are transported to an authorized processor for recycling. Processors are regulated by the EPA and others to ensure compliance with environmental and worker safety regulations.

RCW 70A.505, Mercury-Containing Lights-Proper Disposal, is subject to review, termination, and possible extension under the Sunset Act (RCW 43.131.422) by July 1, 2026. If the program is extended, no change to policy will occur in relation to collection and management of mercury-containing lights covered by the stewardship program. If the product stewardship program is terminated, Pierce County hazardous waste facilities will likely see increased collections because other locations in the County will no longer be collecting these lights. This issue will be addressed in the first update to this SHWMP.

EPR- Drug Take-Back Program

Chapter 69.48 RCW

The Drug Take-Back Program created a unified, statewide, medication return program for the collection and disposal of covered drugs in 2020. Administered by the Washington State Department of Health and funded by pharmaceutical producers, Washington State's Drug Take-Back Program became the first statewide extended producer responsibility (EPR) program for residential medications in the nation. The program builds upon successful EPR programs developed at a county level and is currently operated by MED-Project, a stewardship program operator. The Department of Health will monitor on-going operations, manage enforcement and will evaluate the program's effectiveness over time.

EPR- Architectural Paint Stewardship Program

Chapter 70A.515 RCW

Designed by paint manufacturers, with oversight by the Washington State Department of Ecology, the Architectural Paint Stewardship Program (2021) will provide Washington residents and businesses a better way to manage leftover paint. PaintCare, representing paint producers, will establish a network of drop-off sites. Paints will be sorted and managed for reuse, recycling, energy recovery or safe disposal. In general, the program will cover house paint and primer, stains, sealers and clear coatings and will be funded through fees on each container of architectural paint sold in Washington.

Local Regulation

The Pierce County and City of Tacoma Memorandum of Agreement is an inter-local agreement established in 1992 between the City of Tacoma and Pierce County created to ensure all residents within the County have access to all publicly funded household hazardous waste collection sites. Residents are required to provide proof of residency, including zip code, for data and reimbursement tracking.



7.6 Conditions Assessment

Determining what actions to take to improve moderate risk waste programs and services requires examining existing conditions. RCW 70A.300.350 requires the LHWMP and subsequent plan updates to assess the quantities, types, generators and fate of MRW in each county.

Additionally, Ecology guidelines suggest that an examination of dangerous wastes management conditions be performed. This helps to provide a broader assessment of Pierce County activities by identifying and addressing dangerous waste generators, contaminated sites, transporters, treatment storage and disposal facilities, and the locations where hazardous wastes facilities can be sited.

7.6.1 Moderate Risk Waste Inventory

Moderate risk wastes are those waste materials that have the characteristics of hazardous wastes (flammable, corrosive, toxic and/or reactive), but are not regulated by federal or state hazardous waste rules because they are either generated in the home, or in relatively small quantities by businesses or institutions.

MRWs are generated when hazardous substances are no longer needed and require disposal. Individuals and businesses often choose not to dispose of materials if they can be used at a future date. Therefore, many hazardous substances are speculatively kept. Materials can often be stored for many months to decades.

It is difficult to determine the quantity of MRW that exists in Pierce County for many reasons. Generation of MRW can be cyclical and even seasonal depending upon the types of hazardous substances. However, there are basic assumptions to determine potential quantities of MRW.

There are nearly 355,000 homes, rental units and apartments in Pierce County, with each residence potentially storing hazardous substances. It is commonly estimated that a typical household has on

average 100 pounds of hazardous substances. This can include items such as paints and thinners, motor oil, garden chemicals, bleach, cleaners, batteries and compact fluorescent light bulb (CFLs). This equates to well over 17,750 tons of hazardous substances stored in the home that could potentially become a MRW.

Approximately 20,000 employers are licensed in Pierce County. They range from one person shops to large businesses and institutions. However, not all these businesses generate MRW. The Washington State Department of Ecology does identify specific businesses that have the greatest potential to generate hazardous or moderate risk wastes. Ecology assesses an annual 'environmental education' fee to approximately 2,200 businesses in Pierce County. This is based on their NAICS business classification code. Subtracting out regulated businesses (200), those identified as large or medium quantity generators, we can assume that there are approximately 2,000 businesses or institutions that are potential MRW generators.

An EPA survey suggests that small quantity generators (SQGs) generated on average 900 pounds per year of hazardous waste. Most SQGs were in the non-manufacturing sector (80%) and include industries such as automotive/auto body repair, dry cleaners, construction and landscapers. This number only represents federally regulated hazardous wastes and does not include Washington state only dangerous wastes. Quantity estimates can vary, but it can reasonably be assumed that Pierce County SQGs generates between 900-1500 tons of moderate risk wastes per year.

Based on Washington State Department of Ecology data, nearly 500 businesses in Pierce County used regional treatment storage and Disposal Facilities for managing MRW.

7.6.2 Waste Characterization

In 2019, multi-seasonal waste characterization studies were released by Pierce County Planning and Public Works and the Washington State Department of Ecology. These studies identified

and categorized wastes coming through solid waste transfer stations from both residential and commercial properties. These studies indicated that hazardous wastes composed approximately .33- 3.59% of the municipal solid waste stream. However, these studies used different descriptions to classify materials, and in some cases counted materials that would not meet the definition of a MRW (items included traditional solid waste like disposable diapers and residential sharps). Based on these studies, waste meeting the definition of hazardous waste were <1% of the total solid waste stream.

Although a small percentage, this represents 3,000 tons of materials improperly landfilled and presents an opportunity for program improvement.

7.6.3 Dangerous Waste Inventory Generators

Pierce County has nearly 500 facilities registered with the Washington State Department of Ecology as dangerous waste generators. These facilities hold a federal or state issued EPA identification number.

Large and medium-quantity generators are regulated by the Washington State Department of Ecology. It is Ecology which performs periodic compliance inspections, receives and reviews annual waste reports, and encourages generators to reduce waste through an annual pollution prevention planning program.

SQGs are those facilities that generate <220 pounds per month of dangerous wastes, not to exceed the accumulation of 2,200 pounds. These wastes are conditionally excluded from the dangerous waste regulations and are therefore considered an MRW. SQGs are not required to register with the EPA or the Washington State Department of Ecology. Those SQGs, or non-generators, listed here have chosen to maintain an EPA identification number. A generator status may change from year-to-year based on the quantities of dangerous waste produced.

A complete list of small, medium and large quantity generators is provided in *Appendix L*.



Remedial Actions

Appendix M, published February 2021, is an inventory of listed Hazardous Sites (WAC 173-340-330). It includes all sites that have been assessed and ranked using the Washington Ranking Method. Also listed are National Priorities List (NPL) sites.

Sites on the Hazardous Sites List (excluding NPL sites) have undergone a preliminary study called a Site Hazard Assessment (SHA). A SHA provides Ecology with basic information about a site. Ecology then uses the Washington Ranking Method to estimate the potential threat the site poses to human health and the environment if not cleaned up. The estimate is based on the number of contaminants, how toxic they are, and how easily they can encounter people and the environment. Sites are ranked relative to each other on a scale of one to five. A rank of one represents the highest level of concern relative to other sites, and a rank of five the lowest. Hazard ranking helps Ecology target where to spend cleanup funds. However, a site's actual impact on human health and the environment, public concern, a need for an immediate response, and available cleanup staff and funding also affect which sites get priority for cleanup.

Haulers

Dangerous wastes must be safely transported. Transportation is a key link in the "cradle-to-grave" documentation system for dangerous wastes. This ensures that wastes are tracked from the time they are first created until they are properly treated, disposed or recycled. *Appendix N* includes a list of registered dangerous waste haulers in Washington State.

Treatment and Storage Facilities

Appendix O includes facilities in Pierce County that accept both hazardous and moderate risk wastes from commercial entities.

Zone Designation

As required by RCW 70A.300.370 Pierce County must identify zoning districts where hazardous waste facilities would be permitted to operate. Each city or county identifies these zoning districts within their respective zoning codes. Requirements must be consistent with the state's hazardous waste siting criteria and must allow hazardous waste processing or handling.

According to the Washington State Department of Ecology records, the following communities have approved land use zones, or have received approval of their request for an exemption from the zoning requirements: Auburn (part); Bonney Lake, Dupont, Eatonville, Pacific (part); Puyallup, Ruston, Steilacoom, Sumner, and Tacoma.

Moderate Risk Waste Programs and Services

Much has changed since the development of the first local hazardous waste management plan in 1991. MRW programs and services exist today that are both familiar and frequently used by Pierce County residents and businesses. Many of these programs are time tested and valued. They include household hazardous waste drop-off facilities, used oil collection sites, products stewardship take-back locations and business technical assistance and residential outreach programs. The following provides a summary of current activities.

It should be noted that many of these activities are ongoing and are continuously evaluated for effectiveness, reach and quality improvement. Programs and services continue to inform, educate and direct residents and businesses to available resources. Sustained emphasis continues to be placed on toxic reduction (i.e. reducing or eliminating the use of hazardous chemicals or identifying safer chemical choices) and actions that prevent pollution. Through the LWHMP update we will work to identify gaps in service and develop new programs and services that add value to all Pierce County residents and businesses.

Household Hazardous Waste

As identified in the MRW inventory, nearly 18,000 tons of hazardous substance are stored in home cabinets, garages, basements or sheds that one day may be discarded and require special handling and disposal. Household hazardous wastes (HHWs) are those leftover household products that may be flammable, corrosive, reactive or toxic and if improperly managed can impact human health or the environment.

Since 1991, no-cost collection and disposal services have been offered to Pierce County residents to ensure HHWs are properly managed. HHWs are collected at permanent collection sites, through mobile collection events, and at retailers participating in product take back programs. Many of these services are familiar to Pierce County residents and help to preserve and protect our community's land, air and water.

Collection Facilities

Tacoma

Beginning in 1990, the City of Tacoma began offering daily HHW collection services. However, it was not until 1994 that the present facility was constructed. Located at the City of Tacoma Recovery and Transfer Center in Central Tacoma, the facility currently offers drop-off services seven days a week for both city and county residential customers, though operating hours are temporarily limited due to COVID-19. The facility averages over 8,000 participants per year, with over 125 tons of MRW collected in 2019.

The HHW facility is operated by the City of Tacoma Solid Waste Management Division, with annual expenditures of \$610,000 (as of 2020). An inter-agency agreement established between the City of Tacoma and the Pierce County Solid Waste Division in 1992 ensured access to this facility for all residents of Pierce County.

Pierce County- Hidden Valley

In 2005 an HHW collection facility was established at the Hidden Valley Transfer Station near Graham in central Pierce County. This facility is currently open two days a week for residential customers. MRWs are accepted at a secured area located inside the transfer station where materials are sorted and segregated by hazard class.

The Hidden Valley Transfer Station hosted several weekly collection events for two years prior to the establishment of the permanent facility. The site is owned by Pierce County and managed by LRI. MRW management services are subcontracted to Clean Earth, Inc, as of 2021. The facility had over 2,600 participants in 2019, with MRW collection exceeding 66 tons, excluding used oil.

Pierce County- Purdy

In 2012, Pierce County began offering limited MRW collection services at its Purdy Transfer Station located near the city of Gig Harbor on the Key Peninsula. The facility was open two days per month servicing residents in the north-western portion of Pierce County.

The site is owned by Pierce County and managed by LRI. Collection services were discontinued in 2017 due to limited funding. Future use of this site for MRW collection services continues to be evaluated.

Pierce County- Joint Base Lewis McChord

In 2010, Joint Base Lewis-McChord began offering limited HHW collection services to members of the US Military. This is exclusively for MRW generated from on-base housing units. MRW generated off-base is not accepted. This service was established to assist military personal removing hazardous substances from the home prior to deployment or reassignment. In 2019, the approximately 175 participants who used the facility generated 14.29 tons of MRW excluding used oil.

7.6.4 Mobile Events

Pierce County and the City of Tacoma have provided mobile household hazardous waste collection events since 1987. These events are typically provided in underserved portions of the City of Tacoma or Pierce County. Mobile collection events have occurred with some frequency since 1993. However, funding reductions have limited the number of events in recent years.

The City of Tacoma continues to provide two annual mobile collection events within the city limits. They include a week-long summer collection event in North East Tacoma (bordering King County), and a one-day event provided for members of the Puyallup Tribe of Indians.

7.6.5 Extended Producer Responsibility (EPR)

Recently, EPR (or product stewardship) programs have become more prevalent in helping local communities manage MRWs, or toxic products that require special handling. EPR is a practice or policy approach where producers take responsibility for the management and disposal of products they create once those products are no longer considered useful by the consumer. These programs often shift the cost burden of disposal from government to the product manufacturer. EPR program operating costs may be recouped by either a point-of-sale charge on a new product or by incorporating cost into the product's sale price. Producers are typically responsible for meeting specific performance goals such as: establishing collection sites that meet a convenience standard, assuring consumer awareness, providing safe and responsible recycling or disposal and reporting total wastes collected and program costs annually.

Washington state has enacted product stewardship legislation for electronics, mercury-containing lamps, residential pharmaceuticals and architectural paints-coatings. Other stewardship programs established by industry without statute include consumer batteries. EPR program collection sites are frequently established at retail locations where the product can be purchased. Local and state governments help to promote EPR programs while relying on retailers and consumers to take an active role in ensuring waste is properly collected and managed.

Tacoma-Pierce County Health Department will continue to track and support statewide EPR legislative efforts that provide benefit to residents, businesses and the environment.



7.6.6 HHW Education and Outreach

The importance of educating the public in the proper management of MRW cannot be understated. Education programs help to raise awareness of health, safety and environmental issues associated with hazardous substances, encourage the use of less toxic products and keep residents informed on proper handling and disposal practices.

Digital Resources and Guidance: Many local governments and EPR/stewardship programs have developed public websites and digital materials to instruct residents on the proper handling and disposal of HHWs. Examples include Pierce County's recycling menu, which identifies wastes by category, including HHWs, with resources and general instruction on recycling and disposal. The Tacoma-Pierce County Health Department has developed brochures educating residents on used oil recycling, paint disposal and pesticide management. Additionally, EPR/stewardship programs provide residents with resources to help with minimizing waste and locally recycling or disposing of electronics, paints, light bulbs and residential pharmaceuticals.

Public Information/Call Lines: The Tacoma-Pierce County Health Department has provided a toll-free call line since 1992, to assist residents with questions on MRW handling and disposal practices. The Health Department receives on average 700-900 calls per year. Many questions are answered through prepared Q&A modules for items such as paints, used oil, mercury lamps, asbestos and pharmaceutical wastes. Callers have direct access to an environmental health specialist for specific questions. Additionally, the City of Tacoma's HHW facility receives 500-600 calls per year.

Presentation and Promotion: Pierce County residents receive information on how to reduce toxic chemicals inside and outside the home and where to take MRWs for disposal through scheduled

presentations and promotion at community fairs and festivals. For example, the Tacoma-Pierce County Health Department provided seminars since 2009 that have instructed thousands of Pierce County residents on the '5-Steps to Natural Yard Care'. These steps help to reduce the use of harmful pesticides and herbicide. Additionally, Health Department staff typically participate in 8-12 community events per year with portable displays and educational materials about HHW.

7.6.7 Business Collection Assistance

MRWs generated by businesses are not currently accepted at the HHW facilities or mobile collection events. The City of Tacoma and Pierce County's solid waste authorities have determined that existing private companies can provide MRW collection services to businesses.

Pierce County will continue to evaluate collection and disposal options for SQGs. Several counties in Washington state provide collection and disposal programs for small generators. These services are typically funded through a fee-for-service charge, and cover material and labor costs associated with the SQG collection program.

7.6.8 Business Technical Assistance

Pierce County offers several technical assistance programs to assist SQGs. EnviroStars, managed locally by the Tacoma-Pierce County Health Department, was first launched in 1999 and is funded through the Local Solid Waste Financial Assistance (LSWFA) grant. It provides technical assistance, incentivizes businesses to reduce hazardous substances and wastes and encourages businesses to set sustainability goals. Business participation is free.

In 2016, EnviroStars was relaunched as a statewide program providing all Washington businesses with a single, trusted source

for all environmental actions. Additionally, the Tacoma-Pierce County Health Department provides a toll-free hazardous waste hotline for questions about commercial hazardous wastes.

Pollution Prevention Assistance (PPA) programs, offered by the Tacoma-Pierce County Health Department, City of Puyallup, and City of Sumner, perform business technical assistance visits. PPA programs direct businesses to resources and provide information on best management practices that help businesses meet regulatory requirements and protect the environment.

The Commercial Hazardous Waste Assistance (CHWA) program is offered by the City of Tacoma for in-city businesses. Staff assist with disposal recommendations, storage and handling best practices and connecting businesses with private hazardous waste contractors. The program averages over 300 business visits per year (as of 2018-2019).

Additionally, local governments have water resources protection/water quality programs that offer technical assistance to businesses, in part, focused on MRWs handling and storage.

7.6.9 Compliance and Enforcement

Apart from prohibiting dangerous wastes/MRWs from direct disposal to landfill, per chapter 173-304 WAC, most compliance and enforcement activities are focused on providing technical assistance aimed at educating SQGs on proper characterization, handling and disposal of MRWs. Education is the primary means of obtaining compliance.

Pierce County has limited authority over dangerous wastes. However, if during a non-regulatory or technical assistance visit it is determined that there is an immediate threat to public health or the environment, the activity would be referred to the Washington State Department of Ecology and other appropriate regulatory agency for enforcement.



7.6.10 Used Oil

A key outcome of the 1991 Tacoma-Pierce County LHWMP was the establishment of a used oil recycling program. As required by the Used Oil Recycling Act (70A.224), each local government is required

to include a used oil recycling element as part of its LHWMP. Used oil continues to be considered a priority waste due to the large volume generated, its value as a recyclable resource and its potential, if improperly managed, to contribute to pollution that endangers public health and the environment.

The 1991 LHWMP met the requirements of the Used Oil Recycling Act by developing specific used oil collection goals, quantifying the number of collection sites to be established and selecting locations that best serve the public need. The Plan outlined the need for public-private partnerships, public education on used oil recycling and maintenance and enforcement activities for used oil collection.

Beginning in 1992, used oil collection services were expanded to better support the residents of Pierce County. Today, used oil collection is available to residents at 45 public and private drop-off locations, including at the Tacoma Recycling Center and Hidden Valley transfer station, as well as most Pierce County Auto Zone and O'Reilly's auto parts stores. Collection sites are distributed throughout the County to provide access and convenience for residents. From 1992 to 2019, Pierce County's used oil recycling program has collected over 1,200,000 (2019) gallons of used motor oil. Information on how to properly manage used oil is available through electronic or printed brochures, or through the Tacoma- Pierce County Health Department and other program partner websites. A complete list of oil collection sites is available in *Appendix P*.

7.6.11 Program Financing

Local hazardous waste programs and services are financed through a variety of funding sources. A primary funding source for MRW programs is the state's Local Solid Waste Financial Assistance Grant (LSWFAs). LSWFA grants are funded from the state's Local Toxics Control Account (LTCA). This funding source was established in 1988

by state law and placed a tax on hazardous substances sold into Washington state.

Projected revenues from the LTCA are made available each biennium for use in LSWFAs awarded to local governments. The amount available in a biennium depends upon legislative appropriation from the LTCA. Awarded grants are administered by the Washington State Department of Ecology. Each local jurisdiction must meet strict guidelines for use of grant funding and are subject to applicable state accounting and auditing requirements.

LSWFA funds go directly to local governments and help to protect health and the environment by reducing human exposure to toxins, reducing waste, ensuring proper management of solid and household hazardous waste and promoting energy and resource conservation.

For a local government to qualify for LSWFA awarded funds, grant requests must demonstrate that the project outcome aligns with: the local solid and hazardous waste management plan; produce quantifiable outcomes; link target audience; action steps; and outcomes and develop a method to evaluate the project's success.

In the 2017-2019 grant cycle, the Pierce County Sustainable Resources Division was awarded \$473,000 of LSWFA funding to be used in part to support HHW collection efforts at the Hidden Valley transfer station and used oil recycling sites. The Tacoma-Pierce County Health Department was awarded \$77,500 to support business and public education programs and aid in the development of a natural yard care program aimed at reducing the use of herbicides and pesticides.

Additional funding is provided through rate payers and other solid waste supported revenues.



7.7 Planning Issues

How will moderate risk waste collection, toxics reduction, and other program goals be funded in the future? State grants have traditionally funded the bulk of MRW programs in Pierce County. Recent reductions in grant funding have resulted in 60% fewer dollars available from these grants compared to historic levels. In addition, competition for funds at the County level has led to some funding being diverted to other programs. Unless traditional funding approaches can sustain MRW source control and collection, these programs will require alternative funding, which generally turns to the rate base either in the form of fees levied at disposal sites or through the collection system.

Pierce County will continue to work with the City of Tacoma and the Health Department to try and adequately fund MRW programs in Pierce County, and continue to work with the State Legislature to increase funding for these important programs.

These programs are often quite expensive for local agencies to run so working towards an EPR model is critical so that consumers pay the cost at the time of purchase and it is not up to local governments to pay for the safe disposal of MRW.

Recommended actions for moderate risk waste are organized under four objectives:

MRW1: Create and sustain a MRW collection system that provides value to residents and businesses, and is convenient, safe and adaptive.

- Survey MRW customers and businesses on service and service needs.
- Actively promote EPR programs at MRW facilities.
- Ensure annual waste trends analysis identifies and classifies MRW making it to landfill.
- Review scope and scale of regional MRW programs and services.

MRW2: Support MRW programs with sustained funding to meet the needs of the community.

- Review regional MRW funding and funding sources.

MRW3: Conduct easy-to-understand outreach and education that emphasizes the waste management hierarchy and promotes positive behavior change.

- Continue to implement education programs and develop new resources to educate residents and businesses on toxic reduction and MRWs, including a potential standalone website for Pierce County Hazardous Waste Program.

MRW4: Support MRW programs through comprehensive legislative and policy development, including financing, toxics reduction, expanded producer responsibility, environmental preferable purchasing and other cooperative efforts.

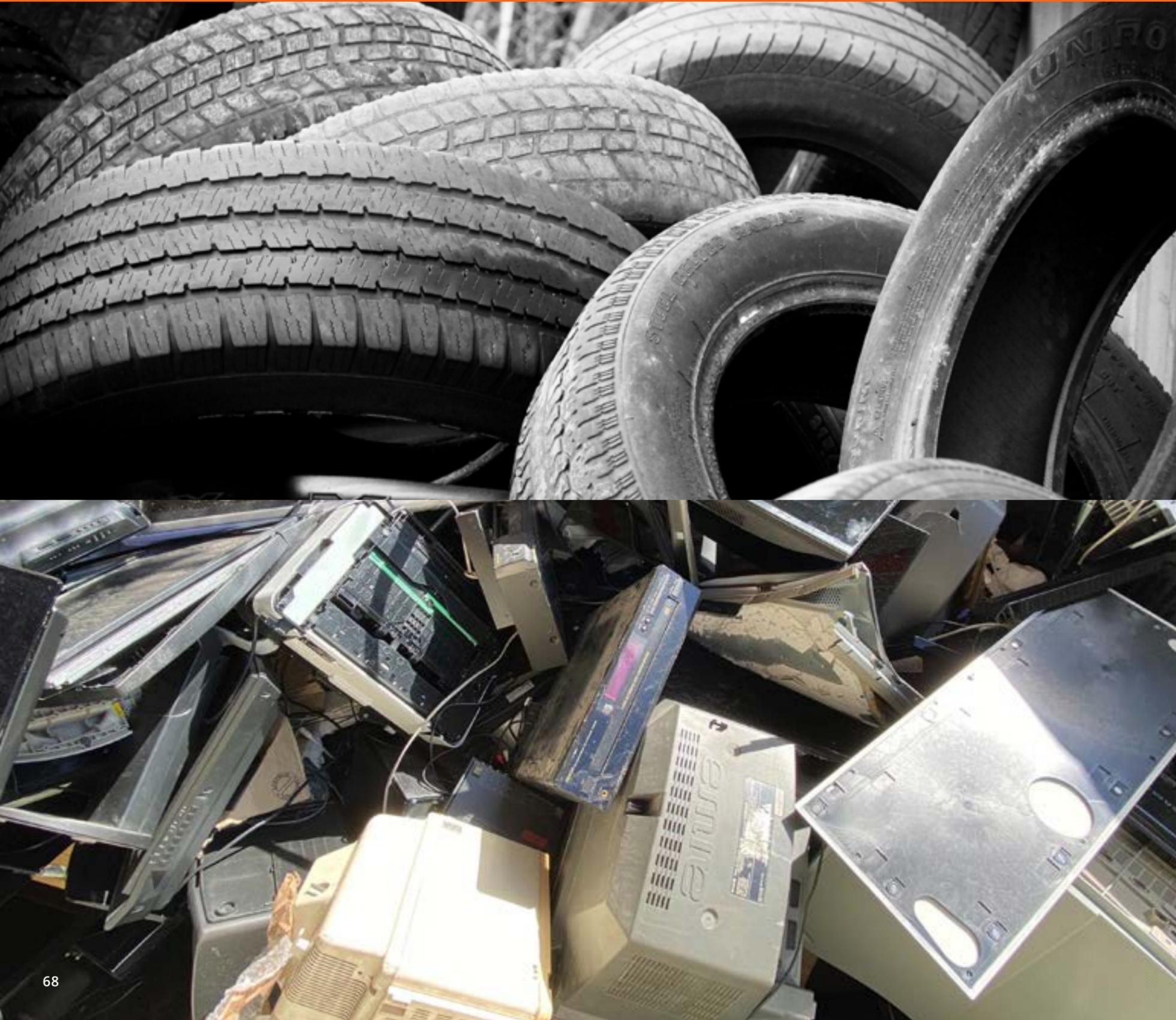
- Continue to track and support federal, state and local legislation that reduces use of toxic materials and supports EPR initiatives.

7.8 Actions

- ➔ **MRW Action 1:** Survey MRW customers and businesses on service and service needs.
- ➔ **MRW Action 2:** Actively promote EPR programs at MRW facilities.
- ➔ **MRW Action 3:** Ensure annual waste trends analysis identifies and classifies MRW making it to landfill.
- ➔ **MRW Action 4:** Review scope and scale of regional MRW programs and services.
- ➔ **MRW Action 5:** Review regional MRW funding and funding sources.
- ➔ **MRW Action 6:** Continue to implement education programs and develop new resources to educate residents and businesses on toxic reduction and MRWs, including a potential standalone website for Pierce County Hazardous Waste Program.
- ➔ **MRW Action 7:** Continue to track and support federal, state and local legislation that reduces use of toxic materials and supports EPR initiatives.

Chapter 8: Miscellaneous Waste Streams





8.1 Introduction

Miscellaneous waste streams include non-liquid waste with special collection, handling and disposal requirements not generally part of the mixed municipal solid waste stream. Typically, miscellaneous waste is a catch-all category often used to describe historically hard-to-handle materials. Materials can sometimes be considered both a miscellaneous waste and solid waste, meaning they are handled at the same permitted disposal facilities. Some wastes that typically have been considered miscellaneous wastes include contaminated soils, street sweeping residue, waste from cleaning manholes and storm drains, and industrial process wastes such as sludge and boiler or incinerator ash. Many of these miscellaneous waste streams require a characterization process to determine if they are suitable to dispose of as a solid waste. The primary focus of the process is to ensure the material is not a regulated hazardous or dangerous waste. Often, materials that can be disposed of in the solid waste system still require special handling methods.

“Special waste” refers to a class of wastes defined in state dangerous waste regulations. Special wastes pose a relatively low hazard to human health and the environment. Wastes that qualify must be treated as dangerous waste for purposes of pollution prevention planning. Special wastes are not considered dangerous waste, provided they are managed in accordance with the standards in WAC 173-303-073 and disposed, legitimately recycled, or treated on-site consistent with the requirements of WAC 173-303.



8.2 Conditions Assessment

Pierce County and the City of Tacoma currently have no bans on materials landfills are permitted to accept. In Pierce County, miscellaneous wastes are regulated by both the State Department of Ecology and the TPCHD. Ecology is responsible for enforcing hazardous waste regulations in Washington. In most cases, generators or transporters of miscellaneous wastes will work with TPCHD. TPCHD has regulatory and review processes to ensure a proper characterization of the materials has been performed, and that the material is acceptable for disposal as MSW at Pierce County facilities. This process is part of the [Waste Disposal Authorization \(WDA\) program](#). The WDA program is codified in TPCHD regulations and in the operating permits of the solid waste facilities in Pierce County. The majority of the wastes allowed by the WDA program in Pierce County go to the LRI landfill. Examples of wastes that are considered miscellaneous waste are listed at right.

A complete list of small, medium, and large quantity waste generators is provided in *Appendix L*.

Industrial Process Waste or Sludge

Sludge is generally defined as “a semi-solid substance consisting of settled sewage solids, combined with varying amounts of water and dissolved materials generated from a wastewater treatment plant or other industrial source.” Industrial process waste includes materials that have similar physical properties to sewage sludge, but may contain inorganic chemicals that result from a specific industrial process. Industrial process waste in Pierce County typically comes from large quantity generators and includes paper and mill wastes, boiler ash, gypsum and other building material wastes (distinct from construction and demolition debris), metals and paints. This material is regulated as solid waste and generally disposed of in the LRI landfill. Ash from MSW incineration is regulated under RCW 70A.315 and WAC 173-306 in Washington. A specific example of industrial process waste handling in Pierce County is Kleen Industrial Services, which finds long-term sustainable alternatives to landfilling these materials for generators and end-users of industrial abrasives.

C&D – Construction and Demolition Debris

Construction and demolition wastes (often referred to as “C&D”) are generally defined as “waste building materials and rubble, resulting from construction, remodeling, repair and demolition operations on houses, commercial buildings, pavements and other structures,” and are generated primarily during residential and non-residential development, redevelopment and remodeling. The C&D waste sub stream is made up of similar materials that come from two distinct but related activities. Remodeling and repair work generate both types of wastes, often mixed together. Overall, C&D wastes include items such as plasterboard, cement, dirt, wood, brush, concrete, rubble, fiberglass, asphalt, bricks, block foam, wallboard, and other building materials. Pierce County has several major C&D waste handlers, including two facilities operated by DTG, Alpine Recycling, Miles Resources (for asphalt shingles), and several inert waste landfills that accept concrete and fill dirt. Pierce County is not involved in the rate setting for these C&D disposal options. Countywide, C&D wastes comprise nearly 15% of the total waste stream as of 2019. The C&D waste recycling industry includes

organizations that seek to capture and repurpose a portion of this material, including reclaiming and recycling materials such as asphalt, concrete, wood and metal, as well as repurposing and salvaging fixtures. Pierce County has identified the C&D waste stream as an opportunity to further reduce GHG emissions.

Auto Shredder Residue (ASR)

Auto shredder residue (ASR), or “auto fluff,” is generally defined as the lightweight material left over after vehicles are shredded and most of all metals are removed. ASR consists of glass, fiber, rubber, automobile liquids, plastics and dirt. Vehicle hulks are not specifically defined in WAC 173-350. ASR often contains hazardous substances such as lead, cadmium, and PCBs. Metal is magnetically separated from ASR in the shredding process before being treated with chemical binders to contain hazardous substances. The material is not recyclable, but qualifies as miscellaneous waste and is accepted for disposal post-treatment, where it is often used as cover material at the landfill. Schnitzer’s facility in Tacoma includes an auto body shredder, whose metal recycling operation results in ASR material.

White Goods/Appliances

Large household appliances, also known as “white goods,” include washing machines, water heaters, clothes dryers, stoves, refrigerators and freezers. White goods are easily recycled for their metal value after an appliance has been stripped of insulation, plastic, glass, nonferrous metals, lubricants, refrigerants, and other contaminants. Most of the materials in white goods are recyclable, but environmentally threatening components, such as PCB-contaminated capacitors in older appliances, mercury-containing switches and oil-filled compressors, or refrigerants in refrigerators, freezers and air conditioners require treatment prior to disposal. White goods are accepted at Pierce County transfer stations and recycling centers, at some retailers and by junk haulers. White goods are typically recycled at specialty recyclers, including some of the same shredder and recycling facilities that handle automobiles (such as Schnitzer and Simon Metals). Plastic and other non-recyclable components are disposed of in a similar manner to ASR, although they are potentially less toxic and require different levels of treatment prior to disposal.

Street Sweeping and Vector Wastes

Vector wastes or catch basin wastes are collected through private collection contractors and local municipal jurisdictions. Street sweeping wastes are collected primarily through local municipal jurisdictions. The material consists of soils, gravel, organic material and various solid wastes such as cigarette butts, paper and beverage containers. The soils and organic material are generally contaminated by hydrocarbons and very similar to contaminated soils (but contain more organic material and litter). This waste stream is not appropriate for an inert waste landfill but can go to a landfill. There are several permitted facilities throughout Pierce County, including municipal and private operators of street sweeping and vector equipment.

Tires

“Waste tires” are “tires that are no longer suitable for their original intended purpose because of wear, damage or defect” (RCW 70A.205).

WAC 173-350-350 governs waste tire storage and requires a solid waste permit for facilities that store more than 800 waste tires or over 20 tons of heavy equipment tires. Waste tires are regulated to limit pest vectors (such as mosquitoes) and to prevent tire fires. Pierce County has one regulated tire disposal facility, L&S Tire Company. Recycled tires are used as fuel, construction material, and in other re-use applications. As of December 2021, TPCHD had only one open complaint on a tire pile in Pierce County. For statewide tire disposal information, visit Ecology’s [waste tire page](#).

Asbestos

Asbestos is the commercial term for a group of highly fibrous minerals that readily separate into long thin microscopic fibers. The fibers are heat resistant and chemically inert and possess a high electric thermal insulation quality. As a result, asbestos was used when a noncombustible, non-conducting or chemically resistant material was required. However, the fibers are a carcinogenic air pollutant when inhaled, so use was widely restricted by the EPA in the late-1980’s. Friable asbestos is regulated in Washington under WAC 173-350. Both residential and commercial sources of asbestos are regulated by the Puget Sound Clean Air Agency (PSCAA). When handling follows PSCAA rules, asbestos may be landfilled. Asbestos is accepted in a manner that complies with the National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 Code of Federal Regulations (CFR) Part 61, Subpart M, and WAC 173-303-395. Customers requesting approval for asbestos disposal must provide LRI with a completed special waste application, a waste shipment record, and additional documentation as needed for review. Accepted applicants contact the landfill to make special delivery arrangements.





Biomedical Wastes: Medical waste consists of both infectious and non-infectious wastes generated by hospitals, laboratories, medical, dental and veterinary clinics. Residential users of syringes and home health care also generate medical waste. Non-infectious medical waste requires no special treatment and is part of the regular municipal solid waste stream. Approximately 5-15 percent of the medical waste stream, from clinical settings, is considered infectious.

Infectious or biomedical wastes contain pathogens or other biologically active materials in enough concentration that exposure to the waste creates a significant risk of disease to humans. Infectious wastes include cultures, laboratory waste, needles and other sharps; human and animal blood, tissue, and body parts. These wastes require special handling and disposal practices to protect the health and safety of both medical and solid waste disposal personnel.

Infectious waste may include combination wastes where multiple hazards are present (toxic, radioactive, or other hazardous chemicals). These wastes are segregated from the general infectious waste stream when additional or alternative treatment is required.

An example of a combination waste is commingled state-only dangerous waste pharmaceuticals and medical sharps. This waste is managed by incineration only.

TPCHD currently permits and inspects hospitals, medical and dental clinics, laboratories, and other health care facilities. There are an estimated 1,200 facilities in Pierce County that have the potential to contribute to the biomedical waste stream; 900 of these facilities are permitted. Approved treatment methods for infectious waste include incineration, autoclave, chemical treatment and encasement. More often, a certificated hauler will transport infectious waste to an off-site treatment facility. Currently, no commercial treatment facilities are in operation within Pierce County. Once biomedical waste has been treated, it is no longer considered “infectious” and may be disposed of within the municipal solid waste stream.

Additional discussion of biomedical wastes, is included in *Appendix Q*.

Agriculture Wastes: Agricultural wastes are regulated in Washington under WAC 173-350. Agricultural wastes are “wastes resulting from the production of agricultural products, including, but not limited to, manures and carcasses of dead animals weighing each or collectively in excess of fifteen pounds.” Agriculture wastes consist of three general types of wastes: crop wastes, livestock wastes, and agricultural chemicals. Crop wastes include residues from grain, hay, vegetables, seed crop production and trimmings from fruit trees. Livestock wastes include manure and animal carcasses. Agricultural chemical wastes are composed primarily of empty agricultural chemical containers and banned or unused agricultural chemicals. The management of animal carcasses is addressed separately later in this chapter.

Bulky Wastes: Bulky wastes are large items of refuse such as furniture and other oversized wastes, that typically do not fit into residential disposal containers. These are distinct from white goods, as described in this chapter. An example of a permit-exempt bulky waste handler is Spring Back Mattress Recycling.

Contaminated Soils: Contaminated soils are defined in WAC 173-350-100 as “soils removed during the cleanup of a hazardous waste site, or a dangerous waste facility closure, corrective actions or other clean-up activities and which contain harmful substances but are not designated dangerous wastes.”

Dredge Spoils: Dredge spoils consist of soils and other organic materials generated by dredging operations. Dredge spoils are often used as upland fill and generally do not enter the MSW handling and disposal system unless testing reveals contaminants. If contaminants are found, the spoils would be classified as a solid or dangerous waste and require special disposal..

Animal Carcasses: Animal carcasses weighing over 15 pounds are considered agricultural wastes. Chapter 246-203-121 WAC and Chapter 16.68 RCW “Disposal of Dead Animals” address the minimum requirements for this special waste. While these rules allow for burial of animal carcasses with a minimum of three feet of cover and 100’ from any well or surface water, this plan recommends against this practice unless an emergency or disease outbreak occurs, whereby burial is deemed essential to prevent the spread of disease and authorized by the Health Officer. In these rare instances, the minimum requirement of three feet of cover and 100 feet from any well or surface water would apply. All carcasses must be transported to the disposal site within 24 hours. Disposal guidelines for animal carcasses include:

- Rendering by a licensed rendering company
- Incineration at a permitted facility suited for this waste type
- Composting utilizing best management practices found in Mortality Composting Management Guidelines developed by the Department of Agriculture.
- Disposal at a transfer facility.
- Animal feeding operations should incorporate best management practices for managing animal carcasses generated from on-going operations.

Disaster Debris: As part of Pierce County’s Comprehensive Emergency Management Plan (2019), Pierce County Planning and Public Works is named as the lead agency to coordinate the collection, processing, and final disposal of incident-generated debris throughout Pierce County. Support Annex 10—Emergency Debris Management is Pierce County’s debris management plan and describes the policies, situations, planning assumptions, concepts of operations and responsibilities for debris management operations in Pierce County during emergencies and major disasters. This plan provides guidance to manage debris generated during or following an event proclaimed an emergency by, or for, the Pierce County Executive. Pierce County would coordinate with the Department of Emergency Management (DEM), the TPCHD, other agencies, internal and external resources (e.g., State regulated waste haulers; PCRCD/LRI), property owners and other groups as appropriate.

The plan includes detailed protocols and authority for these roles, including conditions upon which the emergency management provisions of the waste handling agreement would be activated. The plan includes discussion of nine separate debris management and recovery assistance options that could be implemented, depending on the scenario:

- **Assistance Option One:** open transfer stations for extended hours with no reduction in cost for disposal
- **Assistance Option Two:** open the PCRCD/LRI Landfill for direct haul of debris by residents with no reduction in cost for disposal
- **Assistance Option Three:** issue disposal vouchers directly to affected residents
- **Assistance Option Four:** place collection points/drop-off boxes in affected neighborhoods
- **Assistance Option Five:** open temporary debris management sites

- **Assistance Option Six:** provide reduced cost or free disposal at one or more transfer stations and/or landfill
- **Assistance Option Seven:** arrange for debris collection from specified individual properties
- **Assistance Option Eight:** organize neighborhood-specific curbside collection programs
- **Assistance Option Nine:** organize countywide curbside collection programs

8.3 Planning Issues

Are there any waste streams that will have special handling or transport requirements when the County landfill is no longer available?

While most of the waste streams identified in this chapter have special handling requirements, the majority that are disposed of in municipal solid waste landfills do not face significant challenges in moving to new landfill sites once the LRI landfill is full. Asbestos, however, is unique. Specifically, limited duration storage prior to being hauled, combined with other special handling and disposal requirements, have the potential to complicate and drive costs up for long-haul disposal scenarios.

Are there opportunities to address the growing construction and demolition waste stream in light of limited MSW landfill capacity?

There have been significant advancements in diverting recyclable content from waste generated from construction and demolition activities. However, C&D waste continues to comprise a significant portion of the overall waste stream, upwards of 15% of the total solid waste disposed in Pierce County. Projected population and housing growth in Pierce County will see this rate sustained or even growing over the coming decades, placing additional strain on limited

landfill capacity. In addition, some of this waste originates from outside of the County but is processed at Pierce County facilities and therefore eligible for disposal. There is a need for ongoing innovation and improvement in the recycled content of the stream, as well as evaluation of opportunities to manage the waste stream in balance with other MSW landfill demand, including opportunities to dispose of this inert waste separate from MSW.



8.4 Actions

- ➔ **Miscellaneous Waste Streams Action 1: Work with stakeholders to increase salvage, reuse, and recycling of construction and demolition debris (major contributor to GHG emissions in the solid waste management system).**



Chapter 9: Solid Waste Collection



9.1 Introduction

Pierce County and the City of Tacoma work to provide solid waste collection services for all customers. In the residential sector, garbage service is mandatory. The City of Tacoma has the exclusive right to collect garbage from residents within the city's corporate limits. Solid waste collection service in the rest of Pierce County is performed by private hauling companies. These companies have exclusive rights in their service areas to collect residential and commercial garbage and residential recycling through contracts with local cities and towns, and through permits issued by the Washington Utilities and Transportation Commission (WUTC). Commercial recycling is a free-market system, meaning all permitted companies can compete to provide recycling service to any business. Collection service needs are directly tied to community growth.

9.2 Conditions Assessment

9.2.1 State-Certificated Collection

Since 1943, the Washington State Legislature has granted cities and towns the authority to require all residents and businesses to participate in a city-mandated waste collection and disposal system. In 1989, the Legislature expanded this authority to include the collection of recyclables. Cities and towns implement this authority through their municipal or contracted collection programs. For cities which do not provide collection themselves or through contract, the WUTC is responsible for ensuring that the state certificated hauler serving the city follows the mandatory service and subscription ordinance. For more information, see RCW 35.21.130 and RCW 35A.21.060.

Counties do not have this direct authority. To mandate subscription to a collection service, counties must first form a "solid waste collection district" upon a finding that "mandatory solid waste collection is in the public interest and necessary for the preservation of public health" (see RCW 36.58A.030). In addition, the WUTC is empowered to review the request and has 60 days to determine whether or not the incumbent state-certificated hauler is able and willing to provide the service. Of note, through separate authority mentioned in RCW 36.58, counties can set minimum levels of service for recyclables collection.

9.2.2 City-Controlled Collection

Cities may contract with private haulers to provide garbage collection services to residences and businesses. The city assigns service territory, establishes and enforces service standards, and sets rates. Bonney Lake, Buckley, Carbonado, DuPont, Eatonville, Fircrest, Lakewood, Milton, Orting, Puyallup, Ruston, Steilacoom, Sumner, Edgewood, Fife, Gig Harbor, Roy, South Prairie, Wilkeson, and University Place contract with private haulers. Cities and towns may also reach interlocal agreements with other local jurisdictions to provide or contract for municipal services, including solid waste collection and other services.

9.2.3 Municipal Collection

Cities may operate their own solid waste utilities. A city can own and operate its equipment, assign routes, establish service standards, and set rates within the municipality. The City of Tacoma uses this option and collects garbage using municipal crews and equipment. In Tacoma, the collection and disposal of solid waste is governed by city ordinance. The ordinance outlines mandatory minimum garbage service levels for both city residents and commercial businesses. Tacoma also offers a wide range of optional services and service levels for curbside recycling and organics collection in Tacoma. See Tacoma's Municipal Code and/or city website for additional information on minimum garbage service levels and recycling services.

9.2.4 Unincorporated Communities

The WUTC grants certificates (franchises) authorizing solid waste collection in designated franchise districts for unincorporated areas. Solid waste collection certificates authorize the collection of garbage and refuse from all residential and non-residential generators as well as recyclable materials from residential sources by private firms. Residential and non-residential service in unincorporated areas is provided upon request. Collection companies' rates must reflect the state's solid waste management priorities. The County does not control collection rates but does work with the WUTC to implement solid waste programs and minimum service levels for recycling (see minimum service description, below). The WUTC does not govern the collection rates of city utilities or city contracts with private haulers.

9.2.5 Collection Services Area

For the 20 cities using Pierce County's disposal system, the County is responsible for planning and management services for waste generated and collected within the unincorporated areas and municipalities; the development of model recycling collection programs; countywide public education and outreach programs; data monitoring and collection; disposal rates and operating rules; and to "cost effectively plan for, design, and/or site disposal facilities."

A county collection district cannot include incorporated areas without consent of a city. Public hearings must be held and the county must determine that mandatory collection is in the public interest. Under mandatory collection, a hauler may request that the county collect fees from delinquent customers. A county can provide collection services only if the WUTC notifies the county that no qualified haulers are available for a district.

Map: Hauler service areas within the planning jurisdiction

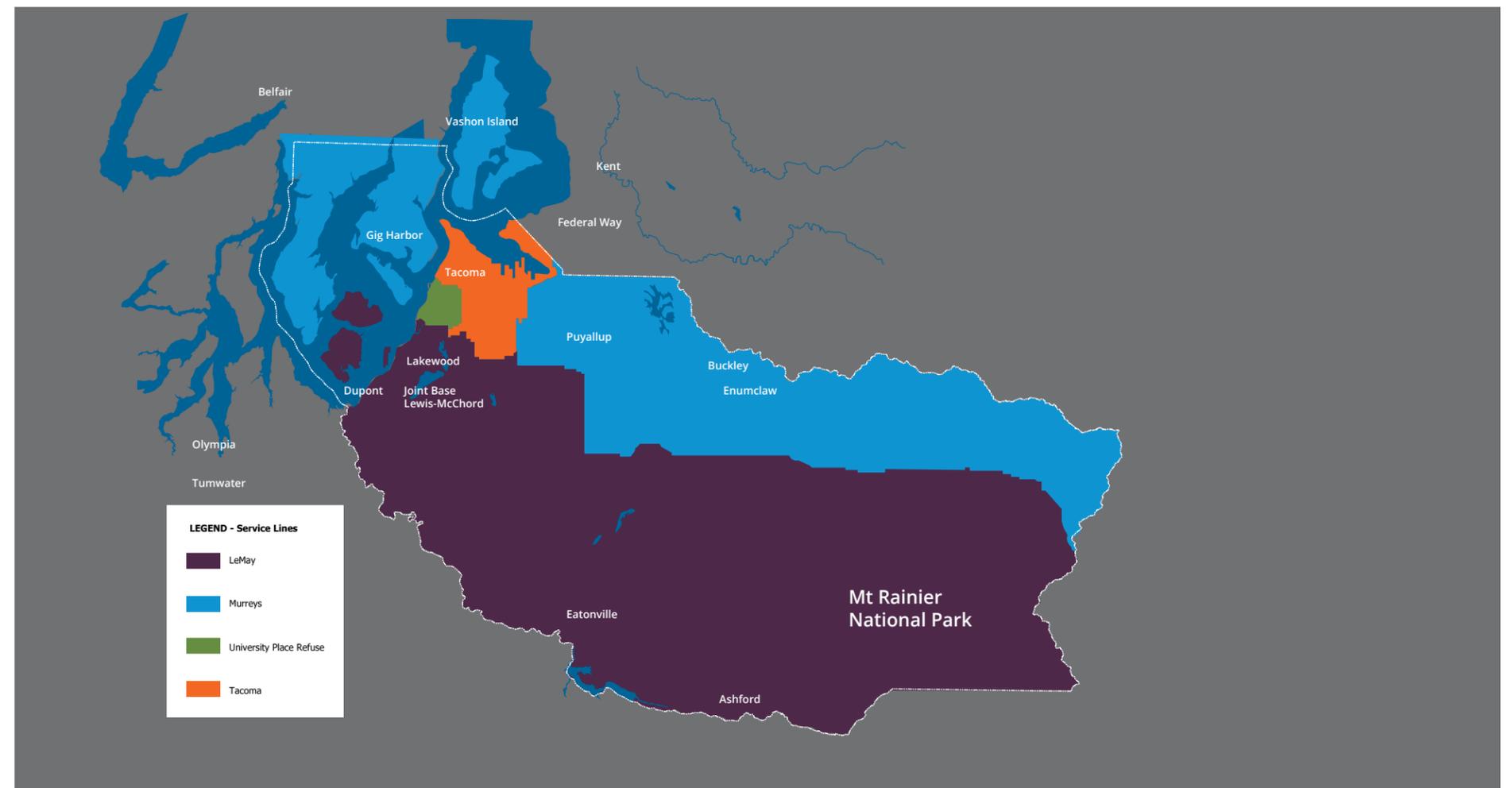




Table 5. Pierce County collection service providers

| Service Provider | Address | Permit ID | Accounts Served |
|---|--|-----------|--|
| LeMay Enterprises | 12115 NE 99th St., #1830 Vancouver, WA 98682 | G-98 | 81,435 residential 8,365 commercial |
| Murrey's Disposal | PO Box 399 Puyallup, WA 98371 | G-9 | 93,053 residential 2,628 commercial |
| University Place Refuse | 2815 Rochester St. W University Pl., WA 98466 | G-64 | 10,481 residential 719 commercial |
| City of Tacoma | 747 Market Street Tacoma, WA 98402 | N/A | 57,790 residential 5,310 commercial |

9.2.6 Rates Setting and Billing

The funding sources most visible to the public are collection fees or utility rates assessed by the private waste collection companies, recyclers, the City of Tacoma, and those cities that contract for waste services but perform the billing themselves. The primary purpose of these fees is to assess each customer their share of collection and disposal costs.

Rates or fees charged for garbage collection vary by area and service provider. Because of the way the rates are structured, municipal rates (e.g., City of Tacoma) often provide more incentive to reduce waste than WUTC service area rates.

Hauler Fees

Fees for collection are determined by the hauler and the Utilities Transportation Committee (UTC). The hauler looks to the UTC for guidance and consistency with rates throughout the County. Haulers have many options for size, frequency and use. These options will change the overall cost of the monthly service. For more information about the overall cost, please call your hauler.

LeMay Enterprises: (253) 537-8687

Murrey's Disposal: (888) 806-7048

University Place Refuse: (253) 564-3212

City of Tacoma: (253) 591-5543

9.2.7 Minimum Collection Service Levels

Jurisdictions within Pierce County have established varying levels of mandatory collection for garbage, recycling and yard waste. Pierce County has established minimum levels of service for residential curbside recycling, yard waste collection and multifamily recycling; these levels of service must be offered by solid waste collection companies operating in unincorporated portions of the County. The minimum service levels are defined in ordinances 91-86, 92-22, and 2004-64, as well as in Pierce County Code, Chapter 8.29: Minimum Levels of Service for Residential Recycling and Yard Waste Collection.

A summary of the collection profile in each jurisdiction is provided in Table 5. See additional discussion of recycling and yard waste collection in additional sections, below.

Table 6. Collection in varying jurisdictions, regulatory authority, and collection mandates

| Jurisdiction | Regulatory Authority | Service Provider | Mandatory Collection |
|--------------|----------------------|---|---|
| Bonney Lake | City-contracted | Murrey's Disposal | MSW & recycling; yard waste is subscription |
| Buckley | City-contracted | Murrey's Disposal | MSW & recycling; yard waste is subscription |
| Carbonado | City-contracted | Murrey's Disposal | MSW & recycling; yard waste is subscription |
| DuPont | City-contracted | LeMay/Pierce County Refuse | MSW & recycling; yard waste is subscription |
| Eatonville | City-contracted | LeMay/Pierce County Refuse | MSW & recycling; yard waste is subscription |
| Edgewood | UTC ^b | Murrey's Disposal | Not Mandatory |
| Fife | UTC ^b | Murrey's Disposal | Not Mandatory |
| Fircrest | City-contracted | University Place Refuse/ Westside Disposal | MSW |
| Gig Harbor | UTC ^b | Murrey's Disposal | Not Mandatory |
| Lakewood | City-contracted | LeMay/Pierce County Refuse | MSW & recycling; yard waste is subscription |
| Milton | City-contracted | Murrey's Disposal | MSW & recycling; yard waste is subscription |

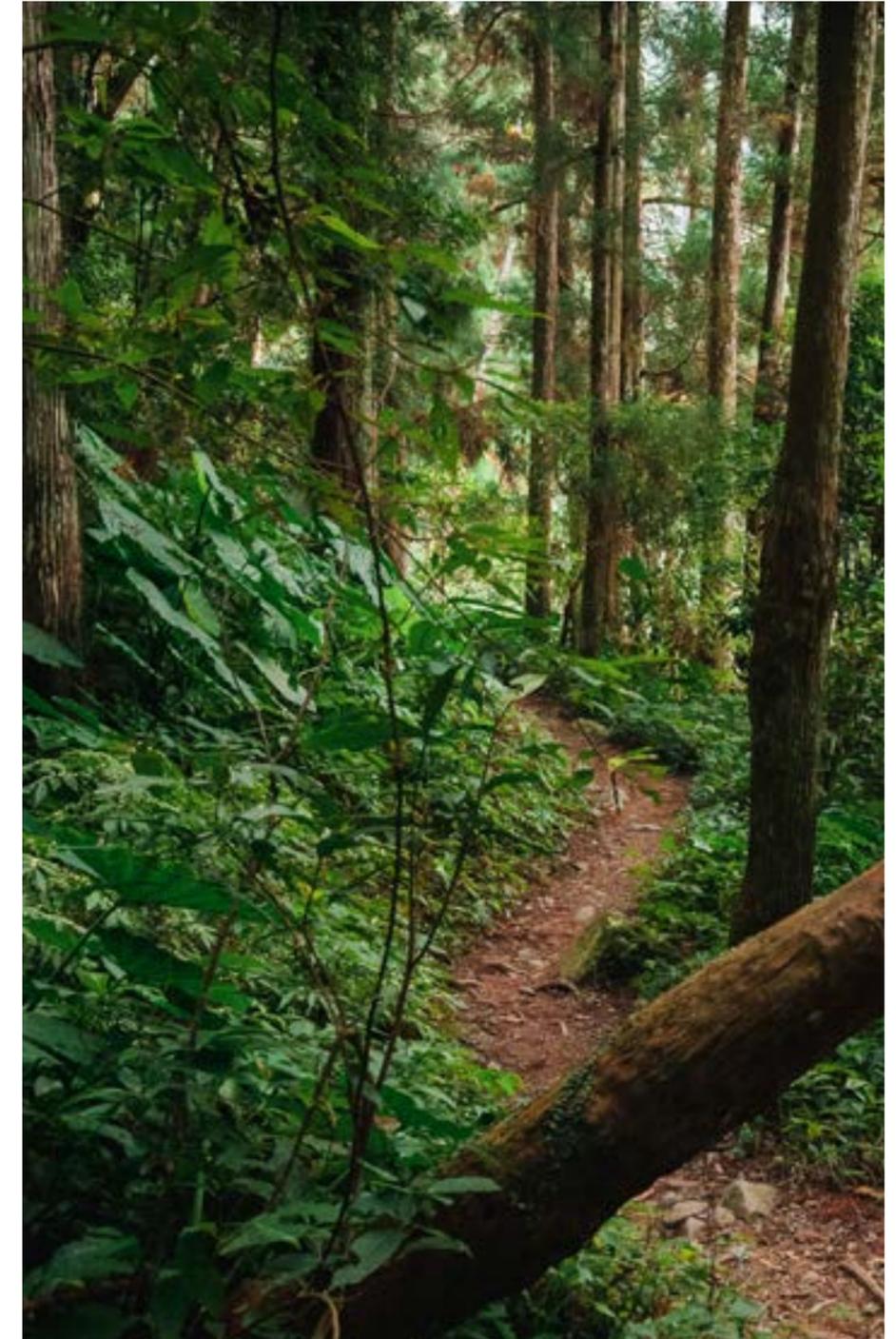
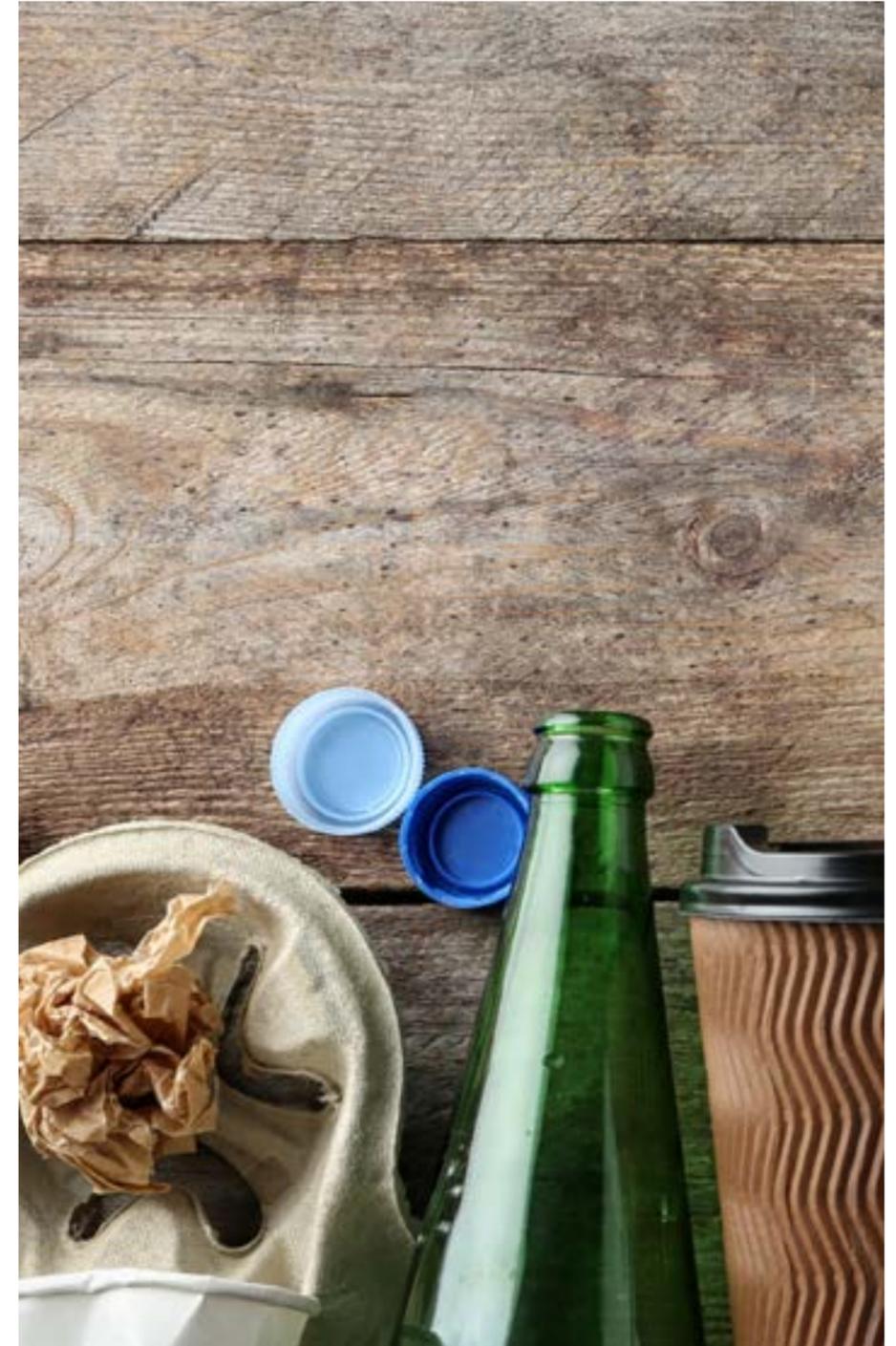


Table 5. Collection in varying jurisdictions, regulatory authority, and collection mandates

| Jurisdiction | Regulatory Authority | Service Provider | Mandatory Collection |
|------------------|---------------------------------|---|---|
| Orting | City-contracted | Murrey's Disposal | MSW & recycling; yard waste is subscription |
| Puyallup | City-contracted | Murrey's Disposal | MSW & recycling; yard waste is subscription |
| Roy | UTC ^b | LeMay/Pierce County Refuse | Not Mandatory |
| Ruston | City-contracted | Murrey's Disposal | MSW & recycling; yard waste is subscription |
| South Prairie | City-contracted | Murrey's Disposal | MSW & recycling; yard waste is subscription |
| Steilacoom | City-contracted | LeMay/Pierce County Refuse | MSW & recycling; yard waste is subscription |
| Sumner | City-contracted | Murrey's Disposal | MSW & recycling; yard waste is subscription |
| Tacoma | City ^a | City of Tacoma | MSW & recycling; yard waste is subscription |
| University Place | City-contracted – Small portion | LeMay/Pierce County Refuse | MSW & recycling; yard waste is subscription |
| University Place | City-contracted | University Place Refuse/ Westside Disposal | No minimum service |
| Unincorporated | UTC ^b | | Not Mandatory |

a. City of Tacoma ordinance also mandates solid waste collection for commercial properties; recycling is optional.

b. Recycling collection must be available to residential and multifamily customers who request garbage service. Organics collection must be available to interested residential customers in urban areas.





9.2.8 Recycling Collection

Additional information about recyclable materials and facilities is found in the *Recycling* chapter.

9.2.8.1 Residential Recycling

The collection of recyclable materials from residential and nonresidential generators is regulated somewhat differently than the collection of general solid waste in the State of Washington. Counties and cities are allowed to set minimum levels of service for recyclables collection. Pierce County has set requirements that must be met by the solid waste collection companies operating in unincorporated portions of the County. The self-hauling of recyclable materials by generators to recycling centers, transfer stations or other locations is not regulated.

9.2.8.2 Basic Collection Services

Designated recyclables in Pierce County and the City of Tacoma include plastic containers, paper and cardboard, aluminum and tin cans, glass and construction/demolition debris. The City of Tacoma and Pierce County do not allow glass containers in the commingled recycling carts, but the MRFs processing these recyclables also receive materials from other jurisdictions that include glass in their programs. Construction/demolition debris is also not included in the commingled system. For further discussion of this waste stream, see the *Miscellaneous Waste* chapter.

9.2.8.3 Multifamily Recycling

Minimum service for recycling at multifamily properties in both Pierce County and the City of Tacoma is different than for single family residences. Both consider residences larger than a duplex as multifamily provided that the structure is billed for solid waste collection service as a whole, not by individual dwelling units. This may include, but is not limited to, triplexes, apartments, and condominiums. Currently in the City of Tacoma, properties with three or more units are considered multifamily/commercial. Multifamily properties are currently not required to provide recycling, but collection companies must offer the service to interested properties. Multifamily rates also incentivize recycling; the cost of garbage and recycling service must be less expensive than garbage alone.

9.2.8.4 Recycling Drop-off Sites

Recyclables, including glass not collected curbside, are collected at drop-off sites throughout Pierce County. Drop-off sites are not exclusive to residential areas, but are more commonly used by this population and primarily collect glass. This includes County and privately-owned transfer stations and hauler yards serving as “recycling centers” that accept a range of materials such as glass, cardboard, mixed paper, cans and plastic containers. The City of Tacoma operates several drop-off sites that allow glass, batteries, cardboard, and metal. Numerous glass-specific drop-off sites (some also accept cardboard and newspaper) are also available throughout

Pierce County. Recycling drop-off site locations are regularly changing and noted online on county and municipal websites.

9.2.8.5 Non-residential Recycling

Commercial recycling is a free market system, meaning all permitted companies can compete to provide recycling service to any business. WUTC regulations permit common carriage, contract carriage, and private carriage (self-haul) of commercial recyclables. In Pierce County, some haulers have negotiated some exclusive rights in the collection of commercial recycling.

There is a broad range of commercial recycling opportunities that are supported by municipal programs to divert waste—from carts much like residential curbside recycling, to big boxes, to large compactors.

- **Common carriers** are permitted to collect a specific commodity (or commodities) within a designated geographic territory. Common carriers do not own the commodity being hauled; they are simply providing a transportation service for the owner. Common carriers are required to provide collection and transportation service to anyone requesting the service within the collection territory. Fees are negotiated between the carrier and the customer.
- **Contract carriers** may collect a specific commodity (or commodities) from a single nonresidential generator. Contract carriers negotiate the tariff or fee paid for the service with the waste generator without WUTC involvement.
- **Private carriage** involves the collection and transportation of a commodity (or commodities) by either the commodity generator or the commodity user, if the collection and transport activity is incidental to the overall or primary business of the generator or user.



Additional information on waste reduction and recycling can be found in the *Waste Reduction and Recycling* chapters.

9.2.9 Yard Debris and Organics

In Pierce County, separate collection of residential yard debris is offered by subscription on a bi-weekly, on-call or seasonal basis. It is available in many areas where curbside recycling is offered, however there are some areas of the County that don't have yard waste collection, including Anderson Island and eastern portions of the County past Elbe/Ashford. In the City of Tacoma, residential yard waste/food waste collection is packaged with municipal solid waste and recycling collection. More detail about collection and recovery of yard debris is available in the *Organic Management* chapter.

9.2.10 Litter and Illegal Dumping

Litter is solid waste that is thrown, discarded, or placed in any manner or amount on any public or private property, other than being placed in appropriate solid waste containers. This includes waste that is thrown by pedestrians and motorists, materials that are blown from vehicles, and large loads of waste that are illegally dumped onto public or private property. Pierce County recommends participating in the [“We Keep Washington Litter Free”](#) campaign through the Department of Ecology.

Currently, Pierce County offers a litter credit program, which allows for free disposal of up to 2,000 pounds of solid waste for private

citizens who are the victim of illegal dumping on their property.

Pierce County collaborates with the Department of Ecology on litter programs to ensure that the maximum amount of area is covered with minimal overlap.

Pierce County coordinates with partners for litter pickup and dump sites, such as Ecology Youth Corps on state routes in Pierce County, Pierce County Jail crews and the County Roads Department. Planning and Public Works also organizes and hires a temporary summer litter pickup crew, funded primarily by state grant dollars through the Community Litter Cleanup Program (CLCP). CLCP also funds community-organized Adopt-A-Road crews. In 2020, CLPC-funded litter crews logged 3,829 hours of cleanup time and 34,590 pounds of solid waste recovered along 527 miles of roadway.

The City of Tacoma partners in the Adopt-A-Spot program with neighborhood groups, businesses, and residents to help reduce litter and keep public spaces clean. Tacoma Cares is another program that provides a dedicated blight collection crew to remove illegally dumped waste from the City's rights-of-way. This program also provides non-profit and organized groups with dump passes for free litter and illegal dumping waste disposal.

9.2.11 Population and Collection Projections

Population is projected to grow across Pierce County, which will drive needs for collection and related infrastructure. Population projections



Table 7. Ten-year Pierce County Population Projection

| Year | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|
| Population | 902,714 | 914,901 | 927,252 | 939,770 | 952,457 | 965,315 | 978,347 | 991,555 | 1,004,941 | 1,018,507 |
| MSW Tonnage | 762,016 | 751,362 | 761,506 | 771,786 | 782,205 | 792,765 | 803,467 | 814,314 | 825,307 | 836,449 |

9.3 Planning Issues

How can Pierce County and the City of Tacoma continue to meet the collection needs as population grows?

Collection service needs in Pierce County will continue to be met where growth occurs. Haulers are prepared to meet demand within their service territories for both residential and commercial service. However, haulers report that new commercial developments can be more challenging to access. At times, this requires customers to move solid waste facilities on their properties to an acceptable location, which is costly and could be avoided with better planning. There is currently no standard for garbage enclosures in Pierce County code other than setbacks. The collection side of the solid waste system should be more integrated into the design review process and design standards of Pierce County and municipal planning and development authorities.

Can alternative fuels in the garbage fleet be implemented as a means to reduce GHG?

The County's GHG reduction goals rely on opportunities to replace fossil fuel system inputs, raising the question of whether the solid waste collection fleet can be converted to one or more alternative fuels. The availability and maturity of technology is one barrier. For example, electrification of the garbage fleet, while arguably having the largest impact on GHG emissions, would limit range and remove access to some rural customers. Other approaches in this direction have been successful. For example, the City of Tacoma has utilized low-carbon biodiesel without significant upgrades or maintenance issues. The City of Tacoma is also in the process of converting its fleet to compressed natural gas, with a full transition anticipated by 2023. Costs remain a barrier to further change, with the return on investment signaling what additional technology investments will be made. In the absence of funding for fleet conversion, these costs will be borne by customer rates. State WUTC regulations aim to make rates as affordable and efficient as possible, which is an

additional barrier. Passthrough rate provisions in local agreements would be necessary to ensure cost recovery. Additional changes to Pierce County code and state law will be important to shift markets and drive more rapid adoption of new sustainable transportation technologies.

How can we provide adequate/equitable recycling collection services to multifamily and commercial customers? Should Pierce County and the City of Tacoma update our multifamily minimum recycling standards?

As discussed in the section on multifamily recycling collection, minimum service for recycling at multifamily properties is currently different than for single-family properties. Ongoing growth of multifamily housing is expected across Pierce County, underscoring the opportunity to expand service availability to these customers. Policy changes to allowable housing within the City of Tacoma and other locations in the County may also occur in order to increase density and improve housing affordability. Improvements in multifamily and commercial curbside recycling programs are closely tied not just to expanding basic access and maximizing diversion of recyclable materials, but also to reducing contamination in the recyclable waste stream. Change to minimum standards for multifamily housing is an opportunity – however, several challenges need to be considered to address implementation barriers and potential for contamination.

Should Pierce County continue to subsidize yard waste?

The subsidy for yard waste collection was originally provided as a mechanism to encourage this service by removing the burden on haulers and customers. This subsidy to haulers should continue for residential service, as it remains in alignment with the goal of diverting this waste from the landfill. However, as discussed further in the *Organics* chapter, there are well-documented consequences of the effect of self-haulers from the commercial side, which had driven subsidized yard waste to an unsustainable level. At the beginning

of 2021, Pierce County removed commercial yard waste loads over one ton from the County's diversion program. This issue will need to continue to be monitored and analyzed comprehensively at a county-wide level to determine long-term policy.



9.4 Actions

- ➔ **Solid Waste Collection Action 1: Improve access to solid waste and recycling facilities at new commercial and multi-family developments by incorporating design standards into the Pierce County Code and possibly integrating hauler review into the permitting process.**
- ➔ **Solid Waste Collection Action 2: Research community needs, conduct policy analysis and report findings to inform a recommendation for level of service ordinance for multifamily residences by 2023.**
- ➔ **Solid Waste Collection Action 3: Develop a plan (including what should be done and an implementation timeline) by 2025 for lowest GHG collection, disposal, and transport in collaboration with contract partners.**

Chapter 10: Transfer and Disposal





10.1 Introduction

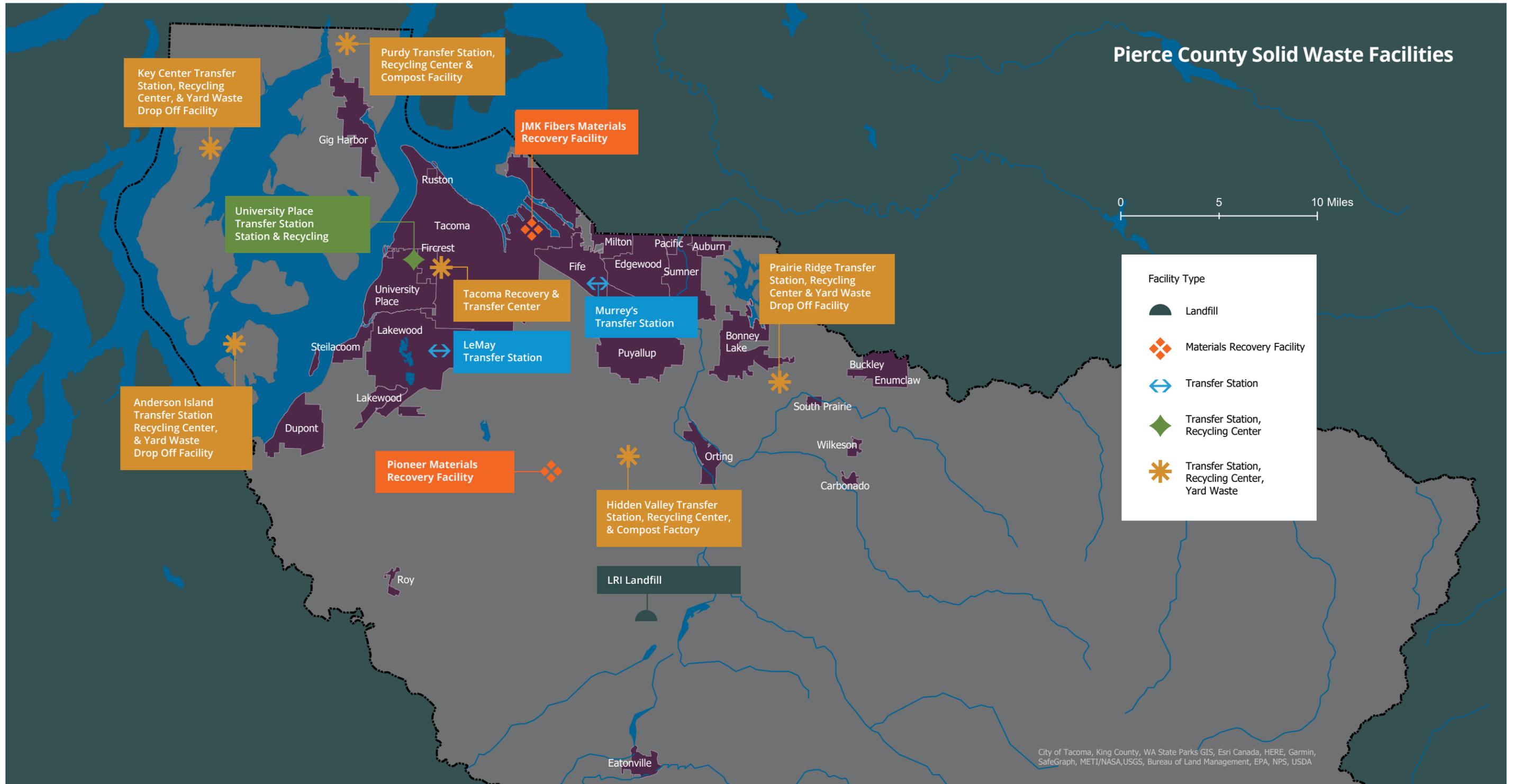
Transfer stations are central collection facilities where solid waste is unloaded from collection vehicles or private vehicles and reloaded into larger vehicles for shipment to a landfill or other processing facility. By combining the loads of several individual waste collection trucks or private self-haulers into a single shipment, companies and jurisdictions managing solid waste save money on the labor and operating costs of transporting waste to a distant disposal site. This can reduce the total number of vehicular trips to and from the disposal site and reduce the associated environmental footprint. Transfer stations can also provide an opportunity to recover certain waste sub streams before wastes are transferred to disposal and can provide for the separate collection of source-separated recyclable materials (including those not collected by curbside programs), yard debris and other organic material, HHW and other special wastes.

From the transfer stations, materials are taken to a municipal solid waste landfill, material recovery facility or compost facility. This chapter describes the various facilities and operations for transfer and disposal. Please refer to the 2000 Tacoma-Pierce County Solid Waste Management Plan and 2008 and 2016 supplements for detailed histories of the Pierce County and Tacoma solid waste systems.

10.2 Conditions Assessment

State regulatory design and operation requirements for transfer facilities are included in the Minimum Functional Standards for Solid Waste Handling (WAC 173-304). Transfer stations should be located in areas of greatest need, which include urban areas where consolidation of waste may have operational and economic advantages or in rural areas where accessibility to curbside collection is limited.

In the three management systems in Pierce County, transfer facilities include publicly and privately-owned transfer stations, drop-box transfer stations, MRW fixed and mobile facilities, and an intermodal facility. The following descriptions define each type of municipal waste transfer facility.





10.2.1 Transfer Stations

A transfer station is a permanent, fixed facility used by self-haul customers and/or route collection vehicles to deposit collected solid waste into a larger transfer vehicle for transport to a disposal facility. A transfer station may include baling and compaction activities, manual or mechanical sorting of recyclables and drop-off containers for separated wastes such as yard waste. They may be sited adjacent to, or with, other solid waste facilities.

In Pierce County and the City of Tacoma, transfer stations are the primary facilities open and available to the public. One transfer station is owned and operated by the City of Tacoma, one is owned and operated by LRI and four are owned by Pierce County and operated by LRI. Under long-term direction of the Tacoma-Pierce County Solid and Hazardous Waste Management Plan, recycling and yard waste drop-off services are provided at all solid waste transfer stations for those who self-haul their materials.

Private haulers in Pierce County also operate transfer stations to consolidate loads and increase the efficiency of the haulers' collection programs. Those facilities are not open to the public. A full list of transfer facilities is included in *Appendix G*.

Additional discussion of disposal of specific waste streams is included in respective chapters *Waste Reduction, Recycling, and Organics Management*.

10.2.2 Drop Box Transfer Station

A drop box transfer station uses a detachable container for receiving solid waste delivered to the site. Separate containers are provided for yard waste and recyclables. This type of transfer facility normally serves general public self-haul customers. Drop box facilities are designed to serve rural or low-density residential areas remote from a disposal facility or other transfer stations, or areas with transportation problems such as an island with only intermittent ferry service.

10.2.3 Moderate Risk Waste Fixed Facility

A MRW fixed facility is used to recycle, sort, and package HHW and MRW prior to transport to a disposal facility. A MRW fixed facility receives hazardous waste from households and/or moderate risk waste from businesses that generate HHW in quantities below the threshold for regulation under Washington's Dangerous Waste Regulations WAC 173-303. These small business generators are generally referred to as Small Quantity Generators (SQGs). This collected waste must be recycled or disposed in designated hazardous waste landfills or incinerators or handled by other alternatives allowed by law. Please see the *Moderate Risk Waste* chapter for a full discussion of MRW handling requirements.

10.2.4 Mobile Collection Facility

A mobile collection facility operates for short durations at numerous locations convenient to residents to collect wastes generally not permitted for MSW landfill disposal. Mobile collection facilities are generally used to collect household hazardous waste only and do not serve small businesses.

10.2.5 Intermodal Facility

An intermodal facility is where material is transferred from one mode of transportation to another (e.g., truck to rail). An intermodal facility typically is used to change the mode of solid waste transport from highway to rail or barge. Intermodals are generally used to ship waste out of the County. They must be capable of efficiently handling large amounts of waste on a timely basis. Pierce County does not currently have an active intermodal facility, but there will be a need for such a facility during the lifetime of this plan. LRI currently has access to an intermodal facility that could be used, should LRI and Pierce County determine an intermodal facility is necessary for long-haul purposes. See additional discussion in the Landfill section of this chapter, as well as in *Planning Issues and Actions*.

10.2.6 Landfills

Whether received at transfer stations by self-haulers or hauling company vehicles, all MSW requiring final disposal is currently transported to the LRI landfill located in Graham. The City of Tacoma and Pierce County separately contract with LRI for this service. Consistent with permit restrictions, direct self-haul to the LRI Landfill is available only for commercial customers delivering large quantities of waste.

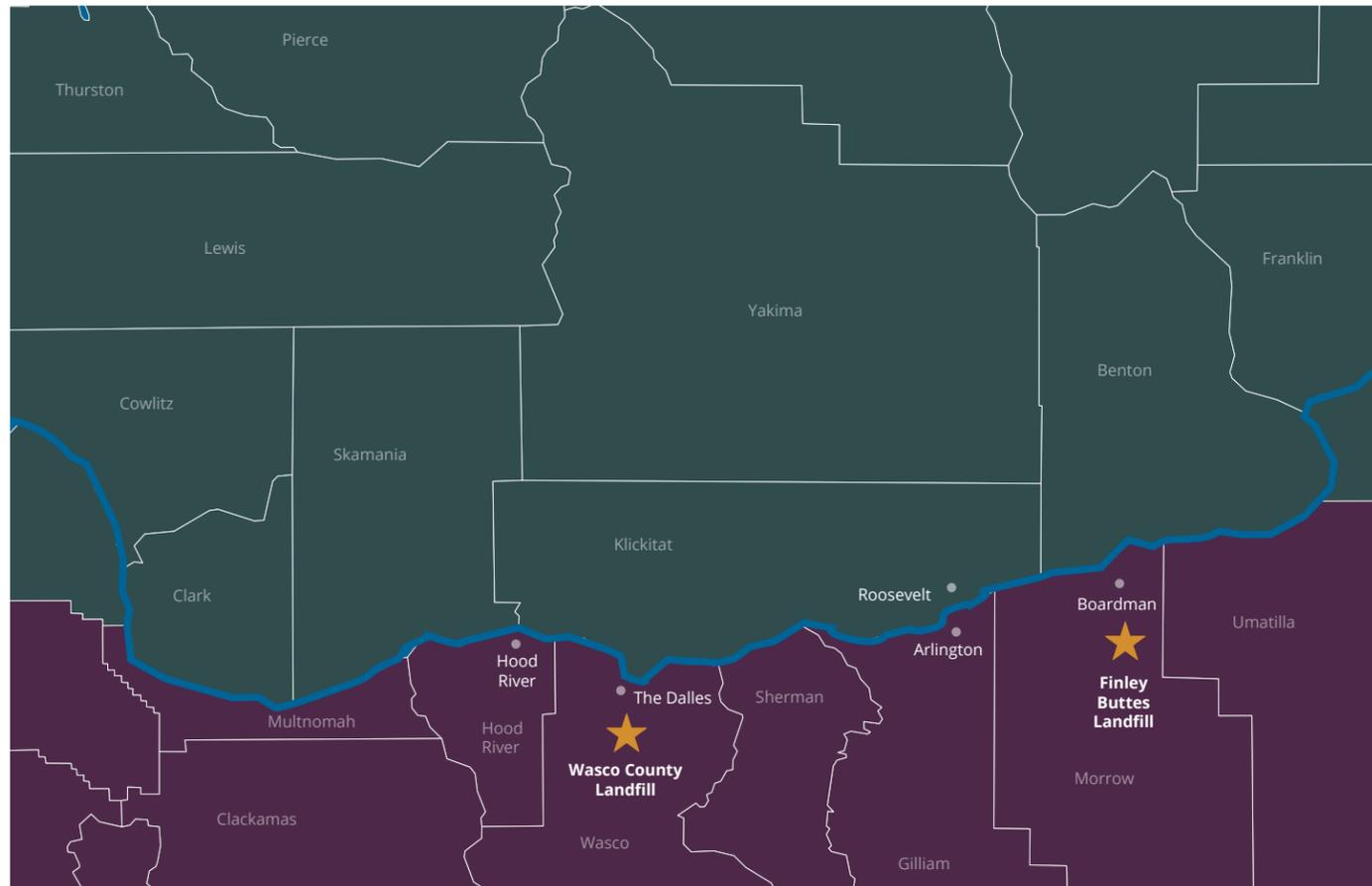
The LRI landfill is a privately owned mixed municipal solid waste landfill on a 320-acre site. The 168-acre landfill footprint has the approximate capacity for 29.2 million cubic yards. The landfill footprint is comprised of cells, and each is underlain by a state-of-the-art liner and leak detection system and includes other technical and regulatory design elements to meet or exceed all regulatory requirements. The footprint was configured to avoid impacts to South Creek and its eastern tributary.

Currently, cell 8B (4.9 acres) is being constructed in 2021. Cell 8 will be a total of 10.7 acres. Cell 9 will be 19.9 acres and cell 10 will be 21.8 acres. As of the most recent flyover on January 14, 2021, roughly 15 million cubic yards of airspace remain. Additional discussion of landfill capacity is provided below in the 20 Year Municipal Solid Waste Handling Projection section, as well as in *Planning Issues and Actions*.

10.2.7 Long-Haul Options

In the event the LRI landfill is not available, Pierce County and the City of Tacoma have contractual provisions with LRI to access other landfills outside of Pierce County—including the Finley Buttes and Wasco County landfills in eastern Oregon owned by Waste Connections, LRI's corporate parent. Long-haul of solid waste by truck or rail will be used as an alternative to reduce the amount of waste going to the LRI landfill. LRI is committed to long-hauling material in order to keep the landfill open through 2036. LRI is currently working on assets and transportation to move Pierce County waste to the Finley Buttes Regional Landfill starting in 2023- 2024. Additional discussion of landfill capacity and context for longhaul transport is in the *Planning Issues* section, below.

Map: Oregon-based long-haul landfill facilities



10.2.8 Managing Closed Landfills

Current closure standards for landfills are intended to isolate municipal solid waste over a long period of time to minimize environmental impacts. During the past 40 years, the handling and disposal of solid waste has become increasingly complex. Modern landfills are now constructed with engineered liners, leachate collection systems, and elaborate gas control systems designed to minimize the public health and environmental impacts of buried refuse. By contrast, almost all the old disposal sites in this report were operated under the standard practices for the time, including burning or disposal into gravel pits, wetlands, ravines, or hillsides. As a result, many of these older landfills have contaminated

groundwater and/or caused methane gas migration onto neighboring properties. Counties and municipalities are commonly burdened with expensive remedial measures for contaminated landfills and dumpsites. Even absent of contamination issues, development or reuse of these sites can be complicated by the presence of solid wastes.

The TPCHD maintains a [Closed Landfill Report](#), last updated in 2010. The objectives of the study were to establish an inventory, identify public health risks associated with closed dumpsites and landfills, and determine the need for further site investigation. Thirty-two

Map: 304th street landfill cells



closed dumpsites and landfills were described evaluated; more than 60 additional less significant or less documented dumping sites were also described. Additional discussion and detail can be found in the most current version of this report. Closed landfill sites continue to be monitored for compliance with regulations and mitigation of public and environmental health hazards.

10.3 20-year MSW Handling Projection

Population and Solid Waste Forecast

For the purposes of projecting long-term capacity needs for MSW, Pierce County maintains a 20-year forecast for the entire county, including the Tacoma and JBLM waste management systems. See *Appendix R* for the full 20-Year MSW Handling Projection. It is reviewed each year as part of the Landfill Capacity Analysis and MSW and non-MSW tonnages.

Population forecasting is based on actual population for 2021 and increased at a rate of 1.25% per year. The population estimates represent long-term trends but do not include projections of short-term or seasonal patterns.

Landfill Capacity Scenarios

The Pierce County – LRI Waste Handling Agreement Section 4.5.2 calls for an annual landfill capacity review of an independent third-party engineer’s report on the remaining capacity in the LRI Landfill. The Landfill Capacity Analysis documents disposal of MSW and non-MSW wastes dating back to the landfill opening in December 1999, and then projects future disposal based on scenarios developed in partnership with Pierce County.

Scenario 1 – No Action

This scenario assumes no implementation of the objectives or actions contained in this plan along with a three-system blended disposal rate per capita. Disposal of non-MSW increases from an average of 400,000 tons to 425,000 tons per year in 2030. Under this scenario, the LRI landfill will reach its capacity no later than 2032. This scenario is not a viable option moving forward.

Scenario 2 – Mix

The Mix scenario assumes implementation of the objectives and actions in this plan only as far as to reduce the rate of disposal overall for the three systems to that of Pierce County before COVID-19. This scenario also calls for a cap on the amount of waste from all three systems in which the excess would be long-hauled by rail to a much larger regional landfill in Central Oregon. This longhaul by rail approach would begin in 2023 and haul up to 110,000 tons of material from Pierce County and as many as 50,000 from Tacoma and JBLM annually. This also calls for a reduction in the amount of non-MSW waste (e.g., soils, special waste) going to the landfill. Under this scenario, the LRI landfill will reach capacity in 2036.

Scenario 3 – Reduction Mix

This scenario assumes implementation of the objectives and actions in this plan to reduce the overall amount of waste disposed in Pierce County by 5% annually. This, accompanied by the long-haul approach from scenario 2 for both MSW and non-MSW waste, will result in significant reduction in GHG as well as food waste and commercial and demolition debris. Under this scenario, the LRI landfill could potentially remain open until 2042.

Conclusion

Pierce County and the City of Tacoma believe that the realistic path forward is somewhere between Scenarios 2 and 3. There are several factors for this, including population growth, funding for all of the objectives and actions, and county staff constraints. While scenario 3 may not be reached in its entirety, a hybrid of these two scenarios will still lengthen the life of the LRI landfill further than originally predicted.

Table 8. Landfill capacity and closure scenarios for 304th St Landfill

| Scenario 1 – No Action | Scenario 2 – Mix | Scenario 3 – Reduction Mix |
|--|--|---|
| MSW Disposal Current blended rate of disposal per capita starting in 2021 | MSW Disposal Current Pierce County disposal rate along with a capped amount from each system with long-hauling of excess | MSW Disposal Reduction based on Plan goals at a rate of 5% annually |
| Non-MSW Disposal Soils and non-MSW are disposed at a rate constant with 2015 – 2019 average of 400,000 tons per year | Non-MSW Disposal Reduction of half going to LRI landfill | Non-MSW Disposal Reduction of the amount going to LRI landfill by as much as possible long-hauled by rail |
| Estimated Closure Date 2032 | Estimated Closure Date 2036 | Estimated Closure Date 2042 |



10.4 Planning Issues

Will a new solid waste disposal facility be sited in Pierce County?

Facilities should be sited to prevent or reduce impacts to other land uses. It is generally appropriate to site these facilities with other solid waste recycling or waste processing or composting facilities, industrial-scale intermodal transportation facilities, or on the site of a closed landfill.

No new MSW landfill disposal sites are planned or anticipated for Pierce County on the horizon of this plan. Locational standards for disposal sites are addressed in WAC 173-304-130, including solid waste facility siting requirements related to environmental and land use factors. Currently, siting of a new facility to landfill MSW is neither desirable nor feasible. Current local landfill capacity is anticipated to end within this period and Pierce County's growing need for landfill disposal will have to be assessed and met through a variety of strategies, discussed further within this section.

While a municipal solid waste landfill siting is not anticipated, siting this or a limited purpose landfill remains a possibility. Landfills of this type include facilities which may encompass

considerable variations in waste types, site conditions, and operational controls. A limited purpose landfill is not allowed to receive municipal solid waste.

How can the Pierce County and City of Tacoma continue to meet the system's solid waste transfer needs as population grows?

Solid waste transfer facilities are an important link between the collection and disposal of MSW. Transfer capacity may need to be increased, particularly in areas experiencing more significant growth. A solid waste transfer capacity evaluation will need to be undertaken to consider options between existing sites (at Purdy and Hidden Valley) versus siting a new facility (e.g., in areas where growth is driving demand, such as the Parkland unincorporated area). Hidden Valley is an LRI-owned facility and could potentially double in size. The transfer station at Purdy could also potentially double capacity based on available land that is already owned by Pierce County. Purdy is expected to remain the hub for municipal solid waste on the Key Peninsula. Transfer stations and drop-box facility standards to help guide this evaluation are in WAC173-304-410.

What are the options for managing the capacity and lifespan of the current landfill? What is the preferred strategy for diversion post-landfill?

The LRI landfill is expected to reach capacity within the horizon of this 20-year plan, and potentially within the period of the County's disposal contract, ending in 2036. A new MSW facility is not being considered as an alternative once the landfill reaches capacity. Long-haul, either by rail or by truck, will either divert a portion of waste in the near-term to extend the life of the landfill, or be used as a primary disposal strategy once it is no longer accepting new waste.

The responsibility to manage disposal capacity through 2036 is a requirement in the County's contract with LRI. An evaluation of disposal alternatives will be required to further consider the parameters and process for implementation of preferred options. The evaluation will address various sources using the landfill (County, City of Tacoma, other private uses), and a detailed projection of

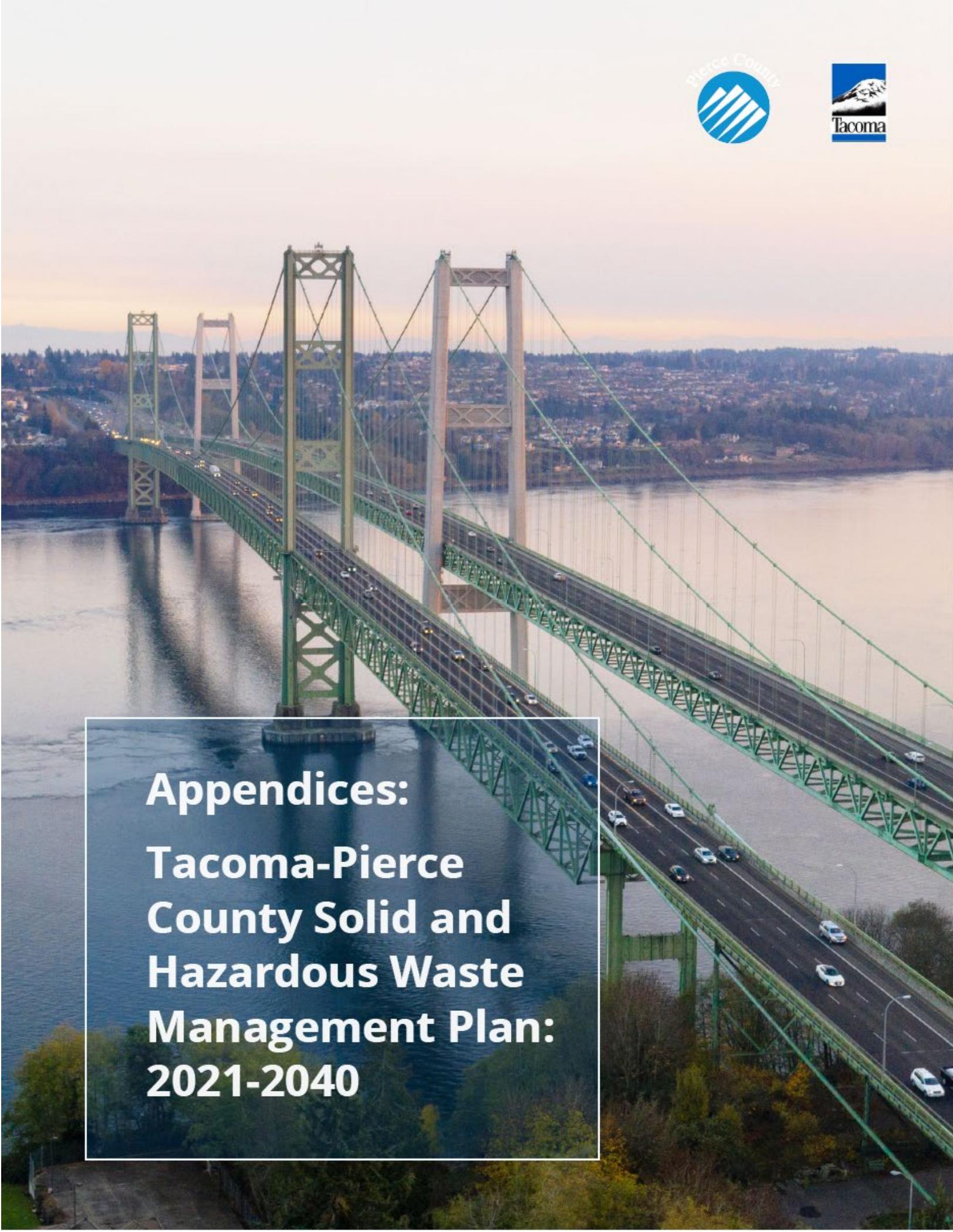
future use and capacity. A key component of the evaluation will be the life-cycle/GHG impacts of various alternatives. Pierce County and the City of Tacoma may both benefit from closer coordination in the future to define joint-use approaches to capital facilities for MSW disposal. A formal arrangement would facilitate dual planning and combining the financial capabilities of the City of Tacoma and Pierce County rate bases.

Exploring options and commitment to a preferred strategy for diversion to maintain capacity and/or post-landfill will result in a preferred approach for discussion in the 2025 SHWMP plan update.



10.5 Actions

- ➔ **Transfer and Disposal Action 1:** The City of Tacoma Solid Waste Management Division and the Pierce County Sustainable Resources Division will meet at least twice annually to evaluate options and preferred strategies for planning and developing infrastructure for the transport and disposal of waste after the closure of the LRI County landfill in Graham.
- ➔ **Transfer and Disposal Action 2:** The County and LRI will work together to divert waste by rail to maximize the landfill's life.
- ➔ **Transfer and Disposal Action 3:** Evaluate options to meet transfer station capacity across Pierce County.

An aerial photograph of the Tacoma Narrows Bridge at dusk. The bridge's green steel towers and suspension cables are prominent, spanning across the water. The sky is a mix of orange and blue, and the city of Tacoma is visible in the background.

**Appendices:
Tacoma-Pierce
County Solid and
Hazardous Waste
Management Plan:
2021-2040**

Appendix A – Glossary

Appendix A – Glossary

Appendix B – List of SWAC Involvement in Creation of the Plan

Appendix C – SWAC Bylaws

Appendix D – Full List of Operators and Service Areas

Appendix E – Full List of Public Education Programs

Appendix F – Full List of Existing Waste Reduction Programs

Appendix G – Full List of Recycling Centers and Transfer Stations

Appendix H – Contamination Reduction and Outreach Plan (CROP)

Appendix I – Full List of Materials Accepted for Recycling in Pierce County

Appendix J – Full List of Materials Accepted for Recycling in City of Tacoma

Appendix K – Pierce County Yard Waste Facilities

Appendix L – List of Hazardous Waste Generators and Receiving Sites

Appendix M – Inventory of Listed Hazardous Sites

Appendix N – List of Registered Dangerous Waste Haulers in Washington State

Appendix O – Pierce County Dangerous Waste Facilities

Appendix P – Pierce County Used Oil Collection Sites

Appendix Q – Biomedical Waste Background

Appendix R – Twenty-year Projected Needs for Solid Waste Handling

Appendix S – Six-year Capital and Operations Financing

Appendix T – WUTC Cost Assessment Questionnaire

Appendix U – SEPA Checklist and FEIS Documentation

Appendix V – Interlocal Agreements

Appendix W – Retained Policies

Appendix X – Amendments and Updates

Appendix Y – Public Comment and County Responses

Appendix Z – Resolutions of Adoption

Glossary of Terms

Below are material management terms that are used in this document. The definitions provided are specific to this document and may not encompass all uses of these terms.

- **China’s National Sword Policy** — “Operation National Sword” was a policy initiative launched in 2017 by the Government of China to monitor and more stringently review recyclable waste imports. Before the policy, China was importing the vast majority of recyclables from North America and Europe for two decades. This practice of buying recyclables brought raw materials for the growing industrial capacity of China, but also brought a lot of contaminated recyclables which ended up accruing in China, causing other environmental concerns such as air and water pollution.
- **Conscious consumption** — emphasizing the holistic impact of purchasing decisions on the environment, consumer health, and more. Can also include discussions on advertising tactics, planned obsolescence, and life cycle analysis.
- **Commingled recycling** — a service where customers can place all program accepted recyclable materials into one container (e.g., plastic, paper, aluminum)
- **Composting** — the controlled breakdown of organic waste to make a soil amendment, conditioner or mulch. Organic materials include such things as yard waste, food waste, wood waste, biosolids (organic solids removed from wastewater treatment) and paper.
- **Composting facility** — a solid waste facility specializing in the composting of one or more organics of a known and consistent composition, other than mixed municipal waste, to produce a marketable product for reuse or as a soil conditioner. Feedstocks may include, but are not limited to yard waste, biosolids, or food waste.
- **Curbside collection** — a service that picks up recyclable items, compost and/or garbage from customers’ properties at regularly scheduled times
- **Dangerous waste** — "Dangerous wastes" means those solid wastes designated in WAC [173-303-070](#) through [173-303-100](#) as dangerous, or extremely hazardous or mixed waste
- **Diversion** — the avoidance of placing items into a landfill through reuse, recycling and composting
- **Drop box transfer station** — a solid waste facility needing a Solid Waste Permit which is used for placement of a detachable container including the area adjacent

for necessary entrance and exit roads, unloading and turn-around areas. The facility normally serves the general public with loose loads and receives waste from off-site.

- **Extended Producer Responsibility** — see Product Stewardship
- **Facility** — a place that receives materials from outside of its site boundaries such as a transfer station or recycling center. Dumpsters and other containers that only service the site where they are located are not considered facilities.
- **Greenhouse gas(es) (GHG)** — A variety of gases that, once released into the atmosphere, trap the sun's heat causing a global greenhouse effect, which is like a heat-trapping blanket. Most GHGs come from the burning of fossil fuels and chemicals used for refrigeration and cooling. Examples of GHGs are carbon dioxide, methane, nitrous oxide and fluorinated gases.
- **Industrial symbiosis** — the notion of a nexus of organizations working together to close the loop by matching waste output with feedstock needs. Can also expand to include things beyond raw materials such as wastewater, gas, etc.
- **Interlocal agreements (ILAs)** — legal arrangements between Pierce County and its cities and towns that establishes the adoption and implementation of the Solid and Hazardous Waste Management Plan.
- **Landfill** — a disposal facility or part of a facility where garbage is permanently placed in or on the land
- **Linear economy** — the traditional production, purchase, and disposal of goods and materials. Opposite of a circular economy which aims to keep goods and materials in use for longer and sometimes never includes the disposal phase.
- **Litter Credit Program** — Litter Credit waives landfill disposal fees up to \$125 for:
 - Victims of illegal dumping (residential property)
 - Community cleanup programs (neighborhoods, parks, beaches, etc.)
 - Resolution of an active solid waste violation
- **Materials Recovery Facility (MRF)** — a place where recyclable items are separated into individual material types (e.g., plastic, paper, aluminum). MRFs sell bales (large compressed blocks of one commodity) of recyclable materials to other facilities where they are processed into new products.
- **Materials Management System**—all aspects of the solid waste system from waste generation to disposal. The system aims to use and reuse resources efficiently and

sustainably throughout their lifecycles. It seeks to minimize materials used and all associated environmental impacts.

- **Minimum Level of Service ordinances** — requirements established for residential curbside recycling and yard waste collection. These requirements must be met by the solid waste collection companies operating in unincorporated portions of the county.
- **Municipal solid waste (MSW)** — a subset of solid waste which includes garbage discarded from residential, commercial, institutional and industrial sources.
- **Non-residential recycling collection** — non-residential recycling collection is defined by several classes of carriers:
 - **Common carriers** are permitted by the WUTC and can collect a specific commodity (or commodities) within a designated geographic territory. Common carriers do not own the commodity being hauled; they are simply providing a transportation service for the owner. For example: a private company hauling cardboard from nonresidential generators to an independently operated recycling facility would be a common carrier. Common carriers are required to provide collection and transportation service to anyone requesting the service within the collection territory. Fees are negotiated between the carrier and the customer.
 - **Contract carriers** are permitted by the WUTC and can collect a specific commodity (or commodities) from a single nonresidential generator. For example: an independent company collecting cardboard from a single manufacturing company would be a contract carrier. Contract carriers negotiate the tariff or fee paid for the service with the waste generator without WUTC involvement. Private carriers are not subject to regulation by the WUTC.
 - **Private carriage** involves the collection and transportation of a commodity (or commodities) by either the commodity generator or the commodity user, if the collection and transport activity is incidental to the overall or primary business of the generator or user. For example: a large manufacturing facility that self-hauled small amounts of cardboard to a local recycler would be considered a private carrier. Recycling firms that collect their own materials for further processing and marketing are also considered private carriers.
- **Old corrugated containers (OCC)** - usually referring to post-use cardboard. Paper bags are sometimes included in this category.

- **Organics** — "Organics" refers to carbon-based materials that include forest slash, food, yard debris, manures, and other agricultural residues.
- **Product Stewardship** — a philosophy and management strategy where the manufacturer takes responsibility for managing its product and packaging throughout its whole life cycle. Also called extended producer responsibility.
- **Recycling** — a series of activities that includes collecting used, reused, or unused items that would otherwise be considered waste; sorting and processing the recyclable products into raw materials; and remanufacturing the recycled raw materials into new products or components of products.
- **Reuse** — repurposing an item or material to avoid its disposal
- **Single-use items** — products that are designed to be used once and then disposed, such as paper coffee cups, plastic sandwich bags and disposable razors.
- **Solid Waste Advisory Committee (SWAC)** — a group required by state law established by the County to “assist in the development of programs and policies concerning solid waste handling and disposal.” The SWAC reports to the Pierce County Council.
- **Special waste** — those materials with unique collection, handling and disposal requirements that are not generally part of the mixed municipal solid waste stream. Includes items such as contaminated soils, street sweeping residues, waste from cleaning manholes and storm drains, sludges, boiler or incinerator ash and many industrial wastes.
- **Sustainability** — treated holistically; sustainability should not be confused with “green” or “environmentally friendly”. Sustainable decisions and actions consider all factors that might affect maintainability, such as economics, efficiency, equitability, effectiveness and the environment.
- **Transfer station** — a solid waste facility needing a Solid Waste Permit which is a permanent, fixed supplemental collection and transportation facility, used by personal and route collection vehicles to deposit collected solid waste from off-site into a larger transfer vehicle for transport to a disposal facility. It may include baling or compaction activities or recycling facilities.
 - **Drop box transfer station** — a drop box transfer station uses a detachable container (drop box) for receiving solid waste delivered to the site. Separate containers are provided for yard waste and recyclables. This type of transfer

- facility normally serves general public self-haul customers. Drop box facilities are designed to serve rural or low-density residential areas remote from a disposal facility or other transfer stations, or areas with transportation problems such as an island with only intermittent ferry service.
- **Moderate risk waste fixed facility** — a moderate risk waste (MRW) fixed facility is used to recycle, sort, and package household hazardous and moderate risk waste prior to transport to a disposal facility. A MRW fixed facility receives hazardous waste from households and/or moderate risk waste from businesses that generate hazardous waste in quantities below the threshold for regulation under Washington’s Dangerous Waste Regulations WAC 173-303 (these small business generators are generally referred to as Small Quantity Generators). Waste that is collected must be recycled or disposed in designated hazardous waste landfills or incinerators or handled by other alternatives allowed by law. (The Tacoma-Pierce County Local Hazardous Waste Management Plan provides a full discussion about moderate risk waste handling requirements.)
 - **Mobile collection facility** — a mobile collection facility operates for short durations at numerous locations convenient to residents in order to collect wastes generally not permitted for MSW landfill disposal. Mobile collection facilities are generally used to collect household hazardous waste only and do not serve small businesses.
 - **Intermodal facility** — an intermodal is a facility where material is transferred from one mode of transportation to another (e.g., truck to rail). An intermodal facility typically is used to change the mode of solid waste transport from highway to rail or barge. Intermodals are generally used to ship waste out-of-county. They must be capable of efficiently handling large amounts of waste on a timely basis.
 - **WACSWM** — the Washington Association of County Solid Waste Managers is an affiliate “caucus” of the Washington State Association of Counties (WSAC), that provides a collective voice for local solid waste officials in Washington State to advocate for a strong, effective and efficient solid waste system.
 - **Washington Utilities and Transportation Commission (UTC)** — a three-member board appointed by the governor of Washington. The UTC is responsible for regulating fees, services, and practices of privately owned utilities (solid waste haulers) and transportation companies.
 - **Waste**—items that are discarded and managed through either recycling, composting or garbage services

- **Waste reduction** — actions taken before waste is generated to either reduce or completely prevent the generation of waste. Some further divide this term into categories, such as waste prevention, avoidance and minimization. In this document, the term reduction includes all these other categories.
- **Waste Trends Analysis** — Pierce County's annual program that inventories items found in the municipal garbage. Waste is manually sorted and classified to help the system administrators better understand what is being discarded.
- **WRRRA** — the Washington Refuse and Recycling Association is an association of solid waste companies and professionals that promote the private solid waste and recycling industry and their member companies.
- **WSRA** — the Washington State Recycling Association is a nonprofit membership organization dedicated to supporting waste reduction, reuse, recycling, and composting in Washington.
- **Yard waste** — natural yard debris that can be composted or ground-up for mulch, such as grass clippings, brush, leaves and tree limbs

Solid Waste Advisory Committee Involvement

Full meeting details including agenda, meeting summary, presentations, and handouts can be viewed [here](#).

September 9, 2020:

The planning team (Pierce County staff and EnviroIssues) gave a presentation on the SHWMP. It was the first presentation given to SWAC about the SHWMP so it was very high level. A discussion followed regarding SWAC's role in the plan development. Following the SWAC meeting, members received a comment form to provide input on the SHWMP planning process.

November 18, 2020:

The planning team gave a presentation on the SHWMP. The focus was on topics of policy to give SWAC a brief overview of what was being emphasized or discussed in the plan. An update on the progress of the plan's development was also given. There was discussion about food waste, extended producer responsibility, and more. A brief survey was sent out to SWAC following the meeting to inquire about topics of interest and preferred methods of engagement as we move forward.

Survey results can be viewed [here](#).

December 9, 2020:

Pierce County presented on the Contamination Reduction and Outreach Plan (CROP - an appendix of the SHWMP). Troy Rowan (Tacoma-Pierce County Health Department) gave a presentation on the hazardous waste aspect of the SHWMP.

March 10, 2021:

The planning team gave an update on the SHWMP. A survey was given to SWAC members asking for feedback on their experience with the solid waste system in Pierce County.

April 14, 2021:

April's meeting focused on the interconnection between the Sustainability 2030: Greenhouse Gas Reduction plan and the SHWMP. There was also a presentation on a life cycle assessment tool that may be utilized within the 20-year period of the SHWMP.

May 12, 2021:

SWAC was reminded of their role in the voting process, which will take place in June. They will have received and reviewed a draft of the SHWMP to vote on. An opportunity to ask for clarification or send comments was also provided prior to the vote.

June 9, 2021:

The June meeting was kicked off by a presentation of the SHWMP plan. Nicole Lobodzinski (Envirolssues) discussed the chapter elements, Ryan Dicks presented on the actions implementation table, Lizzy Paul discussed the CROP, and Troy Rowan presented on the Local Hazardous Waste Management Plan. We felt these appendices would be most intriguing to SWAC members. After the presentation, there was an additional opportunity to discuss the plan and answer any questions. The vote was held and SWAC unanimously recommended Council's adoption of the plan.

May 11, 2022:

SWAC was sent the plan after it was approved by the Pierce County Council but prior to final submittal to Ecology and instructed to review the waste reduction and recycling elements and associated actions of the plan.

From: Ryan Dicks

Sent: Wednesday, May 11, 2022 7:40 AM

To: Alexander Kenesson; Aminah Othman; Anneliese Feld; Chris Brown; Chris Giralde; David Artis; David Powers; Ellen Knowlen; Esther Beaumier; Karen Hultgren; Keith Johnston; Lewis Griffith; Michelle Ross; Ron Backman; Ryan Dicks; Tom Swanson

Cc: Karen Hultgren

Subject: The Tacoma-Pierce County Solid and Hazardous Waste Management Plan: 2021-2040

Dear members of the Pierce County SWAC,

On Tuesday, April 5th, the Pierce County Council passed an ordinance to adopt The Tacoma-Pierce County Solid and Hazardous Waste Management Plan: 2021-2040. This plan has been under development for almost two years and the SWAC recommended adoption of the Plan back in June, 2021. Thank you for your involvement in the creation of the plan and helping us achieve this milestone!

According to RCW 70A.205.115(3), once the Plan is approved by the local legislative authority but before it is submitted to Ecology for approval, the SWAC reviews the waste reduction and recycling element of the Plan. The most updated version of the Plan is here. Please take a look at Chapter 4 (Waste Reduction) and Chapter 5 (Recycling) and the associated actions which are contained in page 37-48. The County is currently getting the interlocal agreement back from Docusign, and then the Plan will go to the cities and towns for adoption. Once we have all of the Resolutions we will add them into the appendix and the Plan will be ready for final review from Ecology.

Thanks for your support.

Ryan Dicks

Sustainable Resources Administrator

253.798.8603

Pierce County Sustainable Resources Division

Rules and Procedures for Pierce County Solid Waste Advisory Committee

Adopted: September 16, 2006

Revised: May 11, 2011

Revised: April 10, 2013

Revised: December 13, 2017

A Solid Waste Advisory Committee (SWAC) for Pierce County was created by the Pierce County Council and is described in Chapter 2.92 of the Pierce County Code. The SWAC adopts these General Rules and Procedures to supplement provisions of the County Code. Unless otherwise indicated in these Rules of Procedure the following terms apply:

“Department” means Pierce County Planning and Public Works Department;
and

“Staff” means an employee (or employees) assigned by the Planning and Public Works Director, or designee, to work with the SWAC.

Members

- 1) The SWAC is composed of voting and non-voting members, pursuant to Pierce County Code Chapter 2.92.
- 2) During the conduct of meetings, all members – voting and non-voting – shall have equal rights and privileges with two exceptions:
 - a) Non-voting members shall not be counted in the determination of a quorum and shall not vote on matters that require the SWAC to take a formal vote.
 - b) Only voting members shall be eligible to serve as Chair or Vice Chair.

Officers

- 1) The SWAC shall nominate candidates for the positions of Chair and Vice-Chair from the voting members at the first regular meeting scheduled on or after April 1st. Nominations may be for a slate of candidates or individual candidates for each position. After the Chair closes nominations, the SWAC shall elect its officers.
- 2) The roles of the Chair and Vice-Chair are as follows:
 - a) The Chair shall serve as the presiding officer of the SWAC.
 - b) The Vice-Chair shall serve as the presiding officer in the absence of the Chair.
 - c) Together, the Chair and Vice-Chair shall regularly coordinate with Staff to propose meeting topics and agenda, evaluate the SWAC’s performance against its work plan, propose training topics or tour opportunities for SWAC members, and schedule external reports and communications.

Appendix C – SWAC Bylaws

- 3) If the Chair is unable to fulfill a complete annual term position, the Vice-Chair shall serve as Chair for the remainder of the year.
- 4) If the Vice-Chair position becomes vacant before a regularly-scheduled election, the Chair shall call for nominations and election of a new Vice-Chair to serve for the remainder of the year.
- 5) Should both the Chair and Vice-Chair be absent from a meeting, the member present with the most seniority on the SWAC shall serve as Acting Chair during the meeting.

Meetings

- 1) The SWAC will meet at least four times a year.
- 2) Annually, the SWAC may consider and adopt a proposed meeting schedule and work plan or ask Staff to prepare the same.
- 3) To handle additional workload, the SWAC may schedule additional meetings, as long as sufficient public notice is provided.
- 4) The SWAC will use different types of meeting formats for various purposes:
 - a) A **Community Conversation** is a type of meeting hosted by the SWAC where the SWAC reaches out to the community to gather input on a specific topic before making a recommendation in a report to the County Council or County Executive. Generally at these meetings, the public will be given the opportunity to ask questions about the topic and brainstorm with the SWAC on solutions. The SWAC does not take formal action, such as a vote, at these meetings.
 - b) At regular SWAC meetings, the SWAC will act as a **Sounding Board** to provide guidance and advice on Department or Division proposals, and to provide opportunities for the general public to bring up and comment on solid waste issues. In these meetings the SWAC will use a consensus decision-making process when possible unless a formal vote has been requested.
 - c) When the SWAC has been requested to provide a formal position on an issue by the County Council, Executive, or Department, such as on updates to the Solid Waste Management Plan or on proposed resolutions, ordinances, or programs, the SWAC's purpose will be to provide **Formal Review** and adopt a report with recommendations. In these cases, the SWAC will vote on the recommendation. There will be an opportunity for minority reports.
- 5) Unless otherwise noticed, meetings will be held in a public meeting room at the Tacoma Mall Plaza, 2702 S 42nd Street, Tacoma, Washington. The SWAC may choose to schedule

Appendix C – SWAC Bylaws

meetings in alternate locations around the County particularly when hosting Community Conversation type of meetings.

Agenda and Notice

- 1) Staff, in consultation with the Chair, will prepare a proposed agenda for each scheduled meeting.
- 2) Agendas should provide an opportunity for the public to raise issues not already discussed at the meeting.
- 3) No less than one week prior to the date of the meeting Staff shall post meeting materials on a County webpage designed for SWAC communications and shall also send an e-mail to SWAC members and interested parties. The posting and e-mail shall serve as notice and include the date, time, and location of the meeting.
- 4) Special meetings should be announced with as much advance notice as possible.
- 5) SWAC members and other persons may request to receive meeting notices and meeting materials by U.S. Mail, or by picking up copies at the Department offices, or other methods mutually agreed to by SWAC Chair and Staff.
- 6) Telephone notice to SWAC members may be used to notify members of special meetings.
- 7) Topics may be added to the proposed agenda by telephoning or e-mailing the Chair and Staff prior to the meeting, or at the opening of the meeting.

Conduct of Meeting

- 1) Members and visitors at the meetings will treat each other with respect, will not monopolize meeting time, and will listen to and try to understand each other's views.
- 2) At Community Conversation meetings:
 - a) The Chair will open the meeting, introduce members and the topic of the meeting, and identify if a presentation is to be made.
 - b) The Chair should explain that no action will be taken at the meeting by the SWAC.
 - c) The audience members will then have the opportunity to ask questions and comment on the topic.
 - d) If an audience member gets too far off the subject or complains about other solid waste issues, the Chair should remind the person of the meeting's topic and direct him or her to raise the topic at a regular SWAC meeting. Staff could be asked to explain to the person, after the meeting, how that particular issue could be handled.

Appendix C – SWAC Bylaws

- 3) The SWAC will conduct business by consensus whenever possible and will seek opportunities to develop group solutions and resolve conflicts. To reach a consensus decision, SWAC members will make proposals, hold additional discussion, and then the Chair will call for the consensus decision on the proposal. During the discussion of a topic, the Chair should provide opportunities for audience members to participate.
- 4) Robert's Rules of Order should be used for formal motions when a vote is needed, and may be used when consensus is not achievable.
- 5) Proxy votes are not permitted.

Review Process

- 1) The SWAC may engage in two types of formal review upon receiving requests, duly transmitted in writing, from the Chair of the County Council, the Chair of an appropriate Committee of the Council, the County Executive, or Staff:
 - a) The SWAC may review and make recommendations on resolutions, ordinances, plans, or programs relating to solid waste handling prior to final action by the Council.
 - b) The SWAC may also review and advise the Department on the design and implementation of plans and programs
 - c) After discussion in one or more meetings, the SWAC shall adopt recommendations by a majority vote of the SWAC voting members on the proposed resolution, ordinance, plan, or program they have been requested to review. The Chair, assisted by Staff, shall draft a written response transmitting the SWAC's recommendations.
 - d) If two or more members of the SWAC hold a minority opinion in opposition to the majority vote of the SWAC, those holding the minority opinion may, among themselves, draft a minority report which shall be transmitted at the same time as the Chair's written response.
- 2) The SWAC may engage in the following, less formal, advisory roles:
 - a) Holding community conversation meetings to solicit community input on solid waste topics
 - b) Acting as a sounding board, to research and discuss solid waste topics
- 3) When the Council, Executive, or Department request formal review or less formal review, the SWAC Chair shall notify SWAC members of the requested action and of any deadlines for completing review or providing advice. This notice may be provided during a regularly scheduled SWAC meeting or through other means of notice as allowed elsewhere in these Rules.

Appendix C – SWAC Bylaws

- 4) The Chair shall place the item on an upcoming agenda and/or may set a date for the SWAC to solicit comment from the community.
- 5) At the Chair's discretion, or by a majority vote of the SWAC voting members, the item may be transmitted to a subcommittee or an Advisory Group for review and comment. The Chair shall establish a deadline for subcommittee or Advisory Group review, provide members with direction or any specific review questions, and schedule regular updates from the subcommittee or Advisory Group Chair, as necessary. If the subcommittee or Advisory Group fails to meet the review deadline, the SWAC shall proceed to take action without subcommittee or Advisory Group comment.
- 6) Concerning items of less formal advice: after discussion in one or more meetings, the SWAC shall adopt, by consensus, a written report on the SWAC's findings.
- 7) SWAC members wishing to review issues not otherwise requested shall consult with the Chair to have the item placed on a future agenda.
- 8) If the SWAC, by a majority vote, wishes to propose an amendment to an adopted resolution, ordinance, or plan or wishes to request clarification of a Council action or direction, the SWAC Chair shall first prepare a written request with the assistance of Staff outlining the SWAC's reasons for desiring a review and asking the Council for direction.

Record of actions

- 1) Regular and special meetings of the SWAC, subcommittees and Advisory Groups shall be electronically recorded. Staff serving as Secretary shall record substantive motions in writing, record votes by roll call, and prepare a meeting summary which shall be considered, revised (if necessary), and adopted by the SWAC at its next regular meeting. Copies of the recording shall be maintained by the Department pursuant to a retention schedule approved by a Department Records Specialist and the State Archivist.

Communications

- 1) Formal communications or reports shall be made in writing.
- 2) The spokesperson at Council meetings for the SWAC shall be the Chair or his/her designee.
- 3) The spokesperson may, through oral presentation, clarify, but not expand upon, formal written communication.

Appendix C – SWAC Bylaws

- 4) When a SWAC member takes an independent action on a solid waste issue, such as testimony before the Council, conversation with the Department, or letters to public officials or a newspaper, the member must state on the record that the member expresses a personal opinion rather than a position of the SWAC or Advisory Group. The entire SWAC should be informed of the action.

Participation and Attendance

Pierce County Code 2.92.060 directs the SWAC to adopt “procedures by which the SWAC will notify the County Executive should any member of the SWAC demonstrate performance sufficient to cause his or her removal.”

- 1) SWAC members will make every effort to attend all scheduled meeting. Members will notify the Chair and Staff if the member is unable to attend a SWAC meeting. The Chair, with assistance from Staff, shall document the excuse provided for the absences in question. If no excuse is giving for a particular absence, it shall be considered unexcused.
- 2) At the start of each meeting, the Chair will ask Staff to call the roll of SWAC members. For any member absent, the Chair shall announce whether the member’s absence is excused or unexcused. Staff will record the roll call, and notify the Chair if a quorum is present.
- 3) Staff will maintain an ongoing attendance record for all SWAC members and provide this record to all SWAC members, in writing, at least quarterly.
- 4) Any member with three or more unexcused absences in any twelve-month period, or who misses greater than 50-percent of the scheduled meetings in any twelve-month period, shall automatically be considered for removal from the SWAC.
- 5) The SWAC may, by majority vote of the SWAC voting members, recommend that the County Executive, with the consent of the County Council, replace any voting member who has three or more unexcused absences, or who misses greater than 50-percent of the scheduled meetings in any twelve-month period. Prior to the SWAC’s vote, the member shall have the opportunity to explain why he/she should remain on the SWAC.
- 6) Concerning non-voting members, the SWAC may, by majority vote, recommend to the respective appointing authority or organization, the replacement of any non-voting member who has three or more unexcused absences, or who misses greater than 50-percent of meetings in any twelve-month period.

Subcommittees and Advisory Groups

Appendix C – SWAC Bylaws

- 1) The SWAC may create one or more subcommittees or Advisory groups to advise the SWAC and better manage its work. Subcommittees shall be composed of no more than five voting members of the SWAC. Advisory Groups shall be composed of less than a quorum of SWAC members, and may include non-voting members of SWAC and individuals not serving on the SWAC, selected for subject matter interest or expertise.
- 2) The SWAC Chair shall appoint subcommittee and Advisory Group members, subject to confirmation by a majority of the SWAC voting members.
- 3) The SWAC Chair shall appoint the subcommittee or Advisory Group Chair.
- 4) Subcommittees and Advisory Groups shall be of an advisory nature only and shall make recommendations to the SWAC on matters specifically assigned by the SWAC.
- 5) All members of Advisory Groups share equal rights and privileges including participation in quorums and voting.
- 6) Subcommittees and Advisory Groups may meet informally, without minutes; however, the Subcommittee or Advisory Group Chair shall keep the SWAC Chair informed, and report to the full SWAC at each SWAC meeting which occurs while the subcommittee or Advisory Group exists.
- 7) All Subcommittee and Advisory Group meetings shall be announced to the SWAC, publicized as mutually agreed to by the SWAC Chair and Staff, and held in a location open and accessible to the public.

Conflict of Interest/Appearance of Fairness and Interaction

- 1) Members of the SWAC shall disclose personal and/or business interests to the committee that would tend to prejudice the member's recommendations to the Council or the Department.

Additional Powers and Duties

- 1) The SWAC, with assistance from Staff, shall provide orientation information to newly appointed members.

Role of the Planning and Public Works Department

- 1) The Department assists the SWAC in the review process through development of agendas, briefings on issues, transmittal of written communication, meeting logistics, and in maintenance of the records of SWAC actions. Records shall be maintained by the Department pursuant to a retention schedule approved by a Department Records Specialist and the State Archivist.

Appendix C – SWAC Bylaws

- 2) The Department Director, or designee, assigns an individual to serve as the primary staff contact for the SWAC.
- 3) Subject to staffing and budget constraints, the Department may make available additional staff to assist in staffing subcommittees or Advisory Groups.
- 4) Staff shall meet annually with the Chair and Vice-Chair to review staffing and budget constraints.

Amendments

- 1) These general rules and procedures may be amended by majority vote of the SWAC voting members at any regular or special meeting of the SWAC, provided a proposed amendment has been provided to SWAC members and other interested parties at least one week in advance.
- 2) An amendment may also be proposed at any SWAC meeting provided the vote is held until the next meeting.

*Adopted September 16, 2006
Revised May 11, 2011
Revised April 10, 2013
Revised December 13, 2017*

Pierce County Operators and Service Areas

| Operator | Service Area |
|---|--|
| LeMay/Pierce County Refuse | Anderson Island Dupont Eatonville Graham Lakewood Parkland Roy Spanaway Steilacoom Puyallup— Zip codes: 98373 (S of 112th St.), 98375 |
| City of Tacoma | City of Tacoma |
| University Place Refuse/ Westside Disposal | Fircrest University Place |
| Murrey's Disposal / American Disposal / DM Disposal | Bonney Lake Browns Point Buckley Carbonado Edgewood Fife Gig Harbor Key Peninsula Milton Orting Purdy South Prairie Sumner Wilkeson Puyallup Zip codes: 98371, 98372, 98373 (N of 112th St.), 98374 |
| Murrey's Disposal | City of Ruston |

Appendix E – Full List of Public Education Programs

Pierce County Education Efforts

| Program Name | Program Description |
|---|---|
| Business Technical Assistance Program | <p>The business technical assistance program exists as a resource for businesses in Pierce County to learn about how their business can benefit from recycling. The waste reduction and recycling team can offer assistance in getting started with recycling, choosing the appropriate service levels, and educating staff on proper recycling habits. So far, the program is mainly reactive, but hopes to be more proactive as it develops.</p> |
| Community Programs | <p>Community programs are offered regularly, or local groups (Rhododendron Society, scout groups, etc.) can reach out to request custom programming. An environmental educator works with the group to develop classes and workshops for the topic of choice. Regularly scheduled classes open to all residents are offered at least semi-annually. Some topics for community classes include composting, gardening, and sustainability education.</p> |
| EarthMatters Newsletter | <p>Pierce County's EarthMatters newsletter is mailed out on a semi-annual basis (this might be changing to annual basis in near future). Since 2015, the EarthMatters newsletter has been sent out to all single family and multi-family households in the County's solid waste system, which at last count was approximately 242,000 households. Topics covered in the newsletter include: environmental education programming, solid waste system updates, a recycling reminder small poster, and more. The Environmental Education E-News is also sent out via email quarterly.</p> |
| <p>Event Tabling</p> | <p>Each year Pierce County brings our community booth to events throughout the County as a way to directly answer questions about the recycling program and pass out resources. Over time we have honed the list of events we attend in order to have a broad geographic reach across the County. We attend various farmers markets (Puyallup, Lakewood, Steilacoom, Gig Harbor, Orting), live music concerts (Tunes at Tapps in Bonney Lake and Buckley Music in the Park) and community celebrations (Freddie Fest, Garfield Street Fair, Tahaleh Harvest Day, ABC Days). This outreach has been on hold due to COVID-19 but we plan to resume attending events when it is again safe to do so.</p> |
| Mailings | <p>Residents can request recycling reminder magnets and posters for free via our website. In 2020, we mailed out recycling reminder magnets to 110 Pierce County residents on average each month. In addition, we offer meal planning notepads targeted at reducing food waste at the source. In 2020 we mailed meal planners to over 850 residents, with the majority of requests coming in April after the main EarthMatters newsletter story focused on food waste reduction techniques.</p> |

Appendix E – Full List of Public Education Programs

| Program Name | Program Description |
|--|---|
| Meet with Community Groups | Local community groups can request a member of the waste reduction and recycling team to speak with their group about recycling. This is a great resource during a time when many meetings are virtual and some normal work is put on hold due to the pandemic. Groups fill out a simple form on our website and a team member develops the appropriate content for the meeting. |
| Multifamily Support | We estimate that there are 196,000 single-family households and 46,000 multifamily households in Pierce County. Based on data from our Waste Trends Analysis project we know that apartment residents throw away about twice as many recyclables as single-family residents, which is why we provide additional support to multifamily households. County staff conduct field visits, visit with property managers to explain the County's recycling system, provide recycling information on magnets for property managers to give to new and existing tenants, distribute recycling information door-to-door, install recycling and garbage waste enclosure signage, and provide suggestions to Property Managers to help set up their apartment complex for successful recycling. Proactive support tends to focus on larger multifamily complexes but these services are available upon request to any multifamily property within Pierce County. |
| PCRecycle Mailbox and Phone Line | Residential support is available via the PCRecycle email or the sustainable resources phone line. Both options are checked daily and residents can expect a prompt response. This resource allows residents to ask any questions regarding recycling or the solid waste system and often times serves as an educational opportunity to go deeper into a topic. |
| Recycling Website | Pierce County Sustainable Resources maintains an informative website on solid waste, recycling, waste reduction, and more. Some popular resources include: recycling menu, "Why can't I recycle...?", advanced recycling information, and information on environmental education. The website is user friendly and serves as a great resource for residents, schools, and businesses. It is updated on a regular basis to ensure all information is accurate. |
| School Programs | Custom programming is available to teachers in all areas of Pierce County, excluding the City of Tacoma which has its own EnviroChallenger school program. Offerings include customized lesson plans with a focus on developing a community action project and green team and environmental club support. Programs are developed in coordination with teachers and topics include: waste reduction and recycling, natural resource conservation, gardening and composting, and general sustainability education. The community action projects developed with students can include waste reduction, developing and maintaining school gardens, waste diversion through worm composting, upcycled art projects, and other sustainability-based projects. |

Appendix E – Full List of Public Education Programs

| Program Name | Program Description |
|--|---|
| School Technical Assistance Program | <p>Fourteen public school districts, ranging in size from one school location to over 30 school locations, operate in Pierce County (outside of Tacoma) as well as multiple private schools. Our waste reduction and recycling team conducts hands-on recycling assessments at these schools and works directly with the schools to improve internal collection, update materials and teach students and staff what to put into the recycling bin and what goes into the garbage in Pierce County.</p> <p>For Pierce County schools (outside of Tacoma) that have been actively working to improve recycling and reduce waste within their school, we can partner to place a water bottle filling station at the school. This helps reduce the number of single-use water bottles in schools and spreads the message about the importance of waste reduction.</p> |
| Social Media | <p>Sustainable Resources is currently building our presence on Pierce County's social media channels. This year (2021), we introduced a 52-week long campaign called "Waste Less Wednesdays" to share tips on recycling, reducing waste, and more. These posts go out weekly on the Pierce County Planning and Public Works Facebook page. Additionally, we have started to develop short informational videos highlighting different aspects of our solid waste system. The first one is called "Beyond the Garbage Can" and sequential videos will be on topics like food waste, recycling, etc.</p> |
| LeMay - New Customer Welcome Kit | <p>The new customer welcome kit includes: UTC Consumer Guide, Waste Wizard Buck Slip, LeMay brochure, online payment instructions UTC annual letter (with service levels and rates) and the Pierce County Recycling Reminder flyer.</p> |
| LeMay - Annual UTC Letter | <p>The annual UTC letter is mailed out and calendars are available on the website.</p> |
| LeMay - ReCollect - Materials Search + Schedule Finder | <p>ReCollect is an active service feature on the website for customers to learn how to recycle or dispose of a specific material, learn their service day, set up reminders for service day, and more.</p> |
| LeMay - Facebook Page | <p>A Facebook page was launched in 2020.</p> |
| LeMay - Event Tabling | <p>LeMay staff attend community events such as ABC Days and Touch-a-Truck where a booth is set up and educational literature is passed out to participants.</p> |

Appendix E – Full List of Public Education Programs

| Program Name | Program Description |
|---|---|
| Murrey's - New Customer Welcome Kit | New customers receive a packet that includes: new service voucher, annual UTC letter, instructions for autopay online, Pierce County Recycling Reminders flier, and a calendar. |
| Murrey's - Annual UTC Letter | The annual UTC letter is sent to commercial, residential, multi-family, ad roll-off customers. This is required by the UTC. |
| Murrey's - ReCollect - Materials Search + Schedule Finder | ReCollect is an app that residential customers can view service days, schedules, and disposal methods for certain materials. It is available on the hauler website. |
| Murrey's - Facebook Page | Murrey's is on Facebook to share information. |
| Murrey's - Emails and Calls | Important messages can be sent via email or phone call blasts to customers. |
| UP Refuse - Annual Calendar and Newsletter + Welcome Packet (New Customers) | UP Refuse customers receive an annual calendar and newsletter. New customers also receive this information when signing up for service. |
| UP Refuse - Website | The UP Refuse website is maintained with news and announcements. |
| UP Refuse - Facebook Page | UP Refuse maintains a very active presence on Facebook with approximately 25% of their customer base following. UP Refuse is also active on Twitter and Instagram (somewhat). |

Appendix E – Full List of Public Education Programs

City of Tacoma Public Education Efforts

| Program Name | Program Description |
|---|---|
| Commercial Support | <p>SWM education and outreach staff provides education opportunities for commercial recycling customers and commercial food waste customers. These visits usually consist on identifying areas for structural improvements to reduce contamination. In 2019, SWM hired an AmeriCorps member to lead a Food Saver Challenge for local restaurants that consisted of offering education on how to reduce their food waste, means for tracking progress, and offering promotion though the City's media channels.</p> |
| <p>Community Group Meetings Presentations</p> | <p>SWM staff regularly participates in community group meetings (Hilltop Action Coalition, Neighborhood Councils, Eastside Collaborative) and looks for opportunities for collaboration. Additionally, any community group may request a presentation regarding any aspects of SWM's programs via email, phone call, or letter.</p> |
| EnviroChallengers | <p>SWM partners with the City of Tacoma's Office of Environmental Policy and Sustainability to fund a team of environmental educators known as the EnviroChallengers. These educators primarily focus on developing engaging lessons that promote sustainable environmental practices. They currently have a lesson that teaches how to properly use your garbage, recycling, and food and yard waste containers that also discusses the benefits of recycling, composting, and waste reduction.</p> |
| <p>EnviroTalk</p> | <p>The City of Tacoma's Environmental Services Department mails a quarterly publication to all residential customers that highlights news within the department and provides resources to customers on how to properly use the City's utilities. This information includes how to recycle right, the benefits of participating in the food and yard waste program, and any upcoming services changes.</p> |
| <p>Event Tabling</p> | <p>SWM education and outreach staff participates in community booths at local events every year as a way to connect with residents, have deeper conversations about the recycling program, and provide resources on how to recycle right in Tacoma. Staff welcomes the opportunity to participate in all events, but recently has concentrated efforts on participating in both environmental-focus events (South Sound Sustainability Expo, Tacoma Ocean Fest, Zero Waste Washington's Fit-It-Fairs) and events that attract a diverse audience (MLK Day Celebration, Asia Pacific Cultural Center Lunar New Year Festival, Health Hilltop Kids and Families Festival, Taste of Tacoma, Tacoma Pride, Art on the Ave). This outreach has been on hold due to COVID-19 but we plan to resume attending events when it is again safe to do so.</p> |

Appendix E – Full List of Public Education Programs

| Program Name | Program Description |
|---|---|
| Mailings | <p>Customers may request flyers for what is accepted in SWM’s curbside recycling program (residential and commercial), food and yard waste program, and what is accepted at the Recycle Center. In 2020, the recycling flyers were available in the top six mostly widely spoken languages in Tacoma (English, Spanish, Vietnamese, Khmer, Korean, and Russian). Prior to implementing the Recycle Reset Surcharge in 2020, SWM mailed a Residential Recycling Guide to all 56,000+ residential customers that explained why the surcharge was being implemented, and included a flyer of what materials were accepted in the curbside recycling container. Additionally, SWM mailed 56,000+ postcards to all residential customers to notify them that starting in 2021, curbside collection of glass would be replaced with a glass drop-off collection methodology.</p> |
| Multifamily Support | <p>SWM currently has a dedicated staff member focused on multifamily education and outreach. Staff conducts field visits to multifamily properties that are experiencing issues with recycling contamination and works with the property manager to identify opportunities for reducing contamination and recycling right. We have a dedicated multifamily recycling toolkit that contains information specifically tailored to property managers and information specific to residents. In 2019, SWM received funding from The Recycling Partnership to expand our multifamily education and outreach program by providing resources to work with additional partners, facilitate focus groups to “transcreate” materials for top six mostly widely spoken languages in Tacoma (English, Spanish, Vietnamese, Khmer, Korean, and Russian), and facilitate focus groups for SWM collections staff and property managers to identify the barriers to reducing contamination at multifamily properties.</p> |
| Recycle Reset Community Ambassadors | <p>In 2019 SWM was awarded a grant through the Department of Ecology’s Waste Reduction and Recycling Education Grant Program to support the development of a Recycle Reset Community Ambassador Program for residential customers. The aim of this program was to model the community healthcare promotora program developed in the Latinx community to develop community ambassadors that are knowledgeable about the SWM’s recycling program to amplify communications in a way that would be culturally responsive for the various communities in Tacoma. SWM partnered with community based organizations to develop trainings in top six mostly widely spoken languages in Tacoma (English, Spanish, Vietnamese, Khmer, Korean, and Russian). In 2020, SWM was awarded funding from the U.S. Conference of Mayors to expand the Recycle Reset Community Ambassadors Program to include multifamily residents and trainings for the food and yard waste program with emphasis on food waste reduction. These trainings were also offered in the top six most widely spoken languages in Tacoma.</p> |

Appendix E – Full List of Public Education Programs

| Program Name | Program Description |
|---|--|
| School Presentations | The EnviroChallengers primarily lead the education efforts in the schools, however, occasionally SWM education and outreach staff will receive a request from a high school or university to present on the recycling program. Specifically, SWM outreach and education staff has presented at University of Washington-Tacoma and Tacoma Community College. |
| Sort the Sound Waste Game | In partnership with ReCollect, the City of Tacoma Solid Waste Management developed a waste sorting game specific to Tacoma. This game is available in six languages and incorporates Tacoma’s skyline and features into the backdrop of the game. This game allows users to try to correctly sort a material into five streams (garbage, curbside recycling, food/yard waste, glass drop-off centers, or the Tacoma Recycle Center). After a user successfully complete all five levels, they can print out a certificate of achievement. |
| Tagging and Lid Lifts | <p>In early 2020, SWM’s outreach and education staff coordinated with SWM’s collections staff to conduct a targeted tagging campaign for the top contaminants in Tacoma’s residential recycling stream, which were plastic bags and bagged recyclables. This effort aligned with the implementation of the Recycle Reset Surcharge, and with the removal of plastic bags from SWM’s accepted curbside recycling material list. This campaign ran over the course of three collection cycles across the city and saw on average a 67% reduction in tagging for plastic bags or bagged recyclables across from the first collection to the third. The tags were strictly educational and not punitive.</p> <p>SWM’s outreach and education staff used the data from the targeted tagging campaign to identify routes that did not mirror the same trends in reduction in tagging for plastic bag or bagged recyclables and saw either did not change or saw an increase in tagging over the course of three collection cycles. Staff used this information to identify one route to conduct a visual recycling audit, or “lid lift”, and developed a plan for isolating various communication techniques over the course of four audits. The first technique was to tag the residents’ recycling container for contaminants with specific feedback. The second was to promote geographically targeted social media posts for information on top contaminants on that route based on the first week’s observations. The third was to mail the resident a personalized postcard with feedback on common contaminants found in their recycling container from the previous three observations. Staff determined that there was a 12% reduction in “extreme contamination” from the first observation to the last with the personalized postcard being the most effective form of communication on reducing contamination.</p> |

Appendix E – Full List of Public Education Programs

| Program Name | Program Description |
|-------------------------|---|
| Website | The City's website includes information on our garbage collection, recycling (residential, multifamily, and commercial), food and yard waste program (residential and commercial), and our current rates. The information on recycling is a popular subpage (TacomaRecycles.org), and also features an integrated widget from the software program Recycle Coach called "What Goes Where", which allows customers to search for how to properly dispose of materials. Additionally, SWM offers resources on waste reduction techniques and reuse options through the Waste Free 253 subpage |

Appendix F – Full List of Existing Waste Reduction Programs

Pierce County Waste Reduction Programs

| Program Name | Program Description |
|--|---|
| Reduce Waste Webpage | The Reduce Waste webpage houses information on waste reduction tips for individuals. It includes an educational video on the 304 th Street landfill, our Waste Less Wednesday tips, and in-depth recycling guides. |
| Waste Less Wednesday Tips | Waste Less Wednesday is our first weekly social media campaign and is an effort to create a larger social media presence and share simple tips weekly. The tips are designed to be easily applicable to people's lifestyles and touch on topics that are not always discussed in the low waste realm. |
| Water Bottle Filling Station Grant Program | Pierce County is proud to offer up to 15 water bottle filling stations to schools annually. All Pierce County school districts and private schools (outside of Tacoma) are welcome to apply. Priority is given to schools that can demonstrate they are actively working to reduce waste. Selected schools are expected to partner with Pierce County staff to evaluate their existing recycling and waste reduction programs and work on incorporating sustainability efforts school-wide. |
| Sustainability 2030: Greenhouse Gas Reduction Plan | <p>The Sustainability 2030: Greenhouse Gas Reduction Plan outlines a 10-year plan to reduce greenhouse gas emissions in Pierce County. Some action items that focus on waste reduction include:</p> <ul style="list-style-type: none"> • Create business technical assistance program to increase recycling and identify ways to reduce waste through local collaborative networks. (CWM-4) • Continue to support and expand gleaning and food recovery programs. (CWM-7) • Promote reuse of goods through sharing information for landfill alternatives including online platforms such as Buy Nothing groups. (EO-7) |
| Waste Reduction Classes | The Environmental Education team offers classes to schools and community members focused on waste reduction. Some examples include the Zero Waste Garden series and compost classes. These classes are offered online and in-person as appropriate. |
| What's for Dinner? | The What's for Dinner? program is an effort to educate residents on food waste reduction strategies. Residents can request a free meal planning notepad to encourage planned meals to help reduce unnecessary groceries. |

Appendix F – Full List of Existing Waste Reduction Programs

City of Tacoma Waste Reduction Programs

| Program Name | Program Description |
|---|---|
| Waste Free 253 Webpage | Waste Free 253 is a collection of resources to help Tacoma residents be more aware and responsible about personal waste prevention and reduction. |
| Preventing Wasted Food | This webpage hosts information regarding how to reduce your food waste, the differences between “wasted food” and “food waste”, information on food safety, and resources to help residents achieve food waste reduction goals. It also highlights the “Food: Too Good to Waste Challenge” program which challenges both restaurants and individuals to reduce their food waste. |
| Bring Your Own Mug (BYOM) | Beginning in October 2018, the City of Tacoma developed new partnerships with local coffee shops to reduce single-use coffee cup waste using monetary incentives for customers to bring their own to-go mugs to partners’ coffee shops. |
| Bring Your Own Bag (BYOB) | This webpage hosts information about the “Bring Your Own Bag” ordinance that was passed by the Tacoma City Council in 2016 and required retailers to charge a small fee for customers who did not bring their own bags. The webpage also contains information on Washington’s statewide plastic bag ban that was passed in 2020. |
| EnviroStars | EnviroStars was created in partnership with Tacoma-Pierce County Health Department. Tacoma businesses can go green and save money by joining EnviroStars, Washington’s green business program. With support from the City’s Office of Environmental Policy and Sustainability, EnviroStars participants are provided resources and information that help businesses take environmentally responsible actions and to promote their work. |
| Environmental Action Plan | The Environmental Action Plan (EAP) is a list of meaningful, high-priority actions that the City of Tacoma, Tacoma Public Utilities (TPU), and our community will take between 2016 and 2020 to meet the environmental goals outlined in the Tacoma 2025 Strategic Plan. Areas of focus on waste reduction are: <ul style="list-style-type: none"> • Decrease waste generation by 11% per capita, per day to reach 3.9 pounds by 2020 (Target Goal) • Support and advocate for strong product stewardship policies at the state and national levels, minimizing environmental impacts of product and packaging throughout all lifecycle stages, especially manufacturing. (M2) • Conduct and support education and outreach on waste prevention (including food) and toxic reduction, with focused outreach to communities of color. (M4) • Reduce disposable bag use by shoppers. (M9) |

Appendix G – Full List of Recycling Centers and Transfer Stations

Recycling Centers and Transfer Stations

Six of the recycling centers are located at transfer stations in the County. One transfer station is owned and operated by the City of Tacoma, one is owned and operated by Pierce County Recycling Composting and Disposal LLC d/b/a LRI (LRI), and four stations are owned by Pierce County and operated by LRI. The other three recycling centers are located at the various private haulers' offices.

| Location | Facility detail | Operating days/hours |
|------------------|--|--|
| Puyallup | Hidden Valley Transfer Station 17925 Meridian E. | 7 days a week 9 a.m. – 4:45 p.m. |
| Bonney Lake | Prairie Ridge Transfer Station 11710 Prairie Ridge Dr. E | 7 days a week 9 a.m. – 4:45 p.m. |
| Gig Harbor | Purdy Transfer Station 14515 54 th Ave. NW | 7 days a week 9 a.m. – 4:45 p.m. |
| Key Peninsula | Key Center Transfer Station 5900 Key Peninsula Hwy. | Wednesday – Sunday 9 a.m. – 4:45 p.m. |
| Anderson Island | Anderson Island Transfer Station 9607 Steffensen Rd. | October 1 – March 31: Sunday: 10 a.m. – 2 p.m. Monday: 1 p.m. – 5 p.m. April 1 – September 30 Sunday: 10 a.m. – 6 p.m. Monday: 10 a.m. – 6 p.m. |
| Fife | Murrey's Disposal Offices 70 th Ave. E & 48 th St. E | Monday – Friday 7 a.m. – 5:00 p.m. |
| Frederickson | LeMay Offices 4111 192 nd St. E | Monday – Friday 8 a.m. – 5 p.m. |
| University Place | University Place Refuse 2815 Rochester St. W | Monday – Friday 8:30 a.m. – 4:30 p.m. Saturday 7 a.m. – 1:30 p.m. |
| Tacoma | Tacoma Recovery & Transfer Center 3510 S. Mullen St. | 7 days a week 8 a.m. – 6:00 p.m. |

Pierce County Contamination Reduction and Outreach Plan

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Introduction

This Contamination Reduction and Outreach Plan (CROP) for Pierce County is designed to fulfill the requirements of RCW 70A.205.045(10) which states that counties with a population of more than 25,000, and cities within these counties with independent Solid Waste Management Plans (SWMP), must include a CROP in their local SWMP by July 1, 2021. Local governments can either adopt the State CROP or create their own. Pierce County has chosen to create its own.

Under RCW 70A.205.045(10), a local jurisdiction's CROP must include the following elements:

1. A list of actions to reduce contamination in existing recycling programs for single-family and multifamily residences, commercial locations, and drop boxes.
2. A list of key contaminants identified by the jurisdiction or Ecology.
3. A discussion of problem contaminants and their impact on the collection system.
4. An analysis of the costs and other impacts on the recycling system from contamination.
5. An implementation schedule and details on conducting outreach. Contamination reduction outreach may include sharing community-wide messaging through newsletters, articles, mailers, social media, websites, community events, educating drop box customers about contamination, and improving signage.

The goal of this CROP is to identify and plan for appropriate community outreach, education and engagement strategies to reduce contamination and help optimize Pierce County's recycling system.

Background

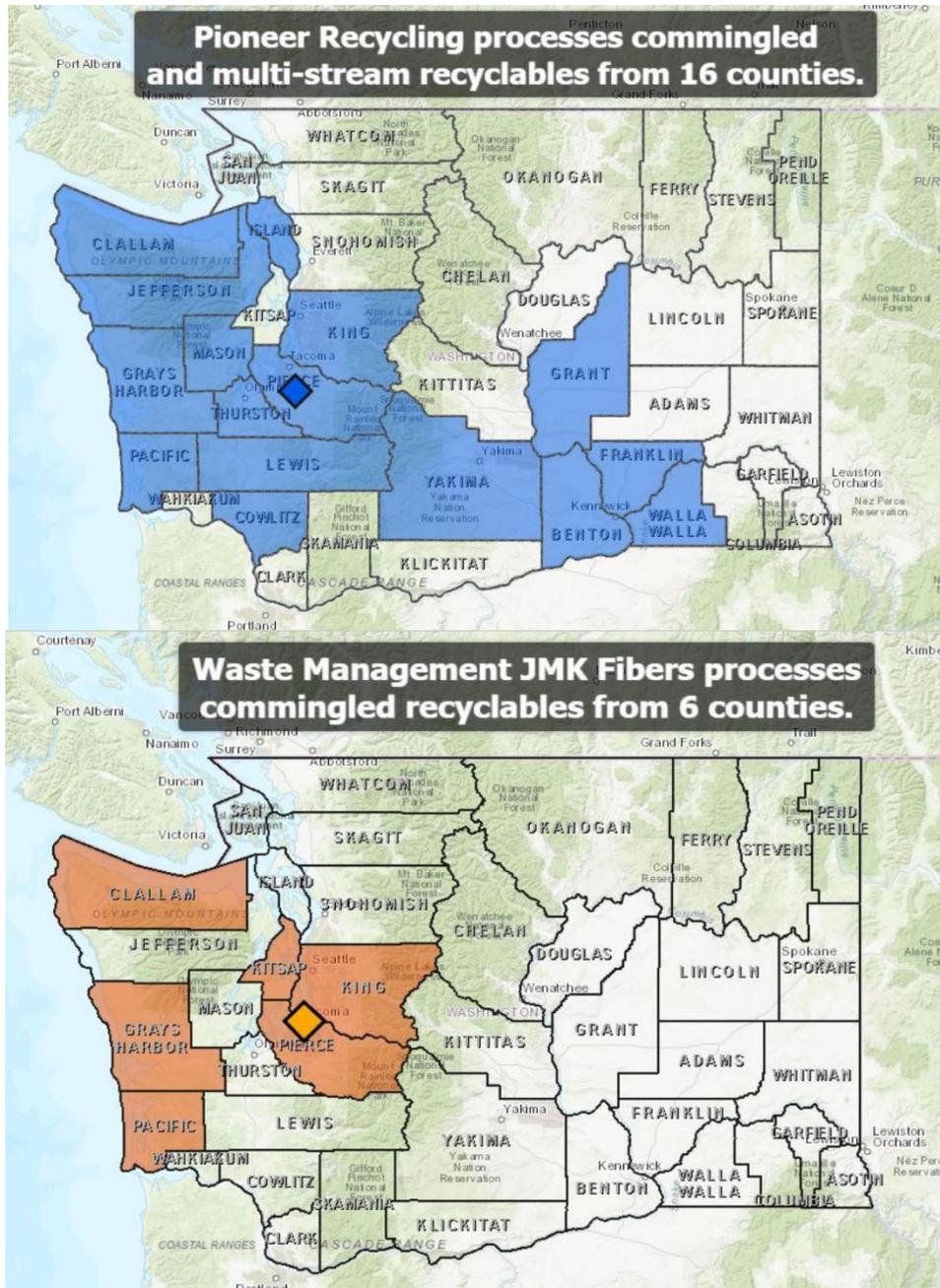
Pierce County has a long history of focusing recycling education and outreach on materials that have the best chance of being turned into new products. Despite our focus on mainstream recyclables, contamination continues to be a problem. Pierce County has a large number of residents who live in Pierce County and work in other counties with a different list of recyclables, and we have a large military population, particularly in multifamily properties, who come from around the country and may not understand that what you can recycle depends on where you are.

For a complete description of the Recycling System in Pierce County, please refer to the Recycling Chapter of the SHWMP. What follows below are details most relevant to keep in mind when thinking about recycling contamination issues in Pierce County.

Appendix H – Contamination Reduction and Outreach Plan

Materials Recovery Facilities

Collected recyclables from Pierce County flow to two separate Materials Recovery Facilities (MRFs). The recyclables collected by the three private waste haulers in the County are processed by Pioneer Recycling Services located in Frederickson and the recyclables collected by the City of Tacoma are processed by JMK Fibers, operated by Waste Management and located in the Port of Tacoma.



Appendix H – Contamination Reduction and Outreach Plan

Pierce County and City of Tacoma staff have worked together so that our accepted materials lists are quite similar, but because the recyclables collected across Pierce County are processed in separate MRFs our County would benefit greatly from state efforts to harmonize recycling lists across the entire state. Pierce County and City of Tacoma would particularly like to see a statewide effort to remove glass from the commingled stream, since that causes confusion in our County where glass is collected separately at drop-off locations. We are fortunate to be located near a glass-to-glass recycling facility in Seattle but we recognize that in other areas of the state it is not environmentally beneficial to transport glass long distances. Ideally, a common list would only include items that are readily recyclable throughout the state, based on life cycle analysis. This effort to harmonize recycling lists could be led by Ecology, and would help reduce contamination in the recycling stream across the state, regardless of where recyclable materials are ultimately processed.

Accepted Recyclables

The Washington State Association of Counties Solid Waste Managers Affiliate, the Washington State Refuse and Recycling Association, and the Department of Ecology have supported the establishment of regional, and if possible, statewide uniformity in what materials are accepted for recycling and how they should be prepared. Pierce County and the City of Tacoma already focus on the four priority materials identified for statewide recovery:

1. Paper (including office and notebook paper, newspaper, mail, catalogues, magazines, and cereal or cracker boxes)
2. Cardboard
3. Plastic bottles and jugs (clear, colored, and natural)
4. Steel and aluminum cans

As of this writing, there are just a few differences in the list of accepted curbside recyclables in Pierce County and the City of Tacoma. Pierce County still accepts plastic buckets and coated paper freezer boxes while the City of Tacoma does not. The City of Tacoma does have a variety of materials that are accepted at their Recovery and Transfer Center that are not accepted in the curbside program. For a complete list of Accepted Materials both curbside and at Tacoma's Recovery and Transfer Center please see Appendix I and Appendix J of the SHWMP.

Appendix H – Contamination Reduction and Outreach Plan

Unified Messaging

Pierce County and the local waste haulers partner to inform residents about Pierce County’s curbside recycling program and solid waste system. In order to provide a consistent resource to residents, the County has always served as the primary source of outreach information. We do that through communication vehicles such as our website, our Earth Matters newsletter, and mailing out recycling reminders to residents. We promote the overall system, which is consistent across the County regardless of service provider. For a complete list of Public Education Programs please see Appendix E in SHWMP.

All of the waste haulers active in the County use and distribute the County’s Recycling Reminder graphic in magnet or flyer form which shows what goes into recycling and what goes into garbage so we have consistent messaging throughout the County regardless of service provider. They also link to this graphic on their websites.

RECYCLING

PREPARATION
empty · clean (quick rinse) · no lids

PLASTIC
Recycle plastics by shape. Ignore numbers/symbols on packaging.

- bottles (non-prescription ok)
- jugs
- tubs
- buckets (remove handle)

PAPER

- mixed paper
- boxes and bags
- cardboard (flat)

METAL

- aluminum cans
- metal cans

**NO GLASS
NO PLASTIC BAGS OR WRAP
NO BAGGED RECYCLABLES**

piercecounitywa.gov/recycle

GARBAGE

Want to know why some things belong in the garbage?
piercecounitywa.gov/reminders

- crinkly plastics
- all cartons
- plastic packaging
- foam trays and containers
- aluminum foil, pans and plates

SINGLE-USE ITEMS:

- paper plates
- paper towels and napkins
- paper cups
- plastic cups
- utensils and straws
- coffee pods

- all lids
- greasy pizza boxes
- shredded paper (use a shred event)
- prescription bottles

**NO ELECTRONICS
NO HAZARDOUS WASTE**

DROP-OFF

Find locations for these items plus options for electronics, appliances, mattresses, clothing, foam packaging and more: piercecounitywa.gov/recyclemenu

- glass
- plastic bags and wrap (at participating grocery stores)
- household hazards

Pierce County Recycling Reminder

While the waste haulers maintain their own websites and provide their customers with customer-specific information, they refer customers back to the County website for recycling information to help promote clear, consistent messaging.

Appendix H – Contamination Reduction and Outreach Plan

In recent years, as recycling markets shifted in the wake of China's National Sword policy, Pierce County and the City of Tacoma have worked together across systems. The move towards harmonizing the systems is also leading Pierce County and the City of Tacoma to cross reference information about each system on websites and social media which improves access for all residents of Pierce County to correct recycling information. We have even collaborated so that images and terms describing accepted materials are the same across jurisdictions. For a more detailed look at efforts being made on this front, including the use of similar graphics, please refer to SHWMP Chapter 3 – Public Outreach, 3.1.1 Coordination Efforts. Going forward, all new outreach materials and messages will continue to be aligned and consistent across all platforms.

Cart Colors

Objective S-1 of the 2016 Supplement to the Tacoma-Pierce County Solid Waste Management Plan was to examine the feasibility of standardized collection, including color consistency of containers, throughout the County. Part of working towards meeting that objective was to inventory service options and container size, color and design across Pierce County. The County worked with our service providers to study those aspects where standardization was the most feasible.

For single-family residential curbside recycling, the majority of carts across Pierce County are a blue-grey speckled color but can also be blue or grey. The color of yard waste carts varies the most, with two service providers having dark blue yard waste carts, to one having green yard waste carts, and one having brown yard waste carts. Three of the four service providers offer green garbage containers for single-family customers, with the other service provider having brown or grey carts depending on the frequency of collection.

Appendix H – Contamination Reduction and Outreach Plan

Single-Family Residential

| Service Provider | Cart Size (in gallons) | | | Cart Color | | |
|-----------------------|------------------------|------------|-----------------|----------------------------|------------|---|
| | Recycle | Yard Waste | Garbage | Recycle | Yard Waste | Garbage |
| LeMay | 96 | 95 | 95 | Blue/Grey Speckled | Blue | Green |
| | 64 | | 65 | | | |
| | | | 45 ¹ | | | |
| | | | 35 | | | |
| Murrey's | 96 | 90 | 95 | Blue/Grey Speckled or Grey | Blue | Green |
| | 64 | | 65 | | | |
| | | | 35 | | | |
| | | | 20 ² | | | |
| UP Refuse & Recycling | 96 | 96 | 96 | Blue/Grey Speckled or Blue | Green | Brown ³ Grey ⁴ |
| | 64 | 64 | 64 | | | |
| | | | 48 | | | |
| | | | 24 | | | |
| City of Tacoma | 90 | 90 | 90 | Blue | Brown | Green |
| | 60 | 30 | 60 | | | |
| | 30 | | 45 | | | |
| | | | 30 | | | |

¹ 45 gallon offered only in Dupont

² Some areas have a 10 gallon option available

³ Brown is every-other-week collection

⁴ Grey is weekly collection



Pictures of Yard Waste, Recycling and Garbage carts from each service provider

Appendix H – Contamination Reduction and Outreach Plan

Pierce County and our service providers (outside the City of Tacoma) worked together to determine that it made logical sense to extend the colors of green for garbage and blue for recycling to the large containers offered to multifamily and commercial customers (including schools). The service providers agreed that the containers at multifamily complexes would be the first ones to bring toward color consistency and new customers would receive containers with these consistent colors. As containers in the field need refurbishing or replacing they are also being changed to have green for garbage and blue for recycling. UP Refuse & Recycling also agreed to the consistent colors for containers, but it only affects their garbage containers since all multifamily and commercial customers use blue or blue and grey speckled carts for mixed recycling in the City of University Place and the Town of Fircrest. The City of Tacoma already has this consistent color scheme for their large containers.

Achieving further container color consistency, specifically for single-family yard waste containers, would be difficult since in early 2021 Murrey's and LeMay's combined have almost 100,000 single-family customers with blue carts for yard waste collection. Changing to blue carts for mixed recycling and another color for yard waste would be prohibitively expensive, create confusion among customers which would likely increase contamination, and result in unnecessary waste.

Container Labels

In conjunction with creating more consistency in container colors, Pierce County worked with our service providers to implement a consistent label on large containers for Mixed Recycling, Garbage and Carboard. These labels are being used by all three service providers—Murrey's, LeMay and UP Refuse & Recycling—on large containers throughout the county. As large containers in the field get replaced by the service providers due to normal wear and tear all replacement containers have the consistent labels on them.



Container labels used by all waste haulers in Pierce County

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The County developed the labels and used teams of Extra Hires during the summer of 2018 and 2019 to relabel containers at over 760 multifamily properties and all the schools around the county. The original design for Mixed Recycling included images, but after we removed three items from our accepted materials list in April 2019 we shifted away from images on Mixed Recycling labels and replaced them with reminders to not put glass, plastic bags or foam, or bagged recyclables into the containers.



Labeled Mixed Recycling and Garbage containers in Pierce County

The City of Tacoma has also worked to implement clear, consistent labels on its recycling containers in the field. The large container labels have minimal text and simple images.

Recycling Only these items belong in your blue recycling container. Items must be empty, clean, and dry.

- Do not put items in plastic bags
- Set container at least 4 feet from other obstructions
- Place container with lid opening toward street
- Do not overfill container, lid must close completely

Solid Waste Management
(253) 902-2900
tacomarecycles.org

| | | | |
|--|---|---|---|
|  |  |  |  |
| Cardboard & Paperboard | Mixed Paper | Aluminum & Tin Cans | Plastic Containers |

NO: PLASTIC BAGS, GLASS, STYROFOAM, FOOD OR YARD WASTE, HAZARDOUS WASTE

City of Tacoma 30G, 60G, and 90G label

| | | | |
|---|---|---|---|
|  |  |  |  |
| Cardboard & Paperboard | Mixed Paper | Aluminum & Tin Cans | Plastic Containers |

Recycle Right

Empty, Clean, and Dry

Solid Waste Management
(253) 902-2900
tacomarecycles.org

City of Tacoma commercial castor box container label.

Multifamily Considerations

There are approximately 210,000 single-family households and 62,000 multifamily households in Pierce County's solid waste system (outside the City of Tacoma). The City of Tacoma provides recycling service to over 56,000 single-family households, and a portion of the 28,000 multifamily units in Tacoma. As of the writing of this plan, the City of Tacoma provides recycling services to 377 multifamily units out of a possible 1,354, which is approximately 28% of the multifamily units in Tacoma.

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Pierce County's Minimum Levels of Service Ordinance defines "Multifamily residence" as any residential structure containing three or more dwelling units with the units joined to one another and where the structure is billed for solid waste collection service as a whole and not by individual dwelling units, which is in alignment with the City of Tacoma's definition. Being billed as a whole unit is a key point. There are townhome communities, for example, that have more than three units connected but still have individual service (carts) and those are not considered multifamily. Multifamily properties are currently not required to provide recycling.

Starting in 2015 Pierce County started focused outreach for multifamily properties, including creating an inventory of properties with more than 40 units and determining if they offered recycling. If they did not, or if they only offered recycling for cardboard, we worked with property managers and service providers to start mixed recycling service. We estimate that we have garbage and recycling container size information for over half of the 62,000 multifamily properties in the County. In order to expand multifamily outreach efforts beyond what we currently do we would need additional staff.

Pierce County provides the following free outreach materials and technical assistance to support multifamily recycling programs:

- Recycling enclosure signage
- Recycling reminder magnets for new move-in packets
- Door hangers showing what is recyclable in Pierce County for every unit in a complex
- Customized notices about starting or changing service levels
- Site visits and waste reduction consultation
- Recycling containers for multifamily complex office or common areas
- Presentations at community events

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Recycling and Garbage signage erected by Pierce County at various multifamily properties



Based on our work, we know that:

- Apartment residents throw away twice as many recyclables as single-family residents.
- On average 20% of the trash collected in apartment complexes could be recycled.
- Pierce County's single family recycling contamination rate is approximately 20% and our best estimate is that the multifamily contamination rate is close to 30%.

Our contamination rate is based on two years' worth (2018 and 2019) of data from the County's Recycling Trends Analysis. Currently, we do not distinguish between single family and multifamily routes in our recycling audit so it all gets mixed together in the analysis. Based on visual inspections from the County and the service providers, there is always more garbage in multifamily recycling than single family. In future recycling audits we will attempt to separate out multifamily and single family recycling.

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Commercial Recycling

In the state of Washington commercial recycling is a free market system, meaning that all permitted companies can compete to provide recycling service to any business. There are also no minimum service requirements for commercial recycling in Pierce County, which leads to a lot of recyclable material ending up in our landfill. Businesses have the choice to recycle or not. While Pierce County has very little influence on commercial recycling, we do try to support commercial recycling programs by creating outreach pieces and providing technical assistance for commercial locations. Our focus going forward is to start with large-volume commercial generators as our limited staff and resources allow.

Contamination Policies

Pioneer Recycling Services, where the recyclables collected in Pierce County are processed, reserves the right to charge supply customers for gross contamination but there have been no recent cases of this happening. In order for this to be justified, the incoming load would need to be severely contaminated. However, according to Pioneer, they see contamination in just about every load received but the quantities are not high enough to alarm the system when delivered.

In general, the various recycling service providers within Pierce County focus their efforts on education when they notice serious, ongoing contamination at a specific location. The private waste haulers can discontinue service for contamination but rarely do. The primary focus is on educating customers to use the service properly by tagging obviously heavily contaminated carts and following up with letters and calls. Customers who do not clean up the contamination may opt to have the contents emptied as garbage and are charged accordingly. Only after repeated, substantial contamination offenses and the driver noticing no change in the customers' recycling habits do the waste haulers consider pulling the carts completely.

The City of Tacoma uses a "three strikes and you're out" policy where the first major contamination offense results in a cart tag, the second offense results in a cart tag and a call from the route supervisor, and the third offense results in a cart tag and another call from the route supervisor who at this point has the right to remove the cart and the resident has to pay a setup fee to get it back.

Measuring Contamination

Contamination rate estimates vary greatly depending on the data source. Within Pierce County we have a contamination rate provided by our MRF, Pioneer Recycling, a rate based on the County's own Recycling Trends Analysis (RTA), and separate data provided by the City of Tacoma's MRF, JMK.

Pioneer Recycling Data

All curbside recyclables collected in Pierce County, excluding the City of Tacoma, ultimately end up at Pioneer Recycling Materials Recovery Facility in Frederickson, WA. Pioneer Recycling also receives material from 16 different counties in Washington. The data collected by Pioneer is not specific to Pierce County but rather accounts for incoming material from all customers. The most recent contamination rate for all incoming material sits at 12.3%.

According to Pioneer Recycling, the following is a list of the top 10 contaminants and the most problematic contaminants they find in the materials

Top 10 Contaminants:

1. Glass
2. Plastic Bags & Film
3. Textiles
4. Food Waste
5. Wood
6. Garden Hoses, Wire, & Rope
7. Diapers
8. Shredded Paper
9. Batteries*
10. Needles*

Most Problematic Contaminants:

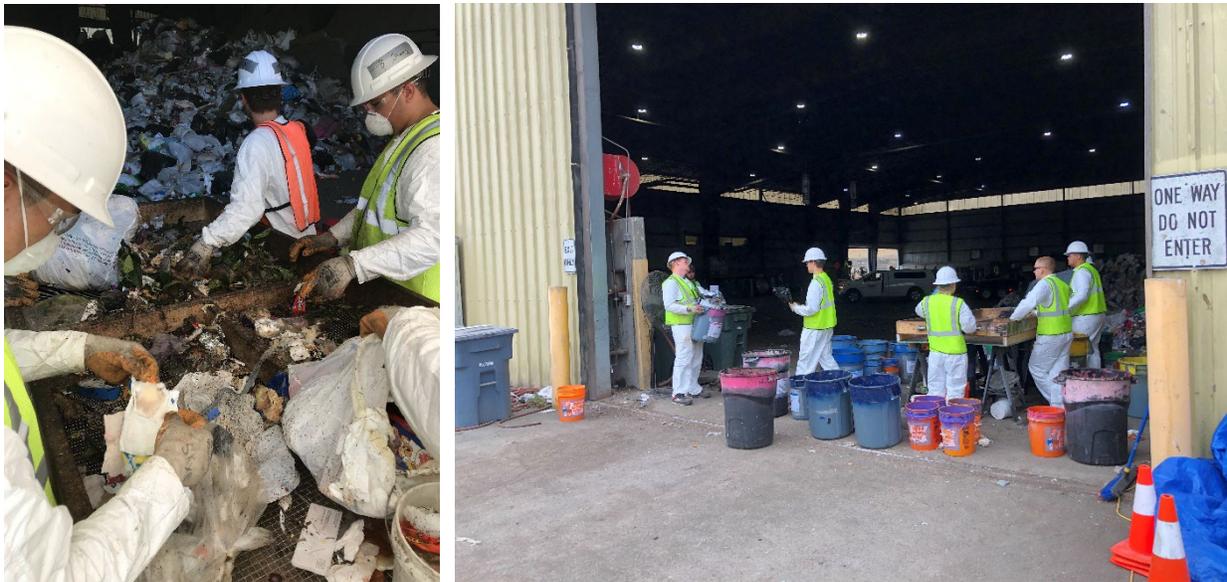
1. Plastic Bags & Film
2. Diapers
3. Clothing & Shoes
4. Batteries & Needles

**While low in volume, these contaminants present significant safety hazards to staff.*

Appendix H – Contamination Reduction and Outreach Plan

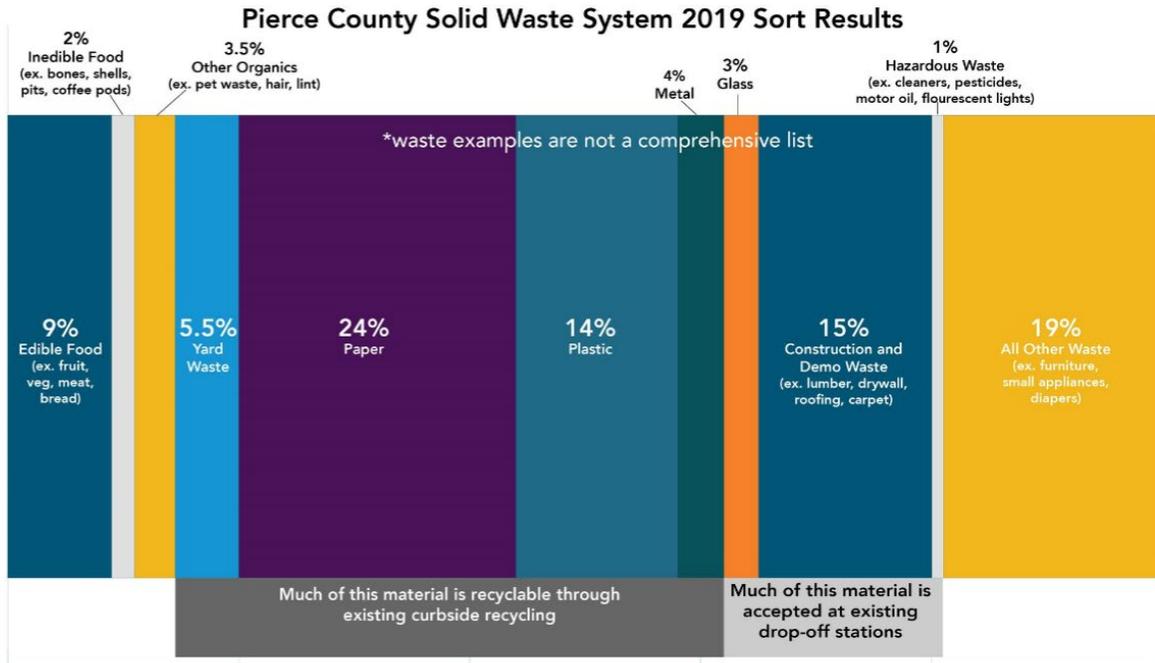
Pierce County Waste and Recycling Trends Analysis Data

Beginning in 2015, Pierce County launched an annual Waste Trends Analysis (WTA) project to document what goes into our landfill and how it changes over time. Starting in 2018, Pierce County also started conducting a Recycling Trends Analysis (RTA) to see what items County residents put into their recycling. For the WTA, County employees dig through and sort incoming garbage for three weeks; for the RTA, County employees sort incoming recycling for two weeks. Based on the data we collect we have solid information about the composition of our waste stream. The WTA and RTA are an integral part of the work we do and the data is often referred to in various efforts. Due to COVID-19, we have not been able to safely conduct these studies for 2020-21, but hope to resume this project in 2022.



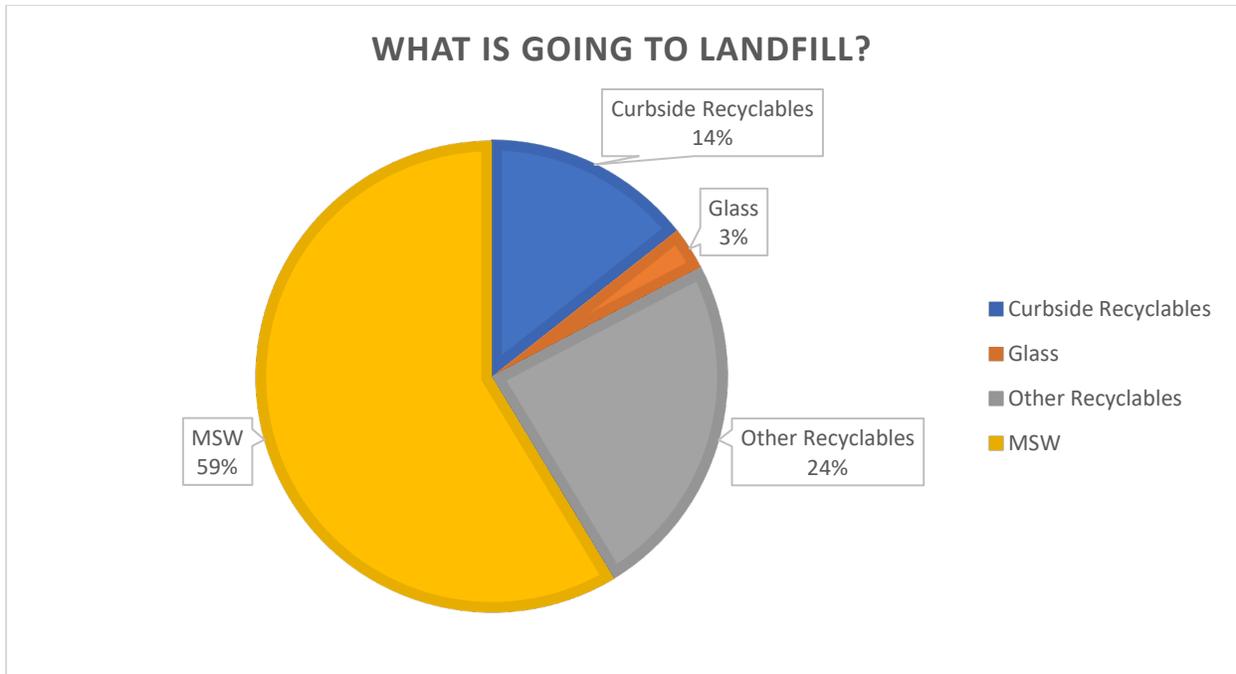
Pierce County employees participating in the 2019 Waste Trends Analysis

Waste Trends Analysis – 2019



Waste is sorted over a 3-week period into 68 different categories of material. The waste sort results above show the general categories, but it is important to note that pieces of each general category may or may not be recyclable. Paper, for example, comprises 24% of the waste system. Within that overarching paper category, paper is sorted into 9 different categories. Some of those categories are paper that is accepted in our recycling stream while other categories of paper are not.

Based on analysis of all 68 categories of material in the 2019 Waste Trends Analysis data, we estimate that **over 41% of our waste stream that is going to the landfill is potentially recyclable.**



We continue to work on changing people’s recycling behavior to capture more of these easily recycled materials that are ending up in the garbage. Curbside recyclables that are accepted in our program like paper, plastics, and metals comprise 14% of what is going to landfill. Glass, which is accepted for recycling at drop-off sites throughout the County, makes up about 3% of what is going to the landfill. The 24% of “Other Recyclables” are things that residents would need to take to a specific location in order to dispose of properly. This includes:

- Plastics (Styrofoam, bags, film)
- Metal (Large appliances, other ferrous metals)
- Organics (Compatible yard waste)
- Construction and Demolition waste (Concrete, insulation, untreated lumber, treated wood waste, asphalt roofing, pallets)
- Other (Tires, mattresses)

To help residents find alternatives to the landfill for these items, Pierce County maintains a large Recycling Menu on its website. The website is user friendly and serves as a great resource for residents, schools, and businesses. It is updated on a regular basis to ensure all information is accurate.

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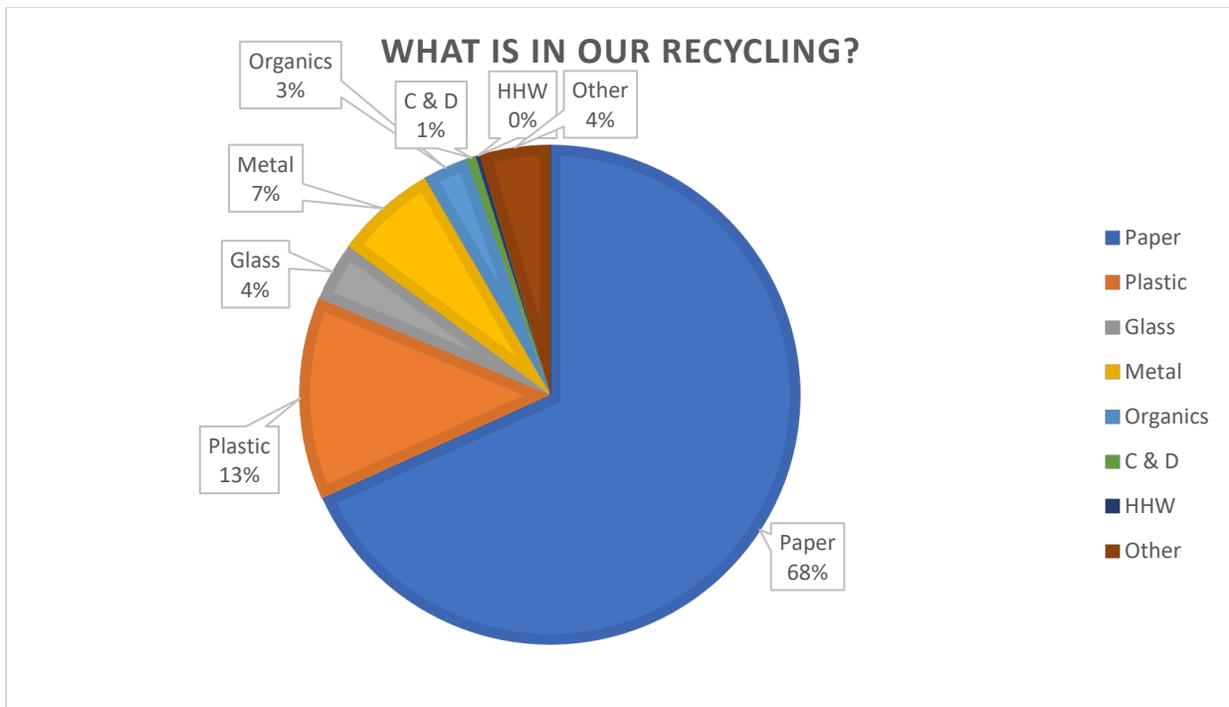
Recycling Trends Analysis – 2019



2018 Pierce County Recycling Trends Analysis

Based on the data collected through the RTA, we have a good understanding of the recycling stream composition, including contamination amounts and types. Currently, our RTA data does not differentiate between customers (single family, multifamily, and commercial) which will be a recommended action for this plan. The RTA data we have collected so far also excludes UP Refuse customers due to logistical

constraints of having a convenient location to sort collected recyclables before they were taken to the MRF.



Recycling is sorted over a 2-week period into 31 different categories of material. Similar to the waste sort results, the 8 general categories shown above include items that may or may

Appendix H – Contamination Reduction and Outreach Plan

not be recyclable in Pierce County's program. Based on analysis of all 31 categories of material in the 2019 Recycling Trends Analysis data, we **estimate that 21% of our recycling is contaminated.**

That 21% is comprised of the following:

- 3.8% is glass that should be taken to a glass drop-off
- 4.9% is other potentially recyclable items that should be taken to a specialized drop-off facility
- 12.3% is waste that should have been put in the garbage.



The most reliable data for contamination levels in Pierce County is obtained during our annual 2-week RTA project. The RTA results of 21% contamination differ significantly from the 12.3% contamination level provided by Pioneer Recycling. This discrepancy may be partially because their data is not specific to Pierce County. Pioneer Recycling accepts material from 16 different counties within Washington and material from out-of-state. Because the figure provided by Pioneer Recycling is not isolated by county, the data from our RTA has informed and will continue to inform our contamination reduction efforts moving forward. The RTA data, combined with customer feedback and information from other regional studies, will help us create and evaluate effective strategies for reducing waste and increasing the capture of valuable recyclables in Pierce County.

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City of Tacoma Data

In May of 2021, the City of Tacoma worked with JMK to conduct a two-week audit of the residential recycling stream to better understand baseline contamination data. The audit consisted of 30 samples and included most routes across the service jurisdiction to ensure that the sample was representative of the overall stream of recyclables.

Through this audit **it was determined that contamination made up 22.2% of the total sample** and 77.8% was deemed “recyclable.” The contamination ranged from as low as 7.5% in one sample to as high as 82.8% in the most contaminated sample. JMK was unable to dedicate staff time and resources to separate out the different contaminants from the aggregate to better understand the proportionality of various contaminants. The City of Tacoma intends to contract out a waste characterization study in 2022 that will allow for a more granular analysis of contaminants in the recycling stream to help make strategic decisions on where to focus education and outreach resources to reduce contamination.

It is interesting to note that both Pierce County’s data and City of Tacoma’s data suggest a contamination rate in the low twenty percent range, while Pioneer’s reported contamination rate is significantly lower.

Initial Key Contaminants

Items identified as contaminants vary based on the data source. The table below illustrates the data we have available and provides a baseline for informing education and outreach efforts moving forward.

The data for Pierce County is the result of the 2019 Recycling Trends Analysis (RTA). Currently, this is the most recent contamination data we have as our RTA has been on hold due to the ongoing pandemic. We hope to continue these efforts in 2022.

Currently the City of Tacoma is relying on information provided to staff from JMK Fibers in December 2020 to determine common contaminants. The City asked JMK Fibers to complete a “MRF Survey” provided by The Recycling Partnership and lists problematic contaminants in the chart below.

Pioneer Recycling submitted a list of the most common and most problematic contaminants seen at the MRF. It is important to note again that the information from Pioneer Recycling is not specific to Pierce County because Pioneer Recycling receives material from 16 different counties. Finally, the information from the Recycling Partnership’s West Coast Contamination Initiative is also included in the table.

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| Items Identified as Contaminants | | | | |
|----------------------------------|---------------|----------------|-------------------|---------------------------|
| Item | Pierce County | City of Tacoma | Pioneer Recycling | The Recycling Partnership |
| Aseptic Packages | ✓ | ✓ | | |
| Bagged Material | | ✓ | | ✓ |
| Batteries | | ✓ | ✓ | |
| Construction & Demolition | ✓ | | ✓ | |
| Diapers | ✓ | ✓ | ✓ | |
| Food | ✓ | ✓ | ✓ | ✓ |
| Glass | ✓ | ✓ | ✓ | |
| Household Hazardous Waste | ✓ | ✓ | | |
| Hypodermic Needles | | ✓ | ✓ | ✓ |
| Liquids | ✓ | | | ✓ |
| Metals | ✓ | | | |
| Other Non-Program Plastics | ✓ | ✓ | ✓ | ✓ |
| Plastic Bags | ✓ | ✓ | ✓ | ✓ |
| Plastic Film | ✓ | ✓ | ✓ | ✓ |
| Shredded Paper | ✓ | ✓ | ✓ | ✓ |
| Tanglers | | ✓ | ✓ | ✓ |
| Textiles | ✓ | ✓ | ✓ | |

The table above shows items deemed as contaminants across four different groups: Pierce County RTA 2019, City of Tacoma, Pioneer Recycling (as of 2021), and the [Recycling Partnership's Study](#).

Impacts on the System

The Recycling Partnership identified some of the impacts that a contaminated recycling stream has on a MRF in their [West Coast Contamination Initiative in 2019](#). Having contaminants in the recycling stream can lead to slowing down the sorting and processing of materials, which has financial implications. Sometimes this means costly shutdowns to repair equipment damaged by contaminants, or shutdowns due to dangerous contaminants (batteries, needles) that injure employees. Contaminants can also reduce the quality and value of secondary material feedstocks. Additionally, when contaminants are successfully removed from the stream at the MRF, the MRF must then bear the cost for disposing of these materials.

According to the Recycling Partnership, the greatest costs associated with managing a contaminated recycling stream at MRFs nationally come from the following and represent 80% of total contamination-related costs: 40% for disposal of residuals; 26% in value lost from contaminated recyclables; 14% in labor to remove contamination from sorting equipment.

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The information provided in the West Coast Contamination Initiative is similar to the feedback we received from Pioneer Recycling. According to Pioneer, significant amounts of contamination increase waste disposal volume and therefore costs. There are also extra labor costs associated with sorting out problem items safely and repairing any machinery. Finally, contaminated feedstock makes it incredibly difficult to achieve the level of quality that consuming mills are demanding today.

Current Contamination Reduction Efforts

Pierce County and the City of Tacoma have already implemented, or are in the process of implementing, many of the education and outreach strategies described by Ecology that are designed to fight recycling contamination. Our efforts are always balanced, however, by efforts to reduce the amount of readily recyclable material currently being put in the garbage. The MRFs are designed to deal with a certain amount of contamination and we try to have the greatest impact on the system with the least cost.

| Contamination Reduction Strategy | Lead Entity | Status |
|--|--|---|
| Uniformity in cart and container colors | Pierce County, in partnership with Waste Haulers | Complete; Ongoing with new large containers |
| Visual, easy-to-understand signage using photos and universal pictures and symbols | Pierce County, Waste Haulers, LRI (for drop-off locations), City of Tacoma | Ongoing |
| Cart-tagging and cart rejection | Waste Haulers, City of Tacoma | Ongoing |
| On-route monitoring tools | Waste Haulers, City of Tacoma | Ongoing |
| Pairing right-sized recycling and trash bins | Waste Haulers, City of Tacoma | Ongoing |
| Up-to-date and easy-to-find and access websites with clear, consistent messaging | Pierce County, Waste Haulers, City of Tacoma | Ongoing |
| Social media posts, campaigns, mailings, brochures, and other communications | Pierce County and City of Tacoma | Ongoing |
| Online apps for residents and businesses to get | Waste Haulers, City of Tacoma | 3 out of 4 offer this already |

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| Contamination Reduction Strategy | Lead Entity | Status |
|---|--|---------|
| answers to their recycling questions | | |
| Community presentations, tabling at community events | Pierce County, City of Tacoma, Waste Haulers | Ongoing |
| School presentation and activities focused on recycling right | Pierce County, City of Tacoma, Waste Haulers | Ongoing |
| Translation and transcreation of educational materials and campaigns to ensure recycling information is clearly understood by all audiences | City of Tacoma | Ongoing |
| Social marketing campaign to effectively promote long-term behavior change | Pierce County, City of Tacoma | Ongoing |

Recommended Contamination Reduction Actions and Implementation Schedule

Pierce County and the City of Tacoma will continue our current contamination reduction efforts listed above. In addition, Pierce County will take the lead on the following actions (except the City of Tacoma’s waste characterization study) to help reduce contamination and optimize Pierce County’s recycling system. Since there is no additional state money available to fund CROP activities, we will incorporate contamination reduction efforts into our normal operating activities which means that they will be combined with our focus on reducing the amount of readily recyclable material currently being put in the garbage. If state support for solid waste management programs were increased, either through LSWFA or other means, we would be able to do more to specifically address recycling contamination.

| Action Identifier | Action | Program | 2021 | 2022 | 2023 | 2024 |
|-------------------|---|---------------|------|------|------|------|
| 1 | Develop content about current top contaminants for use on website, sustainability newsletter and environmental education programs | SF, MF | ● | | | |
| | Conduct annual Waste Trends and Recycling Trends Analysis Study to monitor contamination rates | SF, MF, C | | ● | ● | ● |
| | City of Tacoma conducts a waste characterization study | SF, MF | | ● | | |
| | Separate single family and multifamily routes in Recycling Trends Analysis to determine different recycling contamination rates | S, MF | | ● | ● | ● |
| | Publish contamination information in Earth Matters newsletter | SF, MF | | ● | ● | ● |
| 2 | Inventory current recycling collection services | SF, MF, DB, C | ● | | | |

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| Action Identifier | Action | Program | 2021 | 2022 | 2023 | 2024 |
|-------------------|---|---------------|------|------|------|------|
| | Present information and recommendation on which programs to prioritize to SWAC | SF, MF, C | | ● | | |
| | Prioritize the recycling program(s) to focus on first | SF, MF, DB, C | | ● | | |
| 3 | Update recycling signage at transfer stations and drop box sites | DB | | ● | ● | |
| 4 | Develop single-category (paper, metals, plastics) campaigns to help reduce confusion | SF, MF, DB | ● | ● | | |
| | Focus campaigns on materials with the highest GHG reduction impact (paper, metal, food waste) | SF, MF, DB | | ● | | |
| 5 | Translate and transcreate educational materials and campaigns to ensure recycling information is clearly understood by all audiences | SF, MF | ● | ● | ● | ● |
| 6 | Focus on contamination reduction message at community events | SF, MF, DB | | ● | ● | ● |
| 7 | Expand technical assistance through education and resources to multifamily customers and large volume-generating commercial customers | MF, C | | | ● | |

Program Legend:

SF – Single Family; MF – Multi Family; DB - Drop Box; C - Commercial

Materials Accepted for Recycling in Pierce County

Materials accepted for recycling in Pierce County are defined in Pierce County Code – Chapter 8.29.030 “Minimum Levels of Curbside Recyclables Service for Single-family Residences.” It states that the following materials, at minimum, shall be collected:

1. Cardboard – corrugated cardboard and Kraft paper, including unbleached, unwaxed paper with a ruffled (“corrugated”) inner liner.
2. Metal cans – tin-coated steel cans and aluminum cans.
3. Mixed-waste paper – clean and dry paper, including: glossy papers, magazines, catalogs, phone books, cards, laser-printed white ledger paper, windowed envelopes, paper with adhesive labels, paper bags, non-metallic wrapping paper, packing paper, glossy advertising paper and chipboard such as cereal and show boxes.
4. Newspaper – printed groundwood newsprint, including glossy advertisements and supplemental magazines that are delivered with the newspaper.
5. Plastic bottles and jars – primarily polyethylene terephthalate (PET - #1), such as soft drink, water and salad dressing bottles; and high-density polyethylene (HDPE - #2), such as milk, shampoo, or laundry detergent bottles; but including any bottle with a neck narrower than its base.

Currently, Pierce County accepts the following recyclables in the curbside recycling program:

1. Plastic - bottles, jugs, tubs and buckets (recycle plastics by shape; ignore numbers/symbols on packaging)
2. Paper – mixed paper, boxes and bags, cardboard
3. Metal – aluminum cans and metal cans

Glass is also collected in the County program at glass drop-off sites.

When Pierce County and the City of Tacoma reviewed the list of recyclable items in response to the dramatic market shifts resulting from China Sword we brought the two lists into very close alignment. Currently, Pierce County’s program still accepts plastic buckets and frozen food boxes while the City of Tacoma does not.

Appendix J – Full List of Materials Accepted for Recycling in City of Tacoma

Materials Accepted for Recycling in Tacoma

Tacoma Curbside Accepted List:

Materials accepted for curbside recycling are not defined in Tacoma Municipal Code and are based on the approval from the Solid Waste Division Manager and Environmental Services Director.

- Cardboard – corrugated cardboard
- Mixed Paper – Kraft bags, magazines, office paper, phone books, cards, paper bags, laser-printed white ledger paper, windowed envelopes, paper with adhesive labels, non-metallic wrapping paper, packing paper, glossy advertising paper and chipboard such as cereal and show boxes.
- Newspaper – printed groundwood newsprint, including glossy advertisements and supplemental magazines that are delivered with the newspaper
- Aluminum – Aluminum cans, pet food cans, tin-coated steel cans
- Steel – Cans, small scrap metal
- Plastics – Bottles, tubs, and jugs (looking for #1, #2, and #5)

All items must be empty, clean, and dry.

Curbside Glass Collection

The City of Tacoma discontinued its curbside glass collection for residential customers (single family homes and duplexes) in January 2021. In lieu of curbside glass collection the City transitioned to a drop-off collection methodology and set up drop-off stations at the locations below:

| Site Name | Address | Hours | Materials Collected |
|-----------------------|---|-------------------------------------|--|
| Central Co-op | 4502 N. Pearl St., Tacoma, WA 98407 | 7:30AM - 9:00PM; Monday - Sunday | Glass and household batteries |
| Center at Norpoint | 4818 Nassau Ave. NE, Tacoma, WA 98422 | 7:30AM - 9:00PM; Monday - Sunday | Glass and household batteries |
| Stewart Heights Park | 5715 Reginald Gutierrez Ln., Tacoma, WA 98404 | 7:30AM - 9:00PM; Monday - Sunday | Glass, household batteries, scrap metal, cardboard |
| Tacoma Recycle Center | 3510 S. Mullen St., Tacoma, WA 98409 | 8:00AM - 5:30PM; Monday - Sunday | Glass, household batteries, scrap metal, plastics, cardboard, paper, and more! |

Appendix J – Full List of Materials Accepted for Recycling in City of Tacoma

| Site Name | Address | Hours | Materials Collected |
|-----------------|----------------------------------|-------------------------------------|-------------------------------|
| Hilltop Safeway | 1112 M. St., Tacoma, WA 98405 | 7:30AM - 9:00PM; Monday - Sunday | Glass and household batteries |

Tacoma Recycle Center (located at the Tacoma Recovery and Transfer Center):

Additional detail is available online through the City of Tacoma Recycle Center and Household Hazardous Waste Facility Customer Guide [here](#).

Paper

- Corrugated cardboard (flattened)
- Paperboard (like cereal boxes)
- Magazines and catalogs
- Newspaper and newspaper inserts
- Brown paper bags
- Mixed paper
- Phone books
- Paperback books (covers removed)
- Paper egg cartons
- Shredded paper (in a paper bag)
- Mail and junk mail (window envelopes OK)

Plastic

- Bottles and jars
- Tubs and jugs
- Clamshell-style containers
- Clean plastic cups
- Snap and screw-on lids
- Plastic bags
- Bubble wrap
- Overwrap packaging
- Clean food trays
- Storage tubs
- Clothing hangers

Appendix J – Full List of Materials Accepted for Recycling in City of Tacoma

Metal

- Aluminum beverage cans
- Scrap metal
- Aluminum and tin cans
- Empty aerosol cans
- Metal screw-on lids
- Microwaves
- Most appliances (No refrigerators - Bring Freon-containing appliances to the Recovery & Transfer Building - disposal fees apply.)

Glass

- Empty glass bottles and jars (all colors accepted)

Other

- Styrofoam blocks
- FDS and LDPE foam blocks
- Used motor oil (up to 5 gallons)
- Broken holiday lights
- Electronic cords
- Batteries (alkaline, Ni-Cad, Li-Ion)
- Cell phones and chargers
- Printer and toner cartridges

Anderson Island

Anderson Island Transfer Station
9607 Steffensen Rd.
(253) 847-7555

Bonney Lake

Prairie Ridge Transfer Station
11710 Prairie Ridge Dr. E.
(253) 847-7555

Gig Harbor

Purdy Transfer Station
14515 54th Ave. NW
(253) 847-7555

Key Peninsula

Key Center Transfer Station
5900 Key Peninsula Hwy.
(253) 847-7555

Puyallup

Hidden Valley Transfer Station
17925 Meridian E.
(253) 847-7555

Appendix L – List of Hazardous Waste Generators and Receiving Sites

The following inventory was generated from the Washington State Department of Ecology database, listing all small, medium, and large quantity generators of hazardous waste in Pierce County. The data comes from the Hazardous Waste and Toxics Reduction Program’s database, Turbo Waste. The database is populated with data provided by hazardous waste generators’ annual reports to Ecology. State generator code designations (LQG/MQG/SQG/XQG) are based on Washington’s dangerous waste rules (LQG= large quantity generator, MQG=medium quantity generator, SQG=small quantity generator, and XQG=non-generator). The SQG total is only those SQGs that have ID numbers. The XQGs have ID numbers but reported no waste in 2020.

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|--|--|----------|-------|-------|----------------------|
| WAD988499968 | The Estate of Don Oline | 1915 MARINE VIEW DR | TACOMA | WA | 98422 | LQG |
| WAH000044548 | Penhall Co Tacoma | 2323 E Q St #1 | Tacoma | WA | 98421 | LQG |
| WAH000050638 | US ENVIRONMENTAL PROTECTION AGENCY | 192ND ST E, BETWEEN 38TH AVE AND CANYON RD | SPANAWAY | WA | 98387 | LQG |
| WAR000011445 | Saint Gobain Performance Plastics Puyall | 507 N LEVEE RD | PUYALLUP | WA | 98371 | LQG |
| WAH000034739 | FEDEX FREIGHT INC TACOMA | 3216 70TH AVE E | FIFE | WA | 98424 | LQG |
| WAH000024905 | Specialty Products Inc | 2410 104th St Ct S Ste D | Lakewood | WA | 98499 | LQG |
| WAH000018507 | Cornforth Campbell Motors Inc | 107 3RD ST SE | PUYALLUP | WA | 98372 | LQG |
| WAH000057860 | Holman Logistics S1 | 2701 142nd Ave E Ste 300 | Sumner | WA | 98390 | LQG |
| WAD009252719 | US Oil & Refining Co | 3001 MARSHALL AVE | TACOMA | WA | 98421 | LQG |
| WAD009241803 | Bradken Atlas | 3021 S Wilkeson St | Tacoma | WA | 98409 | LQG |
| WAH000028713 | Bellmont Cabinet Company | 13610 52nd St E | Sumner | WA | 98390 | LQG |
| WAH000024450 | Milgard Manufacturing Inc Pultrusion Div | 2935 70TH AVE E | TACOMA | WA | 98424 | LQG |
| WAD020257945 | Burlington Environmental LLC Tacoma | 1701 E ALEXANDER AVE | TACOMA | WA | 98421 | LQG |
| WAD988477873 | Thriftway Properties LLC | 608 N 1st St | TACOMA | WA | 98403 | LQG |
| WAH000046695 | Amazon.com Services, LLC - BFI1 | 1800 140TH AVE E | SUMNER | WA | 98390 | LQG |
| WAH000036320 | SUPERLON PLASTICS CO INC | 2116 TAYLOR WAY | TACOMA | WA | 98421 | LQG |
| WAH000046929 | Amazon.com Services, LLC - BFI3 | 2700 Center Dr | DuPont | WA | 98327 | LQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|--|--|--------------------------|-------|-------|----------------------|
| WAD981774151 | Tacoma Dry Cleaners Inc | 7502 CUSTER RD W | Lakewood | WA | 98467 | LQG |
| WAR000000950 | Stripe Rite Inc | 1725 137TH AVE E | SUMNER | WA | 98390 | LQG |
| WAD980984025 | Fircrest Village Cleaners | 1105 A Regents Blvd | Fircrest | WA | 98466 | LQG |
| WAD980984025 | Fircrest Village Cleaners | 1105 A Regents Blvd | Fircrest | WA | 98466 | LQG |
| WAD988482592 | Boeing Company Frederickson | 18001 CANYON RD E | PUYALLUP | WA | 98373 | LQG |
| WA0000148734 | Arclin Surfaces Inc | 2144 Milwaukee Way | Tacoma | WA | 98421 | LQG |
| WAH000030763 | Apply A Line | 175 Roy Rd SW Bldg C | Pacific | WA | 98047 | LQG |
| WAR000004879 | Trident Seafoods Corp Tacoma | 401 ALEXANDER AVE BLDG 592 | TACOMA | WA | 98421 | LQG |
| WAD988478723 | Northwest Etch Technology Inc Tacoma | 2601 S HOOD ST | TACOMA | WA | 98409 | LQG |
| WAH000006213 | PM Testing Lab Inc Pacific Hwy | 3921 PACIFIC HWY E | TACOMA | WA | 98424 | LQG |
| WAD078216405 | Multicare Medical Center | 315 M L KING JR WAY | TACOMA | WA | 98405 | LQG |
| WAH000015016 | Test America Tacoma | 5755 8th St E | Tacoma | WA | 98424 | LQG |
| WAD144258779 | SSA Terminals Tacoma LLC | 1675 LINCOLN AVE, Transfer Facility | TACOMA | WA | 98421 | LQG |
| WAH000055679 | Amazon.com Services LLC (DSE7) | 2201 140th Ave E Ste 800 | Sumner | WA | 98390 | LQG |
| WAH000012492 | United Parcel Service Pacific | 244 ROY RD SE | PACIFIC | WA | 98047 | LQG |
| WAD988504668 | Clover Park Technical College | 4500 STEILACOOM BLVD SW | TACOMA | WA | 98499 | LQG |
| WAH000052990 | UPS Port of Tacoma | 5200 12th St E Bldg B | Tacoma | WA | 98424 | LQG |
| WAD067166397 | General Metals of Tacoma | 1902 Marine View Dr | Tacoma | WA | 98422 | LQG |
| WAD988522603 | Toray Composites Materials America | 19002 50TH AVE E | TACOMA | WA | 98446 | LQG |
| WAD980980593 | WA UW Tacoma Branch Campus | 1920 S C ST | TACOMA | WA | 98402 | LQG |
| WAD980835771 | General Plastics Mfg Co Tacoma | 4910 BURLINGTON WAY | TACOMA | WA | 98409 | LQG |
| WA9214053465 | Joint Base Lewis McChord | Bldg 2012 Liggett Ave Box 339500 MS 17 | Joint Base Lewis-McChord | WA | 98433 | LQG |
| WAD008958357 | McFarland Cascade Pole & Lumber Co | 1640 E MARC ST | TACOMA | WA | 98421 | LQG |
| WAD981769110 | Emerald Services, Inc. - Tacoma Facility | 1825 ALEXANDER AVE | TACOMA | WA | 98421 | LQG |
| WAD000643262 | Shore Terminal LLC Tacoma | 250 E D St | Tacoma | WA | 98421 | LQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|--|--------------------------|-------------|-------|-------|----------------------|
| WAH000057995 | 415 St Helens Apts LLC | 415 St Helens Ave | Tacoma | WA | 98402 | LQG |
| WAR000009399 | Absher Const | 1001 SHAW RD SE | PUYALLUP | WA | 98372 | LQG |
| WAD982821332 | AIM Aerospace Sumner Inc | 1516 FRYAR AVE | SUMNER | WA | 98390 | LQG |
| WAD981764434 | Manke Lumber Co Inc Sumner | 13702 Stewart Rd | SUMNER | WA | 98390 | LQG |
| WAD083734780 | Carlson Formetec Inc | 2202 A ST | TACOMA | WA | 98042 | MQG |
| WAH000053658 | JB Hunt Transportation | 1815 136th Ave | Sumner | WA | 98390 | MQG |
| WAH000050082 | Elks Temple Properties LLC | 565 BROADWAY | TACOMA | WA | 98402 | MQG |
| WAD009253782 | Globe Machine Manufacturing Co | 701 E D ST | TACOMA | WA | 98421 | MQG |
| WAD988477261 | Spectra Laboratories Inc | 2221 ROSS WAY | TACOMA | WA | 98421 | MQG |
| WAH000056900 | Bethel School District | 5625 192nd St E | Spanaway | WA | 98387 | MQG |
| WAH000057360 | JB HUNT | 540 142ND AVE E | SUMNER | WA | 98390 | MQG |
| WAR000009969 | Home Depot 4709 | 303 35TH AVE | PUYALLUP | WA | 98374 | MQG |
| WAR000010009 | Home Depot 4701 | 7050 TACOMA MALL BLVD | TACOMA | WA | 98409 | MQG |
| WAH000012674 | Home Depot 4720 | 4602 S CENTER ST | TACOMA | WA | 98409 | MQG |
| WAH000024277 | Home Depot 4728 | 5120 Borgen Blvd | Gig Harbor | WA | 98332 | MQG |
| WAH000035450 | DBA Ozark Automotive Dist #26 | 1602 INDUSTRIAL PARK WAY | PUYALLUP | WA | 98371 | MQG |
| WAR000011411 | Greenwood Motorlines dba R&L Carriers | 2150 48TH AVE CT E | FIFE | WA | 98424 | MQG |
| WAH000031854 | Home Depot USA HD 4747 | 101 E 52nd St | Tacoma | WA | 98445 | MQG |
| WAH000028546 | Home Depot HD 8562 | 9602 214th Ave | Bonney Lake | WA | 98391 | MQG |
| WAH000056165 | Unigen Inc Tacoma | 2121 S State St Ste 400 | Tacoma | WA | 98405 | MQG |
| WAH000046947 | Milgard Manufacturing Inc - Fiberglass | 1010 54th Ave E | Tacoma | WA | 98424 | MQG |
| WAH000051224 | Office Depot Inc Sumner | 2500 142ND AVE E | SUMNER | WA | 98390 | MQG |
| WAH000048875 | Milgard Vinyl Corp Fife | 1001 54th Ave E | Fife | WA | 98424 | MQG |
| WAH000004242 | Performance Radiator Tacoma | 2705 S Tacoma Way Ste D | Tacoma | WA | 98409 | MQG |
| WAH000034591 | NORMS TRUCK INC | 361 ROY RD SW | PACIFIC | WA | 98047 | MQG |
| WAH000039627 | GKN Aerospace Sumner | 1725 Puyallup St Ste 200 | Sumner | WA | 98390 | MQG |
| WAH000026614 | XPO Logistics Freight Inc | 7211 28th St E | Fife | WA | 98424 | MQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|-------------------------------------|--------------------------------|-------------|-------|-------|----------------------|
| WAH000036160 | Northwest Traffic Inc Edgewood | 622 W VALLEY HWY E | EDGEWOOD | WA | 98372 | MQG |
| WAD060033024 | PROGRESS RAIL SERVICES | 4012 SR 509 S FRONTAGE RD | TACOMA | WA | 98421 | MQG |
| WAH000052438 | CarMax Auto Superstores W Coast Inc | 202 Valley Ave NW | Puyallup | WA | 98371 | MQG |
| WAD071834287 | Saint Joseph Medical Center | 1717 S J ST | TACOMA | WA | 98405 | MQG |
| WAH000050866 | HR Acquisition I Corporation | 1112 6th Ave | Tacoma | WA | 98405 | MQG |
| WAH000046848 | Northwest Precast | 212 10TH ST SE | PUYALLUP | WA | 98372 | MQG |
| WAD071836019 | Pacific Lutheran University | 121ST & PARK AVE | TACOMA | WA | 98447 | MQG |
| WAD988470159 | EMIN Puyallup | 12314 MERIDIAN ST E STE D | PUYALLUP | WA | 98373 | MQG |
| WAH000049647 | Electronic Recyclers International | 3901 150th Ave Ct E | Sumner | WA | 98390 | MQG |
| WAD980975221 | BNSF Railway Company Tacoma | 610 E 21st St | TACOMA | WA | 98421 | MQG |
| WAD043451038 | Seaport Sound Terminal LLC | 2628 MARINE VIEW DR | TACOMA | WA | 98422 | MQG |
| WAH000013961 | Chevron 208760 | 17305 MERIDIAN E | PUYALLUP | WA | 98375 | MQG |
| WAH000054618 | Nordstrom Inc 006 | 4502 S Steele #800 | Tacoma | WA | 98409 | MQG |
| WAH000013946 | Chevron 207051 | 18321 HWY 410 E | BONNEY LAKE | WA | 98390 | MQG |
| WAH000035136 | CHEVRON 307178 | 1275 CENTER DR | DUPONT | WA | 98327 | MQG |
| WAD055498232 | Western Wood Preserving Co | 1313 ZEHNDER ST | SUMNER | WA | 98390 | MQG |
| WAD180330961 | UPS Tacoma | 5001 20TH ST E | TACOMA | WA | 98424 | MQG |
| WAD079257119 | University of Puget Sound | 1500 N WARNER ST | TACOMA | WA | 98416 | MQG |
| WA1360007271 | VA PSHCS American Lake Division | VETERANS DR AMERICAN LAKE | TACOMA | WA | 98493 | MQG |
| WAH000027979 | Target Store 0341 | 3320 S 23rd St | Tacoma | WA | 98405 | MQG |
| WAH000026642 | Target Store 0342 | 3310 S Meridian | Puyallup | WA | 98373 | MQG |
| WAH000054112 | WILCOX FARMS INC | 40400 HARTS LAKE VALLEY RD S | ROY | WA | 98580 | MQG |
| WAH000026688 | Target Store 0349 | 5618 Lakewood Town Center Blvd | Lakewood | WA | 98499 | MQG |
| WAH000026804 | Target Store 1957 | 9400 192nd Ave E | Bonney Lake | WA | 98390 | MQG |
| WAD988484390 | Nordlund Boat Co Marine View Dr | 1626 MARINE VIEW DR | TACOMA | WA | 98422 | MQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|--|-----------------------|-------------|-------|------------|----------------------|
| WAH000018473 | Rainier Woodworking Co | 2615 S 80TH ST | TACOMA | WA | 98409 | MQG |
| WAD000641522 | Phillips 66 Co - South Tacoma | 520 E D ST | TACOMA | WA | 98421 | MQG |
| WAD002290534 | Founders Choice | 6002 MCKINLEY AVE E | TACOMA | WA | 98404 | MQG |
| WAH000044499 | Pierce Cnty Public Works & Util Rd Maint | 4812 196th St E | Spanaway | WA | 98387 | MQG |
| WAH000026757 | Target Store 1205 | 11400 51st Ave NW | Gig Harbor | WA | 98332 | MQG |
| WAH000033693 | Target Store 2136 | 10302 156th St E | Puyallup | WA | 98375 | MQG |
| WAH000057260 | Thermo Fisher Scientific | 14302 24th St E | Sumner | WA | 98390-9661 | MQG |
| WAH000017061 | Walmart Supercenter 3218 | 20307 Mountain Hwy E | Spanaway | WA | 98387 | MQG |
| WAH000043064 | Carlisle Construction Materials INC | 19727 57th Ave E | Puyallup | WA | 98375 | MQG |
| WAD988484796 | Good Samaritan Hospital | 407 14TH AVE SE | PUYALLUP | WA | 98372 | MQG |
| WAH000024491 | Walmart Supercenter 5041 | 19205 SR 410 E | Bonney Lake | WA | 98390 | MQG |
| WAR000004382 | Walmart Supercenter 2403 | 310 31ST AVE SE | PUYALLUP | WA | 98374 | MQG |
| WAH000029198 | Walmart Supercenter 3525 | 16502 Meridian E | Puyallup | WA | 98374 | MQG |
| WAH000057905 | FRED MEYER INC UST 478934 | 349 VALLEY AVE NW | PUYALLUP | WA | 98371 | MQG |
| WAH000041939 | Walmart Supercenter 4137 | 1965 S UNION AVE | TACOMA | WA | 98405 | MQG |
| WAH000029649 | Walmart Supercenter 3537 | 7001 Bridgeport Way W | Lakewood | WA | 98499 | MQG |
| WAH000000380 | Lowes Home Centers LLC 0026 | 2701 S ORCHARD ST | TACOMA | WA | 98466 | MQG |
| WAH000004408 | Harborlands 2C LLC | 2216 E 11TH ST | TACOMA | WA | 98421 | MQG |
| WAD114685373 | Tacoma Public Utilities Tacoma Power | 3628 S 35TH ST | TACOMA | WA | 98409 | MQG |
| WAH000050564 | Lowes Home Centers LLC 1081 | 5115 100TH ST SW | LAKEWOOD | WA | 98499 | MQG |
| WAD094633591 | Johnson Millwork Inc | 2319 S Tacoma Way | Tacoma | WA | 98409 | MQG |
| WAD082510595 | WestRock CP LLC | 801 E PORTLAND AVE | TACOMA | WA | 98421 | MQG |
| WAH000050739 | Lowes Home Centers LLC 2734 | 3511 5TH ST SE | PUYALLUP | WA | 98374 | MQG |
| WAH000042136 | Sherwin Williams 9833 | 7608 S Tacoma Way | Tacoma | WA | 98409 | MQG |
| WAH000008052 | SHERWIN WILLIAMS CO 8088 | 3814 S CEDAR ST | TACOMA | WA | 98409 | MQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|---|---------------------------|-------------|-------|-------|----------------------|
| WAH000050796 | Lowes Home Centers LLC 2895 | 19911 S PRAIRIE RD E | BONNEY LAKE | WA | 98391 | MQG |
| WAH000033909 | Sterling Reference Laboratories | 2617 E L ST Ste A | Tacoma | WA | 98421 | MQG |
| WAH000052850 | CARLSON PAVING PRODUCTS INC 50TH AVE E | 18425 50TH AVE E | TACOMA | WA | 98446 | MQG |
| WAH000045776 | SAFEWAY Store 544 | 21301 HWY 410 | BONNEY LAKE | WA | 98391 | MQG |
| WAH000022006 | JR Reding and Refinishing Corp dba JR | 3005 Chandler | Tacoma | WA | 98409 | MQG |
| WAD981772080 | Bates Technical College South Campus | 2201 S 78TH ST | TACOMA | WA | 98409 | MQG |
| WAH000057985 | Amazon com Services LLC DWA9 | 3711 142nd Ave E | Sumner | WA | 98390 | MQG |
| WAH000011973 | Costco Wholesale 95 | 2219 S 37TH ST | TACOMA | WA | 98409 | MQG |
| WAH000038140 | COSTCO WHOLESALE DEPOT 171 | 4000 142ND AVE E STE B | SUMNER | WA | 98390 | MQG |
| WAH000031656 | Costco Wholesale 624 | 10990 Harbor Hill Dr | Gig Harbor | WA | 98335 | MQG |
| WAH000012559 | Costco Wholesale 660 | 1201 39TH AVE SW | PUYALLUP | WA | 98374 | MQG |
| WAH000000091 | COSTCO BUSINESS CENTER 767 | 3900 20TH ST E | FIFE | WA | 98424 | MQG |
| WAH000054650 | Costco Wholesale #1278 | 9801 204th Ave E | Bonney Lake | WA | 98391 | MQG |
| WAD071852545 | Western Washington Fair Assoc | 110 9TH AVE SW | PUYALLUP | WA | 98371 | MQG |
| WAD988468690 | Precision Tune Auto Care Tacoma | 303 S 72nd St | Tacoma | WA | 98408 | SQG |
| WAH000021420 | Modern Door & Millwork Inc | 10729 A St S | Tacoma | WA | 98444 | SQG |
| WAD988521571 | Veterans Independent Ent of WA | 4630 16TH ST E STE B15 | FIFE | WA | 98424 | SQG |
| WAH000041538 | West Marine 00024 | 3212 20th St E | Fife | WA | 98424 | SQG |
| WAH000041790 | ST ANTHONY HOSPITAL | 11567 CANTERWOOD BLVD | GIG HARBOR | WA | 98332 | SQG |
| WAH000041626 | West Marine Express 05536 | 3119 Judson St, STE A | Gig Harbor | WA | 98335 | SQG |
| WAH000043312 | Hydraulic Repair & Design Corp Puyallup | 701 N LEVEE RD | PUYALLUP | WA | 98371 | SQG |
| WA0000073361 | WA AGR | 11 SCHUSTER PKWY LAB ONLY | TACOMA | WA | 98402 | SQG |
| WAD988518072 | BP 07053 | 10216 224TH ST E | GRAHAM | WA | 98338 | SQG |
| WAH000054138 | BP 07066 | 5515 38th Ave NW | Gig Harbor | WA | 98335 | SQG |
| WAD988511390 | UNION PACIFIC RR FIFE | 3330 20TH ST E | FIFE | WA | 98424 | SQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|---|----------------------------|-------------|-------|------------|----------------------|
| WAD980725568 | USAR AMSA 137 | 401 E Alexander RD PIER 23 | TACOMA | WA | 98421 | SQG |
| WAD988506010 | Rainier Plywood | 624 E 15TH ST | TACOMA | WA | 98421 | SQG |
| WAH000052693 | COMPOSITE SOLUTIONS CORP SUMNER | 14810 PUYALLUP ST Ste 100 | SUMNER | WA | 98390 | SQG |
| WAD981764004 | Narrows Plaza | 2310 MILDRED ST W | TACOMA | WA | 98466 | SQG |
| WA0000049593 | Tacoma Fire Boat Station | 302 E 11TH ST | TACOMA | WA | 98421 | SQG |
| WA0000049619 | Tacoma Fire Department Garage | 3401B S ORCHARD ST | TACOMA | WA | 98466 | SQG |
| WAD988496527 | Bakers Automotive | 10206 16TH ST E | EDGEWOOD | WA | 98372 | SQG |
| WAD070972856 | Commercial Sales Inc | 6411 PACIFIC HWY E | TACOMA | WA | 98424 | SQG |
| WAH000020032 | Plumb Signs Inc S 28th | 909 S 28TH | Tacoma | WA | 98221 | SQG |
| WAD027542935 | Lianga Pacific Inc | 2120 PORT OF TACOMA RD | TACOMA | WA | 98421 | SQG |
| WAH000056235 | Elite Resurfacing (Atkinson Investment Inc) | 402 Valley Ave NW, STE 105 | Puyallup | WA | 98371 | SQG |
| WAH000049683 | ePower Systems & Battery Inc | 10321 Lakeview Ave SW | Lakewood | WA | 98499 | SQG |
| WAH000056590 | Petco 260 | 5700 100th St SW | Lakewood | WA | 98499 | SQG |
| WAD003825122 | TUCCI & SONS INC | 4224 WALLER RD E | TACOMA | WA | 98443 | SQG |
| WAH000056770 | Arco 7039 | 10108 194th St E | Graham | WA | 98338-9868 | SQG |
| WAD988509162 | Titus Will Chevrolet of Parkland | 11011 PACIFIC AVE | TACOMA | WA | 98444 | SQG |
| WAH000050262 | Cabelas Puyallup DC | 1212 Valley Ave NW | Puyallup | WA | 98371 | SQG |
| WAD009253477 | Concrete Technology Corp | 1123 PORT OF TACOMA RD | TACOMA | WA | 98421 | SQG |
| WAH000056515 | Petco 1207 | 5190 Borgen Blvd | Gig Harbor | WA | 98332 | SQG |
| WAH000056635 | Petco 1214 | 3717 S Meridian St | Puyallup | WA | 98373 | SQG |
| WAH000034144 | Wescraft RV & Truck Fife | 3402 12th St E | Fife | WA | 98424 | SQG |
| WA0000016139 | Precision Machine Works | 4101 D INDUSTRY DR E | FIFE | WA | 98424 | SQG |
| WAD988490421 | Precision Machine Works Inc | 2024 PUYALLUP AVE | TACOMA | WA | 98421 | SQG |
| WAH000056420 | Petco 1238 | 9311 192nd Ave E | Bonney Lake | WA | 98391 | SQG |
| WAH000056645 | Petco 1245 | 4028 Tacoma Mall Blvd | Tacoma | WA | 98409 | SQG |
| WAH000056615 | Petco 1267 | 5951 Sixth Ave | Tacoma | WA | 98406 | SQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|--|----------------------------|------------------|-------|-------|----------------------|
| WAH000044408 | Niagara Bottling LLC | 19820 57th Avenue | Puyallup | WA | 98375 | SQG |
| WAH000028686 | Praxair Distribution Inc Tacoma 2 | 480 E 19th St Bldg 104 | Tacoma | WA | 98421 | SQG |
| WAH000043983 | Chihuly Inc | 1401 St Paul Ave, Ste 200 | Tacoma | WA | 98421 | SQG |
| WAD149982308 | Macys Tacoma | 4502 S STEELE #700 | TACOMA | WA | 98409 | SQG |
| WAH000009381 | Pep Boys 529 | 12228 MERIDIAN E | PUYALLUP | WA | 98373 | SQG |
| WAH000009738 | White Cap Ltd Center St | 3037 S Center St | Tacoma | WA | 98409 | SQG |
| WAD980834543 | WA DOC McNeil Island Corrections Center | MCNEIL ISLAND CC | STEILACOOM | WA | 98388 | SQG |
| WAD067168492 | Meridian Collision Center | 15724 MERIDIAN AVE S | PUYALLUP | WA | 98373 | SQG |
| WAH000052828 | MAJOR WIRE SCREEN MEDICA | 7110 26TH ST E | FIFE | WA | 98424 | SQG |
| WAH000002089 | South Hill Collision Inc II | 16318 MERIDIAN S STE D | PUYALLUP | WA | 98373 | SQG |
| WAH000022168 | Auto Warehousing Co Body Shop | 2810 East Marshall Ave, #C | Tacoma | WA | 98421 | SQG |
| WA0001013291 | Rite Aid 5255 | 4818 PT FOSDICK DR NW | GIG HARBOR | WA | 98335 | SQG |
| WAH000021691 | Rite Aid 5256 | 900 E Meridian Ste 23 | Milton | WA | 98354 | SQG |
| WA0001013333 | Rite Aid 5262 | 1323 E MAIN AVE | PUYALLUP | WA | 98372 | SQG |
| WAH000010926 | Rite Aid 5264 | 11220 E CANYON RD | PUYALLUP | WA | 98373 | SQG |
| WAH000010918 | Rite Aid 5267 | 21302 SR 410 E | BONNEY LAKE | WA | 98390 | SQG |
| WAH000007419 | Rite Aid Corp 5269 | 1912 N PEARL ST | TACOMA | WA | 98406 | SQG |
| WAH000007955 | Rite Aid 5271 | 7041 PACIFIC AVE | TACOMA | WA | 98408 | SQG |
| WAH000040186 | Rite Aid #5274 | 15801 Pacific Ave | Tacoma | WA | 98444 | SQG |
| WAH000022556 | Rite Aid 5275 | 3840 Bridgeport Way | University Place | WA | 98466 | SQG |
| WAH000040179 | Rite Aid #5276 | 1850 S Mildred St | Tacoma | WA | 98465 | SQG |
| WAH000020388 | Rite Aid 5277 | 5700 100TH ST SW, Ste 100 | LAKEWOOD | WA | 98499 | SQG |
| WAH000042970 | Pierce County Fire Dist No 3 dba West Pi | 9410 39th Ave Ct SW | Lakewood | WA | 98499 | SQG |
| WAH000006098 | Rite Aid 6194 | 22311 MOUNTAIN HWY E | SPANAWAY | WA | 98387 | SQG |
| WAH000007864 | Rite Aid 6232 | 12811 MERIDIAN ST E | PUYALLUP | WA | 98373 | SQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|---|-----------------------------------|------------|-------|-------|----------------------|
| WAH000039898 | Rite Aid #6493 | 9502 176th St E | Puyallup | WA | 98375 | SQG |
| WAH000039843 | Rite Aid #6521 | 22201 Meridian Ave E | Graham | WA | 98338 | SQG |
| WAD021828207 | Sonoco Products Co 1802 Steele | 1802 STEELE AVE | SUMNER | WA | 98390 | SQG |
| WAD980978738 | DOC Purdy Corrections Ctr | 5409 96TH ST NW | GIG HARBOR | WA | 98332 | SQG |
| WAD027390111 | Master Millwork Inc | 11603 CANYON RD E | PUYALLUP | WA | 98373 | SQG |
| WAH000052412 | Puyallup SD 003 Stahl Jr High School | 9610 168th St E | Puyallup | WA | 98375 | SQG |
| WAH000052073 | Lake Tapps Mini Mart | 18215 9th St E | Lake Tapps | WA | 98391 | SQG |
| WAD070397955 | TOTE Maritime Alaska, LLC | 500 E ALEXANDER AVE | TACOMA | WA | 98421 | SQG |
| WAH000057135 | Custom Choice Door and Millwork LLC | 8607 Durango St SW Ste B | Lakewood | WA | 98087 | SQG |
| WAD988499174 | MC Parcel Delivery Inc | 1410 MARTIN LUTHER KING JR WAY | TACOMA | WA | 98405 | SQG |
| WAD988521001 | St Clare Hospital | 11315 BRIDGEPORT WAY SW | TACOMA | WA | 98499 | SQG |
| WAH000017806 | Cardinal Health | 6710 26TH ST E | FIFE | WA | 98424 | SQG |
| WA4180090033 | USPS Tacoma S Warner St | 3825 S WARNER ST | TACOMA | WA | 98409 | SQG |
| WAD988493342 | Rays Auto Center Tacoma | 5445 STEILACOOM BLVD SW | TACOMA | WA | 98499 | SQG |
| WAD004902334 | Global Metal Works and Erectors Inc | 1144 THORNE RD | TACOMA | WA | 98421 | SQG |
| WAD982655300 | Penske Truck Leasing Co LP | 4927 95TH ST SW STE A BLDG 5 | TACOMA | WA | 98498 | SQG |
| WAD982655243 | Penske Truck Leasing Co LP Sumner | 2222 TACOMA AVE | SUMNER | WA | 98390 | SQG |
| WAD981769169 | Penske Truck Leasing Co LP Thorne Rd | 1460 THORNE RD | TACOMA | WA | 98401 | SQG |
| WAD988502530 | Parkland Light & Water Co | 12918 PARK AVE | TACOMA | WA | 98444 | SQG |
| WAD067549196 | JCI Jones Chemicals Inc | 1919 MARINE VIEW DR | TACOMA | WA | 98422 | SQG |
| WAH000044584 | Innovative Repair LLC Transfer Facility | 5225 7th St E Bldg 6, Transporter | Fife | WA | 98424 | SQG |
| WAR000000109 | James Hardie | 4615 192ND ST E | TACOMA | WA | 98446 | SQG |
| WAH000004903 | James Hardie Building Products | 18200 50TH AVE E | TACOMA | WA | 98446 | SQG |
| WAD981771439 | Quality Cleaners | 1229 MAIN ST | SUMNER | WA | 98390 | SQG |
| WAD981765316 | Puyallup School Dist Maint Dept | 324 9TH ST NW | PUYALLUP | WA | 98371 | SQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|--|-------------------------------|------------------|-------|-------|----------------------|
| WAH000051310 | Jorgenson Peninsula Optical Supply | 1901 S Union Ave Ste B1001 | Tacoma | WA | 98405 | SQG |
| WAD981774102 | Puyallup WPCP | 2028 RIVER RD | PUYALLUP | WA | 98371 | SQG |
| WAH000057490 | WA AIR NATIONAL GUARD CAMP MURRAY | 103 41st Division Way | Camp Murray | WA | 95430 | SQG |
| WAH000037027 | Tacoma City Environmental Svs Lab | 326 E D St | Tacoma | WA | 98421 | SQG |
| WAH000040286 | Federal Way Automotive and Radiator | 8116 Pacific Hwy E | Tacoma | WA | 98422 | SQG |
| WAH000014019 | MultiCare Health System Allenmore Hosp | 1901 S UNION ST | TACOMA | WA | 98405 | SQG |
| WAH000057545 | Cummins Inc | 1800 Fryar Avenue | Sumner | WA | 98390 | SQG |
| WAH000054140 | Puget Sound Energy | 1001 E. Alexander Ave | TACOMA | WA | 98421 | SQG |
| WAD988513347 | Chambers Creek STP | 10311 CHAMBERS CREEK RD W | UNIVERSITY PLACE | WA | 98467 | SQG |
| WAD083360164 | J & J Autobody Repair Inc | 6813 S TACOMA WAY | TACOMA | WA | 98409 | SQG |
| WAH000033580 | Frank S Baker Center | 316 Martin Luther King Jr Way | Tacoma | WA | 98405 | SQG |
| WAH000033599 | Mary Bridge Childrens Health Center | 311 S L St | Tacoma | WA | 98405 | SQG |
| WAH000052610 | PMO SBCT Stryker Brigade Combat Team | 3700 150th Ave Ct E | Sumner | WA | 98390 | SQG |
| WAH000038650 | Wild West International LLC | 11003 CANYON RD E | PUYALLUP | WA | 98373 | SQG |
| WAD027547660 | Kay Parks Autobody Tacoma | 3102 S 12TH ST | TACOMA | WA | 98405 | SQG |
| WAH000047313 | UPS Fife | 2205 70th Ave | Fife | WA | 98424 | SQG |
| WAH000005231 | Titus Will Collision Center | 2302 S 35TH | TACOMA | WA | 98409 | SQG |
| WAH000058320 | Partner Oncology Puyallup | 1519 3rd St SE Ste 260 | Puyallup | WA | 98372 | SQG |
| WAH000057355 | Safeway 2729 | 708 Shaw Rd E | Puyallup | WA | 98372 | SQG |
| WAH000002261 | Truck Rail Handling Inc | 457 E 18TH ST | TACOMA | WA | 98421 | SQG |
| WAD988501805 | Buckley Automotive | 336 S RIVER RD | BUCKLEY | WA | 98321 | SQG |
| WAR000007930 | PSE Frederickson | 4714 192ND ST E | TACOMA | WA | 98446 | SQG |
| WAH000045792 | Safeway Store #3305 | 15805 Pacific Ave S | Tacoma | WA | 98444 | SQG |
| WAH000046034 | Safeway Store 1246 | 6201 6th Ave | Tacoma | WA | 98406 | SQG |
| WAH000046108 | SAFEWAY Store 1436 | 1624 72ND ST E | TACOMA | WA | 98404 | SQG |
| WAH000046116 | Safeway Store 1437 | 1302 S 38th St | Tacoma | WA | 98408 | SQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|---|---------------------------------|------------|-------|-------|----------------------|
| WAH000044985 | SAFEWAY Store 1645 | 10223 GRAVELLY LAKE DR | LAKEWOOD | WA | 98494 | SQG |
| WAD027555465 | PSE Tacoma Office | 3130 S 38TH ST | TACOMA | WA | 98409 | SQG |
| WAD067529024 | PSE Puyallup SVC | 5807 MILWAUKEE AVE E | PUYALLUP | WA | 98372 | SQG |
| WAD040179715 | Western State Hospital | 9601 STEILACOOM BLVD SE | TACOMA | WA | 98498 | SQG |
| WAD980725626 | WA ARMY National Guard Camp Murray | CAMP MURRAY ARMY NATIONAL GUARD | TACOMA | WA | 98430 | SQG |
| WAH000016378 | NC Machinery Company | 2603 PACIFIC HWY E | FIFE | WA | 98424 | SQG |
| WAH000045071 | SAFEWAY Store 1798 | 11501 CANYON RD E | PUYALLUP | WA | 98373 | SQG |
| WAH000045104 | Safeway Store 1844 | 215 Whitesell St NW | Orting | WA | 98360 | SQG |
| WAH000045204 | SAFEWAY Store 1978 | 2735 N PEARL ST | TACOMA | WA | 98406 | SQG |
| WAH000045240 | SAFEWAY Store 2640 | 13308 MERIDIAN AVE E | PUYALLUP | WA | 98373 | SQG |
| WAD003824661 | Solid Waste Systems Tacoma | 13502 PACIFIC AVE S | TACOMA | WA | 98444 | SQG |
| WAD988516852 | Miller Paint Co Inc Tacoma | 5252 S WASHINGTON ST | TACOMA | WA | 98409 | SQG |
| WAH000048114 | Miller Paint Company Inc Puyallup | 14207 Meridian Ave E Ste 103 | Puyallup | WA | 98373 | SQG |
| WA0000188706 | Caliber Collision Center Fife 2907 | 3909 PACIFIC HWY E | FIFE | WA | 98424 | SQG |
| WAD988486072 | Caliber Collision Center Lakewood WA 2925 | 12424 PACIFIC HWY SW | Lakewood | WA | 98499 | SQG |
| WAD988498960 | Caliber Collision Center Puyallup River Road 2926 | 823 RIVER RD | PUYALLUP | WA | 98371 | SQG |
| WAD082501735 | Caliber Collision Center Tacoma 2920 | 4112 S WASHINGTON ST | TACOMA | WA | 98409 | SQG |
| WAH000049269 | Caliber Collision Center Yelm 2927 | 9015 350th St S | McKenna | WA | 98558 | SQG |
| WAH000029455 | Jet Door LLC | 1832 112th St E | Tacoma | WA | 98445 | SQG |
| WAD139400113 | Smith Fire Systems Tacoma | 1106 54TH AVE E | TACOMA | WA | 98424 | SQG |
| WAH000045334 | Safeway Store 3228 | 5616 176th St E | Puyallup | WA | 98375 | SQG |
| WAH000045436 | Safeway Store 329 | 1112 S M ST | TACOMA | WA | 98405 | SQG |
| WAH000045286 | Safeway Store 3321 | 4831 Point Fosdick Dr NW | Gig Harbor | WA | 98335 | SQG |
| WAH000045350 | Safeway Store 3424 | 2411 N Proctor | Tacoma | WA | 98408 | SQG |
| WAH000044725 | Safeway Store 3545 | 900 E Meridian, Ste 12 | Milton | WA | 98354 | SQG |
| WAH000030774 | Safeway Store 422 | 611 S Meridian Ave | Puyallup | WA | 98371 | SQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|---|-----------------------------|------------|-------|-------|----------------------|
| WAH000045597 | Safeway Store 486 | 3842 Bridgeport Way | Tacoma | WA | 98466 | SQG |
| WAD988479465 | Tacoma Community College | 6501 S 19TH ST | TACOMA | WA | 98466 | SQG |
| WAR000010520 | Zumar Industries Inc Steele St | 12015 STEELE ST | TACOMA | WA | 98444 | SQG |
| WAH000054350 | Clover Park Technical College | 17214 110th Ave E | Puyallup | WA | 98375 | SQG |
| WAH000045783 | SAFEWAY Store 547 | 10105 224TH ST E | GRAHAM | WA | 98338 | SQG |
| WAH000027283 | Safeway Store and Fuel 1594 | 707 S 56th St | Tacoma | WA | 98408 | SQG |
| WAH000054295 | RTC Aerospace - Fife Division | 7215 45TH STREET CT E | FIFE | WA | 98424 | SQG |
| WAH000018846 | TACOMA DPU MCMILLIN RES | 12650 RESERVOIR RD E | PUYALLUP | WA | 98374 | SQG |
| WAD988467080 | Tacoma Public Utilities Beltline Div | 2601 SR 509 N FRONTAGE RD | TACOMA | WA | 98421 | SQG |
| WAD988485405 | Tacoma Public Utilities Lagrande Dam | 46502 MOUNTAIN HWY E | LA GRANDE | WA | 98348 | SQG |
| WAD988476933 | Georgia Pacific Gypsum LLC Tacoma | 1240 Alexandar Ave | Tacoma | WA | 98421 | SQG |
| WAH000056130 | CVS Pharmacy 11023 | 9400 Gravelly Lake Dr SW | Lakewood | WA | 98499 | SQG |
| WAH000000067 | Kaiser Permanente Tacoma Specialty | 209 MARTIN LUTHER KING WAY | TACOMA | WA | 98405 | SQG |
| WAD988486239 | Caliber Collision Center Canyon Road 2924 | 8312 CANYON RD E | PUYALLUP | WA | 98371 | SQG |
| WAH000012518 | Albertsons 0493 | 104 Military Rd S | Tacoma | WA | 98444 | SQG |
| WAD067162586 | Jesse Main Yard | 1840 MARINE VIEW DR | TACOMA | WA | 98422 | SQG |
| WAH000010942 | Albertsons 3106 | 11012 Canyon Rd E Ste 25 | Puyallup | WA | 98373 | SQG |
| WAH000024358 | Albertsons 3411 | 8611 Steilacoom Blvd SW | Lakewood | WA | 98498 | SQG |
| WAH000036562 | WA UW CENTER FOR URBAN WATERS | 326 E D ST 3RD FLOOR | TACOMA | WA | 98421 | SQG |
| WAD988467346 | Puyallup School Dist 003 Puyallup Sr HS | 105 7TH ST SW | PUYALLUP | WA | 98371 | SQG |
| WAD980976468 | WA WSU Puyallup Res & Ext Center | 7612 PIONEER WAY E | PUYALLUP | WA | 98371 | SQG |
| WAH000032630 | Albertsons 406 | 11330 NW 51st Ave | Gig Harbor | WA | 98332 | SQG |
| WAH000047576 | Peak Dental Tacoma | 3602 6th Ave #104 | Tacoma | WA | 98406 | SQG |
| WAH000056135 | Viking Cabinets Inc | 24215 Mountain Hwy E | Spanaway | WA | 98387 | SQG |
| WAD981770266 | Pierce Transit | 3701 96TH ST SW | TACOMA | WA | 98499 | SQG |
| WA0000998286 | FedEx Express TCM | 2503 FRANK ALBERT RD BLDG A | FIFE | WA | 98424 | SQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|--|---|------------|-------|-------|----------------------|
| WAD027554070 | Titus Will Ford Toyota Sales Inc | 3606 S SPRAGUE AVE | TACOMA | WA | 98409 | SQG |
| WAH000050232 | CARAUSTAR | 808 E 26TH ST | TACOMA | WA | 98421 | SQG |
| WAH000048721 | Pick N Pull Tacoma | 2416 112th St S | Tacoma | WA | 98499 | SQG |
| WAH000057900 | ST Fabrication | 13322 142nd Ave E | Orting | WA | 98360 | SQG |
| WAD980987101 | Cyphers & Kallander | 5014 S WASHINGTON ST | TACOMA | WA | 98409 | SQG |
| WAD037992500 | Bates Technical College Downtown Campus | 1101 S YAKIMA AVE | TACOMA | WA | 98405 | SQG |
| WAH000056830 | Hylebos Marina Inc | 1940 MARINE VIEW DR | TACOMA | WA | 98422 | SQG |
| WAH000039570 | Relia Safe Transport LLC dba RST Hazmat | 5225 7TH ST E | Fife | WA | 98424 | XQG |
| WAD988482923 | Veneer Chip Transport | 2205 PACIFIC HWY E | TACOMA | WA | 98424 | XQG |
| WAD982653230 | Sumner National Auto Parts Inc | 16008 60TH ST E | SUMNER | WA | 98390 | XQG |
| WAH000043082 | T & T Trucking Inc | 1107 140th Ave Ct E | Sumner | WA | 98390 | XQG |
| WAH000033080 | Electric Motor Service & Controls LLC | 1928 Milwaukee Way | Tacoma | WA | 98421 | XQG |
| WAH000033171 | Schilling Graphics | 2340 E 11th St | Tacoma | WA | 98421 | XQG |
| WAD027535434 | Metro Auto Rebuild South | 3845 S WARNER ST | TACOMA | WA | 98409 | XQG |
| WAH000027276 | Swift Transportation Sumner | 4720 142nd Ave | Sumner | WA | 98390 | XQG |
| WAH000052753 | GIG HARBOR SPORTSMAN CLUB | 9721 BURNHAM DR NW | GIG HARBOR | WA | 98332 | XQG |
| WAH000049057 | Genoa Pharmacy in Greater Lakes Med Ctr | 9330 59th Ave SW Ste 179 | Lakewood | WA | 98499 | XQG |
| WAH000033260 | Matson Navigation Company of Alaska LLC | 1675 Lincoln Ave Bldg 300, TRANSFER FACILITY | Tacoma | WA | 98421 | XQG |
| WAH000019935 | Qwest Puyallup Power Crew Office | 5104 85TH AVE E BLDG 7 | PUYALLUP | WA | 98372 | XQG |
| WAH000008912 | Western Peterbilt LLC | 3443 20TH ST E | FIFE | WA | 98424 | XQG |
| WAH000015362 | PCRCO LLC | 17925 MERIDIAN ST E | PUYALLUP | WA | 98373 | XQG |
| WAD988489324 | LKQ Foster Auto Parts Inc dba LKQ of Was | 28520 SR 410 E | BUCKLEY | WA | 98321 | XQG |
| WAH000038493 | RoadrunnerTransportation Services | 3520 142ND AVE E, STE 100 | SUMNER | WA | 98390 | XQG |
| WAD027532761 | Carlson Brothers Jewelers Inc | 861 S 38TH ST | TACOMA | WA | 98418 | XQG |
| WA4141707154 | US DOI NPS Mount Rainier National Park | E END SR 706 | LONGMIRE | WA | 98397 | XQG |
| WAH000043591 | Rogers Rubber Manufacturing Inc | 2810 Meridian Ave E | Edgewood | WA | 98371 | XQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|--|--|----------|-------|-------|----------------------|
| WAD988495453 | SPECIALTY WOOD MFG | 7717 PORTLAND AVE E | TACOMA | WA | 98404 | XQG |
| WAD988488359 | P+S Painting Inc dba Pederson Painting | 4220 112th St E | Tacoma | WA | 98446 | XQG |
| WAH000050338 | ADT LLC Tacoma | 6102 N 9th St Ste 700 | Tacoma | WA | 98406 | XQG |
| WAH000008292 | Guardian Industrial Svcs Inc 99th St E | 1813 99TH ST E | TACOMA | WA | 98445 | XQG |
| WAD027545664 | Lakewood Auto Body Inc | 12126 PACIFIC HWY | TACOMA | WA | 98499 | XQG |
| WAH000049255 | Franklin Pierce SD 402 Early Learning Ct | 12223 A St S | Tacoma | WA | 98444 | XQG |
| WAD980835102 | Franklin Pierce SD Support Services | 11807 24TH AVE E | TACOMA | WA | 98445 | XQG |
| WAH000056925 | SEPA 1 LLC | 5709 134TH ST CT E | Puyallup | WA | 98373 | XQG |
| WAD982656381 | Meridian Square LLC | 11916 MERIDIAN S | PUYALLUP | WA | 98373 | XQG |
| WAH000050018 | Omada International - Sumner Division | 14513 32nd St E | Sumner | WA | 98390 | XQG |
| WAD980724280 | Plaza Cleaners Lakewood | 12509 PACIFIC HWY SW | LAKEWOOD | WA | 98499 | XQG |
| WAD092875830 | Rainier School | 2120 RYAN RD | BUCKLEY | WA | 98321 | XQG |
| WAD988506812 | Metro Freight Systems Inc | 805 140TH AVE CT E | SUMNER | WA | 98390 | XQG |
| WAD988479846 | Modutech Marine Inc | 2218 MARINE VIEW DR NE | TACOMA | WA | 98422 | XQG |
| WAH000055208 | EQ Industrial Services Tacoma Servc Ctr | TRANSFER FACILITY, 5207 1/2 187th Street East | Tacoma | WA | 94446 | XQG |
| WAD988514006 | Pepsi Beverages Company | 3101 S PINE ST | TACOMA | WA | 98409 | XQG |
| WAH000042012 | USF Reddaway Inc Tacoma | 802 E 11TH ST | TACOMA | WA | 98421 | XQG |
| WAD009491770 | Manke Lumber Co Inc Tacoma Saw Mill | 1717 MARINE VIEW DR | TACOMA | WA | 98422 | XQG |
| WAD980985402 | Tacoma School Dist 10 Bldg & Grounds | 3223 S UNION AVE | TACOMA | WA | 98409 | XQG |
| WAR000007310 | Foss High School | 2112 S TYLER ST | TACOMA | WA | 98405 | XQG |
| WAR000007377 | Wilson High School | 1202 N ORCHARD ST | TACOMA | WA | 98406 | XQG |
| WAR000011122 | Certified Cleaning Svcs Inc | 2103 E 112TH ST FRONT SHOP | TACOMA | WA | 98445 | XQG |
| WAD053524690 | Lincoln High School | 701 S 37TH ST | TACOMA | WA | 98408 | XQG |
| WAH000052224 | FOUNDERS CHOICE INC | 1517 S TACOMA WAY | TACOMA | WA | 98409 | XQG |
| WAR000007393 | Mount Tahoma High School | 6227 S TYLER ST | TACOMA | WA | 98409 | XQG |
| WAR000007385 | Stadium High School | 111 N E ST | TACOMA | WA | 98403 | XQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|---|--|------------------|-------|------------|----------------------|
| WAH000041673 | Arcom Oil Transporter | 10013 Lakeview Ave SW | Lakewood | WA | 98499 | XQG |
| WAD988515334 | Arcom Oil | 97TH ST E & 16TH AVE E | TACOMA | WA | 98445 | XQG |
| WAH000039221 | Fastenal Company | 9725 47th Ave SW Bldg 20 Ste A | Lakewood | WA | 98499 | XQG |
| WAR000004713 | Burlington Northern & Santa Fe Railway | 513 T20N R2EWM E 1/2 | TACOMA | WA | 98421 | XQG |
| WA0000998575 | Sumner School Dist | 19605 104TH ST E | SUMNER | WA | 98390 | XQG |
| WAH000056280 | Ruston Way Seawall | Ruston Way & N 49th St | Tacoma | WA | 98409 | XQG |
| WAH000002030 | Relm West Inc Lakewood | 4620 95TH SW STE C | LAKEWOOD | WA | 98499 | XQG |
| WAH000043770 | Combined Carriers dba Machine Carriers | 5630 163rd St E | Puyallup | WA | 98375 | XQG |
| WAH000053709 | Bunzl Seattle | 4501 W Valley Hwy E | Sumner | WA | 98390 | XQG |
| WAH000049169 | American Fast Freight | 7400 45TH STREET CT E | FIFE | WA | 98424 | XQG |
| WAD075160051 | Graymont Western US Inc | 1220 ALEXANDER AVE | TACOMA | WA | 98421 | XQG |
| WAH000056870 | Motive Power Marine E Port Shipyard | 401 E Alexander Ave, Lot behind bldg 407 | Tacoma | WA | 98421 | XQG |
| WAH000057375 | Jemstone Grandview | 2505 Grandview Dr W | University Place | WA | 98466 | XQG |
| WAH000056935 | Prairie Pit | 1600 Block of Waller Rd | Tacoma | WA | 98446-1336 | XQG |
| WAD988475323 | Thermo Fluids Inc | 1517 PEASE AVE | SUMNER | WA | 98390 | XQG |
| WAH000029533 | Thermo Fluids Inc Warehouse | 14221 29th St E Ste 101 | Sumner | WA | 98390 | XQG |
| WAR000007229 | Thermo Fluids Inc Warehouse Alexander Ave | 1851 ALEXANDER AVE | TACOMA | WA | 98421 | XQG |
| WAH000019836 | Tacoma City Thea Foss Waterway | THEA FOSS WATERWAY N OF SR 509 | TACOMA | WA | 98421 | XQG |
| WAH000025778 | Tacoma City Puyallup River Side Channel | 1801 Portland Ave | Tacoma | WA | 98421 | XQG |
| WAD159142249 | Puyallup School Dist Ferrucci Jr High | 3213 WILDWOOD PARK DR | PUYALLUP | WA | 98374 | XQG |
| WAR000001743 | Burlington Environmental LLC | 1629 E ALEXANDER AVE, Upper level | Tacoma | WA | 98421 | XQG |
| WAD037991999 | Commencement Bay Corrugated | 13414 142ND AVE E | ORTING | WA | 98360 | XQG |
| WAD027543032 | Pacific Functional Fluids LLC | 2244 PORT OF TACOMA RD | TACOMA | WA | 98421 | XQG |
| WA0000915355 | Frederickson Power LP | 18610 50TH AVE E | TACOMA | WA | 98446 | XQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|---|------------------------------|------------|-------|-------|----------------------|
| WAD153822028 | Maximum Performance Inc | 16603 MERIDIAN E | PUYALLUP | WA | 98375 | XQG |
| WAD980979553 | Cornforth Campbell Motors Inc Body Shop | 200 E PIONEER AVE | PUYALLUP | WA | 98372 | XQG |
| WAD980987226 | CC Motors North Inc | 407 MAIN AVE E | PUYALLUP | WA | 98372 | XQG |
| WAH000051124 | Taft Properties LLC | 1201 PUYALLUP AVE | TACOMA | WA | 98421 | XQG |
| WAH000012898 | PSE Buckley | 600 N RIVER AVE | BUCKLEY | WA | 98321 | XQG |
| WAD089344246 | Linde Inc Fife | 2902 20TH ST E | FIFE | WA | 98424 | XQG |
| WAD980511729 | Petroleum Reclaiming Service Inc | 3003 TAYLOR WAY | TACOMA | WA | 98421 | XQG |
| WAD982651473 | Puyallup City Parks Department | 1201 4TH ST NW | PUYALLUP | WA | 98371 | XQG |
| WAD988500625 | Puyallup Public Works | 1100 39TH AVE SE | PUYALLUP | WA | 98374 | XQG |
| WAD988467361 | Puyallup School Dist 003 Ballou Jr High | 9916 136TH ST E | PUYALLUP | WA | 98373 | XQG |
| WAD100567460 | Puyallup School Dist Aylen Junior High | 101 15TH ST SW | PUYALLUP | WA | 98371 | XQG |
| WAT540012671 | Qwest Corporation W00260 | 317 3RD ST SW | PUYALLUP | WA | 98371 | XQG |
| WAD980985253 | Qwest Corporation W00681 & W00B69 | 7850 S TRAFTON | TACOMA | WA | 98409 | XQG |
| WAH000022735 | Qwest Corporation W0070Q | 5018 85th Ave E | Puyallup | WA | 98371 | XQG |
| WAH000019109 | Multicare Health System IS Building | 124 TACOMA AVE S | TACOMA | WA | 98402 | XQG |
| WAH000026432 | PRO VAC | 6622 112th ST E | PUYALLUP | WA | 98737 | XQG |
| WAH000049752 | UPS Sumner | 4123 142th Ave E | Sumner | WA | 98390 | XQG |
| WAH000053595 | Alaska West Express Inc Tacoma | 2902 Taylor Way, Transporter | Tacoma | WA | 98421 | XQG |
| WAD988471744 | Peninsula Light Co | 13315 GOODNOUGH DR NW | GIG HARBOR | WA | 98335 | XQG |
| WAD988467387 | Puyallup School Dist 003 Trans Dept | 323 12TH ST NW | PUYALLUP | WA | 98371 | XQG |
| WAD988484580 | Time Oil Co Fife St | 3011 S FIFE ST | TACOMA | WA | 98409 | XQG |
| WAD981773849 | US EPA Time Oil Tmt System 12a | 3018 FIFE ST | TACOMA | WA | 98406 | XQG |
| WAH000057200 | Heritage Crystal Clean LLC | 9612 47th Ave SW | Lakewood | WA | 98499 | XQG |
| WAH000016212 | Heritage Crystal Clean LLC D St | 1901 E D St | Tacoma | WA | 98421 | XQG |
| WAH000028604 | Core and Main LP | 602 Valley Ave NE | Puyallup | WA | 98371 | XQG |
| WAH000033008 | Northstar Chemical Inc | 1919 Marine View Dr Ste B | Tacoma | WA | 98422 | XQG |
| WAD988487757 | CHEVRON 97135 | 5319 20TH ST E | TACOMA | WA | 98424 | XQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|---|-----------------------------|------------|-------|-------|----------------------|
| WAD988489563 | CHEVRON 94860 | 11722 MERIDIAN S | PUYALLUP | WA | 98371 | XQG |
| WAD988509121 | Former Unocal 351437 | 7051 PACIFIC AVE | TACOMA | WA | 98408 | XQG |
| WAD988482154 | Chevron 95851 | 17519 PACIFIC AVE | SPANAWAY | WA | 98387 | XQG |
| WAD988485652 | Chevron 93914 | 4401 S 19TH ST | TACOMA | WA | 98405 | XQG |
| WAD988497798 | Automotive Specialists | 11111 GOLDEN GIVEN RD E | TACOMA | WA | 98445 | XQG |
| WAH000023921 | Medley Vacant Property | 3819 Center St | Tacoma | WA | 98409 | XQG |
| WAH000018432 | Rainier Lighting & Electric Supply Inc | 12511 PACIFIC HWY SW | LAKEWOOD | WA | 98499 | XQG |
| WAD988491668 | Tacoma Tent & Awning Co Inc | 121 N G ST | TACOMA | WA | 98403 | XQG |
| WAH000052080 | Nordlund Boat Co Inc Tacoma | 2408 Port of Tacoma Rd | Tacoma | WA | 98421 | XQG |
| WAH000018747 | Carlile Transportation Systems LLC | 2301 Taylor Way Transporter | Tacoma | WA | 98421 | XQG |
| WAD097249411 | Phillips 66 Co Tacoma Terminal - North | 516 E D ST | TACOMA | WA | 98421 | XQG |
| WAD988467379 | Puyallup School Dist 003 Kalles Jr High | 515 3RD ST SE | PUYALLUP | WA | 98372 | XQG |
| WAD988505483 | Puyallup School Dist Warehouse | 8723 112TH ST E | PUYALLUP | WA | 98373 | XQG |
| WAH000019158 | WA AGR King 3 | 45224B 284TH AVE SE | ENUMCLAW | WA | 98022 | XQG |
| WAD988523684 | WA AGR Pierce 1 | 7611 PIONEER WAY E LOT 1104 | PUYALLUP | WA | 98371 | XQG |
| WAH000055424 | GEODIS | 14801 Spring Street | Lakewood | WA | 98439 | XQG |
| WAD002799260 | Lynden Transport Inc | 5410 12TH ST E | FIFE | WA | 98424 | XQG |
| WA0000932665 | Miller Paint Co Inc - Gig Harbor | 6876 KIMBALL DR | GIG HARBOR | WA | 98335 | XQG |
| WAD075744748 | Pierce College Ft Steilacoom | 9401 FARWEST DR SW | Lakewood | WA | 98498 | XQG |
| WAH000000224 | Pierce College Puyallup | 1601 39TH AVE SE | PUYALLUP | WA | 98374 | XQG |
| WAH000004770 | Fife Vehicle Div & Dept of Public Works | 3725 PACIFIC HWY E | FIFE | WA | 98424 | XQG |
| WA0000284273 | Flowserve Corporation | 2007 STEWART ST | TACOMA | WA | 98421 | XQG |
| WAD988474144 | WA DOT Narrows Bridge | SR 16 Tacoma Narrows Bridge | TACOMA | WA | 98406 | XQG |
| WAH000009001 | Hood St Reservoir | 3110 I ST S | TACOMA | WA | 98409 | XQG |
| WAH000022650 | Tacoma Power Pearl Substation | 2312 N Pearl St | Tacoma | WA | 98406 | XQG |
| WAD988523445 | Tacoma Public Utilities Loveland Center | 3002 224TH ST E | GRAHAM | WA | 98338 | XQG |
| WAH000041814 | Tacoma Public Utilities SW Substation | 4124 S 74th St | Tacoma | WA | 98409 | XQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|---|--------------------------------|------------|-------|-------|----------------------|
| WAH000051778 | TACOMA Public Utilities Water Dept | 11617 214TH AVE E | SUMNER | WA | 98390 | XQG |
| WAH000022634 | Tacoma Water Bismark Standpipe | 819 E 64th St | Tacoma | WA | 98404 | XQG |
| WAD000641720 | Olympic Pipe Line Co Tacoma DF | 706 E F ST | TACOMA | WA | 98421 | XQG |
| WAR000001164 | Olympic Pipe Line Co Tacoma Station | 4420 180TH ST E | SPANAWAY | WA | 98387 | XQG |
| WAD981768021 | Dept of Public Assembly Fac Tacoma Dome | 2727 E D ST | TACOMA | WA | 98421 | XQG |
| WAH000042913 | ICON Materials | 1508 VALENTINE AVE SE | PACIFIC | WA | 98047 | XQG |
| WAH000019786 | Clover Park High School | 11023 GRAVELLY LAKE DR SW | LAKEWOOD | WA | 98499 | XQG |
| WAH000023234 | CLOVER PARK SCHOOL DISTRICT 400 | 9219 LAKEWOOD DR SW ASC | LAKEWOOD | WA | 98499 | XQG |
| WAH000019794 | Lakes High School | 10320 FARWEST DR | LAKEWOOD | WA | 98499 | XQG |
| WAD980511851 | WA UW Pack Forest Facility | 9010 453RD ST E | EATONVILLE | WA | 98328 | XQG |
| WAD010187896 | Point Ruston LLC | Ruston Way & N 51st St | Tacoma | WA | 98407 | XQG |
| WAH000050893 | Regence Blue Shield | 1501 Market St | Tacoma | WA | 98402 | XQG |
| WAH000037559 | Dayton Superior Corp Sumner | 13605 52nd St E | Sumner | WA | 98390 | XQG |
| WAH000052422 | Puyallup SD 003 Emerald Ridge HS | 12405 184TH ST E | PUYALLUP | WA | 98374 | XQG |
| WAD988505475 | Puyallup School Dist Print Shop | 211 10TH ST SE | PUYALLUP | WA | 98372 | XQG |
| WAD988467353 | Puyallup School Dist Rogers HS | 12801 86TH AVE E | PUYALLUP | WA | 98373 | XQG |
| WAH000057245 | Sunrise Elementary | 2323 39th Ave SE | Puyallup | WA | 98374 | XQG |
| WAH000051693 | MIDLAND AUTO WRECKING FORMER | 10324 PORTLAND AVE E | TACOMA | WA | 98445 | XQG |
| WAD988500302 | Consolidated Press Tacoma | 2521A PACIFIC HWY E | TACOMA | WA | 98424 | XQG |
| WAH000039211 | Northern Environmental LLC | 7517 Portland Ave E Ste B | Tacoma | WA | 98404 | XQG |
| WAD094629367 | Glenn Springs Holdings Inc | 709 ALEXANDER AVE | TACOMA | WA | 98421 | XQG |
| WAD009242314 | OCCIDENTAL CHEMICAL CORP | 605 ALEXANDER AVE | TACOMA | WA | 98421 | XQG |
| WA0000758979 | Occidental Chemical Pitarcik | PACIFIC HWY E & PORT OF TACOMA | TACOMA | WA | 98424 | XQG |
| WAD988475190 | Fairweatherr Masonry Co Inc | 400 142nd Ave E | Sumner | WA | 98390 | XQG |
| WAD988467395 | Puyallup School Dist Edgemont JH | 10909 24 ST E | PUYALLUP | WA | 98372 | XQG |
| WAD009484049 | Dickson Co | 3315 S PINE ST Transporter | TACOMA | WA | 98409 | XQG |

Appendix L – List of Hazardous Waste Generators and Receiving Sites

| HandlerId | Handler Name | Street Address | City | State | Zip | State Generator Code |
|--------------|---------------------------------------|---------------------------------------|----------|-------|------------|----------------------|
| WAH000052404 | Port of Tacoma Port Parcel 2 | 1001 Alexander Ave | Tacoma | WA | 98421 | XQG |
| WAD980984850 | TACOMA PORT MAINTENANCE FACILITY | 802 PORT CENTER RD | TACOMA | WA | 98401 | XQG |
| WAD988507562 | William Drury Co | 2220 E 11TH ST | TACOMA | WA | 98421 | XQG |
| WAH000054832 | Sound Transit Steilacoom Blvd SW | 3980 Steilacoom Blvd SW | Lakewood | WA | 98498 | XQG |
| WAH000049999 | SOUND TRANSIT TACOMA LINK OPS | 802 E 25TH ST | TACOMA | WA | 98421 | XQG |
| WAD000642157 | Northwest Pipeline GP Sumner CS | 3104 166TH AV E | SUMNER | WA | 98390 | XQG |
| WAH000004747 | Baker Manufacturing Inc Puyallup | 11121 VALLEY AVE E | PUYALLUP | WA | 98372 | XQG |
| WAH000044552 | Atlas Supply INC | 4823 95th St SW, Ste B | Lakewood | WA | 98499 | XQG |
| WAD009260050 | Buffelen Woodworking Co | 1901 TAYLOR WAY | TACOMA | WA | 98421 | XQG |
| WAH000047370 | PACIFIC NORTHWEST TERMINALS INC | 1749 Marine View Dr Transfer Facility | Tacoma | WA | 98422 | XQG |
| WAD067661553 | Safe Boats International Tacoma | 401 ALEXANDER AVE BLDG 326 | TACOMA | WA | 98421 | XQG |
| WAD988485470 | Rolfs Import Auto Service | 3122 96TH ST S | TACOMA | WA | 98409 | XQG |
| WAD988472239 | Rainier Veneer Inc | 8220 EUSTIS HUNT RD | SPANAWAY | WA | 98387 | XQG |
| WAD982658122 | Bethel High School | 22215 38TH AVE E | SPANAWAY | WA | 98387 | XQG |
| WAD085196053 | Bethel School Dist No 403 | 516 E 176TH | SPANAWAY | WA | 98387 | XQG |
| WAH000021097 | Bethel SD Spanaway Lake High School | 1305 168th St E | Spanaway | WA | 98387 | XQG |
| WAD988471439 | Bethel Public Schools 403 Transp Dept | 4015 E 224TH ST | SPANAWAY | WA | 98387 | XQG |
| WAD988506903 | EcoLube Recovery LLC | 401 E ALEXANDER AVE Bldg 407, Bay 10 | TACOMA | WA | 98421 | XQG |
| WAH000057920 | EcoLube Recovery Puyallup | 213 10TH ST SE | PUYALLUP | WA | 98372-3404 | XQG |

Appendix M – Inventory of Listed Hazardous Sites

Inventory of Listed Hazardous Sites

The Hazardous Sites List is published by the Washington State Department of Ecology's Toxics Cleanup Program. It includes all sites that have been assessed and ranked using the Washington Ranking Method. Also listed are National Priorities List (NPL) sites. Additions to the list, changes in remedial status of sites on the list, and removals from the list are published twice a year in February and August.

[Hazardous Sites List for- February 24, 2021 \(wa.gov\)](#)

Appendix N – List of Registered Dangerous Waste Haulers in Washington State

| Offsite Handler Id | Offsite Name | Address 1 | City | State | Zip |
|--------------------|--------------------------------------|---|---------------|-------|------------|
| AK2170027245 | US - NARL | N71 19 30 W156 41 00 | BARROW | AK | 99723 |
| AK9690330742 | USDHS/USCG Base Support Kodiak | Anton Larson by Rd/Rezanof Hwy | KODIAK | AK | 99619 |
| AK9690502001 | US DOT FAA ARTCC ZAN | 700 N BONIFACE PKWY | ANCHORAGE | AK | 99506 |
| AKD000834861 | CROWLEY MARINE SERVICES | 940 THIRD STREET | KOTZEBUE | AK | 99752 |
| AKD002848372 | Weaver Brothers Inc | 1611 East First Avenue | Anchorage | AK | 99501 |
| AKD002848372 | WEAVER BROTHERS, INC. | 1611 E. 1ST AVENUE | ANCHORAGE | AK | 99501 |
| AKD003845526 | NORTHERN AIR CARGO | 3900 W. INT'L AIRPORT ROAD | ANCHORAGE | AK | 99502 |
| AKD980665061 | NANA LYNDEN LOGISTICS | 6441 SOUTH AIRPORT PLACE, P.O. BOX 1230 | ANCHORAGE | AK | 99502 |
| AKD981767403 | ALASKA RAILROAD CORPORATION | 327 WEST SHIP CREEK AVENUE | ANCHORAGE | AK | 99501 |
| AKD983066390 | TECK ALASKA INC (9056-9056)(RE | RED DOG MINE | KOTZEBUE | AK | 99752-0000 |
| AKD983075557 | EVERTS AIR CARGO | P.O. Box 60908 | Fairbanks | AK | 99706 |
| AKR000004184 | EMERALD ALASKA | | | AK | 99501 |
| AKR000005611 | Carlile Transportation Systems Inc | 1800 East 1st Avenue | Anchorage | AK | 99501 |
| AKR000005611 | CARLILE TRANSPORTATION SYSTEMS, INC. | 1800 E 1ST AVE | ANCHORAGE | AK | 99501 |
| AKR000200105 | ALASKA MARINE TRUCKING LLC | 100 MOUNT ROBERTS ST | JUNEAU | AK | 99801 |
| AKR000200295 | Alaska Central Express, Inc. | 5901 Lockheed Ave. | Anchorage | AK | 99502 |
| ALD067138891 | Robbie D Wood Incorporated | 1051 Old Warrior River Road | Dolomite | AL | 35061 |
| ALD981020894 | CLEAN EARTH OF ALABAMA | 402 WEBSTER CHAPEL ROAD | GLENCOE | AL | 35905 |
| ALR000007237 | ACTION RESOURCES INC | 14935 ALABAMA HWY 91 | HANCEVILLE | AL | 35077 |
| ALR000007237 | Action Resources Incorporated | 40 County Road 517 | Hanceville | AL | 35077 |
| ALR000007237 | ACTION RESOURCES, INC. | 40 COUNTY ROAD 517 | HANCEVILLE | AL | 35077 |
| ARD069748192 | CLEAN HARBORS EL DORADO , LLC | 309 American Circle | EL DORADO | AR | 71730 |
| ARD069748192 | TERIS LLC | 309 AMERICAN CIRCLE | EL DORADO | AR | 71730 |
| AZR000003681 | Thermo Fluids, Inc | 4301 W Jefferson Street | Phoenix | AZ | 85043 |
| AZR000516211 | SALT RIVER EXTRACTION TRANSPORTATION | 3230 E. BROADWAY | PHEONIX | AZ | 85040 |
| AZT050010008 | CHEMICAL TRANSPORTATION INC | 11105 N CASA GRANDE HWY | RILLITO | AZ | 85654 |
| CAD006912620 | Matson Navigation Company | P. O. BOX 7452 | SAN FRANCISCO | CA | 94120 |

Appendix N – List of Registered Dangerous Waste Haulers in Washington State

| Offsite Handler Id | Offsite Name | Address 1 | City | State | Zip |
|--------------------|--|----------------------------|------------------|-------|------------|
| CAD008488025 | PHIBRO TECH, INC. | 8851 Dice Road | SANTA FE SPRINGS | CA | 90670 |
| CAD082699562 | NRC Environmental Services | 20500 Richmond Beach Dr. | Seattle | WA | 98177 |
| CAD980891352 | STERICYCLE, INC. - VERNON | 2775 E 26TH ST | VERNON | CA | 90058 |
| CAD981692809 | DILLARD ENVIRONMENTAL INC. | 3291 BYER RD | BYRON | CA | 94514 |
| CAD982463994 | CHEMICAL TRANSFER COMPANY INC | 3105 S El Dorado Ave #B | Stockton | CA | 95206 |
| CAD982523433 | DILLARD ENVIRONMENTAL SERVICES | 3120 CAMINO DIABLO | BYRON | CA | 94514 |
| CAD983609678 | Black Gold Indsutries | 527 North Rice Avenue | BYRON | CA | 94514 |
| CAD983609678 | BLACK GOLD TRANSPORT | 527 N. RICE AVENUE | Oxnard | CA | 93030 |
| CAD983620402 | Advanced Cleanup Technologies | 20928 LAMBERTON AVENUE | OXNARD | CA | 93030 |
| CAR000030114 | NRC ENVIRONMENTAL | 1605 FERRY PT | CARSON | CA | 90810 |
| CAR000030114 | NRC ENVIRONMENTAL SERVICES, INC. | 1605 FERRY POINT | ALAMEDA | CA | 94501 |
| CAR000070540 | Advanced Chemical Transport | 600 Iowa St | ALAMEDA | CA | 94501 |
| CAR000070540 | ADVANCED CHEMICAL TRANSPORT INC | 1210 ELKO DRIVE | ALAMEDA | CA | 94501 |
| CAR000157511 | Mesa Environmental | 1444 East Burnett Street | ALAMEDA | CA | 94501 |
| CAR000179747 | Ingenium | 2255 Barham Driver | Redlands | CA | 92373 |
| CAR000179747 | INGENIUM GROUP LLC | 2255 BARHAM DR STE A | SUNNYVALE | CA | 94089 |
| CAT000624247 | M.P. Environmental Services | 3400 Manor St | SUNNYVALE | CA | 94089 |
| CAT000624247 | MP Environmental Services Inc. | 3400 Manor Street | Signal Hill | CA | 90755 |
| CAT983466509 | MP ENVIRONMENTAL SVCS INC-PHX | 3045 S 51ST AVE, Suite A | Escondido | CA | 92029 |
| FCCANADA0101 | Clean Harbors Canada, Inc. | 7842 Progress Way | ESCONDIDO | CA | 92029 |
| FL0000702985 | STERICYCLE SPECIALTY WASTE SOLUTIONS INC | 8505 NW 74TH STREET | Bakersfield | CA | 93308 |
| FLR000006353 | STERICYCLE SPECIALTY WASTE SOLUTIONS,INC | 314-B LANDSTREET ROAD | Bakersfield | CA | 93308 |
| FLR000012823 | NRC | 901 McClosky Blvd | PHOENIX | AZ | 85043-6204 |
| HI6170024719 | PACIFIC MISSILE RANGE FACILITY | B/412 ORDANCE SHOP | Delta | BC | V4G 1A4 |
| HI8690390036 | USCG BASE HONOLULU VESSEL | 400 SAND ISLAND PARKWAY | MIAMI | FL | 33166-2327 |
| HID006927123 | PACIFIC SHIPYARDS INTERNATIONA | PIER 24/25 HONOLULU HARBOR | ORLANDO | FL | 32824 |
| HID982040578 | Pacific Commercial Services LLC | 91-254 Olai Street | Tampa | FL | 33605 |

Appendix N – List of Registered Dangerous Waste Haulers in Washington State

| Offsite Handler Id | Offsite Name | Address 1 | City | State | Zip |
|--------------------|----------------------------------|--|---------------|-------|------------|
| HID982040578 | PACIFIC COMMERCIAL SERVICES, LLC | 5 SAND ISLAND ACCESS ROAD | KEKAHA | HI | 96252 |
| HID984467530 | Pacific Environ. PENCO | 65 N Nimitz Hwy Pier 14 PENCO | HONOLULU | HI | 96819 |
| HID984467712 | MARISCO LTD | 91-607 MALAKOLE ROAD | HONOLULU | HI | 96817 |
| HIR000046029 | CONEN'S FREIGHT TRANSPORT INC | 60 KUHIO ST. | Kapolei | HI | 96707 |
| HIR000050336 | Cameron Chemical Corp. | 94-110A Leokane Street | HONOLULU | HI | 96819 |
| HIR000060046 | YOUNG BROTHERS | 1331 N NIMITZ HIGHWAY | Honolulu | HI | 96817 |
| HIR000137935 | ENVIROSERVICES & TRAINING CTR | 560 N NIMITZ HIGHWAY | KAPOLEI | HI | 96707 |
| HIR000141663 | AKW ENVIRONMENTAL, LLC. | 190 KUAWA ST. | HILO | HI | 96720 |
| HIR000144212 | SOH/DOH/KALAUPAPA SETTLEMENT | P.O BOX 4444 | Waipahu | HI | 96797 |
| HIR000145060 | CAMERON CHEMICAL CORP MAUI | 120 KANE ST. | HONOLULU | HI | 96817 |
| HIT000139634 | HONOLULU FREIGHT SERVICES | 933A N NIMITZ HWY | HONOLULU | HI | 96817 |
| HIT000140756 | OASIS ENVIRONMENTAL GROUP, LLC | 96-1333C WAIHONA ST. | HILO | HI | 96720 |
| HIT000143735 | TRI ISLE, INC | 830 EHA ST. | KALAUPAPA | HI | 96742 |
| HIT000144147 | PINERIDGE FARMS | 611 MIDDLE ST, BUILDING 1 | KAHULUI | HI | 96732 |
| HIT000145961 | ISLAND FREIGHT SERVICES | 875 ALUA ST. | HONOLULU | HI | 96817 |
| IDD073114654 | US ECOLOGY IDAHO INC SITE B | 20400 LEMLEY ROAD | PEARL CITY | HI | 96782 |
| IDR000000406 | US ECOLOGY IDAHO INC RTF | SIMCO RD | WAILUKU | HI | 96793 |
| IDR000205625 | Steve Forler Trucking | 1843 Broadway AVE Ste. 203B | HONOLULU | HI | 96819-2330 |
| IDR000205625 | Steve Forler Trucking | 21075 NW Empire Dr | WAILUKU | HI | 96793 |
| IDR000205625 | Steve Forler Trucking Co. | PO Box 1479 | GRAND VIEW | ID | 83624 |
| IDR000205625 | Steve Forler Trucking, Inc. | 21075 NW Enprise Dr, 12 MI W OF MTN HOME | MOUNTAIN HOME | ID | 83647 |
| ILR000130062 | HERITAGE CRYSTAL CLEAN LLC | 2250 POINT BLVD STE 250 | Boise | ID | 83706 |
| IND058484114 | HERITAGE TRANSPORT LLC | 1626 RESEARCH WAY | Mountain Home | ID | 83647 |
| IND058484114 | HERITAGE TRANSPORT,LLC | 7901 WEST MORRIS STREET | Mountain Home | ID | 83647 |
| KS0000336891 | SAVANNAH TRANSP INC | 4425 NW HWY 24 | Mountain Home | ID | 83647 |
| KS0000336891 | Savannah Transport Inc. | 4490 NW 17th St | Mountain Home | ID | 83647 |
| KSD031209851 | SKOL RAILROAD | 123 N DEPOT ST | Mountain Home | ID | 83647 |

Appendix N – List of Registered Dangerous Waste Haulers in Washington State

| Offsite Handler Id | Offsite Name | Address 1 | City | State | Zip |
|--------------------|--|--------------------------------|---------------|-------|-------|
| MA5000000034 | CLEAN HARBORS KINGSTON FACILITY CORP | 100 JOSEPH ST | Mountain Home | ID | 83647 |
| MAD039322250 | CLEAN HARBORS ENV SERVICES INC | 42 LONGWATER DR | Mountain Home | ID | 83647 |
| MAD039322250 | CLEAN HARBORS ENVIRONMENTAL SERVICES INC | 100 JOSEPH ST | Mountain Home | ID | 83647 |
| MAD039322250 | CLEAN HARBORS ENVIRONMENTAL SERVICES INC | 150 WASHINGTON ST | Mountain Home | ID | 83647 |
| MAD039322250 | CLEAN HARBORS ENVIRONMENTAL SERVICES INC | 42 Longwater Drive | Mountain Home | ID | 83647 |
| MAD039322250 | Clean Harbors Environmental Services, In | 42 Longwater Drive | Mountain Home | ID | 83647 |
| MAD039322250 | Clean Harbors, Inc. | 42 Longwater Drive | Mountain Home | ID | 83647 |
| MIK435642742 | EQ INDUSTRIAL SERVICES | 17440 COLLEGE PARKWAY | Mountain Home | ID | 83647 |
| MIK435642742 | EQ INDUSTRIAL SERVICES | 17440 College Parkway, Ste 300 | Mountain Home | ID | 83647 |
| MIK435642742 | EQ INDUSTRIAL SERVICES | 17440 College Pkwy | Orting | WA | 98360 |
| MIK435642742 | EQ INDUSTRIAL SERVICES | 6500 Georgia Street | Boise | ID | 83716 |
| MIK435642742 | EQ OKLAHOMA | 17440 College Parkway | ELGIN | IL | 60123 |
| MIK455642742 | EQ INDUSTRIAL SERVICES | 5001 UNDERWOOD ROAD | INDIANAPOLIS | IN | 46231 |
| MND044176113 | PIONEER TANK LINES, INC. | 12501 HUDSON RD S | INDIANAPPOLIS | IN | 46231 |
| MND048341788 | BNSF Railway Co - St Paul | 176 5th St E Ste 110 | TOPEKA | KS | 66618 |
| MND048341788 | Burlington Northern Santa Fe | 2500 Lou Menk Drive | TOPEKA | KS | 66618 |
| MNS000110924 | Clean Earth Specialty Waste Solution | 2850 100th Court NE | Topeka | KS | 66618 |
| MNS000110924 | Clean Earth Specialty Waste Solutions | 1701 E. Alexander Avenue | CHERRYVALE | KS | 67335 |
| MNS000110924 | CLEAN EARTH SPECIALTY WASTE SOLUTIONS | 2850 100th Ct NE | KINGSTON | MA | 2364 |
| MNS000110924 | Stericycle Specialty Waste Solutions | 2850 100th CT NE | NORWELL | MA | 2061 |
| MNS000110924 | STERICYCLE SPECIALTY WASTE SOLUTIONS INC | 2850 100TH CT NE | KINGSTON | MA | 2364 |
| MNS000110924 | Stericycle Specialty Waste Solutions, In | 2850 100th Court NE | KINGSTON | MA | 2364 |
| MNS000110924 | SWDI LOGISTICS LLC | 2850 100TH CT NE | KINGSTON | MA | 2364 |
| MOD095038998 | BED ROCK INC DBA TRI STATE MOTOR | 8141 E 7TH ST | KINGSTON | MA | 2364 |
| MOD095038998 | Tri State Motor Transit | 8141 East 7th Street | KINGSTON | MA | 2364 |
| MOD095038998 | TRI-STATE MOTOR TRANSIT CO | 8141 E 7TH ST | KINGSTON | MA | 2364 |

Appendix N – List of Registered Dangerous Waste Haulers in Washington State

| Offsite Handler Id | Offsite Name | Address 1 | City | State | Zip |
|--------------------|--|-------------------------------|-----------|-------|------------|
| MOD095038998 | TRI-STATE MOTOR TRANSIT, CO | 8141 EAST 7TH STREET | KINGSTON | MA | 2364 |
| MOD981123391 | WASTE EXPRESS | 6300 STADIUM DRIVE | KINGSTON | MA | 2364 |
| MOD981728504 | ENVIRONMENTAL WORKS, INC. | 1455 EAST CHESTNUT EXPRESSWAY | KINGSTON | MA | 2364 |
| MOR000501973 | R & R TRUCKING INC | 302 THUNDER ROAD | KINGSTON | MA | 2364 |
| NED001792910 | Union Pacific Railroad | 1416 Dodge Street BBMC | KINGSTON | MA | 2364 |
| NED001792910 | UNION PACIFIC RAILROAD CO. | 1416 DODGE STREET | KINGSTON | MA | 2364 |
| NED001792910 | UNION PACIFIC RAILROAD COMPANY | 1400 DOUGLAS STREET | KINGSTON | MA | 2364 |
| NED981723513 | CLEAN HARBORS - ENVIRONMENTAL SERVICES | 2247 SOUTH HIGHWAY 71 | KINGSTON | MA | 2364 |
| NED981723513 | CLEAN HARBORS ENV SERVICES INC | 2247 S Highway 71 | KINGSTON | MA | 2364 |
| NED981723513 | CLEAN HARBORS ENVIRONMENTAL SERVICES INC | 2247 S HWY 71 | KINGSTON | MA | 2364 |
| NED981723513 | Clean Harbors Environmental Services,inc | 2247 South Highway 71 | KINGSTON | MA | 2364 |
| NJD080631369 | ONYX ENVIRONMENTAL SERVICE LLC | 3 GOLD MINE ROAD | KINGSTON | MA | 2364 |
| NJD080631369 | VEOLIA ES TECHNICAL SOLUTIONS | 1 EDEN LANE | KINGSTON | MA | 2364 |
| NJD080631369 | VEOLIA ES TECHNICAL SOLUTIONS | 1 EDEN LN | KINGSTON | MA | 2364 |
| NJD080631369 | VEOLIA ES TECHNICAL SOLUTIONS | 9131 EAST 96TH AVE | KINGSTON | MA | 2364 |
| NJD080631369 | Veolia ES Technical Solutions LLC | 1 Eden Lane | KINGSTON | MA | 2364 |
| NJD080631369 | VEOLIA ES TECHNICAL SOLUTIONS LLC | 1 EDEN LN | KINGSTON | MA | 2364 |
| NJD080631369 | Veolia ES Technical Solutions, LLC | 53 State Street | KINGSTON | MA | 2364 |
| NVD980895338 | 21ST CENTURY ENVIRONMENTAL | 2095 Newlands Drive East | KINGSTON | MA | 2364 |
| NVT330010000 | US ECOLOGY NEVADA, INC. | Hwy 95, 11 Miles S. Of Beatty | BRAINTREE | MA | 2184 |
| OHD048415665 | ROSS INCINERATION SERVICES INC | 36790 Giles Road | BRAINTREE | MA | 2184 |
| OHD980614374 | ROSS TRANSPORTATION SERVICES, INC | 36790 GILES ROAD TRANSPORTER | Norwell | MA | 2061 |
| OKD982289035 | KIAMICHI RAILROAD | PO Box 786 | Norwell | MA | 2061 |
| OKR000031492 | Basin Transporation | 1971 N George Nigh Expressway | Norwell | MA | 02061-9149 |
| OKR000031492 | Basin Transportation | 130 Express Ln | LIVONIA | MI | 48152 |
| OKR000031492 | BASIN TRANSPORTATION | 1917 N GEORGE NIGH EXPRESS | Livonia | MI | 48152 |
| OKR000031492 | Basin Transportation LLC | 130 Express Lane | Livonia | MI | 48152 |

Appendix N – List of Registered Dangerous Waste Haulers in Washington State

| Offsite Handler Id | Offsite Name | Address 1 | City | State | Zip |
|--------------------|--|-----------------------------------|------------|-------|------------|
| OKR000031492 | BASIN TRANSPORTATION LLC | 130 EXPRESS LN | Livonia | MI | 48152 |
| ORD080452353 | Chemical Waste Management of the N.W | 17629 Cedar Springs Lane | Livonia | MI | 48152 |
| ORD089452353 | Chemical Waste Management | 17629 Cedar Springs Lane, Ste 300 | Livonia | MI | 48152 |
| ORD089452353 | CHEMICAL WASTE MANAGEMENT OF T | 17629 Cedar Springs Lane, Ste 300 | Livonia | MI | 48152 |
| ORD089452353 | CHEMICAL WASTE MANAGEMENT OF T | 17629 CEDAR SPRINGS LN | Livonia | MI | 48152 |
| ORD089452353 | CHEMICAL WASTE MANAGEMENT OF THE NW | 17629 CEDAR SPRINGS LANE, Ste 300 | Livonia | MI | 48152 |
| ORD987173457 | COLUMBIA RIDGE LANDFILL | 18177 CEDAR SPRINGS RD., Ste 300 | Livonia | MI | 48152 |
| ORD987173457 | COLUMBIA RIDGE LDFL & RECYCLIN | 18177 CEDAR SPRING LN, Ste 300 | Livonia | MI | 48152 |
| ORQ000015735 | NWFF ENVIRONMENTAL | 106 S 11TH STREET | Detroit | MI | 48211 |
| ORQ000018200 | CLEARWATER ENVIRONMENTAL SERVI | 30240 SW PARKWAY AVE STE 3 | Livonia | MI | 48152 |
| ORQ000018200 | CLEARWATER ENVIRONMENTAL SERVICES | 30240 SW PARKWAY AVE STE 3 | PASADENA | TX | 77507 |
| ORQ000023150 | Waste Xpress | 11618 N. Lombard Ave | AFTON | MN | 55001-9751 |
| ORQ000023150 | WASTEXPRESS | 11618 N LOMBARD | St Paul | MN | 55101 |
| ORQ000023150 | WASTEXPRESS | 11618 N LOMBARD ST | Fort Worth | TX | 76131 |
| ORQ000032743 | Environmental Compliance Consultants | 6215 NW St Helens Rd | Blaine | MN | 55449 |
| PAD982661381 | REPUBLIC ENV SYS (TRANS GROUP) LLC | 21 CHURCH ROAD | Tacoma | WA | 98421 |
| PAR000521740 | AMERICAN TRANSPORTATION SOLUTIONS, LLC | 310 seven fields boulevard su0 | Blaine | MN | 55449 |
| TXD000747402 | Safety Kleen Inc | 5243 Sinclair Road | Blaine | MN | 55449 |
| TXD000838896 | VEOLIA ES TECHNICAL SOLUTIONS | Highway 73, 3.5 Miles West of | BLAINE | MN | 55449 |
| TXD069452340 | US ECOLOGY TEXAS | 3277 County Road 69 | BLAINE | MN | 55449 |
| TXD981153364 | Port Terminal Railroad Assoc | 7298 Clinton Dr | BLAINE | MN | 55449 |
| TXD981153364 | PORT TERMINAL RAILROAD ASSOCIATION | 7298 CLINTON DR | BLAINE | MN | 55449 |
| TXD982290140 | CLEAN HARBORS - LA PORTE LLC | 500 INDEPENDENCE PARKWAY | BLAINE | MN | 55449 |
| TXR000048504 | CERTIFIED RECYCLING | 1147 VZ COUNTRY ROAD 3702 | BLAINE | MN | 55449 |
| TXR000081205 | Safety-Kleen Systems, Inc | 2600 North Central Expressway | BLAINE | MN | 55449 |
| TXR000081205 | Safety-Kleen Systems, Inc. | 1722 Cooper Creek Road | BLAINE | MN | 55449 |
| TXR000081205 | Safety-Kleen Systems, Inc. | 2600 North Central Expressway | BLAINE | MN | 55449 |

Appendix N – List of Registered Dangerous Waste Haulers in Washington State

| Offsite Handler Id | Offsite Name | Address 1 | City | State | Zip |
|--------------------|---------------------------------------|---|--------|-------|-------|
| UTD981552177 | CLEAN HARBORS - ARAGONITE LLC | 11600 N APTUS ROAD EXIT 56 | BLAINE | MN | 55449 |
| UTD981552177 | CLEAN HARBORS ARAGONITE LLC | 11600 NORTH APTUS ROAD | Blaine | MN | 55449 |
| UTD981552177 | CLEAN HARBORS ARAGONITE, LLC | 11600 N Aptus Road | BLAINE | MN | 55449 |
| UTD991301748 | CLEAN HARBORS - GRASSY MOUNTAIN | EXIT 41 OFF OF 1-80 3 MILES E 7 MILES N | Blaine | MN | 55449 |
| UTR000010306 | H2O Environmental Inc | 170 West 3440 South | Blaine | MN | 55449 |
| WA7890008967 | US DEPT ENERGY - WTP-200 AREA | 2355 STEVENS DRIVE P.O.BOX 550 | BLAINE | MN | 55449 |
| WAD002788347 | Oak Harbor Freight | 1225 37th Street NW | Blaine | MN | 55449 |
| WAD009492877 | EMERALD SERVICES | 6851 E MARGINAL WAY S | BLAINE | MN | 55449 |
| WAD009492877 | EMERALD SERVICES INC | 6851 E MARGINAL WAY S | BLAINE | MN | 55449 |
| WAD009492877 | EMERALD SERVICES INC E MARGINAL WAY | 6851 E MARGINAL WAY S | BLAINE | MN | 55449 |
| WAD009492877 | Emerald Services, Inc. | 6851 E. Marginal Way South | BLAINE | MN | 55449 |
| WAD009492877 | Shultz Distributing Inc Marginal Way | 6851 E MARGINAL WAY S | BLAINE | MN | 55449 |
| WAD020257945 | BURLINGTON ENVIRONMENTAL LLC - TACOMA | 1701 EAST ALEXANDER AVE | BLAINE | MN | 55449 |
| WAD020257945 | Burlington Environmental LLC Tacoma | 1701 E ALEXANDER AVE | BLAINE | MN | 55449 |
| WAD058364647 | Emerald Services | 7343 E. MARGINAL WAY S. | BLAINE | MN | 55449 |
| WAD058367152 | EMERALD SERVICES - AIRPORT WAY | 1500 AIR PORT WAY SOUTH | BLAINE | MN | 55449 |
| WAD058367152 | Emerald Services Inc Airport Way | 1500 Airport Way S | BLAINE | MN | 55449 |
| WAD070397955 | TOTE Maritime Alaska | PO Box 24908 | BLAINE | MN | 55449 |
| WAD070397955 | TOTEM OCEAN TRAILER EXPRESS IN | 500 EAST ALEXANDER AVE | BLAINE | MN | 55449 |
| WAD092300250 | BEI WASHOUGAL PLANT | 625 S 32ND ST | BLAINE | MN | 55449 |
| WAD980974521 | Marine Vacuum Service | 1516 south Graham Street | BLAINE | MN | 55449 |
| WAD980976906 | HALLMARK REFINING CORP | 1016 DALE LANE | BLAINE | MN | 55449 |
| WAD980981849 | SAMSON TUG & BARGE | 7400 8th Avenue South | BLAINE | MN | 55449 |
| WAD980982532 | Environmental Transport, Inc. | 54 South Dawson | BLAINE | MN | 55449 |
| WAD981769110 | EMERALD SERVICES | 1825 ALEXANDER AVE | BLAINE | MN | 55449 |
| WAD981769110 | Emerald Services Inc Alexander Ave | 1825 ALEXANDER AVE | BLAINE | MN | 55449 |
| WAD981772957 | ART BRASS PLATING | 5516 3RD AVE SOUTH | BLAINE | MN | 55449 |

Appendix N – List of Registered Dangerous Waste Haulers in Washington State

| Offsite Handler Id | Offsite Name | Address 1 | City | State | Zip |
|--------------------|--------------------------------------|------------------------------------|-------------|-------|-------|
| WAD988467080 | Tacoma Municipal Belt Line Railway | 8934 Manchester Street | JOPLIN | MO | 64801 |
| WAD988507430 | TEK-LINE CONSTRUCTION | 754 S CHICAGO ST PO BOX 68888 | JOPLIN | MO | 64801 |
| WAD991281767 | BURLINGTON ENVIRONMENTAL, LLC. | 20245 77th Avenue South | JOPLIN | MO | 64801 |
| WAD991281809 | ALASKA MARINE LINES | 5615 W. MARGINAL WAY | JOPLIN | MO | 64801 |
| WAD991281809 | Alaska Marine Lines | 5615 West Marginal Way SW | JOPLIN | MO | 64801 |
| WAH000002261 | TRUCK RAIL HANDLING, INC. | 457 EAST 18TH STREET | JOPLIN | MO | 64801 |
| WAH000008292 | GUARDIAN INDUSTRIAL SERVICES | 1813 99TH St E | JOPLIN | MO | 64801 |
| WAH000011486 | Jore Marine Services | 6700 West Marginal Way SW | JOPLIN | MO | 64801 |
| WAH000011486 | NORTHLAND SERVICES, INC. | 6700 WEST MARGINAL WAY SW | JOPLIN | MO | 64801 |
| WAH000012781 | TRUCK RAIL HANDLING INC | 457 E 18TH STREET | JOPLIN | MO | 64801 |
| WAH000014944 | CCS | 60 INTERNATIONAL WAY | JOPLIN | MO | 64801 |
| WAH000014944 | COWLITZ CLEAN SWEEP INC (CCS) | 340 OREGON WAY | JOPLIN | MO | 64801 |
| WAH000015750 | BRUSCO TUG AND BARGE | 548 14TH AVE | JOPLIN | MO | 64801 |
| WAH000018747 | Carlile Transportation System Inc | 2301 Taylor Way | JOPLIN | MO | 64801 |
| WAH000018747 | CARLILE TRANSPORTATION SYSTEMS INC. | 35225 Enchanted Pkwy. S | JOPLIN | MO | 64801 |
| WAH000022628 | Jammie's Environmental, Inc. | PO BOX 1120 | JOPLIN | MO | 64801 |
| WAH000022628 | JAMMIES ENV. | 128 INDUSTRIAL WAY | JOPLIN | MO | 64801 |
| WAH000026371 | ECOLIGHTS NORTHWEST | 1915 South Corgiat Drive | Joplin | MO | 64802 |
| WAH000028338 | R Transport Inc | 300 Washington Way | JOPLIN | MO | 64801 |
| WAH000029517 | Ingenium Group LLC Transfer Facility | 8206 S 192nd St | JOPLIN | MO | 64801 |
| WAH000039211 | NORTHERN ENVIRONMENTAL | 7517 PORTLAND AVE E | KANSAS CITY | MO | 64129 |
| WAH000039211 | Northern Environmental LLC | 1128 Lenore Dr | SPRINGFIELD | MO | 65802 |
| WAH000039267 | Veolia ES Technical Solutions LLC | 22429 76th Ave S Transfer Facility | DUENWEG | MO | 64841 |
| WAH000042987 | EMERALD SERVICES | 1825 E ALEXANDER AVE | Omaha | NE | 68179 |
| WAH000047217 | DH ENVIRONMENTAL | 1011 SW KLUCKITAT WAY STE 210 | OMAHA | NE | 68179 |
| WAH000047217 | DH Environmental Inc Seattle | 1011 SW Klickitat Way Ste 210 | OMAHA | NE | 68179 |
| WAH000048438 | Wyman Transport, Inc | 3717 E Everett Ave | OMAHA | NE | 68179 |

Appendix N – List of Registered Dangerous Waste Haulers in Washington State

| Offsite Handler Id | Offsite Name | Address 1 | City | State | Zip |
|--------------------|--|----------------------------------|----------|-------|-------|
| WAH000055713 | Graymar Environmental Services | 601 S Pioneer Way | OMAHA | NE | 68179 |
| WAH000055713 | Graymar Environmental Services Inc | 1329 E Wheeler Rd | OMAHA | NE | 68179 |
| WAH000056160 | TOTAL RECLAIM | 7021 SOUTH 220TH STREET | KIMBALL | NE | 69145 |
| WAR000001263 | Steve Forler Trucking Inc | 1843 Broadway Ave Suite 103 | KIMBALL | NE | 69145 |
| WAR000001263 | Steve Forler Trucking Inc | 19827 150TH AVE E | KIMBALL | NE | 69145 |
| WAR000001743 | BURLINGTON ENVIRONMENTAL INC DBA PHILIP | 1629 E ALEXANDER AVE UPPER LEV | KIMBALL | NE | 69145 |
| WAR000001743 | Burlington Environmental LLC Tacoma Tran | 1629 E Alexander Ave Upper Level | Kimball | NE | 69145 |
| WAR000011122 | CERTIFIED CLEANING SERVICES | 2103 EAST 112th Street | FLANDERS | NJ | 7836 |
| WIR000000356 | WM MERCURY WASTE, INC. | 21211 Durand Avenue | FLANDERS | NJ | 7836 |

Appendix O – Pierce County Dangerous Waste Facilities

This list includes facilities that may process, transport, transfer, or store used oil or dangerous waste. Some are commercially permitted. The table below includes the facility's name, link to their website, type of dangerous waste they handle, and their facility ID number with a link to [EPA's ECHO](#) (Enforcement and Compliance History Online) database.

| Region | Facility name (link to website) | Facility type | City | Facility ID (link to ECHO) |
|--------|---|--|--------|------------------------------|
| NW | Thermo Fluids - Sumner | Used oil processor | Sumner | WAD988475323 |
| SW | Emerald Services, Inc. | Commercial permitted dangerous waste storage and treatment; used oil re-refinery | Tacoma | WAD981769110 |
| SW | Petroleum Reclaiming Services | Used oil processor | Tacoma | WAD980511729 |
| SW | Clean Earth - Tacoma | Commercial permitted dangerous waste storage and treatment | Tacoma | WAD020257945 |

Appendix P – Pierce County Used Oil Collection Sites

| Name | Address | City | Zip |
|------------------------------------|--------------------------|------------------|-------|
| City of Tacoma Recycling Center | 3510 S Mullen ST | Tacoma | 98409 |
| Hidden Valley Transfer Station | 17925 Meridian E | Puyallup | 98375 |
| Purdy Transfer Station | 14515 54th Ave NW | Gig Harbor | 98332 |
| Pierce County Airport (Thun Field) | 16715 Meridian S | Puyallup | 98375 |
| D & D Automotive | 2718 Pacific Ave | Tacoma | 98402 |
| Napa Auto Parts | 9433 Pacific Ave | Tacoma | 98444 |
| Pet Boys Auto Supply | 12228 Meridian E | Puyallup | 98373 |
| Auto Zone | 3801 6th Ave | Tacoma | 98406 |
| Auto Zone | 1217 S 38th ST | Tacoma | 98418 |
| Auto Zone | 5622 S Tacoma Way | Tacoma | 98409 |
| Auto Zone | 2620 Bridgeport Way W | University Place | 98466 |
| Auto Zone | 7001 Pacific Ave | Tacoma | 98408 |
| Auto Zone | 9522 Bridgeport Way | Lakewood | 98499 |
| Auto Zone | 5216 Point Fosdick Dr | Gig Harbor | 98335 |
| Auto Zone | 11202 Pacific Ave | Tacoma | 98444 |
| Auto Zone | 413 Meridian Ave E | Edgewood | 98371 |
| Auto Zone | 623 River Road | Puyallup | 98371 |
| Auto Zone | 8308 Berkeley Ave SW | Lakewood | 98498 |
| Auto Zone | 126 173rd ST S | Spanaway | 98387 |
| Auto Zone | 17716 Canyon RD E | Puyallup | 98375 |
| Auto Zone | 14123 Meridian E | Puyallup | 98373 |
| Auto Zone | 22119 S Meridian E | Graham | 98338 |
| Auto Zone | 21513 SR 410 E | Bonney Lake | 98391 |
| O'Reilly Auto Parts | 3026 S 38th ST | Tacoma | 98409 |
| O'Reilly Auto Parts | 6110 6th Ave | Tacoma | 98406 |
| O'Reilly Auto Parts | 2901 6th Ave | Tacoma | 98406 |
| O'Reilly Auto Parts | 5605 Pacific AVE | Tacoma | 98408 |
| O'Reilly Auto Parts | 8404 Steilacoom BLVD | Lakewood | 98498 |
| O'Reilly Auto Parts | 7214 Portland Ave | Tacoma | 98404 |
| O'Reilly Auto Parts | 10915 Bridgeport Way SW | Tacoma | 98499 |
| O'Reilly Auto Parts | 10901 Pacific Highway SW | Lakewood | 98499 |
| O'Reilly Auto Parts | 9910 Pacific Ave S | Tacoma | 98444 |
| O'Reilly Auto Parts | 4928 Point Fosdick DR | Gig Harbor | 98335 |
| O'Reilly Auto Parts | 5306 Pacific Highway E | Fife | 98424 |

Appendix P – Pierce County Used Oil Collection Sites

| Name | Address | City | Zip |
|---------------------|----------------------|-------------|-------|
| O'Reilly Auto Parts | 14926 Pacific Ave S | Tacoma | 98444 |
| O'Reilly Auto Parts | 11012 Canyon Road E | Puyallup | 98373 |
| O'Reilly Auto Parts | 505 Meridian Ave E | Edgewood | 98371 |
| O'Reilly Auto Parts | 1412 East Main St | Puyallup | 98372 |
| O'Reilly Auto Parts | 12310 E Meridian | Puyallup | 98373 |
| O'Reilly Auto Parts | 16222 Meridian Ave E | Puyallup | 98375 |
| O'Reilly Auto Parts | 22013 Mountain Hwy | Spanaway | 98387 |
| O'Reilly Auto Parts | 6611 166th Ave E | Sumner | 98390 |
| O'Reilly Auto Parts | 9727 214 Ave E | Bonney Lake | 98391 |
| O'Reilly Auto Parts | 215 Whitesell St NW | Orting | 98360 |
| O'Reilly Auto Parts | 22024 Meridan Ave E | Graham | 98338 |

Infectious or Biomedical Waste

Medical waste consists of both infectious and noninfectious wastes generated by hospitals; laboratories; medical, dental, and veterinary clinics. Residential users of syringes and home health care also generate medical waste. Non-infectious medical waste requires no special treatment and are part of the regular municipal solid waste stream. Approximately 5-15 percent of the medical waste stream, from clinical settings, is considered infectious.

Infectious or biomedical wastes contain pathogens or other biologically active materials in enough concentration that exposure to the waste creates a significant risk of disease to humans. Infectious wastes include cultures; laboratory waste; needles and other sharps; human and animal blood, tissue, and body parts. These wastes require special handling and disposal practices to protect the health and safety of both medical and solid waste disposal personnel.

Infectious waste may include combination wastes where multiple hazards are present (toxic, radioactive, or other hazardous chemicals). These wastes are segregated from the general infectious waste stream when additional or alternative treatment is required. An example of a combination waste includes comingled state-only dangerous waste pharmaceuticals and medical sharps. This waste is managed by incineration only.

Regulation

Infectious or biomedical wastes are regulated under local, state and federal authority.

In 1989, the Tacoma-Pierce County Health Department (Health Department) first passed rules regulating infectious wastes that are generated, stored, transported or treated in Pierce County. This rule was subsequently adopted within Pierce County and City of Tacoma Municipal Codes. The infectious waste regulation is administered and enforced under the authority of Chapter 70.05 of the Revised Code of Washington. Most recently updated in 2019, Environmental Health Code Chapter 6- Infectious Waste (2019-4601), establishes the following:

- Provides broad powers of regulation to Tacoma-Pierce County Health Department and its appointed health officer, relating to infectious waste management.
- Designates infectious wastes that are potentially dangerous to public health and environment;
- Provides rules to establish infectious waste management plans;
- Establishes operational and monitoring requirements for infectious waste generators, transporters, storage and treatment facilities.
- Administration of a permit program for infectious waste generators, transporters and storage and treatment facilities.

- Provide surveillance and monitoring of infectious wastes until wastes are rendered non-infectious and properly disposed.

Other authorities that oversee infectious or biomedical waste include:

- State of Washington's RCW 70A.228 establishes a uniform statewide definition for medical waste. The Washington Utilities and Transportation Commission (WUTC) regulates the hauling of medical wastes under RCW 81.77 authority. Rules relating to the safe transportation of biohazardous or biomedical waste are found in WAC 480-70. The United States Department of Transportation also regulates the transportation of regulated medical waste over the highways in jurisdictions that fall beyond the WUTC in Title 49, Code of Federal Regulation, Parts 170-189. Incinerator burn requirements are found in RCW 70.95D and RCW 70.95.710.

Permit and Inspection

Tacoma-Pierce County Health Department currently permits and inspects hospitals, medical and dental clinics, laboratories and other health care facilities. There are an estimated 1,200 facilities in the Pierce County that have the potential to contribute to the biomedical waste stream. Approximately 900 facilities are permitted based on quantity and types of infectious wastes generated. These facilities are inspected by the Health Department every two years. It is estimated that over 990 tons of infectious wastes are generated annually in Pierce County (2019).

Treatment and Disposal

Approved treatment methods for infectious waste include incineration, autoclave, chemical treatment or encasement. Generating facility may treat wastes onsite through one of these approved methods. More often, a certificated hauler will transport infectious waste to an offsite treatment facility. Currently, no commercial treatment facilities are operation within Pierce County. Once biomedical waste has been treated, it is no longer considered "infectious" and may be disposed of within the municipal solid waste stream. Any alternative treatment method for infectious waste must be first approved by Health Department. Alternative treatment methods include, but are not limited to, chemical disinfection, thermal inactivation, gas/vapor sterilization and irradiation.

Residential Sharps

Generators of residential sharps are currently required to containerize sharps prior to disposal. Tacoma-Pierce County Health Department has developed educational materials describing proper collection and disposal practices for residential generators. In addition, the Health Department has developed sharps response kits to assist the public in the collection and management of found sharps. Drop off locations for residential sharps are found at city and county solid waste transfer stations. Public education is provided

Appendix Q – Biomedical Waste Background

through public facing websites, distribution of materials to medical clinics, informational fairs/festivals and a public call line. In 2020, extended producer responsibility legislation was proposed to create a Washington State sharps waste stewardship program. Similar regulations have been established in California and in other jurisdictions.

Appendix R – Twenty-year Projected Needs for Solid Waste Handling

MSW Tonnage - Maximum Need with No Action

| Year | Population | Tonnage |
|-----------------------|------------|-------------------|
| 2021 | 902,714 | 762,016 |
| 2022 | 913,998 | 751,362 |
| 2023 | 925,423 | 761,506 |
| 2024 | 936,991 | 771,786 |
| 2025 | 948,703 | 782,205 |
| 2026 | 960,562 | 792,765 |
| 2027 | 972,569 | 803,467 |
| 2028 | 984,726 | 814,314 |
| 2029 | 997,035 | 825,307 |
| 2030 | 1,009,498 | 836,449 |
| 2031 | 1,022,117 | 847,741 |
| 2032 | 1,034,894 | 859,186 |
| 2033 | 1,047,830 | 870,785 |
| 2034 | 1,060,928 | 882,540 |
| 2035 | 1,074,189 | 894,455 |
| 2036 | 1,087,617 | 906,530 |
| 2037 | 1,101,212 | 918,768 |
| 2038 | 1,114,977 | 931,171 |
| 2039 | 1,128,914 | 943,742 |
| 2040 | 1,143,026 | 956,482 |
| Total Tonnage: | | 16,747,819 |

For the purposes of projecting long-term capacity needs for MSW¹, Pierce County maintains a 20-year forecast for the entire County, including the Tacoma and JBLM waste management systems. It is reviewed each year as part of the Landfill Capacity Analysis and checked against official population increases and actual disposed MSW and non-MSW tonnages.

Population forecasting is based on actual population for the current year of 2021 and increased at a rate of 1.25% per year. The population estimates represent long-term trends but do not include projections of short-term or seasonal patterns.

This chart is the No Action Scenario representing tonnage disposal needs if the three solid waste systems fail to reduce the amount of waste generated. This projection uses a blended rate of disposal per capita based on the system, a trend that is higher for JBLM. This approach ensures that sufficient capacity is planned for in case population grows faster than expected or the disposal rate increases.

This scenario shows that the LRI landfill in Pierce County would fill up by 2030. As shown in the next appendix, the landfill could remain open for a short while longer if some of the non-MSW waste going to the landfill was reduced. There would still be a need to plan for more capacity or to move to long hauling the extra MSW to a larger regional landfill located in central Oregon.

¹ These projections are solely for contracted municipal solid waste (MSW). A substantial amount of non-MSW waste, such as contaminated soils, is also disposed at the LRI Landfill.

Appendix R – Twenty-year Projected Needs for Solid Waste Handling

MSW Tonnage – Mix of Current Diversion & Long-Haul

| Year | Population | Tonnage |
|-----------------------|------------|-------------------|
| 2021 | 902,714 | 762,016 |
| 2022 | 913,998 | 762,016 |
| 2023 | 925,423 | 652,016 |
| 2024 | 936,991 | 652,016 |
| 2025 | 948,703 | 652,016 |
| 2026 | 960,562 | 652,016 |
| 2027 | 972,569 | 652,016 |
| 2028 | 984,726 | 652,016 |
| 2029 | 997,035 | 652,016 |
| 2030 | 1,009,498 | 652,016 |
| 2031 | 1,022,117 | 652,016 |
| 2032 | 1,034,894 | 652,016 |
| 2033 | 1,047,830 | 652,016 |
| 2034 | 1,060,928 | 652,016 |
| 2035 | 1,074,189 | 652,016 |
| 2036 | 1,087,617 | 652,016 |
| 2037 | 1,101,212 | 652,016 |
| 2038 | 1,114,977 | 652,016 |
| 2039 | 1,128,914 | 652,016 |
| 2040 | 1,143,026 | 652,016 |
| Total Tonnage: | | 13,260,320 |

This chart uses the same population forecasts as the first chart, but this projection uses a constant rate of disposal per capita across the three systems, a trend that had remained steady for Pierce County for approximately 4 years prior to COVID-19.

This scenario also calls for a cap on the amount of material from each system going to the landfill each year. The excess would then be long hauled by rail starting as early as 2023 to help lengthen the life of the landfill in Pierce County by as many as 6 years over that of the first chart.

This also takes into consideration a reduction in some of the non-MSW waste at the landfill to help keep it open until 2036, as is in the 2008 Pierce County – LRI Waste Handling Agreement.

Appendix R – Twenty-year Projected Needs for Solid Waste Handling

MSW Tonnage - Increased Reduction & Long-Haul

| Year | Population | Tonnage |
|-----------------------|------------|------------------|
| 2021 | 902,714 | 762,016 |
| 2022 | 913,998 | 723,915 |
| 2023 | 925,423 | 687,719 |
| 2024 | 936,991 | 653,333 |
| 2025 | 948,703 | 620,667 |
| 2026 | 960,562 | 589,633 |
| 2027 | 972,569 | 560,152 |
| 2028 | 984,726 | 532,144 |
| 2029 | 997,035 | 505,537 |
| 2030 | 1,009,498 | 480,260 |
| 2031 | 1,022,117 | 456,247 |
| 2032 | 1,034,894 | 433,435 |
| 2033 | 1,047,830 | 411,763 |
| 2034 | 1,060,928 | 391,175 |
| 2035 | 1,074,189 | 371,616 |
| 2036 | 1,087,617 | 353,035 |
| 2037 | 1,101,212 | 335,384 |
| 2038 | 1,114,977 | 318,614 |
| 2039 | 1,128,914 | 302,684 |
| 2040 | 1,143,026 | 287,549 |
| Total Tonnage: | | 9,776,880 |

This scenario is the best approach to keeping the landfill open as long as possible. This blends the objectives and actions of the plan to reduce greenhouse gases, food waste, Commercial & Demolition (C&D) waste by half and pursue product stewardship and extended producer responsibility opportunities in combination with long hauling as much non-MSW waste as is possible.

This projection calls for a 5% annual reduction in the overall waste that is disposed of at the LRI landfill. This would help us meet many state standards that are being implemented as well as reducing our greenhouse gas production.

This chart again follows the same population forecasts as the other charts and could potentially keep the landfill open beyond the agreed upon 2032.

Six-year Capital and Operations Financing

None of the objectives, nor related actions, contained in the 2021 Plan require immediate planning or implementation of new capital projects. The following objectives might, upon further analysis as discussed in the associated actions, call for a need for capital improvements (facility expansions, collection systems, etc.). There are objectives that could call for significant new capital projects further out than 6 years and are also listed in the following table for possible planning purposes.

| Objective | Project Description | New Capital Project or Capital Improvement | Implementation | Responsible Party | Funding Source |
|-----------|--|--|----------------|------------------------------------|---------------------------------------|
| SI2 | Pierce County, the City of Tacoma, and LRI evaluate the need for a new Intermodal facility for long hauling waste in preparation for life after the landfill | Intermodal Facility | 2030 or later | Pierce County, City of Tacoma, LRI | Solid Waste Rates for City and County |
| SI2 | Pierce County & LRI will work together to long haul by rail to maximize the life of the landfill | Intermodal Facility | 2024 or later | Pierce County, LRI | Solid Waste Tipping Fee |
| S2 | Maximize the amount of GHG captured at all landfills | GHG collection system improvements | 2022 or later | Pierce County, LRI | Solid Waste Tipping Fee |

Separate from the formal solid waste management planning process, both Pierce County and the City of Tacoma prepare six-year capital improvement plans affecting their agency operations. Rather than repeating those plans within the 2021 Plan, we direct readers to the following websites:

- **Pierce County Capital Plan**
www.piercecountywa.gov/DocumentCenter/View/45110/Capital_Facilities_Plan-2020-2025-Final?bidid= (see page 131)
- **Tacoma Capital Plan**
<https://cms.cityoftacoma.org/finance/budget/2021-2022/CFP/2021-2026%20Final%20CFP.pdf> (see pages 209-214)

Solid Waste Management Fund

In Pierce County, people, businesses and agencies work together to reuse resources and waste little, according to the vision statement in the 2016 Supplement to the Tacoma-Pierce County Solid Waste Management Plan (2016 SWMP) adopted by the Pierce County Council on March 21, 2017. Supporting that vision, the Planning and Public Works Department empowers residents and businesses to reduce wasteful consumption, conserve natural resources, save money, and build a more livable community. The Solid Waste Management Fund finances capital improvements necessary for sustaining the comprehensive solid waste system that serves unincorporated Pierce County and 19 cities and towns. Associated programs include waste reduction and recycling, environmental education, and sustainability.



The Solid Waste Management Fund finances capital improvements necessary for sustaining the comprehensive solid waste system that serves unincorporated Pierce County and 19 cities and towns. Associated programs include waste reduction and recycling, environmental education, and sustainability.

Current Facility Inventory

Pierce County contracts with private companies to operate five County-owned solid waste facilities, and to gain access and capacity at an additional four facilities. Existing facilities provide sufficient capacity to handle both garbage requiring disposal and organic materials suitable for composting throughout the six years covered by this Capital Facilities Plan (CFP).

Transfer and Disposal

All non-recycled municipal solid waste from the Pierce County waste management system is disposed under contract by Pierce County Recycling, Composting, and Disposal, LLC (d/b/a LRI). The privately-owned/operated LRI Landfill is located southeast of the intersection of 304th Street East and Meridian Avenue East. In 2020, LRI disposed 450,155 tons of waste compared to 420,450 in the previous year. Factoring in population, on a per capita basis, disposal increased from 3.46 to 3.60 pounds per person per day. Tonnage disposed was more than the targeted level of service of 3.33 pounds per person per day.

Composting

LRI operates two facilities for the composting of yard and garden debris: The Pierce County Composting Facility in Purdy and the LRI Compost Factory at Hidden Valley. In 2020, LRI composted 162,330 tons of yard and garden debris, a .5% decrease from the previous year. LRI was closed to yard waste customers for five weeks due to COVID-19, which is the

Appendix S – Six-year Capital and Operations Financing

reason for the decrease. Normal operations during that time would have resulted in a 2% increase over 2019.

Current Facility Capacity - Disposal

| Facility | Current Capacity | Location |
|--------------------------------------|----------------------|---|
| Anderson Island Residential Drop Box | 1,170 tons per year | 9607 Steffenson Rd, Anderson Island |
| Key Center Residential Drop Box | 2,925 tons per year | 5900 Blk Key Peninsula Hwy N, Lakebay |
| Prairie Ridge Residential Drop Box | 12,285 tons per year | 11710 Prairie Ridge Dr. E, South Prairie |
| Purdy Transfer Station | 82,125 tons per year | 14515 54th Ave. NW, Gig Harbor |

For 2022 to 2027, In-County Disposal Capacity (at the privately-owned landfill) will need to average 777,182 tons per year based on providing disposal for 4.5 pounds of waste per capita per day for all Pierce County residents. This represents a “worst case scenario” and is indicative of the maximum amount of local landfill space that would need to be available to the County during this planning period. If Pierce County residents and businesses – as well as other users of the landfill – disposed of waste at that pace, the LRI Landfill would close in 2030.

Using new and current reduction and recycling programs described in the 2016 SWMP along with long-hauling of a portion of Pierce County and Tacoma solid waste, soils, and special waste, the County’s need for in-county disposal. Capacity will average 635,000 tons per year between 2022 and 2027. The long-term impact of this Level of Service (LOS) Scenario, combined with similar reductions by the County’s planning partners, would extend the life of the landfill to 2036 and possibly longer.

The 2016 SWMP and the 2008 Waste Handling Agreement allow for the long-haul of up to 25% of the County’s waste to supplement and further extend the longevity of local capacity. Long-haul of 25% of County waste would add three to four years to local capacity. More aggressive strategies, including those involving the City of Tacoma and Joint Base Lewis McChord, could have a more dramatic impact.

Pierce County and the City of Tacoma are currently working on a new Solid and Hazardous Waste Management Plan that will continue to call for reductions that the 2016 Supplement has called for. It will also emphasize long-haul and more aggressive strategies to improve infrastructure for the future as population in the County grows in order to keep the landfill open until 2040.

Appendix S – Six-year Capital and Operations Financing

Waste from the Prairie Ridge Residential Drop Box and the Purdy, Hidden Valley, LeMay (Lakewood), and Murrey's (Fife) Transfer Stations (the last three are owned and operated by Waste Connections, the County's system operator) could be long-hauled to replace or supplement In-County Disposal Capacity

Current Facility Capacity - Composting

| Facility | Current Capacity | Location |
|--|----------------------|-----------------------------------|
| Pierce County Yard Waste Composting Facility | 29,200 tons per year | 14515 54th Ave. NW, Gig Harbor |

The County-owned facility handles less than a quarter of the County's needs for composting capacity. Per the County's Waste Handling Agreement, LRI provides composting capacity at company-owned facilities in Pierce and Thurston Counties and contracts for additional capacity, when needed, at other private facilities.

Prior Year Major Accomplishments

Initiatives designed to reduce the need for new or larger capital facilities include:

- Charging for Commercial Yard Waste Volumes from self-haulers.
- Refocused messaging designed to help customers "recycle right" that will reduce the collection and processing of materials which contaminate viable recyclables.
- New marketing campaigns designed to help with waste reduction.

Non-Capital Alternatives

The following non-capital alternatives discuss strategies, programs, technologies and other alternatives that do not require capital improvement projects to achieve and maintain level of service standards for Solid Waste facilities. At present there does not appear to be a need to investigate any of the alternatives in greater detail.

Accelerated Implementation of Solid Waste Management Plan Goals: If transfer station or disposal capacity were depleted, the County could accelerate programs to assist residents and businesses in the adoption of waste reduction measures and add materials to recycling programs.

Mandatory Garbage Collection: Subscription to garbage collection and recycling programs is currently voluntary for households and businesses in unincorporated Pierce County. Eliminating self-haul as an alternative to garbage collection would translate into increased capacity at the drop boxes and transfer stations as proportionally more waste could be handled as garbage trucks tip loads in areas now reserved for the general public. Self-haul would remain available for residents and businesses to dispose waste that does not fit in a standard garbage can.

Appendix S – Six-year Capital and Operations Financing

Mandatory Recycling: Mandatory participation in recycling programs (implemented through bans on the collection and disposal of recyclable materials or imposition of severe fees for non-participation in collection) could also reduce disposal capacity pressures.

Capital Projects

All Capital Projects will be budgeted and managed by LRI and Waste Connections through the Solid Waste Tipping Fee.

Future Needs

No funding currently available.

Relation to Growth Management Act

The level of service (LOS) for Solid Waste Disposal Capacity is set in Appendix E of the 2016 SWMP. The 2016 SWMP reaffirms waste reduction as the County's highest solid waste priority and renewed the goal to reduce per capita waste disposal needs from 4.5 pounds per day (2007 level) to less than 1.1 pounds per day by 2040. The Planned LOS and Actuals for 2015-2020 (shown in the next chart) along with future years' LOS are both related to the 2016 SWMP.

Solid Waste Level of Service

| Year | Planned LOS | Actual / Projected Disposal Per Capita |
|------|-------------|---|
| 2015 | 3.69 | 3.40 (actual disposal 8% less than plan) |
| 2016 | 3.58 | 3.40 (actual disposal need 5% less than plan) |
| 2017 | 3.46 | 3.45 (actual disposal in line with plan) |
| 2018 | 3.33 | 3.42 (actual disposal 3% greater than plan) |
| 2019 | 3.21 | 3.46 (actual 6% greater than plan) |
| 2020 | 3.10 | 3.6 (actual disposal, 14% greater than plan) |
| 2021 | 2.99 | 3.4 (projected disposal, 12% greater than plan) |
| 2022 | 2.83 | |
| 2023 | 2.69 | |
| 2024 | 2.55 | |
| 2030 | 1.85 | |
| 2036 | 1.34 | |
| 2040 | 1.09 | |

COST ASSESSMENT QUESTIONNAIRE

General Information

Plan prepared for the County of: Pierce County

Plan prepared for the City of: N/A

Prepared by: Pierce County PPW
Ryan Dicks - Sustainable Resources Administrator
Chris Brown – Management Analyst

Contact telephone: 253-798-2179

Contact email: Ryan.dicks@piercecountywa.gov
Chris.brown@piercecountywa.gov

Date: 08/03/21

Years

Throughout this document:

| Year 1 equals | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---------------|--------|--------|--------|--------|--------|
| 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |

Each year shall refer to (check one):

Calendar year January 1 – December 31

Appendix T – WUTC Cost Assessment Questionnaire

1. Demographics

1.1. Population

1.1.1. Provide the total population of your County (excluding cities choosing to develop their own SWMP) for the base year and each of the following five years.

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---------|---------|---------|---------|---------|---------|
| 902,714 | 913,998 | 925,423 | 936,991 | 948,703 | 960,562 |

1.2. References and Assumptions

Population projections are based on population projection data from OFM for 2021 and increased at a rate of 1.35% (trend of growth for Pierce County over the last 5 years) per year. The population estimates represent long-term trends and do not include projections of short-term or seasonal patterns.

2. Waste Stream Generation

2.1. Tonnage of Solid Waste Disposed

2.1.1. Provide the total tonnage of solid waste disposed of in the base year and each of the following five years.

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---------|---------|---------|---------|---------|---------|
| 648,557 | 657,312 | 666,186 | 675,179 | 684,294 | 693,532 |

2.2. Tonnage of Recyclable Materials

2.2.1. Provide the tonnage of recyclable materials recycled in the base year and each of the following five years.

| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---------|---------|---------|---------|---------|---------|
| 291,851 | 295,790 | 299,784 | 303,831 | 307,932 | 312,089 |

Appendix T – WUTC Cost Assessment Questionnaire

2.3. References and Assumptions

The totals in this section include MSW only for both the Pierce County and the City of Tacoma systems. There is an assumption of a constant disposal rate of 3.9%, the average of the two systems. Solid waste not included in this number include commercial & demolition, special wastes, land clearing debris, contaminated soils, and alternative daily cover as they are not directly managed as part of the solid waste system. The recycle rate is assumed to be 45% of the waste, which is a 3-year trend.

3. Collection Programs

3.1. Regulated Solid Waste Collection Programs

Provide information for each UTC-regulated solid waste collection company operating in your jurisdiction for the base year and each of the following five years.

| UTC Hauler | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|------------|-----------|---------|---------|---------|---------|---------|---------|
| LeMay | Customers | 65,398 | 66,379 | 67,375 | 68,385 | 69,411 | 70,452 |
| G-98 | Tonnages | 125,695 | 127,580 | 129,494 | 131,437 | 133,408 | 135,409 |
| Murrey | Customers | 67,728 | 68,744 | 69,775 | 70,822 | 71,884 | 72,962 |
| G-9 | Tonnage | 130,201 | 132,154 | 134,136 | 136,148 | 138,191 | 140,263 |
| Total | Customers | 133,126 | 135,123 | 137,150 | 139,207 | 141,295 | 143,415 |
| | Tonnages | 255,896 | 259,734 | 263,630 | 267,585 | 271,599 | 275,673 |

3.2. Cost & Funding for Solid Waste Programs

Provide information for solid waste programs that have been implemented and/or proposed. Include costs and proposed funding mechanism. If these programs are discussed in the SWMP, provide the page number in the draft plan on which it is discussed.

| Program | Cost | Funding |
|-------------------------|-----------|---|
| HHW Diversion | \$530,000 | LSWFA Ecology Grant & County Program Cost of the SW Tipping Fee |
| Environmental Education | \$475,000 | County Program Cost of the SW Tipping Fee |
| Community Cleanups | \$150,000 | County Program Cost of the SW Tipping Fee |
| Youth Summit | \$20,000 | County Program Cost of the SW Tipping Fee |
| PC Master Gardner's | \$45,000 | County Program Cost of the SW Tipping Fee |

Appendix T – WUTC Cost Assessment Questionnaire

| | | |
|----------------------------|----------|---|
| GHG Inventory | \$30,000 | County Program Cost of the SW Tipping Fee |
| Right-of-Way Litter Pickup | \$50,000 | CLCP Ecology Grant |
| Waste Trends Analysis | \$40,000 | County Program Cost of the SW Tipping Fee |
| Partnership Opportunities | \$25,000 | County Program Cost of the SW Tipping Fee |

3.3. References and Assumptions

The totals for this section are for the Pierce County Solid Waste system only and do not include the City of Tacoma. These totals also only include the totals for the G-Certificate areas. For section 3.1, the growth rate has not been greater than those of the cities and towns over the last 5-years and therefore is assumed at a constant increase of 1.5%. The growth rate for tonnages is assumed constant to customers, another trend that is consistent. In section 3.2, these are the programs minus employee salaries and benefits that have the biggest impact to our budget for Solid Waste Programs.

4. Waste Reduction (Recycling and Organics)

4.1. Recycling

4.1.1. Regulated Recycling Collection Programs

Provide information for each UTC-regulated recycling company operating in your jurisdiction for the base year and each of the following five years.

| UTC Hauler | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|------------|-----------|---------|---------|---------|---------|---------|---------|
| LeMay | Customers | 65,398 | 66,379 | 67,375 | 68,385 | 69,411 | 70,452 |
| G-98 | Tonnages | 14,655 | 14,875 | 15,098 | 15,324 | 15,554 | 15,788 |
| Murrey | Customers | 67,728 | 68,744 | 69,775 | 70,822 | 71,884 | 72,962 |
| G-9 | Tonnage | 19,742 | 20,038 | 20,339 | 20,644 | 20,953 | 21,268 |
| Total | Customers | 133,126 | 135,123 | 137,150 | 139,207 | 141,295 | 143,415 |
| | Tonnages | 34,397 | 34,913 | 35,437 | 35,968 | 36,508 | 37,055 |

Appendix T – WUTC Cost Assessment Questionnaire

4.1.2. Recyclable Materials

Provide a list of recyclable materials to be collected in accordance with the SWMP. For each item, indicate if there is an active market and if the revenues exceed the cost of processing.

| Recyclable Material | Active Market (Yes/No) | Revenues > Processing Costs (Yes/No) |
|---------------------|------------------------|--------------------------------------|
| Mixed Paper | Yes | No |
| Cardboard | Yes | Yes |
| Paper Bags | Yes | No |
| Plastic Bottles | Yes | No |
| Plastic Jugs | Yes | No |
| Plastic Buckets | Yes | No |
| Aluminum Cans | Yes | Yes |
| Metal Cans | Yes | Yes |
| Glass | Yes | No |
| HHW | Yes | No |
| C&D | Yes | No |
| Shredded Paper | Yes | No |

4.1.3. Costs & Funding for Recycling

Provide information for recycling programs that have been implemented and/or proposed. Include costs and proposed funding mechanism. If these programs are discussed in the SWMP, provide the page number in the draft plan on which it is discussed.

| Program | Cost | Funding |
|---|-----------|---|
| Water Bottle Filling Stations | \$10,000 | County Program Cost of the SW Tipping Fee |
| Earth Matters Newsletter | \$100,000 | County Program Cost of the SW Tipping Fee |
| Shred Events | \$25,000 | County Program Cost of the SW Tipping Fee |
| Recycling Outreach & Technical Assistance | \$85,000 | County Program Cost of the SW Tipping Fee |

Appendix T – WUTC Cost Assessment Questionnaire

4.2. Other Waste Reduction Programs (Organics, such as Yard Waste and Food Waste)

4.2.1. Regulated Organics Collection Programs

Provide information for each UTC-regulated company collecting organics operating in your jurisdiction for the base year and each of the following five years.

| UTC Hauler | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|------------|-----------|---------|---------|---------|---------|---------|---------|
| LeMay | Customers | 65,398 | 66,379 | 67,375 | 68,385 | 69,411 | 70,452 |
| G-98 | Tonnages | 17,208 | 17,466 | 17,728 | 17,994 | 18,264 | 18,538 |
| Murrey | Customers | 67,728 | 68,744 | 69,775 | 70,822 | 71,884 | 72,962 |
| G-9 | Tonnage | 21,150 | 21,467 | 21,789 | 22,116 | 22,448 | 22,785 |
| Total | Customers | 133,126 | 135,123 | 137,150 | 139,207 | 141,295 | 143,415 |
| | Tonnages | 38,358 | 38,933 | 39,517 | 40,110 | 40,712 | 41,322 |

4.2.2. Costs & Funding for Organics Collection Programs

Provide information for programs for collecting organics that have been implemented and/or proposed. Include costs and proposed funding mechanism. If these programs are discussed in the SWMP, provide the page number in the draft plan on which it is discussed.

| Program | Cost | Funding |
|---------------------------------|-----------|---|
| Gleaning & Community Composting | \$51,000 | County Program Cost of the SW Tipping Fee |
| Environmental Education | \$10,000 | County Program Cost of the SW Tipping Fee |
| Harvest Pierce County | \$130,000 | County Program Cost of the SW Tipping Fee |

4.3. References and Assumptions

The customer counts follow the same assumptions for growth that are in Section 3.3. The rate of recycling for each company is slightly different as not all customers have enrolled in recycling and organics curbside. The growth rate for tonnages are assumed constant using the base rate.

Appendix T – WUTC Cost Assessment Questionnaire

5. Disposal

5.1. Energy Recovery & Incineration (ER&I) Disposal Programs

There are no waste to energy or incinerator facilities handling waste generated within the Pierce County Solid Waste System.

5.2. Land Disposal Program

All waste generated within the Pierce County and Tacoma Solid Waste system is disposed of in the LRI landfill at 31317 Meridian St. E., Graham, WA 98338.

6. Administration Program

6.1. Costs & Funding for Administration Programs

Provide information for administration programs that have been implemented and/or proposed. Include costs and proposed funding mechanism. If these programs are discussed in the SWMP, provide the page number in the draft plan on which it is discussed.

| Program | Cost | Funding |
|--|-------------|---|
| Tacoma-PC Health Department | \$714,000 | County Program Cost of the SW Tipping Fee |
| Washington Association of Solid Waste Administrators | \$25,000 | County Program Cost of the SW Tipping Fee |

7. Other Programs

7.1. Costs of Other Programs

Provide information for other programs that have been implemented and/or proposed. Include costs and proposed funding mechanism. If these programs are discussed in the SWMP, provide the page number in the draft plan on which it is discussed.

| Program | Cost | Funding |
|------------------|-------------|---|
| Sustainability | \$250,000 | County Program Cost of the SW Tipping Fee |
| Code Enforcement | \$1,965,000 | County Program Cost of the SW Tipping Fee |

8. Funding Mechanisms

This section relates specifically to the funding mechanisms currently in use and the ones that will be implemented to incorporate the recommended programs in the draft plan. Because the way a program is funded directly relates to the costs a resident or commercial customer will have to pay, this section is crucial to the cost assessment process. Please fill in each of the following table

Appendix T – WUTC Cost Assessment Questionnaire

8.1. Facility Inventory

| Facility Name | Type of Facility | Tip Fee | Transfer Cost | Location | Final Disposal Location | Total Tons | Total Revenue (Tip Fee x Tons) |
|-----------------|------------------|----------|---------------------|-----------------|-------------------------|------------|--------------------------------|
| Purdy | Transfer Station | \$168.51 | Included in Tip Fee | Purdy, WA | LRI Landfill | 450,155 | \$75,855,619 |
| Prairie Ridge | Drop Box | \$168.51 | Included in Tip Fee | Bonney Lake, WA | LRI Landfill | | |
| Key Center | Drop Box | \$168.51 | Included in Tip Fee | Key Center, WA | LRI Landfill | | |
| Anderson Island | Drop Box | \$168.51 | Included in Tip Fee | Anderson Island | LRI Landfill | | |
| Hidden Valley | Transfer Station | \$168.51 | Included in Tip Fee | Fredrickson, WA | LRI Landfill | | |
| LRI Landfill | Landfill | \$168.51 | Included in Tip Fee | Graham, WA | LRI Landfill | | |

8.2. Tip Fee Component

| Tip Fee Component | Tip Fee |
|--|----------|
| Component A – Transfer Facilities, Recycling, Transportations Services | \$50.89 |
| Component B – County Diversion Program | \$35.61 |
| Component C – Disposal Services | \$64.58 |
| Component D – Capital Projects | \$2.18 |
| County Program Cost | \$15.25 |
| Total | \$168.51 |

8.3. Tip Fee Forecast

| Facility | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|----------------|----------|----------|----------|----------|----------|----------|
| All Facilities | \$168.51 | \$170.34 | \$171.64 | \$171.22 | \$172.82 | \$174.71 |

Appendix T – WUTC Cost Assessment Questionnaire

8.4. References and Assumptions

The time frame for the tipping fee in Pierce County is from March 1 through Feb 28 each year. The rates are set annually through a rate setting guideline that is in the Waste Handling Agreement between Pierce County and LRI. The rates are typically negotiated in late August and sent to the Pierce County Executive and the County Council for approval. In section 3.2, the increase each year is due to CPI for Components A & C. Component B will reduce over that time as yard waste decreases due to the commercial charge that was introduced in January 2021. Component D will fluctuate up or down within a dollar based on capital projects that are added and ones that come off. The County Program Cost will remain the same throughout this 6-year period.

The following table is a breakdown of the County budget (revenues and expenditures by program).

(000's)

| Program | Rev/Exp Type | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|-----------------------------|--------------|---------|---------|---------|---------|---------|---------|
| Gen Admin | Rev – Fees | \$6,660 | \$6,781 | \$6,677 | \$6,975 | \$7,130 | \$7,285 |
| Waste Reduction & Recycling | Rev - Grants | \$125 | \$600 | \$545 | \$600 | \$600 | \$600 |
| Sustainability | Rev – Grants | \$0 | \$586 | \$32 | \$250 | \$325 | \$275 |
| Total Revenue | | \$7 | \$8 | \$7 | \$8 | \$8 | \$8 |
| Gen Admin | Expenditures | \$3,329 | \$3,113 | \$3,138 | \$3,000 | \$3,025 | \$3,100 |
| Sustainability | Expenditures | \$0 | \$1,314 | \$1,216 | \$1,275 | \$1,300 | \$1,350 |
| Environmental Education | Expenditures | \$622 | \$642 | \$658 | \$775 | \$800 | \$825 |
| Waste Reduction & Recycling | Expenditures | \$2,437 | \$2,480 | \$2,528 | \$2,550 | \$2,600 | \$2,625 |
| Post Closure | Expenditures | \$470 | \$460 | \$467 | \$290 | \$275 | \$290 |
| Total Expenditures | | \$7 | \$8 | \$8 | \$8 | \$8 | \$8 |

This budget has increases year to year based on COLA and staff increases in Sustainability (Year 4) and Environmental Education (Year 4). This also assumes an increase in the County Program Cost by \$.25 in Year 4.

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use “not applicable” or “does not apply” only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background

1. Name of proposed project:

2021 Tacoma-Pierce Co. Solid & Hazardous Waste Mgmt. Plan

2. Name of applicant:

Pierce County Planning & Public Works Department

3. Address and phone number of applicant and contact person:

Ryan Dicks, Sustainable Resources Administrator
9850 64th St W,
University Place, WA 98467
(253) 798-8603

4. Date checklist prepared:

5/29/2021

5. Agency requesting checklist:

Planning & Public Works Department

6. Proposed timing or schedule (including phasing, if applicable):

The Planning & Public Works Department requests the completion of environmental review by July 31, 2021 with adoption of the 2021 Tacoma-Pierce County Solid & Hazardous Waste Management Plan occurring in 3rd or 4th quarters of 2021. Implementation of objectives will occur until the completion of the first Supplement to this plan.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

RCW Chapter 70A-205 requires local governments to maintain solid waste plans in a “current Condition” with periodic updates (approximately every five years). The Planning & Public Works Department will begin working on a Supplement to take effect in 2027 with work to begin in 2025 or 2026.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

No environmental information has been prepared for this proposal. A Programmatic Final Environmental Impact Statement (FEIS) to the Tacoma-Pierce County Solid Waste Management Plan was adopted in July, 1989 and Addenda were issued in October, 1999, February 2008, and June, 2016.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No. As a non-project action, this does not apply.

10. List any government approvals or permits that will be needed for your proposal, if known.

The Washington Department of Ecology and the Washington Utilities and Transportation Commission are each charged by state law to review and comment upon the draft. After considering agency and public comments, the Pierce County Council must adopt the 2021 Tacoma-Pierce County Solid & Hazardous Waste Management Plan. Following Council action, all cities and towns participating in Pierce County's solid & hazardous waste management systems must adopt the plan, issue a letter of concurrence, or notify the County that it no longer wishes to participate in the solid waste management system.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The 2021 Plan provides strategic direction to reduce greenhouse gases and continue efforts to implement aggressive waste reduction and diversion (recycling) programs. The intent is to reduce the amount of solid wastes both generated and disposed. Over the next several years, the County and the City of Tacoma will work cooperatively in support of the plan's Vision "A solid waste system that is more equitable, protects environmental health and is more resilient to the known and unforeseen changes that are coming our way". The Goals in five interconnected and interdependent areas provide foundational support for the vision. The goals are in the areas of

Sustainability, Resources, Communication & Education, Partnerships, and system and Infrastructure.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

Adopting the Tacoma-Pierce County Solid & Hazardous Waste Management Plan is a non-project action. The vision, goals, objectives and actions contained within the Plan apply to all of Pierce County except Auburn and Pacific.

B. Environmental Elements

1. Earth

a. General description of the site:

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____

As a non-project action, there is no specific site.

b. What is the steepest slope on the site (approximate percent slope)?

As a non-project action, there is no specific site.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

As a non-project action, there is no specific site.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No. As a non-project action, there is no specific site.

- e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

As a non-project action, there is no specific site.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

As a non-project action, there is no specific site.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

As a non-project action, there is no specific site.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

As a non-project action, there are no impacts to be reduced, controlled, or mitigated.

2. Air

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

As a non-project action, there are no emissions to the air.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

As a non-project action, there is no specific site.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

As a non-project action, there are no emissions to reduce or control.

3. Water

a. Surface Water:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

As a non-project action, there is no specific site.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

As a non-project action, there is no specific site.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

As a non-project action, there is no specific site.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

As a non-project action, there is no specific site.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

As a non-project action, there is no specific site.

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

As a non-project action, there is no specific site.

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to

groundwater? Give general description, purpose, and approximate quantities if known.

As a non-project action, there is no specific site.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

As a non-project action, there is no specific site.

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

As a non-project action, there is no specific site.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

As a non-project action, there is no specific site.

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

As a non-project action, there is no specific site.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

As a non-project action, there is no specific site.

4. Plants

- a. Check the types of vegetation found on the site:

- ___deciduous tree: alder, maple, aspen, other
- ___evergreen tree: fir, cedar, pine, other
- ___shrubs
- ___grass
- ___pasture
- ___crop or grain
- ___ Orchards, vineyards or other permanent crops.
- ___ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- ___water plants: water lily, eelgrass, milfoil, other
- ___other types of vegetation

As a non-project action, there is no specific site.

- b. What kind and amount of vegetation will be removed or altered?

As a non-project action, there is no specific site.

- c. List threatened and endangered species known to be on or near the site.

As a non-project action, there is no specific site.

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

As a non-project action, there is no specific site.

- e. List all noxious weeds and invasive species known to be on or near the site.

As a non-project action, there is no specific site.

5. Animals

- a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

Examples include:

- birds: hawk, heron, eagle, songbirds, other:
- mammals: deer, bear, elk, beaver, other:
- fish: bass, salmon, trout, herring, shellfish, other _____

- b. List any threatened and endangered species known to be on or near the site.

As a non-project action, there is no specific site.

- c. Is the site part of a migration route? If so, explain.

As a non-project action, there is no specific site.

- d. Proposed measures to preserve or enhance wildlife, if any:

As a non-project action, there is no specific site.

- e. List any invasive animal species known to be on or near the site.

As a non-project action, there is no specific site.

6. Energy and Natural Resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

As a non-project action, there is no specific site.

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

As a non-project action, there is no specific site.

- b. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

As a non-project action, there is no specific site.

7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

As a non-project action, there is no specific site.

- 1) Describe any known or possible contamination at the site from present or past uses.

As a non-project action, there is no specific site.

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

As a non-project action, there is no specific site.

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

As a non-project action, there is no specific site.

- 4) Describe special emergency services that might be required.

As a non-project action, there is no specific site.

- 5) Proposed measures to reduce or control environmental health hazards, if any:

As a non-project action, there are no impacts to be reduced, controlled or mitigated.

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

As a non-project action, there is no specific site.

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

As a non-project action, there is no specific site.

3) Proposed measures to reduce or control noise impacts, if any:

As a non-project action, there are no impacts to be reduced, controlled or mitigated.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

As a non-project action, there is no specific site.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

As a non-project action, there is no specific site.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

As a non-project action, there is no specific site.

c. Describe any structures on the site.

As a non-project action, there is no specific site.

d. Will any structures be demolished? If so, what?

As a non-project action, there is no specific site.

e. What is the current zoning classification of the site?

As a non-project action, there is no specific site.

f. What is the current comprehensive plan designation of the site?

As a non-project action, there is no specific site.

- g. If applicable, what is the current shoreline master program designation of the site?

As a non-project action, there is no specific site.

- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

As a non-project action, there is no specific site.

- i. Approximately how many people would reside or work in the completed project?

As a non-project action, there is no specific site.

- j. Approximately how many people would the completed project displace?

As a non-project action, there is no specific site.

- k. Proposed measures to avoid or reduce displacement impacts, if any:

As a non-project action, there are no impacts to be reduced, controlled or mitigated.

- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

As a non-project action, there are no impacts to be reduced, controlled or mitigated.

- m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

As a non-project action, there are no impacts to be reduced, controlled or mitigated.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

As a non-project action, there is no specific site.

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

As a non-project action, there is no specific site.

- c. Proposed measures to reduce or control housing impacts, if any:

As a non-project action, there are no impacts to be reduced, controlled or mitigated.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

As a non-project action, there is no specific site.

- b. What views in the immediate vicinity would be altered or obstructed?

As a non-project action, there is no specific site.

- c. Proposed measures to reduce or control aesthetic impacts, if any:

As a non-project action, there are no impacts to be reduced, controlled or mitigated.

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

As a non-project action, there is no specific site.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

As a non-project action, there is no specific site.

- c. What existing off-site sources of light or glare may affect your proposal?

As a non-project action, there is no specific site.

- d. Proposed measures to reduce or control light and glare impacts, if any:

As a non-project action, there are no impacts to be reduced, controlled or mitigated.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

As a non-project action, there is no specific site.

- b. Would the proposed project displace any existing recreational uses? If so, describe.

As a non-project action, there is no specific site.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

As a non-project action, there are no impacts to be reduced, controlled or mitigated.

13. Historic and cultural preservation

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

As a non-project action, there is no specific site.

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

As a non-project action, there is no specific site.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

As a non-project action, there is no specific site.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

As a non-project action, there are no impacts to be reduced, controlled or mitigated.

14. Transportation

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

As a non-project action, there is no specific site.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

As a non-project action, there is no specific site.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

As a non-project action, there is no specific site.

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

As a non-project action, there is no specific site.

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

As a non-project action, there is no specific site.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?

As a non-project action, there is no specific site..

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

As a non-project action, there is no specific site.

- h. Proposed measures to reduce or control transportation impacts, if any:

As a non-project action, there are no impacts to be reduced, controlled, or mitigated.

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

As a non-project action, there is no specific site.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

As a non-project action, there are no impacts to be reduced, controlled or mitigated. As described in the 2021 plan, greenhouse gas and waste reduction and diversion measures will extend the life of the privately owned and operated landfill (which is designated an essential public facility).

16. Utilities

- a. Circle utilities currently available at the site:

electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system,
other _____

As a non-project action, there is no specific site.

- b. Describe the utilities that are proposed for the project, the utility providing the service,
and the general construction activities on the site or in the immediate vicinity which might
be needed.

As a non-project action, there are no impacts to be reduced, controlled or mitigated.

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Name of signee _____

Position and Agency/Organization _____

Date Submitted: _____

D. Supplemental sheet for nonproject actions

(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

The 2021 Tacoma-Pierce County Solid & Hazardous Waste Management Plan will continue the development and implementation of systems, programs, projects, and policies identified in the Programmatic FEIS first adopted in 1989.

The core alternative that Pierce County has been pursuing since 1989 is reduction and recycling. The 2021 plan reinforces that approach while also introducing greenhouse gas reduction and product stewardship and equity. These additional alternatives fall in line with Alternative 3 of the FEIS. All of these approaches are in addition to education and outreach programs, residential and multi-family recycling and yard waste curbside collection services.

The goals and objectives of the 2021 plan support waste and greenhouse gas reductions of 50% by 2040. This reduction will result in less waste transported to and disposed of in the solid waste landfills which in turn reduces the risk of discharges to water, emissions to air, less hazardous waste needing to be stored and transported, and potentially less noise with fewer hours of operations necessary.

Proposed measures to avoid or reduce such increases are:

The emphasis on greenhouse gas and waste reduction is intended to achieve a total reduction in the size and volume of the solid waste stream. This strategy will reduce waste and greenhouse gases by forcing a change in consumer behavior and not just a change in operations from reduction to recycling. This change will result in a reduction in the overall impact in regards to water, air, noise, and land.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

The 2021 plan's emphasis on greenhouse gas and waste reduction through culture shifts and greater stakeholder input and decision making will result in improved waste management practices which will help prevent impacts to plants, animals, fish, or marine life.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

The emphasis on greenhouse gas and waste reduction is intended to achieve a total reduction in the size and volume of the solid waste stream. This strategy will reduce waste and greenhouse gases by forcing a change in consumer behavior and not just a change in operations from reduction to recycling. This change will result in a reduction in the overall impact in regards to plants, animals, fish and marine life.

3. How would the proposal be likely to deplete energy or natural resources?

The 2021 plan is designed to reduce the amount of waste and greenhouse gases in our systems. These reductions will result in less wasted energy and natural resources.

Proposed measures to protect or conserve energy and natural resources are:

The emphasis on greenhouse gas and waste reduction is intended to achieve a total reduction in the size and volume of the solid waste stream. This strategy will reduce waste and greenhouse gases by forcing a change in consumer behavior and not just a change in operations from reduction to recycling. This change will result in a reduction in the overall impact in regards to energy and natural resources.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

The 2021 plan is designed to reduce the amount of waste and greenhouse gases in our systems. These reductions will result in less wasted energy and natural resources.

Proposed measures to protect such resources or to avoid or reduce impacts are:

The emphasis on greenhouse gas and waste reduction is intended to achieve a total reduction in the size and volume of the solid waste stream. This strategy will reduce waste and greenhouse gases by forcing

a change in consumer behavior and not just a change in operations from reduction to recycling. This change will result in a reduction in the overall impact in regards to energy and natural resources.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

The 2021 plan is designed to reduce the amount of waste and greenhouse gases in our systems. The plan does not propose the development or expansion of facilities that could impact land or shorelines.

Proposed measures to avoid or reduce shoreline and land use impacts are:

The emphasis on greenhouse gas and waste reduction is intended to achieve a total reduction in the size and volume of the solid waste stream. This strategy will reduce waste and greenhouse gases by forcing a change in consumer behavior and not just a change in operations from reduction to recycling. A smaller waste stream will reduce the potential for shoreline and land use impacts.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

The 2021 plan is designed to reduce the amount of waste and greenhouse gases in our systems. The plan does not propose new collection systems or facilities.

Proposed measures to reduce or respond to such demand(s) are:

The emphasis on greenhouse gas and waste reduction is intended to achieve a total reduction in the size and volume of the solid waste stream. This strategy will reduce waste and greenhouse gases by forcing a change in consumer behavior and not just a change in operations from reduction to recycling. This will allow the existing privately owned and operated landfill to remain open longer. Discussion to explore making garbage collection services mandatory, at least within the Urban Growth Area, would make

existing waste and recycling transportation systems more efficient by reducing the number of properties bypassed by collection routes.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

The 2021 Plan is designed to comply with the state’s solid waste planning laws found in RCW Chapter 70A-205. The Washington Department of Ecology and the Washington Utilities and Transportation Commission also review the plan to ensure compliance.

ADDENDUM

to the

Programmatic Final Environmental Impact Statement (FEIS)

Year 2021

Tacoma-Pierce County Solid & Hazardous Waste Management Plan

JUNE 15, 2021

Pierce County Planning & Public Works Department

Sustainable Resources Division

9850 64th St. W

University Place, Washington 98467

(253) 798-2179

INTRODUCTION

The purpose of this addendum is to describe the information provided in the *2020 Tacoma-Pierce County Solid Waste Management Plan*. The 2021 Tacoma-Pierce County Solid & Hazardous Waste Management Plan will replace the 2000 Solid Waste Plan. New information has been included within this Plan to meet the State requirements that a solid waste plan be kept updated or “current.” The new information does not change the analysis of likely significant impacts or alternatives described in the *Programmatic Final Environmental Impact Statement* adopted in July 1989.

BACKGROUND

Pierce County

Code Chapter 8.28:

- On December 12, 2000, Pierce County adopted the *Tacoma-Pierce County Solid Waste Management Plan* which updated the previous solid waste plan adopted in 1992. The County issued an Addendum on October 4, 1999 to the Programmatic Final Environmental Impact Statement (FEIS) which was first adopted in July 1989 and re-adopted in 1992.
- On November 18, 2008, Pierce County adopted the *2008 Supplement to the Tacoma-Pierce County Solid Waste Management Plan* which updated the 2000 Plan. The County issued an Addendum to the Programmatic FEIS on February 28, 2008.
- On March 22, 2016 Pierce County adopted the *2015 Supplement to the Tacoma-Pierce County Solid Waste Management Plan* which updated the 2000 Plan and 2008 Supplement. The County issued an Addendum to the Programmatic FEIS on May 13, 2016.
- All cities and towns adopted the Solid Waste Plan and signed new Interlocal Agreements with the County in 2001. In 2009, the cities and towns either readopted the 2008 Supplement or issued letters of concurrence. The cities and towns issued letters of concurrence for the 2015 Supplement as they did in 2008.

- The Washington Department of Ecology approved the Year 2000 Tacoma-Pierce County Solid Waste Management Plan on August 22, 2001, the 2008 Supplement on September 4, 2009, and the 2015 Supplement on September 7, 2016.

State regulations:

Chapter 70A.205 Revised Code of Washington (RCW) requires counties, in coordination with their cities and towns to adopt comprehensive solid waste plans for the management, handling, and disposal of solid waste, and to keep those plans in a 'current' status through periodic review and update. State law specifies the required contents of a comprehensive solid waste plan. Among the many requirements are: estimated needs for solid waste handling facilities for 20 years of disposal capacity; a six-year construction and capital acquisition program; a comprehensive waste reduction and recycling element; and an assessment of the plan's impact on the costs of solid waste collection prepared in conformance with the guidelines established by the Washington Utilities and Transportation Commission (WUTC).

FEIS:

The County's 1989 Programmatic Final Environmental Impact Statement (FEIS) evaluates a complex series of alternatives for waste handling, recycling, and disposal, plus alternatives for handling special wastes, such as wood waste, land clearing and construction debris. The FEIS was re-adopted in 1992 (Ord. #92-130). Addenda were issued October 4, 1999 and February 29, 2008.

Since 1989, Pierce County has been pursuing the FEIS's MMSW Alternative 3 which focuses on tripling waste reduction and recycling rates; disposing of remaining MSW in a landfill; and recycling of wood waste, construction debris, and land clearing debris. Alternative 3 targets a 60% or greater recycling and waste reduction rate. Among the waste reduction and recycling measures discussed within Alternative 3 are: the need to develop food waste and other organic diversion or composting programs and facility capacity; a need to develop model product purchasing programs; and a need to work with businesses to implement comprehensive waste reduction and recycling collection. These are in addition to education and outreach

programs and, residential recycling and yard waste curbside collection services.

To implement state regulations and the Solid Waste Management Plan, the Public Works Department offers an extensive range of public education and outreach programs about waste reduction and recycling. The County adopted minimum levels of services to provide residential curbside recycling and yard waste services; built a yard waste composting facility; and maintains the contract for meeting long-term disposal and other waste handling facility capacity. The Public Works Department provides funding support for the enforcement actions and regulatory activities of the Tacoma-Pierce County Health Department which administers the State's solid waste permit regulations, WAC 173-350 and WAC 173-351.

To carry-out the Year 2000 Plan's direction about illegal dumping problems, the Public Works Department created and funded programs to address illegal dumping and nuisance vehicle issues, and to cleanup illegal dump sites. In 2009, the Public Works Department absorbed into its functions and operations the enforcement of additional public nuisances and certain violations of the County's Development Regulations, Shorelines Regulations and Sign Code.

2021 PLAN CONTENT

Proposal: The *2021 Tacoma-Pierce County Solid & Hazardous Waste Management Plan* replaces the *2000 Tacoma-Pierce County Solid Waste Management Plan* adopted by the Pierce County Council in 2000 and amended in 2008 and 2016.

Structure: Where the 2000 Plan focused attention on individual aspects of the solid waste system (e.g. recycling, processing, landfilling, etc.) and the 2008 Supplement examined "courses of action" that could support multiple aspects of the system with a variety of outcomes, the 2021

Plan follows the format of the 2015 Supplement and is written specifically as a strategic document. The 2021 document proposes a community vision emphasizing sustainability, equity, and resiliency and identifies goals, objectives, and actions necessary to achieve that vision.

Vision:

At least since the late 1980s, waste reduction has been the preferred method for the collection, handling, and management of solid waste. (RCW 70A.214.010) With the 2021 Plan, Pierce County proposes a clear vision for its future:

VISION: **A solid waste system that is equitable, protects environmental and human health, and is resilient to the known and unforeseen changes that are coming our way.**

Goals:

Goals in five interconnected and interdependent areas provide foundational support for the vision:

SUSTAINABILITY: **Implement economically feasible and sustainable waste management practices.**

RESOURCES: **Identify fiscally responsible, self-sustaining funding and other resources for an integrated SHWM system.**

COMMUNICATION & EDUCATION:

Empower communities to help transform our solid and hazardous waste management system through inclusive collaboration, accessible communication and meaningful education.

PARTNERSHIPS: Foster strong working relationships among the agencies and partners responsible for managing the solid and hazardous waste system.

SYSTEM & INFRASTRUCTURE:

Provide the infrastructure and other resources to meet our growing solid waste needs

Objectives: Each goal will be reached through specific and measurable objectives (eleven in total) that, with accompanying action steps, can be achieved between 2021 and 2040.

The *Sustainability* objectives (S1, S2, S3) call on Pierce County and the City of Tacoma to reduce greenhouse gases and provide solid waste services that meet basic recycling, composting and disposal needs for all customers, with waste reduction as an increasing area of focus.

S1: Reduce waste and improve recycling effectiveness

S2: Protect the environment and human health by reducing greenhouse gas emissions and delivering solid waste services.

S3: Make the solid and hazardous waste system more accessible for all Pierce County Residents.

In the *Resources* objectives (R1, R2), Pierce County will explore ways of securing funding and resources to make sure the solid waste system

can grow and operate for each person throughout the County. To do this, it will require the implementation of new strategies to make sure both Tacoma and Pierce County are ready for unforeseen changes.

R1: Develop plans for securing adequate funding and resource to build, operate and maintain a solid and hazardous waste management system for the next 20 years.

R2: Develop systems and strategies for prioritizing what services should be provided, how they are to be funded and resourced, and recognize and respond quickly to rising costs due to unforeseen conditions.

The *Communication & Education* (CE1, CE2, CE3) objectives are designed to provide customers in Pierce County information in an equitable and easily accessible way about new programs and decisions as they relate to sustainability and solid waste.

CE1: Proactively engage and collaborate with impacted stakeholders (Including businesses, residents, and agencies) to make informed decisions and improve our recycling and solid waste system.

CE2: Ensure any communications regarding the solid waste management system are clear and accessible to all people.

CE3: Establish meaningful topics of education that equip participants with valuable knowledge to better understand and engage in the solid and hazardous waste system.

The *Partnerships* Goal (P1) has an objective that pulls stakeholders from different sectors of Pierce County to regularly review procedures and programs for effectiveness and sustainability.

P1: Support collaboration and coordination across key partners, stakeholders, and community members in Pierce County.

The final set of objectives from *System and Infrastructure* (SI1, SI2) are setup for continuous evaluation of our current system. The evaluations will address possible expansion of transfer stations as well as life after the landfill.

SI1: Regularly assess and identify future system expansion needs, improve services, and address impacts.

SI2: Collaborate with LRI to determine where new facilities are needed and how these facilities could be developed.

System Performance

Target: The 2021 Plan calls for an increase to waste reduction and greenhouse gases. These reductions, along with the waste diversion efforts maintains the intent to achieve (and exceed) the 60% recycling and reduction rate of the FEIS Alternative 3.

Systems and

Other Issues: The 2021 Plan provides a high-level overview of the operational aspects of the Pierce County and Tacoma solid waste systems. There are two sections of this plan that have been added to conform with the Department of Ecology's guidelines, the Hazardous Waste Plan and the CROP.

Cost Assessment: RCW 70A.205.045 requires each solid waste plan to include an "assessment of the plan's impact on the costs of solid waste

collection” with special emphasis on the rates charged by garbage haulers regulated by the Washington Utilities and Transportation Commission. The 2021 Plan includes the Cost Assessment in Appendix T and reports four primary findings:

1. The 2021 Plan does not propose policies or programs which will directly or immediately impact regulated services or rates.
2. The 2021 Plan proposes efforts to dramatically decrease per capita waste disposal needs.
3. Solid Waste system fees (which are not regulated by the Commission) will increase as the overall waste stream shrinks; but the 2021 Plan anticipates flat or declining per capita costs relative to inflation for those households and businesses that choose to reduce and recycle waste.
4. County government funding is designed to “live within our means” with the impact as measured on a per capita basis remaining below the rate of inflation.

Capital Facilities:

A discussion of capital facilities is a state-required element of a Solid Waste Plan. None of the objectives, nor related actions, contained in the 2021 Plan require immediate planning or implementation of new capital projects. Two objectives could require capital improvements in 2025 or later. Along with the discussion in Appendix S, the 2021 Plan cross-references the most recent capital facilities plans adopted by Pierce County and the City of Tacoma.

Disposal Need and

Landfill Capacity:

The 2021 Plan forecasts Pierce County’s (including Tacoma, Ruston and Joint Base Lewis Mc Chord) need for solid waste disposal and the ability of the privately owned and operated LRI Landfill to continue meeting that need.

Successful implementation of the objectives and actions contained in the 2021 Plan (reduction goals along with long hauling) will allow our landfill to potentially last the entire 20 years of this plan.

Under a worst-case scenario in which waste disposal remains at the same rate it is today and no long hauling occurs for anything, the landfill will fill up before 2030 and Tacoma and Pierce County will have to long haul all garbage out of state.

CONCLUSIONS

- ▶ The additional information does not change analysis of likely significant impacts or alternatives in the 1989 Programmatic FEIS. The alternatives and mitigations remain the same as summarized in the FEIS.

- ▶ The 2021 Plan contains the State’s required information to create a solid waste plan including: status updates about all programs; priority actions to take for the next 20 years; a six-year capital facility plan; and a WUTC Cost Assessment which analyzes the plan’s impact on the costs of solid waste collection.

- ▶ The 2021 Plan calls for equity and sustainability for all the customers of Pierce County.

- ▶ No additional significant adverse impacts have been identified from expansion of the waste reduction and recycling outreach and education programs and continued use of existing private sector collection and processing capacity.

- ▶ The 2021 Plan continues to support diversion of recyclables through established curbside collection programs, drop-off centers, buy-back and recycling processing businesses and compost facilities, and through diversion alternatives at existing transfer stations.

- ▶ Additional solid waste disposal or transfer station facility capacity has been identified as a possible need in the future depending on how well the goals of this plan are achieved.

AVAILABILITY

Consistent with the plan’s vision, the 2021 Plan will be published online at www.piercecountywa.org/swplan. Paper copies – or copies on flash drives – may be obtained by contacting the Public Works Department at (253) 798-2179.

Anyone wishing to review the 1989 Programmatic Final Environmental Impact Statement may contact the Public Works Department at (253) 798-2179.



Pierce County
Planning & Public Works

Jen Tetatzin, PE, PMP — Director

2401 South 35th Street, Room 2
Tacoma, Washington 98409-7460
piercecountywa.gov/ppw

Determination of Nonsignificance (DNS) For Nonproject Legislative Actions

Environmental Application Number: 972925

Project ID Number: 587689

Family Application Number(s): N/A

Parcel Number(s): N/A

Action: Adoption of the 2021 Tacoma-Pierce County Solid & Hazardous Waste Management Plan

Description: A new 20 year Solid & Hazardous Waste Management Plan that partners with the City of Tacoma that emphasizes equity, protecting human and environmental health, and resiliency. The proposed plan identifies goals, objectives, and actions to be implemented by Pierce County, the City of Tacoma and their partners in order to reduce waste, lower greenhouse gas emissions, and lengthen the life of the Pierce County landfill.

Location: Unincorporated Pierce County, City of Tacoma, 20 cities and towns in the Pierce County Solid Waste System.

Proponent(s): Pierce County Planning & Public Works

Purpose of Announcement: The purpose of this announcement is to invite comments on the determination of non-significance (DNS) for a proposed new Solid & Hazardous Waste Management Plan.

The new plan contains several retained policies that are being carried forward from the 2000 Solid Waste Management Plan that help to mitigate environmental impacts. The new plan also introduces several actions that will further reduce any environmental impacts, such as:

- A reduction in greenhouse gas
 - This is being done in coordination with Sustainability 2030 which has set a goal of reducing emissions by 45%. Our solid waste system can help achieve that through this Solid & Hazardous Waste Management Plan that focuses on reduction, resiliency, and equity.
- An emphasis on waste reduction over diversion
 - This change to a reduction focus will decrease the amount of waste that is generated through individual decision making, extended producer responsibilities, and outreach and education for residential and commercial sectors. This will add life to our landfill, keep transportation impacts down and lower environmental impacts on air and water quality by reducing the odors and leachate being generated today.

- Creating a commercial recycling program
 - This program will help to remove recyclable items from the waste stream furthering the efforts of waste reduction and adding more reusable material to certain industries to help keep our natural resources intact.
- Establishing a more equitable solid waste system
 - This effort is designed to give underserved and underrepresented areas in Pierce County the same opportunities when it comes to disposing of solid waste. Working with these communities will lead to a reduction in illegal dumping, littering, and individual solid waste code violations.
- Reducing Food Waste
 - This effort to cut food waste in half could reduce the total amount of solid waste in Pierce County by 10%, thereby reducing several environmental factors like odors and methane gas production.

Pierce County, the lead agency for this proposal, has determined that this proposal will not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

Pierce County has determined that the requirements for environmental analysis, protection, and mitigation measures have been adequately addressed in the original EIS statement adopted in 1989 and the addendums that have followed in 1992, 2000, 2008, and 2016, the development regulations and comprehensive plan adopted under Chapter 36.70A RCW, WAC 197-11-600, WAC 197-11-330(2)(c), and in other applicable local, state, or federal laws or rules, as provided by RCW 43.21C.240 and WAC 197-11-158, and WAC 197-11-330(1)(c). Local regulations include but are not limited to Pierce County code Chapters 8.29, 8.30, 8.31, 8.38, 18A.33, 18J.15, 13.04 and 13.06. Pierce County will not require any additional mitigation measures under SEPA.

There is no comment period for this DNS.

This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 14 days from issue date. Comments must be submitted within 14 days of the issue date.

SEPA Responsible Official: Jen Tetatzin
Position/Title: Director, Planning and Public Works
Address: 2401 South 35th Street, Suite 2, Tacoma, WA 98409

Staff Contact: Chris Brown, Management Analyst
chris.brown@piercecounitywa.gov | (253) 798-4659

Issue Date: October 11, 2021



Jen Tetatzin, Responsible Official

Appeal:

Pierce County Code Chapter 1.22 does not provide for an administrative appeal of legislative actions taken by the County Council. See WAC 197-11-680(4) for procedures regarding SEPA judicial appeals.

Note: The issuance of this Determination of Nonsignificance does not constitute approval. The applicant must comply with all other applicable requirements of Pierce County, federal, and state agencies.

Pierce County Online Permit Information:

<https://pals.piercecountywa.gov/palsonline/#/permitSearch/permit/departmentStatus?applPermitId=972925>



PIERCE COUNTY
NOTICE OF DETERMINATION OF NONSIGNIFICANCE

Adoption of the 2021 Tacoma-Pierce County Solid & Hazardous Waste Management Plan
Proponent: Pierce County Planning and Public Works
SEPA Application: 972925

Notice is hereby provided in accordance with WAC 197-11 that Pierce County has issued a Determination of Nonsignificance (DNS) on the following proposal:

A new 20 year Solid & Hazardous Waste Management Plan that partners with the City of Tacoma that emphasizes equity, protecting human and environmental health, and resiliency. The proposed plan identifies goals, objectives, and actions to be implemented by Pierce County, the City of Tacoma and their partners in order to reduce waste, lower greenhouse gas emissions, and lengthen the life of the Pierce County landfill.

Pierce County, the lead agency for this proposal, has determined that this proposal will not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

This DNS is issued under WAC 197-11-340(2). Pierce County may not act on this proposal prior to October 26, 2021. Comments must be submitted by close of business on October 25, 2021.

Pierce County has determined that the requirements for environmental analysis, protection, and mitigation measures have been adequately addressed in the original EIS statement adopted in 1989 and the addendums that have followed in 1992, 2000, 2008, and 2016, the development regulations and comprehensive plan adopted under Chapter 36.70A RCW, WAC 197-11-600, WAC 197-11-330(2)(c), and in other applicable local, state, or federal laws or rules, as provided by RCW 43.21C.240 and WAC 197-11-158, and WAC 197-11-330(1)(c). Local regulations include but are not limited to Pierce County code Chapters 8.29, 8.30, 8.31, 8.38, 18A.33, 18J.15, 13.04 and 13.06. Pierce County will not require any additional mitigation measures under SEPA.

Appendix U – SEPA Checklist and FEIS Documentation

10/11/21, 1:51 PM

Adportal Self Service Advertising Confirmation

THANK YOU for your legal submission!

Your legal has been submitted for publication. Below is a confirmation of your legal placement. You will also receive an email confirmation.

ORDER DETAILS

Order Number:
IPL0044899

Order Status:
Submitted

Classification:
Legals & Public Notices

Package:
TAC - Legal Ads

Final Cost:
99.36

Payment Type:
Account Billed

User ID:
IPL0019393

ACCOUNT INFORMATION

PIERCE COUNTY IP
2401 S 35TH ST RM 2
TACOMA, WA 98409-7960
253-798-7200
jeff.hurton@piercecounitywa.gov
PIERCE COUNTY

TRANSACTION REPORT

Date
October 11, 2021 2:51:22 PM EDT

Amount:
99.36

SCHEDULE FOR AD NUMBER IPL00448990

October 12, 2021
The News Tribune (Tacoma)

PREVIEW FOR AD NUMBER IPL00448990

**PIERCE COUNTY
NOTICE OF DETERMINATION
OF NONSIGNIFICANCE**

Adoption of the 2021 Tacoma-Pierce County Solid & Hazardous Waste Management Plan Proponent: Pierce County Planning and Public Works
SEPA Application: 972925

Notice is hereby provided in accordance with WAC 197-11 that Pierce County has issued a Determination of Nonsignificance (DNS) on the following proposal:
A new 20 year Solid & Hazardous Waste Management Plan that partners with the City of Tacoma that emphasizes equity, protecting human and environmental health, and resiliency. The proposed plan identifies goals, objectives, and actions to be implemented by Pierce County, the City of Tacoma and their partners in order to reduce waste, lower greenhouse gas emissions, and lengthen the life of the Pierce County landfill.
Pierce County, the lead agency for this proposal, has determined that this proposal will not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.
This DNS is issued under WAC 197-11-340(2). Pierce County may not act on this proposal prior to October 26, 2021. Comments must be submitted by close of business on October 25, 2021.
Pierce County has determined that the requirements for environmental analysis, protection, and mitigation measures have been adequately addressed in the original EIS statement adopted in 1989 and the addendums that have followed in 1992, 2000, 2008, and 2016, the development regulations and comprehensive plan adopted under Chapter 36.70A RCW, WAC 197-11-600, WAC 197-11-330(2)(c), and in other applicable local, state, or federal laws or rules, as provided by RCW 43.21C.240 and WAC 197-11-158, and WAC 197-11-330(1)(c). Local regulations include but are not limited to Pierce County code Chapters 8.29, 8.30, 8.31, 8.38, 18A.33, 18J.15, 13.04 and 13.06. Pierce County will not require any additional mitigation measures under SEPA.
W00000000
Publication Dates

Interlocal Agreement for Comprehensive Solid and Hazardous Waste Management Planning between Pierce County and the City of Tacoma

Pursuant to Chapter 39.34 RCW and RCW 70A.205.040(3)(c), this Interlocal Agreement (Agreement) is entered into between Pierce County, a municipal corporation and a political subdivision of the State of Washington (“County”), and the City of Tacoma (“City”), a municipal corporation authorized by Washington State, establishing the obligations of the Parties for comprehensive solid and hazardous waste management planning.

WHEREAS, RCW 70A.205.040 and RCW 70A.300.350 require or authorize counties, in cooperation with the various cities located within such county, to prepare a coordinated, comprehensive solid & hazardous waste management plan; and

WHEREAS, under RCW 70A.205.075, all solid waste management plans must be maintained in current condition by periodic updates that include the estimated long-range planning needs for solid waste handling facilities projected twenty years into the future and local governments may also periodically update their hazardous waste plans; and

WHEREAS, RCW 70A.205.040 requires cities to either 1) prepare their own solid waste management plans for integration into the county plan or 2) agree with the county to participate in a joint city-county solid waste management plan or 3) authorize the county to prepare a city plan for inclusion in the comprehensive county solid waste management plan; and

WHEREAS, County and the City have jointly participated in planning for solid waste management since 1983 through previous interlocal agreements; and

WHEREAS, the Parties wish to continue working jointly to develop and implement environmentally sound and cost-effective solid waste management programs including waste reduction and recycling programs that reduce greenhouse gas emissions as appropriate from the disposed waste stream; and

WHEREAS, the Parties wish to adopt, maintain, and enforce minimum levels of service for residential source separation and collection of recyclables, including residential curbside recycling programs, multi-family recycling programs, and residential yard waste collection programs; and

WHEREAS, the coordination of waste reduction, recycling and toxics reductions programs between the County and City creates savings and other benefits for both Parties; and

WHEREAS, RCW 39.34.030 authorizes governments to enter agreements to jointly or cooperatively exercise their powers;

NOW, THEREFORE, in consideration of the mutual benefits and covenants contained herein, it is hereby agreed:

I. PURPOSE OF AGREEMENT

The Parties intend this Agreement to provide for continued cooperation by both parties in the creation of the 2021 Tacoma-Pierce County Solid & Hazardous Waste

Management Plan (“Plan”), implementation of that plan, and periodic updates or replacement of that plan, all in compliance with Chapters 70A.205 and 70A.300 RCW.

II. AUTHORITY

- A. The planning process that is the subject of this Agreement is required by and governed by Chapters 70A.205 and 70A.300 RCW, and this Agreement is authorized by RCW 39.34.030
- B. The City hereby chooses, under RCW 70A.205.040(3)(b), to work jointly with Pierce County to prepare the Plan.
- C. The City agrees that the County will coordinate development of the Plan through the Pierce County Solid Waste Advisory Committee (SWAC), an advisory citizen board which includes City representation.

III. OBLIGATIONS

This agreement serves to designate the County and City as equal partners in the development of the 2021 Tacoma-Pierce County Solid & Hazardous Waste Management Plan and the updates or replacements of that plan. Obligations of the County, City, or both are:

A. County & City

1. Identify planning and administrative duties and assign said duties to County and City staff
2. The County and City will provide links and access to the Plan.
3. County and City will be responsible for their own staff time.
4. To increase communication and maintain an effective partnership, the County and City shall hold regular collaborative meetings. The purpose is to discuss issues of mutual interest, check on progress of the Plan implementation, and coordinate future joint projects and Plan updates.

B. County

1. The County will coordinate planning activities with the City and incorporate materials submitted by the City into the Plan.
2. County will implement and comply with applicable elements of an adopted Plan and any updates thereto.
3. County will be responsible for all time and resources required to manage the adoption process by the incorporated cities and Joint Base Lewis McChord (“JBLM”)

C. City

1. The City, at its own expense, will develop portions of the plan assigned to City staff and review and respond to draft versions of the Plan and updates thereof.
2. City will provide staff for the creation of the Plan and updates or replacements.

3. City will implement and comply with applicable elements of an adopted Plan and any updates thereto.

D. Budget and property

No financing, joint budget, or joint property acquisition is required for the joint and cooperative exercise of local government powers under this Agreement. Each Party is responsible for the expenses listed as its obligation above and shall also be responsible to acquire, hold, or dispose of any real or personal property needed to meet its obligations under this Agreement.

E. Limitations

1. Nothing in this agreement shall supersede any authority granted to either the County or the City, or otherwise imply any control by one Party over the other Party.
2. Nothing in this agreement shall obligate either Party to provide personnel or assume operation and maintenance responsibilities for the other party's facilities or operations. Nor shall any provision of this agreement change in any manner the rules and restrictions under which either party operates.

IV. DISPUTE RESOLUTION

- A. Any disputes arising under the terms of this agreement shall be resolved through a negotiated effort to reach consensus. The Parties may agree to mediation as part of such effort.

V. PLAN DEVELOPMENT PROCESS

- A. The Parties agree to the following process for development of the Plan, updates to the Plan, and replacement of the Plan.

B. Process

1. With input from SWAC, County and City staff will develop a draft and the County will circulate that draft to the Washington State Department of Ecology (Ecology), circulate that draft to the other cities and towns in the Pierce County management system, and make that draft available to the public for comments.
2. After good faith consideration of any responses from the public, cities and town, and Ecology, County staff will prepare a final draft. After consultation with the City, County will have the discretion to decide whether to change the final draft as a result of the responses.
3. Upon adoption, as defined herein, County will submit the adopted final draft to Ecology.

C. Amendments and Updates

1. Either the County or City may propose amendments to the Plan to keep the Plan in a current condition. Upon such proposal, County and City shall conduct the Plan development process as outlined in this section.
2. Cities and towns having Interlocal Agreements to join the Pierce County management system may send possible amendments to the County for formal proposal.
3. The County and City shall prepare Plan updates as required by Chapter 70A.205 RCW or by Ecology.
4. Amendments proposed solely for the purposes of addressing an issue that is related to only one of the parties shall be the responsibility of the affected party. This includes all staff time and costs related to that amendment. Lead Agency status for compliance with SEPA requirements for such an amendment, and communications with the other cities and towns, will remain the responsibilities of Pierce County, but costs shall be borne, or reimbursed, by the party responsible for initiating the amendment.

VI. PLAN OR UPDATE ADOPTION

The Plan, any Plan update, and any replacement Plan are adopted when the Plan or update has been fully approved, under each local government's governing procedures, by the City of Tacoma and by any combination of cities, towns, and the County representing 75% of the population living within the Pierce County Solid Waste Management System's geographic area. The Pierce County Solid Waste Management System includes all of Pierce County except the City of Tacoma and Joint Base Lewis McChord.

VII. TERM

- A. Commencing on the Effective Date, as defined herein, this agreement will terminate on January 31, 2030.
- B. City may withdraw from this Agreement before expiration of the term, but only upon submission of its own solid waste management plan, satisfying all requirements for such plans under Washington State law. To allow time to prepare and obtain approval of those required plans, the City must provide 12 month's advance written notice to County before the proposed withdrawal date. Withdrawal will not be effective until that proposed withdrawal date or until full approval of the required plans, whichever date is later.
- C. Notwithstanding any other terms of this Agreement, if sufficient funds are not appropriated or allocated by any Party's legislative body for that Party's obligations under this Agreement for any future fiscal period, that Party will not be required to meet those obligations after the end of the fiscal period through which funds have been appropriated and allocated, unless authorized that Party's legislative body, PROVIDED THAT, each Party is and remains obligated to comply with an adopted Plan and any updates thereto regardless of fund allocation or appropriation. No penalty or expense shall accrue to the affected Party in the event this provision applies.

- D. The Parties do not anticipate that this Agreement will result in the joint ownership or possession of any real or personal property. Upon expiration or earlier termination, there will be no jointly held property needing disposition. Each Party will remain responsible for its own costs, whether incurred during this Agreement or otherwise.

VIII. EFFECTIVE DATE

- A. This Agreement shall be effective on the January 1, 2022 (Effective Date). The Parties agree that in the event this Agreement is approved on or after the Effective Date, the terms and conditions hereof shall be construed as having been in full force and effect as of the Effective Date.

IX. NOTICE

- A. Notices required by or related to this Agreement shall be in writing and sent by either: (a) United States Postal Service first class mail, postage pre-paid; (b) personal delivery; or (c) by email to the email addresses designated below, if the subject line indicates that the email is formal notice under this Agreement and also references the Pierce County contract number designation. The notice shall be deemed delivered on the earlier of: (a) Actual receipt; (b) Three (3) business days from deposit in the United States mail; or (c) the day and time the email message is received by the recipient's email system, but emails received between 5:00 PM and 8:00 AM will be considered delivered at the start of the next business day. Notices shall be sent to the following addresses:

City of Tacoma Solid Waste Division Manager
3510 S. Mullen St.
Tacoma, WA 98409
Lewis.griffith@cityoftacoma.org

Pierce County Planning & Public Works
9850 64th St. West
University Place, WA 98467
PCRECYCLE@piercecountywaw.gov

- B. Any Party, by written notice to the others in the manner herein provided, may designate a physical or email address different from that set forth above.

XI. ADMINISTRATOR

No separate entity or joint board is established by this Agreement. The manager of the Sustainable Resources Division of the Pierce County Planning and Public Works Department and the Solid Waste Division Manager for the City of Tacoma, or their designees, shall be the Agreement Administrators. If a Division of either name ceases to exist, the manager of whatever County or City office succeeds to its responsibilities shall be the Agreement Administrator(s).

XII. INDEMNIFICATION

- A. The City of Tacoma agrees to indemnify and hold harmless Pierce County, its officials, officers, agents, employees, volunteers, and representatives from and against any and all claims, demands, damages, suits at law or at equity, liabilities, losses, judgments, liens, expenses, and costs arising out of or occasioned by the City's negligence or wrongful conduct in fulfillment of its obligations pursuant to this Agreement. In the event of recovery due to the aforementioned circumstances, the City shall pay any judgment or lien arising therefrom, including any and all costs as part thereof.
- B. Pierce County agrees to indemnify and hold harmless the City of Tacoma, its officials, officers, agents, employees, volunteers, and representatives from and against any and all claims, demands, damages, suits at law or at equity, liabilities, losses, judgments, liens, expenses, and costs arising out of or occasioned by Pierce County's negligence or wrongful conduct in fulfillment of its obligations pursuant to this Agreement. In the event of recovery due to the aforementioned circumstances, Pierce County shall pay any judgment or lien arising therefrom, including any and all costs as part thereof.
- C. The foregoing obligations shall survive termination of this Agreement.

XIII. ENTIRE AGREEMENT AND MODIFICATION

This Agreement embodies the entire agreement and understanding between the Parties hereto with respect to its subject matter and supersedes all prior agreements and understandings, whether written or oral, relating to its subject matter. No amendment or modification of this Agreement shall be valid unless made in writing and signed by each of the Parties.

XIV. CHOICE OF LAW, VENUE AND RESPONSIBILITY FOR ATTORNEY FEES AND COSTS

This Agreement and all issues relating to its validity, interpretation, and performance shall be governed by and interpreted under the laws of the State of Washington without regard to conflict of law provisions. In the event any suit, arbitration, or other proceeding is instituted to enforce any term of this Agreement, the Parties specifically understand and agree that venue will be in Pierce County, Washington. In the event of any dispute related to this Agreement, whether pursued in court or otherwise, each Party shall be responsible for its own actual attorney fees and costs.

XV. SEVERABILITY

If any provision of this Agreement is held to be illegal, invalid, or unenforceable, such provision shall be fully severable, and the remainder of this Agreement shall remain in full force and effect.

XVI. RECORDING OR PUBLIC LISTING

The Parties agree that this Agreement, after full execution, either will be recorded with the Pierce County Auditor or listed by subject on Pierce County's web site or other electronically retrievable public source, as required by RCW 39.34.040.

XVII. COUNTERPARTS

This Agreement may be executed in as many counterparts as may be deemed necessary or convenient, each of which, when so executed, shall be deemed an original, but all such counterparts shall constitute but one and the same instrument. Digital signatures, including those transmitted by e-mail (PDF attachment) or facsimile transmission shall be acceptable.

Appendix V – Interlocal Agreements

IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

CITY OF TACOMA:

DocuSigned by:
Elizabeth Pauli 7/1/2022
Elizabeth Pauli, City Mayor Date

DocuSigned by:
Michael P. Stevin III 6/14/2022
Michael P. Stevin III, P.E., Date
Environmental Services Director

DocuSigned by:
Andy Cherullo 6/3/2022
Andy Cherullo, Finance Director Date

Attest:

DocuSigned by:
Doris Sorum 7/12/2022
Doris Sorum, City Clerk Date

Approved as to Legal Form Only:

DocuSigned by:
Chris Bacha 6/14/2022
Chris Bacha, Date
Chief Deputy City Attorney

PIERCE COUNTY:

Approved as to Legal Form Only:

DocuSigned by:
[Signature] 7/14/2022
Prosecuting Attorney Date

Approved:

DocuSigned by:
[Signature] 7/12/2022
Deputy Department Director Date

DocuSigned by:
Gary Robinson 7/12/2022
Finance Director Date

DocuSigned by:
Bruce Dammeier 7/14/2022
County Executive Date

Interlocal Agreement for Comprehensive Solid and Hazardous Waste Management Planning within Pierce County

Pursuant to Chapter 39.34 RCW and RCW 70A.205.040(3)(c), this Interlocal Agreement (Agreement) is entered into between Pierce County, a municipal corporation, and a political subdivision of the State of Washington (“County”), and the City of Bonney Lake, a municipal corporation authorized by Washington State, establishing the obligations of the Parties for comprehensive solid and hazardous waste management planning.

WHEREAS, the City of Bonney Lake and the County acknowledge that County intends to enter into identical individual Agreements with the cities and towns of Bonney Lake, Buckley, Carbonado, DuPont, Eatonville, Edgewood, Fife, Fircrest, Gig Harbor, Lakewood, Milton, Orting, Puyallup, Roy, Ruston, South Prairie, Steilacoom, Sumner, University Place, and Wilkeson, creating a single agreement among all parties who execute identical individual Agreements. Each identical individual Agreement will differ only as to the City or Town identified as the non-County party to the Agreement. This Agreement will reference the cities and towns who execute individual identical Agreements collectively as the “Signatory Cities” and individually as the “Signatory City.” Any signing entity also may be referenced as “Party” or, in any combination, “Parties.”

WHEREAS, RCW 70A.205.040 and RCW 70A.300.350 require or authorize counties, in cooperation with the various cities located within such county, to prepare a coordinated, comprehensive solid & hazardous waste management plan; and

WHEREAS, under RCW 70A.205.075, all solid waste management plans must be maintained in current condition by periodic updates that include the estimated long-range planning needs for solid waste handling facilities projected twenty years into the future and local governments may also periodically update their hazardous waste plans; and

WHEREAS, RCW 70A.205.040 requires cities to either 1) prepare their own solid waste management plans for integration into the county plan or 2) agree with the county to participate in a joint city-county solid waste management plan or 3) authorize the county to prepare a city plan for inclusion in the comprehensive county solid waste management plan; and

WHEREAS, County and many of the Signatory Cities previously entered into an Interlocal Agreement for the purpose of implementing the 2000 Tacoma-Pierce County Solid Waste Management Plan, which plan must now be replaced; and

WHEREAS, the Parties wish to develop and implement environmentally sound and cost-effective solid waste management programs including waste reduction and recycling programs that reduce greenhouse gas emissions as appropriate from the disposed waste stream; and

WHEREAS, the Parties wish to adopt, maintain, and enforce minimum levels of service for residential source separation and collection of recyclables, including residential curbside recycling programs, multi-family recycling programs, and residential yard waste collection programs; and

WHEREAS, the Parties wish to agree to a coordinated system for the management and disposal of solid waste in Pierce County; and

WHEREAS, RCW 39.34.030 authorizes governments to enter agreements to jointly or cooperatively exercise their powers;

NOW, THEREFORE, in consideration of the mutual benefits and covenants contained herein, it is hereby agreed:

I. PURPOSE OF AGREEMENT

The Parties intend this Agreement to provide for creation of the 2021 Tacoma-Pierce County Solid & Hazardous Waste Management Plan, implementation of that plan, and periodic updates or replacement of that plan, all in compliance with Chapters 70A.205 and 70A.300 RCW.

II. AUTHORITY

- A. The planning process that is the subject of this Agreement is required by and governed by Chapters 70A.205 and 70A.300 RCW.
- B. The Signatory Cities hereby choose, under RCW 70A.205.040(3)(c), to authorize Pierce County to prepare a plan for the Signatory Cities' solid waste management and to incorporate Signatory City plans in the County's comprehensive 2021 Tacoma-Pierce County Solid & Hazardous Waste Management Plan ("Plan").
- C. The Signatory Cities agree that County will coordinate development of the Plan through the Pierce County Solid Waste Advisory Committee (SWAC), an advisory citizen board which includes Signatory City representation.
- D. The Signatory City executing this individual Agreement agrees that by doing so, it is entering into an agreement among the County and all Signatory Cities, binding County and all Signatory Cities to the terms set forth in this Agreement.

III. OBLIGATIONS

A. County

- 1. County, at its own expense, will prepare, and maintain in a current condition, the Plan, including plans for the Signatory Cities. As part of this obligation, County will circulate drafts to the Signatory Cities for review and comment and will circulate final drafts to the Signatory Cities for approval or rejection.
- 2. The County will coordinate planning activities with the City of Tacoma and incorporate materials submitted by Tacoma into the Plan.
- 3. County will implement and comply with applicable elements of an adopted Plan and any updates thereto.

B. Signatory Cities

- 1. Each Signatory City, at its own expense, will review and respond to draft versions of the Plan and updates thereof.
- 2. Each Signatory City, at its own expense and following its own procedures, will either approve the final draft of the Plan or of any update or will instead

decide whether to change the final draft as a result of a Signatory City response.

4. County will provide the Signatory Cities with the final draft for each Signatory City to consider for approval under that City's own governing procedures.
5. Upon adoption, as defined herein, County will submit the adopted final draft to Ecology.

C. Initiating Amendments and Updates

1. Either the County or any Signatory City may propose amendments to the Plan to keep the Plan in a current condition. Upon such proposal, County shall conduct the Plan development process as outlined in this section.
2. The County shall prepare Plan updates as required by Chapter 70A.205 RCW or by Ecology.

VII. PLAN OR UPDATE ADOPTION

The Plan, any Plan update, and any replacement Plan are adopted when the Plan or update has been fully approved, under each approving Party's governing procedures, by any combination of Signatory Cities and of the County representing 75% of the population living within the Pierce County Solid Waste Management System's geographic area. The Pierce County Solid Waste Management System includes all of Pierce County except the City of Tacoma and Joint Base Lewis McChord. To determine the 75% threshold, the Parties agree to use the population numbers maintained by the Washington State Office of Financial Management. Each Party hereby agrees to be bound by and comply with any Plan or update that is so approved, even if that Party has not itself approved it, reserving such a Party's right to end its participation in this Agreement as set forth herein.

VIII. TERM

- A. Commencing on the Effective Date, as defined herein, the term of this Agreement is twenty (20) years.
- B. A Signatory City may withdraw from this Agreement before expiration of the term, but only upon submission of its own solid waste management plan and its own hazardous waste plan, satisfying all requirements for such plans under Washington State law. To allow time to prepare and obtain approval of those required plans, a Signatory City must provide 12 month's advance written notice to County before the proposed withdrawal date. Withdrawal will not be effective until that proposed withdrawal date or until full approval of the required plans, whichever date is later.
- C. Notwithstanding any other terms of this Agreement, if sufficient funds are not appropriated or allocated by any Party's legislative body for that Party's obligations under this Agreement for any future fiscal period, that Party will not be required to meet those obligations after the end of the fiscal period through which funds have been appropriated and allocated, unless authorized that Party's legislative body,

prepare and deliver to the Pierce County Auditor that Signatory City's own solid waste management plan for integration into the Plan.

3. Signatory Cities will implement and comply with applicable elements of an adopted Plan and any updates thereto.

C. Budget and property

No financing, joint budget, or joint property acquisition is required for the joint and cooperative exercise of local government powers under this Agreement. Each Party is responsible for the expenses listed as its obligation above and shall also be responsible to acquire, hold, or dispose of any real or personal property needed to meet its obligations under this Agreement.

IV. DISPUTE RESOLUTION

- A. Any disputes arising under the terms of this agreement shall be resolved through a negotiated effort to reach consensus. The Parties may agree to mediation as part of such effort. If the Parties are unable to resolve the dispute, the Parties hereby agree to arbitration. The Parties shall attempt to agree on an arbitration administrator, a set of arbitration rules, and a single arbitrator. If they cannot, then the Parties hereby agree to select the arbitrator or arbitration panel and to conduct the arbitration under the administration and rules of JAMS Seattle Mediation, Arbitration and ADR Services. The decision of the arbitrator or arbitration panel shall be considered final. In any dispute, each Party shall be responsible for its own attorney fees and other costs, and each disputing Party shall pay an equal share of the costs of arbitration, mediation, or other alternative dispute resolution.

V. ADDITIONAL MUNICIPALITIES

- A. Additional municipal entities may join the agreement among County and all Signatory Cities if that municipal entity's governing body agrees to the then current terms of this Agreement (including any amendments) pursuant to RCW 39.34.030(2) and executes an identical individual copy of the Agreement.

VI. PLAN DEVELOPMENT PROCESS

- A. The Parties agree to the following process for development of the Plan, updates to the Plan, and replacement of the Plan.
- B. Process
 1. With input from SWAC, County staff will develop a draft and circulate that draft to Signatory Cities and to the Washington State Department of Ecology (Ecology).
 2. Signatory Cities will provide responsive comments, if any. If a Signatory City has not provided a response 30 days after receiving the draft, County may presume that Signatory City has no response and is not seeking any change to the draft.
 3. After good faith consideration of any responses from Signatory Cities and Ecology, County staff will prepare a final draft. County has discretion to

PROVIDED THAT, each Party is and remains obligated to comply with an adopted Plan and any updates thereto regardless of fund allocation or appropriation. No penalty or expense shall accrue to the affected Party in the event this provision applies.

- D. The Parties do not anticipate that this Agreement will result in the joint ownership or possession of any real or personal property. Upon expiration or earlier termination, there will be no jointly held property needing disposition. Each Party will remain responsible for its own costs, whether incurred during this Agreement or otherwise.

IX. EFFECTIVE DATE

- A. This Agreement shall be effective after it is approved by the Pierce County Council and executed by the Pierce County Executive, which shall occur only after the Signatory City has fully executed it.

X. NOTICE

- A. Notices required by or related to this Agreement shall be in writing and sent by either: (a) United States Postal Service first class mail, postage pre-paid; (b) personal delivery; or (c) by email to the email addresses designated below, if the subject line indicates that the email is formal notice under this Agreement and also references the Pierce County contract number designation. The notice shall be deemed delivered on the earlier of: (a) Actual receipt; (b) Three (3) business days from deposit in the United States mail; or (c) the day and time the email message is received by the recipient's email system, but emails received between 5:00 PM and 8:00 AM will be considered delivered at the start of the next business day. Notices shall be sent to the following addresses:

Pierce County contact information:

Contract Services
950 Fawcett Avenue, Suite 200
Tacoma, WA 98402
pcpwcontractservices@piercecountywa.gov

City of Bonney Lake Contact information:

Neil Johnson Jr., Mayor
9002 Main Street East, Bonney Lake, WA 98391
johnsonn@ci.bonney-lake.wa.us

- B. Any Party, by written notice to the others in the manner herein provided, may designate a physical or email address different from that set forth above.

XI. ADMINISTRATOR

No separate entity or joint board is established by this Agreement. The manager of the Sustainable Resources Division of the Pierce County Planning and Public Works Department shall be the Agreement Administrator. If a Division of that name ceases to exist, the manager of whatever County office succeeds to its responsibilities shall be the Agreement Administrator.

XII. MUTUAL INDEMNIFICATION

To the extent of its comparative liability, each Party agrees to indemnify, defend and hold the other Party, its elected and appointed officials, employees, agents, and volunteers, harmless from and against any and all claims, damages, losses, and expenses, including but not limited to court costs, attorney's fees, and alternative dispute resolution costs, for any injury or damage of any kind which are alleged or proven to be caused by an act or omission, negligent or otherwise, of the indemnifying Party, its elected and appointed officials, employees, agents, or volunteers.

A Party shall not be required to indemnify, defend, or hold the other Party harmless if the claim, damage, loss, or expense for any injury or damage of any kind is caused by the sole act or omission of the other Party.

The parties agree to maintain a consolidated defense to claims made against them and to reserve all indemnity claims against each other until after liability to the claimant and damages, if any, are adjudicated. If any claim is resolved by voluntary settlement and the Parties cannot agree upon apportionment of damages and defense costs, they shall submit apportionment to binding arbitration.

With respect to the performance of this Agreement and as to claims against the other Party, its officers, agents and employees, the indemnifying Party expressly waives its immunity under Title 51 of the Revised Code of Washington, the Industrial Insurance Act, for injuries to its employees and agrees that the obligations to indemnify, defend and hold harmless provided in this Agreement extend to any claim brought by or on behalf of any employee of the indemnifying Party. This waiver is mutually negotiated by the parties to this Agreement.

XIII. ENTIRE AGREEMENT AND MODIFICATION

This Agreement embodies the entire agreement and understanding between the Parties hereto with respect to its subject matter and supersedes all prior agreements and understandings, whether written or oral, relating to its subject matter. No amendment or modification of this Agreement shall be valid unless made in writing and signed by each of the Parties.

XIV. CHOICE OF LAW, VENUE AND RESPONSIBILITY FOR ATTORNEY FEES AND COSTS

This Agreement and all issues relating to its validity, interpretation, and performance shall be governed by and interpreted under the laws of the State of Washington without regard to conflict of law provisions. In the event any suit, arbitration, or other proceeding is instituted to enforce any term of this Agreement, the Parties specifically understand and agree that venue will be in Pierce County, Washington. In the event of any dispute related to this Agreement, whether pursued in court or otherwise, each Party shall be responsible for its own actual attorney fees and costs.

XV. SEVERABILITY

If any provision of this Agreement is held to be illegal, invalid, or unenforceable, such provision shall be fully severable, and the remainder of this Agreement shall remain in full force and effect.

XVI. RECORDING OR PUBLIC LISTING

The Parties agree that this Agreement, after full execution, either will be recorded with the Pierce County Auditor or listed by subject on Pierce County's web site or other electronically retrievable public source, as required by RCW 39.34.040.

XVII. COUNTERPARTS

This Agreement may be executed in as many counterparts as may be deemed necessary or convenient, each of which, when so executed, shall be deemed an original, but all such counterparts shall constitute but one and the same instrument. Digital signatures, including those transmitted by e-mail (PDF attachment) or facsimile transmission shall be acceptable.

IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

CITY OF BONNEY LAKE:

PIERCE COUNTY:

DocuSigned by:
Neil Johnson, Jr. 11/18/2021 | 8:47 AM PST
20835586C281400
Neil Johnson Jr., Mayor Date **Approved as to Legal Form Only:**

DocuSigned by:
[Signature] 6/2/2022
Prosecuting Attorney Date

Approved:

DocuSigned by:
[Signature] 5/12/2022
Department Director Date

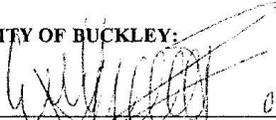
DocuSigned by:
[Signature] 5/12/2022
Finance Director Date

DocuSigned by:
[Signature] 6/2/2022
County Executive Date

Appendix V – Interlocal Agreements

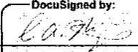
IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

CITY OF BUCKLEY:

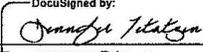

Beau Burkett, Mayor
Date: 01/12/2022

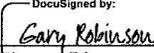
PIERCE COUNTY:

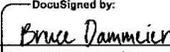
Approved as to Legal Form Only:

DocuSigned by:

Prosecuting Attorney
6/2/2022
Date

Approved:

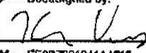
DocuSigned by:

Department Director
5/12/2022
Date

DocuSigned by:

Finance Director
5/12/2022
Date

DocuSigned by:

County Executive
6/2/2022
Date

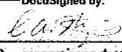
IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

TOWN OF CARBANADO:

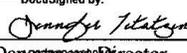
DocuSigned by:
 6/14/2022
Kevin Vasey, Mayor Date

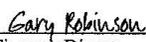
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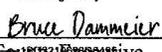
Approved as to Legal Form Only:

DocuSigned by:
 6/30/2022
Prosecuting Attorney Date

Approved:

DocuSigned by:
 6/14/2022
Department Director Date

DocuSigned by:
 6/14/2022
Finance Director Date

DocuSigned by:
 6/30/2022
County Executive Date

IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

TOWN OF EATONVILLE:

DocuSigned by:
David Baulditz 6/2/2022
Mike Schmitt, Mayor Date

PIERCE COUNTY:

Approved as to Legal Form Only:

DocuSigned by:
[Signature] 6/2/2022
Prosecuting Attorney Date

Approved:

DocuSigned by:
[Signature] 6/2/2022
Department Director Date

DocuSigned by:
Gary Robinson 6/2/2022
Finance Director Date

DocuSigned by:
Bruce Dammeier 6/2/2022
County Executive Date

IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

CITY OF FIRCREST:

DocuSigned by:
Scott Pingel 5/12/2022
Scott Pingel, City Manager Date

PIERCE COUNTY:

Approved as to Legal Form Only:

DocuSigned by:
[Signature] 6/2/2022
Prosecuting Attorney Date

Approved:

DocuSigned by:
[Signature] 5/12/2022
Department Director Date

DocuSigned by:
Gary Robinson 5/12/2022
Finance Director Date

DocuSigned by:
Bruce Dammier 6/2/2022
County Executive Date

Appendix V – Interlocal Agreements

IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

CITY OF LAKEWOOD:

DocuSigned by:
Heidi Ann Watcher 5/12/2022
Heidi Watcher, City Attorney Date

DocuSigned by:
Briana Schumacher 5/13/2022
Briana Schumacher, City Clerk Date

DocuSigned by:
John Caulfield 5/12/2022
John Caulfield, City Manager Date

PIERCE COUNTY:

Approved as to Legal Form Only:

DocuSigned by:
[Signature] 5/17/2022
Prosecuting Attorney Date

Approved:

DocuSigned by:
[Signature] 5/13/2022
Department Director Date

DocuSigned by:
Gary Robinson 5/13/2022
Finance Director Date

DocuSigned by:
Bruce Dammeir 5/18/2022
County Executive Date

IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

CITY OF GIG HARBOR:

DocuSigned by:
Tracie Martley 5/16/2022
Kit Keith Mayor Date

PIERCE COUNTY:

Approved as to Legal Form Only:

DocuSigned by:
[Signature] 5/17/2022
Prosecuting Attorney Date

Approved:

DocuSigned by:
[Signature] 5/31/2022
Department Director Date

DocuSigned by:
Gary Robinson 5/16/2022
Finance Director Date

DocuSigned by:
Bruce Dammeier 5/31/2022
County Executive Date

IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

CITY OF MILTON:

DocuSigned by:
Shanna Storm Sherrell 5/19/2022
Shanna Storm Sherrell, Mayor Date

PIERCE COUNTY:

Approved as to Legal Form Only:

DocuSigned by:
[Signature] 5/19/2022
Prosecuting Attorney Date

Approved:

DocuSigned by:
[Signature] 5/19/2022
Department Director Date

DocuSigned by:
Gary Robinson 5/19/2022
Finance Director Date

DocuSigned by:
Bruce Dammeier 5/20/2022
County Executive Date

Appendix V – Interlocal Agreements

DocuSign Envelope ID: E271C285-6712-4367-A988-625A36206344

IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

CITY OF ORTING:

DocuSigned by:
Joshua Penner 2/7/2022
5DBA32855A334F9
Joshua Penner, Mayor Date

PIERCE COUNTY:

Approved as to Legal Form Only:

DocuSigned by:
EA. P. S. 6/27/2022
89BCF7AC5CD04C6
Prosecuting Attorney Date

Approved:

DocuSigned by:
Jennifer Takaya 6/27/2022
4599DD210980F33
Department Director Date

DocuSigned by:
Gary Robinson 6/27/2022
Finance Director Date

DocuSigned by:
Bruce Dammeir 6/27/2022
1B02219528D549E
County Executive Date

Appendix V – Interlocal Agreements

DocuSign Envelope ID: 255A6128-E46A-46C6-89DE-064EB432111A

IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

CITY OF PUYALLUP:

DocuSigned by:
Steve Kirkelie 12/21/2021
3E2B449FE1D8446
Steve Kirkelie, City Manager Date

CITY OF PUYALLUP:

DocuSigned by:
Shawn Arthur 12/21/2021
CAE518BD78BA46C...
Shawn Arthur, Deputy City Attorney Date

PIERCE COUNTY:

Approved as to Legal Form Only:

DocuSigned by:
[Signature] 6/15/2022
Prosecuting Attorney Date

Approved:

DocuSigned by:
Jennyfer Tolataga 6/14/2022
Department Director Date

DocuSigned by:
Gary Robinson 6/14/2022
Finance Director Date

DocuSigned by:
Dan Grimm 6/23/2022
County Executive Date

Appendix V – Interlocal Agreements

SC-108737: Comprehensive Solid and Hazardous Waste Management Planning within Pierce County

IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

CITY OF ROY:

DocuSigned by:
Kelli Loukin 5/17/2022
Kelli Loukin, City Clerk-Treasurer Date

DocuSigned by:
Rawlin McDaniel 5/17/2022
Rawlin McDaniel, Mayor Date

DocuSigned by:
Lisa Marie Roybal Elliott 5/19/2022
Lisa Marie Roybal Elliott, City Attorney Date

PIERCE COUNTY:

Approved as to Legal Form Only:

DocuSigned by:
David... 5/19/2022
Prosecuting Attorney Date

Approved:

DocuSigned by:
Shirley Titatay 5/19/2022
Department Director Date

DocuSigned by:
Gary Robinson 5/19/2022
Finance Director Date

DocuSigned by:
Bruce Dammier 5/19/2022
County Executive Date

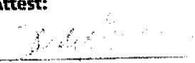
Appendix V – Interlocal Agreements

IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

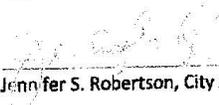
CITY OF RUSTON:



Bruce Hopkins, Mayor
Date 11/3/22

Attest:


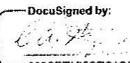
Judy Grams, City Clerk

Approved as to form:


Jennifer S. Robertson, City Attorney

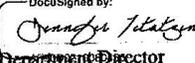
PIERCE COUNTY:

Approved as to Legal Form Only:

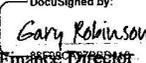
DocuSigned by:


Prosecuting Attorney
Date 6/15/2022

Approved:

DocuSigned by:


Department Director
Date 6/15/2022

DocuSigned by:


Finance Director
Date 6/15/2022

DocuSigned by:


County Executive
Date 6/23/2022

IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below

TOWN OF SOUTH PRAIRIE:

Carolyn Norris
Carolyn Norris, Mayor Date

PIERCE COUNTY:

Approved as to Legal Form Only:

DocuSigned by:
D.A. Th... 5/27/2022
Prosecuting Attorney Date

Approved:

DocuSigned by:
Donna J. Tatalya 5/31/2022
Department Director Date

DocuSigned by:
Gary Robinson 5/27/2022
Finance Director Date

DocuSigned by:
Bruce Dammeier 5/31/2022
County Executive Date

Appendix V – Interlocal Agreements

IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

TOWN OF STEILACOOM:

PIERCE COUNTY:

Dick Muri 10/19/2021 Approved as to Legal Form Only:
Dick Muri, Mayor Date

DocuSigned by:
E. G. ... 6/2/2022
Prosecuting Attorney Date

Approved:

DocuSigned by:
Orange ... 5/12/2022
Department Director Date

DocuSigned by:
Gary Robinson 5/12/2022
Finance Director Date

DocuSigned by:
Bruce Dammeir 6/2/2022
County Executive Date

IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

CITY OF SUMNER:

DocuSigned by:
Kathy Hayden 5/13/2022
Kathy Hayden, City Mayor Date

DocuSigned by:
Andrea Marquez 5/12/2022
Andrea Marquez, City Attorney Date

PIERCE COUNTY:

Approved as to Legal Form Only:

DocuSigned by:
[Signature] 5/17/2022
Prosecuting Attorney Date

Approved:

DocuSigned by:
[Signature] 5/13/2022
Department Director Date

DocuSigned by:
Gary Robinson 5/13/2022
Finance Director Date

DocuSigned by:
Bruce Dammeier 5/18/2022
County Executive Date

Appendix V – Interlocal Agreements

IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

CITY OF UNIVERSITY PLACE:

DocuSigned by:
Stephen P. Sugg 7/12/2022
Stephen P. Sugg, City Manager Date

PIERCE COUNTY:

Approved as to Legal Form Only:

DocuSigned by:
[Signature] 7/14/2022
Prosecuting Attorney Date

Approved:

DocuSigned by:
[Signature] 7/12/2022
Department Director Date

DocuSigned by:
[Signature] 7/12/2022
Finance Director Date

DocuSigned by:
[Signature] 7/14/2022
County Executive Date

Appendix V – Interlocal Agreements

IN WITNESS WHEREOF, this contract will be fully executed when all parties have signed below.

TOWN OF WILKESON:

DocuSigned by:
JEFF SELLERS 6/16/2022
Jeff Sellers, Mayor Date

PIERCE COUNTY:

Approved as to Legal Form Only:

DocuSigned by:
[Signature] 6/21/2022
Prosecuting Attorney Date

Approved:

DocuSigned by:
[Signature] 6/16/2022
Department Director Date

DocuSigned by:
Gary Robinson 6/16/2022
Finance Director Date

DocuSigned by:
Bruce Dammeier 6/22/2022
County Executive Date

Programmatic Guidelines Retained from the 2000 Solid Waste Plan

The following are policy support recommendations retained from the 2000 Solid Waste Plan. Most of them provide guidance for actions to take if an event should occur or they offer basic support for the system.

Waste Reduction and Recycling (Chapter 4)

#4-1 For the cities and towns using the County's waste management system, the Pierce County Solid Waste Division* should continue to serve as the agency responsible for promoting county-wide waste reduction and recycling activities; to provide educational resources and technical assistance; and to evaluate efforts of these activities. The County should continue to coordinate its public outreach with the City of Tacoma, the Tacoma-Pierce County Health Department and other agencies.

#4-2 Pierce County should continue to provide adequate funding and staffing to assist cities and towns in implementing waste reduction and recycling activities discussed in the Plan. The Pierce County Solid Waste Division* should remain the coordinator of these programs for the County and those cities and towns using the County's waste management system.

#4-32 Pierce County should retain the use of rate-based incentives in promoting waste reduction and recycling. The County should work closely with private collection companies serving the County to identify equitable, implementable rate strategies that will be acceptable to the Washington Utilities and Transportation Commission. Pierce County should also continue to work directly with the Commission to identify and implement these types of alternatives.

#5-4 The City of Tacoma will continue to provide solid waste collection and disposal services within its corporate city limits. The City shall retain the right to determine all minimum service levels and collection and disposal rates as adopted by the Tacoma City Council, pursuant to RCW 35.21.120.

#7-4 As becomes necessary to ensure sufficient transfer facilities, Pierce County should obtain the use of additional transshipment facilities, public or private, for transferring waste to out-of-county disposal facilities.

#7-5 Pierce County encourages private transfer facilities located within Pierce County to reserve transfer capacity for waste generated within Pierce County.

Appendix W – Retained Policies

Solid Waste Processing Technologies (Chapter 6)

#6-3 Pierce County encourages private recycling, composting, and processing facility operators located within Pierce County to reserve processing capacity for materials generated within Pierce County.

#6-5 Only those technologies with demonstrated reliability should be implemented as primary processing alternatives of the solid waste management system. However, governments and the private sector may wish to conduct pilot programs and explore new and innovative ideas. The appropriate regulatory agencies shall determine whether or not any potential technology meets the requirements of this Plan.

#6-6 Only processing technologies that are protective of human health and the environment (for example those that create no adverse odor impacts to neighboring properties) should be deemed to be in compliance with the Solid Waste Management Plan. As new processing technologies emerge, the environmental and health impacts should be carefully considered.

#6-8 With any alternative technology project, the operating vendor must provide sufficient financial assurances to minimize financial risk to the public for environmental and technical performance. Each city, town, and the County Council will independently determine the level of financial and environmental assurances that will be required for projects under their own jurisdiction.

Disposal and Landfilling (Chapter 8)

#8-1 If there is a lack of landfill capacity in Pierce County for solid waste generated in the Pierce County solid waste management system in the future or if the county determines by resolution that out-of-county disposal options are cost effective, the County may contract for the use of an out-of-county landfill.

#8-3 When the Tacoma-Pierce County Health Department and the Pierce County Planning and Public Works Department review permit applications to site, develop, and operate new MSW landfills, or to expand existing MSW landfills in Pierce County or whenever Pierce County is considering decisions to contract for MSW disposal, the agencies must include in the decision-making process an evaluation of:

- Effect on public health and safety;
- Protection of the environment, including aquifers and waters of the State;
- Pierce County's waste generation habits and trends with an assurance that options are adequate for meeting Pierce County's waste generation needs;
- Competition for disposal services;
- Meeting the potential emergency needs should a primary disposal site suddenly become unavailable; and

Appendix W – Retained Policies

- The costs of using various alternatives which will be analyzed and verified through the use of publicly available data published by other government organizations, formal requests for proposals, qualification or information (RFP, RFQ, or RFI), or through another method as recommended by the Solid Waste Advisory Committee.

The Solid Waste Division* shall have primary responsibility for the evaluation, but will work with the Planning and Public Works Department, the Tacoma-Pierce County Health Department, and the applicant to minimize duplication of effort.

#8-4 MSW landfill expansions within unincorporated Pierce County shall undergo a permitting process with adequate public notice and opportunity for public comment. Expansions shall be required to meet the regulations in effect at the time of expansion and to protect public health and safety and the environment. Expansions shall be prohibited for any landfill that is in violation of existing surface water or groundwater standards.

#8-5 The County shall require, to the extent allowed by law, private MSW disposal companies located within unincorporated Pierce County to reserve existing disposal capacity to handle MSW generated within the Pierce County solid waste management systems. When negotiating disposal contracts with any such facility owner/operator, the County shall propose terms which:

- Reserve adequate disposal capacity to serve the Pierce County solid waste disposal system as projected in the 'County-wide' column of Table 8-2, 'Projected Long Term Disposal Needs;'
- Require the mutual agreement of the contracting parties before the contractor can bring in waste from outside the County solid waste management system.

#8-6 No municipal solid waste landfill located within unincorporated Pierce County shall accept waste from outside the Pierce County solid waste management systems without addressing the impacts of that action. The impacts under the facility's conditional use permit shall be reviewed by the Pierce County Hearing Examiner. The impacts under the facility's solid waste handling permit shall be reviewed by the Tacoma-Pierce County Health Department. These reviews shall be conducted as a public process and follow the applicable laws and regulations governing the conditional use permit and the solid waste handling permit processes. The results of the review shall be reported at a Pierce County Council meeting.

#8-7 While this Plan recognizes and describes the complex authorities and regulation of waste disposal, nothing in the Plan specifically authorizes or specifically prohibits the importation of solid waste from outside the County solid waste management systems to MSW landfills located in unincorporated Pierce County.

#8-8 Before approving the acceptance of municipal solid waste from outside the Pierce County solid waste management systems or before approving a substantial change in the design or operation of a municipal solid waste landfill within unincorporated Pierce County, the TPCHD shall give the public notice of the issue and provide the public an opportunity to be heard.

Enforcement and Administration (Chapter 10)

#10-4 When Pierce County and the Cities and Towns (excepting Tacoma and Ruston**) enter into Interlocal Agreements to implement this plan, those Agreements shall require the planning partners to work cooperatively in a common solid waste transfer and disposal system. This is necessary to: provide economies of scale; avoid unnecessary and costly duplication of services; and minimize the number of solid waste related facilities which must be developed and permitted to implement this plan.

#10-5 Where practical, the solid waste management system should be advanced through an open competitive procurement process to benefit public interest.

#10-8 The Tacoma-Pierce County Health Department shall implement ways to increase public notice, input, and involvement in the solid waste handling facility permit application review process. The following issues were identified as particular areas the Health Department should review:

- Formal public notice and comment periods when issuing and modifying solid waste handling facility permits.
- Public meetings on the basis of requests, a significant degree of public interest, or to clarify one or more aspects important to compliance with the requirements of applicable permit; and
- Identification of impacts which may occur across jurisdictional boundaries.

#10-9 When an applicant applies for a Solid Waste Permit, the Tacoma-Pierce County Health Department shall notify the property owner(s) and verify that the owners understand they will be responsible for clean-up of any waste left by any solid waste facility or activity on their property.

*The Pierce County Solid Waste Division is now known as Sustainable Resources.

**Ruston is no longer serviced by the City of Tacoma and therefore now included in this exception.

SHWMP Amendments

Amendments are changes made to the SHWMP within each planning cycle of the original document or its updates. Typically, these are minor adjustments to the plan such as updating planning information, changing the list of designated recyclables, or adding language to an existing management action to target grant funding. Amendments do not create major structural changes to the county's solid waste program. A plan amendment does not alter the five-year requirement for review and update. The following procedures guide the amendment process:

1. Proposed amendments to the plan may originate from any partner in the Solid & Hazardous Waste Management Plan or the SWAC.
2. The SWAC will be responsible for reviewing all proposed amendments and forwarding a recommendation to the Pierce County Council.
3. Upon receiving the SWAC recommendation, the Pierce County Council may approve, approve with changes, disapprove, or remand it back to the SWAC for further consideration.
4. The county shall forward all approved amendments to the Department of Ecology within 45 days of adoption.

SHWMP Updates

RCW 70A.205.075 requires solid waste management plans to undergo review and update every five years. The update process provides the county an opportunity to review the entire solid waste program. This should include reviewing data on county waste generation and collection and diversion; evaluating progress in achieving SHWMP management actions; analyzing changes in county social and economic conditions; and integrating changes related to new local and state laws. The following planning process steps described below are a general guide for updating the SHWMP.

1. Pierce County Solid Waste Program staff will:
 - a. Update or include new data critical for evaluating the program
 - b. Identify past, current, and future key trends in county, state, and regional solid waste management

- c. Develop or update management actions that respond to trends and achieve the program’s mission statement.
2. County Solid Waste Program staff will prepare a SHWMP first draft with a Washington Utilities and Transportation (WUTC) Cost Assessment Form for review by the SWAC, the cities, and the public.
3. An optional informal review of the first draft SHWMP by staff at the Department of Ecology (ECY) Solid Waste Management Program is beneficial for identifying and resolving potential issues before submittal of the preliminary draft.
4. County Solid Waste Program staff will incorporate appropriate changes based on the comments received on the first draft. This version of the document now becomes the preliminary draft.
5. The SWAC will make a recommendation on the preliminary draft SHWMP for consideration by the Pierce County Council (PCC).
6. The PCC will consider the SWAC recommendation and the preliminary draft of the SHWMP. The PCC may approve, approve with changes, or send it back to the SWAC for further consideration. Once the PCC is satisfied with the preliminary SHWMP draft, the county then forwards it to the Department of Ecology to initiate their formal review.
7. A SHWMP preliminary draft package to submit to the Department of Ecology must include the following additional items:
 - a. Transmittal letter requesting review of the preliminary draft
 - b. Washington Utilities and Transportation (WUTC) Cost Assessment Questionnaire
 - c. The interlocal agreements agreeing to joint solid waste planning through the SWMP
 - d. SEPA checklist and threshold decision
 - e. Minutes from the SWAC meeting recommending the preliminary draft SWMP to the PCC for their consideration
 - f. SWAC bylaws and list of participants

8. Upon receipt, the Department of Ecology, the WUTC, and the Washington State Department of Agriculture have 120 days to review and provide comments on the preliminary draft.
9. The Department of Ecology will forward its comments on the preliminary draft to the county. The county will then consider the comments (there is no time limit imposed on the county) and prepare a final draft and a submittal package that includes all items in Step 8, with the addition of the following items:
 - a. Minutes from the SWAC meeting approving the final draft SWMP;
 - b. Resolutions by the county and the cities adopting the SWMP; and
 - c. A response summary to the comments to the preliminary draft.
10. There is a 45-comment period for the Department of Ecology to review the final draft SWMP and send notice to the county that it approves or denies the final draft. If the Department of Ecology does not respond, the final draft is approved.
11. If approved, there is no further action required of the county.

Appendix Y – Public Comment and County Responses

| Comment Number | Comment Received | Pierce County Response |
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| Public Outreach Process | | |
| 1 | We need a permanent drop off site in Sumner for hazmat materials. Hidden Valley is too far to go. | Chapter 7: Moderate Risk Waste (page 55) describes the existing collection facilities. In the next 20 years additional facilities may be necessary based on population growth, but will be dependent on additional funding for HHW collection. |
| 2 | I am middle aged to older and very committed to a sustainable environment. I am a medical professional and extremely busy. I tried to load your plan on my phone and it took a long time, so I moved on. I bet most people won't take the time to view it. I would like to continue curbside recycling and add curbside glass recycling. I hope you have an aggressive plan to continue recycling. You should educate and promote repurposing, reusing, and donating items as well to eliminate landfill waste. Thank you. | Pierce County's 20-year SHWMP is a lengthy document, with many elements required by The Washington State Department of Ecology. Chapter 5: Recycling (page 42) describes how curbside recycling is available throughout Pierce County and how glass has never been accepted in the County's commingled recycling system. We will add text stating that recycling industry best practices show that the proper way to collect glass is separately from other recyclables in order to maximize the value of all the recyclables (page 45). It does not make environmental sense to drive separate glass routes with multiple trucks and their associated greenhouse gas emissions around the entire county just for this material. Chapter 4: Waste Reduction (page 37) describes our commitment to promoting waste reduction and lists many existing waste reduction programs. |
| 3 | I'm concerned about PFAs in the landfill. Much of the trash has forever chemicals, so how is this being handled? What can customers do to help? | PFAs in the landfill is an emerging issue. At this time, EPA and Ecology are working to better understand the implications of these chemicals. We anticipate this issue to be discussed in our five-year update. |

Appendix Y – Public Comment and County Responses

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| <p>4</p> | <p>I think you should move the "get energy from garbage" item in the upside down triangle image up in priority. More emphasis should be put on using the materials to get energy, especially since the price of electricity is constantly going up and eco-fanatics are constantly attempting to force the removal of more dams in our state and unlike Florida (who has five times the number of nuclear power plants than we do) we are not a nuclear-friendly state for some reason. "Cutting off the nose to spite the face."</p> <p>You should take more time to vet and inspect how the garbage disposal companies treat their customers. I understand this covid situation was treated with knee-jerk reactions by all government agencies and administrations at both the state and federal level, however a lack of employees should not preclude treating your customers with respect and civility. I had never been so badly treated by Murray as during the previous year and a half.</p> <p>We are locked into their monopoly and have no choice of which company we use for garbage pick-up; they were chosen by YOU for us and YOU have a responsibility to ensure that customers are treated properly. During the past year and a half there were promises made by the garbage company that were never fulfilled. The lack of caring and ignoring of duties were explained away due to "lack of garbage drivers". While this may be a symptom, it does not excuse the lack of follow-through. As an example, Even before covid, when they say they will send a truck back out to pick up missed cans (not due to customer fault) then they should follow up and ensure it was done.</p> <p>Most of the so-called customer service representative's promises over the phone were not completed and were never followed up on, and only excuses, after sometimes five calls, were offered. Complaints to the companies directly is akin to the chickens complaining to the fox in the pen with them. It is almost worth dropping their expensive pick-up service and taking a bi-weekly trip to the dump myself...and I'm sure I'm not the only one thinking this way.</p> <p>In summation, while you will probably gloss over the specifics of my comments, I'm hoping that at least the tone has made a point. Just like in the 2016 presidential election when *everybody just knew* who was going to win, and then were stunned to be proven wrong, you simply cannot assume that all county citizens are fine with whatever you do just because they don't communicate to you--it is the definition of "conservative" to (among other things) not cause waves, not march or riot, and not draw attention to yourself. This should temper your decisions that impact our daily lives.</p> <p>Thank you for your time reading this missive.</p> | <p>In <i>Introduction: Emerging Issues</i> (page 9) the Materials Management Hierarchy, which ranks the various management strategies from most to least environmentally preferred, comes from the United States Environmental Protection Agency and a citation for this has been added.</p> <p>The County does not have oversight of the service providers. <i>Chapter 9: Solid Waste Collection</i> (page 73) explains that the companies providing solid waste collection service in the county have exclusive rights in their service areas to collect residential and commercial garbage and residential recycling through contracts with local cities and towns and through permits issued by the Washington Utilities and Transportation Commission (WUTC). Per the WUTC, if a customer has a dispute with a regulated utility or transportation company the customer should first try to resolve it with the company. If the customer is unable to resolve the issue with the company the customer may file a complaint with the UTC.</p> |
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Appendix Y – Public Comment and County Responses

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| 5 | <p>There are several things we would like. a) Composting of food products with available bins and pick up, b) Glass recycling with pick up.</p> | <p><i>Chapter 9: Organics Management</i> (page 49) describes how Pierce County does not have the appropriate infrastructure to handle food waste in our existing facilities, which are at capacity. If funding becomes available, we will explore new technologies to handle food waste. <i>Chapter 5: Recycling</i> (page 42) describes how it does not make environmental sense to have separate curbside glass routes.</p> |
| 6 | <p>As low [sic] glass to be picked up on recycle days. Also allow shredded paper to recycled in Garden waste.</p> | <p><i>Chapter 5: Recycling</i> (page 42) describes how it does not make environmental sense to have separate curbside glass routes. Our composting system is designed for yard waste, not paper. <i>Chapter 5: Recycling</i> (page 46) describes the shred events the County hosts.</p> |
| 7 | <p>Suggest food establishments serve smaller portions. We usually by one entree and share. Hard to purchase food is grocery stores for 2 older people. Everything is super sized. Lots of waste. Need to have local places to leave glass, styrofoam, plastic plant containers, etc and other items not allowed in recycle bins to be left. Our town removed all of the recycling bins. More free classes/education on home composting. We already compost in our yard but space is limited. We also use reusable grocery bags, never buy water in single use containers. We use our own liquid reusable containers. Watch people buying cases of single use bottled water. Need to find ways to encourage others to do the same. Need more local year round farmer's markets. Ours is mostly crafts and food trucks not much in the way of fruits and vegetables.</p> | <p><i>Appendix G</i> contains a full list of recycling centers in the County. <i>Appendix E</i> contains a description of our public education programs and <i>Appendix F</i> contains a description of our waste reduction programs. As part of our work to support state efforts in reducing food waste we plan to continue offering education classes about at-home composting.</p> |

Appendix Y – Public Comment and County Responses

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| 8 | <p>1- the photos in your report are stunning; if you print poster size or larger prints, I would buy several for my home or office; you could generate profit toward a project or issue if you own the copyrights. 2- I was disheartened at the huge number of hazardous waste generators in the appendix. 3- I agree, it is vital that racial and economic disadvantages should not create a higher financial cost, nor longer trip to transfer stations, etc. 4- I'm concerned about long-term environmental damage from landfill sites, as well as concern about where the next landfill will be located for 2036 or before; 5- I wish yard waste pickup was free to Univ. Place residents. 6- I will recycle my old mattresses with SpringBack in Tacoma, was glad to learn about them through your site; I wish you, and like-minded people, would discover more items/ways that other objects could be re-used, perhaps creating a few jobs locally, not filling landfills and not needing transport away from PNW; 7- Thank you for the info on MedProject, I was concerned about whether there was a new program for TakeBack of medications, since it was so hard to take them back on a single, shortened Saturday twice a year; 8- Please increase the number of Shred collection dates, lately the trucks are full before the end of 3 hours and some of us in line are turned away; 9- Glad to hear about the plan to find a better way to collect paints and varnish etc.</p> | <p><i>Chapter 10: Transfer and Disposal</i> (page 86) describes the long-haul provisions in the existing contract that will keep the landfill open through 2036. The Planning Issues for that chapter (page 88) also states that a new MSW facility is not being considered as an alternative once the landfill reaches capacity. <i>Chapter 6: Organics Management</i> (page 52) explains how yard waste collection is already available for a minor fee based on transportation costs. In addition to county-sponsored shred events, we do link to other community-based shred events on our website. We refer to previous event data to determine capacity needs for future events. 2021 events were equipped with more trucks than usual as a surge in participation was anticipated due to the previously canceled events. We are also trying to discourage the shredding of unnecessary items and trying to educate residents better on what items are high priority to shred. More information can be seen on the shred event webpage.</p> |
| 9 | <p>Do you really expect the average person to read and understand all 242 pages? Really! A one or two page synopsis of the plan would make more sense. If an individual wanted to get into the minute details, he or she could refer back to the core document. I did not take the time to read it.</p> | <p>Comment noted</p> |

Appendix Y – Public Comment and County Responses

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| 10 | <p>The SHWMP doesn't relate to the 2008 Pierce County – PCRCD dba LRI Waste Handling Agreement [R2008-117 Exa] AGREEMENTS: (1 – Section 9 Research and Development) the parties jointly manage a Research & Development Program (Annually, the R&D Program will update the R & D Program Work Plan for inclusion in the Rate Setting and Services Guidelines & Annually, LRI will document that the level of spending on the R&D Program equaled the amount required in Section 9.2 and provide such documentation to the County); (2 – Section 10 Environmental Management System (ISO 14001)) implement an Environmental Management System (ISO 14001); (3 – Section 11 Performance Excellence) generate an annual report (the “Performance Excellence Report”) for publication, for posting on the County’s and LRI’s websites, and for circulation to the Pierce County Solid Waste Advisory Committee; (4 – Section 12 Education and Community Outreach) LRI will design and construct an Environmental Education Center on the LRI Landfill property (the “Education Center”); and, (5 – Section 13 Flow Control/Waste Diversion) As of March 1, 2009, the County Diversion Material shall consist of Yardwaste, but once the Company demonstrates to the County that it has the capability and capacity to handle Foodwaste, Foodwaste shall become a part of the County Diversion Program.</p> | <p>The 2008 Pierce County -- PCRCD dba LRI Waste Handling Agreement is the contract that helps Pierce County maintain the state waste disposal requirements.</p> <p>The County’s SHWMP is the policy document required by the state. RCW.70A.205.045 requires each county within Washington to prepare a coordinated, comprehensive solid waste management plan to arrange for solid waste and materials reduction, collection, and handling and management services and programs throughout the state, designed to meet the unique needs of each county in the state.</p> |
| 11 | <p>I come from Southern California and my Recycling was Paying CRV fee on each and every Beverage Purchased. California has Recycle Centers that allow News Papers, Plastics Bottles, Glass Bottles and Foil to be sold to the Recycle Center, which means not only would we get back the CRV fees we paid but extra for Recycling Foil, News Paper, Glass and Plastic Bottles. I believe the State of Washington should visit California and asked for Information regarding their Recycling Program.</p> | <p><i>Chapter 5: Recycling</i> describes how all recycling systems are local. Pierce County will continue to follow legislation in the State of Washington that could affect local recycling programs.</p> |
| 12 | <p>PLEASE add pick up service for recyclable glass!!!!!! It is very difficult to get the glass to my recycling center by myself, and every other garbage service I've had in WA state offers glass pick up.</p> | <p><i>Chapter 5: Recycling</i> (page 45) describes how it does not make environmental sense to have separate curbside glass routes.</p> |
| 13 | <p>We don't agree that plastic grocery bags are "single-use." We use them for all sorts of things, including storing our pairs of shoes in luggage when we travel.</p> | <p>Plastic bags that are thinner than the 2.25 mil gauge, commonly known as t-shirt grocery bags, are defined as "single-use." RCW 70A.530.010 defines "single-use plastic carryout bag" as any carryout bag that is made from plastic that is designed and suitable only to be used once and disposed.</p> |
| 14 | <p>We would like to "receive" email updates. . .</p> | <p>Comment noted</p> |

State of Washington - Department of Agriculture

Appendix Y – Public Comment and County Responses

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| 15 | After reviewing the preliminary draft of the <i>2021 Tacoma-Pierce County Solid and Hazardous Waste Management Plan (Plan)</i> , our agency does not see any current conflicting compliance issues related to the apple maggot quarantine, as prescribed in chapter 16-470-124 WAC. | Comment noted. Complete letter included in appendix. |
| Washington Utilities and Transportation Commission | | |
| 16 | The Washington Utilities and Transportation Commission (Commission) has completed its review of the revised cost assessment questionnaire for the preliminary draft of the Tacoma-Pierce County Solid Waste Management Plan (Plan) submitted on September 14, 2021. While this plan does have a cost impact on customers, Tacoma-Pierce County is taking steps to improve its waste stream by studying what contamination is in the stream and where it is coming from so that the County can find ways to address it. This should help preserve the County’s solid waste infrastructure. Commission staff has no further comment on the cost assessment questionnaire. | Comment noted. Complete letter included in appendix. |
| Department of Ecology - Section A: Revisions Required for Plan Approval | | |
| 17 (ECY 1) | Revised Code of Washington (RCW) 70A.205.045 (3) (c) & 7 (d) Six-year capital and acquisition projection and financing plan for capital and operational costs for the proposed programs: Incorporation of the web link to the updated Tacoma 2021-2026 Capital Improvement Plan 2021-2026 Final CFP.pdf (cityoftacoma.org) , and a specific reference to the solid waste section (pages 209-214) within appendix S, will fully address the above RCW. Appendix S also needs to be cross-referenced within chapter 1, Administration. | Updated link included and specific solid waste section referenced in <i>Appendix S</i> . <i>Appendix S</i> is also cross-referenced on page 23. |
| Department of Ecology - Section B: Recommended Revisions | | |
| 18 (ECY 2) | Referencing the Plan’s applicable five-year time frame: To make it clear what years the Plan covers, we recommend the years in the Plan title be changed to 2022 to 2027. This will act as a reminder that the Plan needs to be reviewed at least every five years RCW 70A.205.075 As an alternative option, the 5-year time frame could be referenced in the Plan Introduction chapter within the “Process of Updating the Plan” subsection. | Added language about the Plan being revised every 5-years on page 6, end of second paragraph. |
| 19 (ECY 3) | Background and context: It would be helpful to include more discussion of the operating and authorizing environment that helps define how solid waste is managed in the County. This could include descriptions of relevant legislation, including recently enacted laws related to plastics, the bag ban, the HEAL act, the Climate Commitment Act, etc. A good summary of some of these new developments can be found here - https://ecology.wa.gov/Waste-Toxics/Reducing-recycling-waste . Most plans also include some discussion of ECY’s solid and hazardous waste planning guidelines (that are woefully out of date, but what we have for now), etc. These | Recent relevant legislation is mentioned on page 10 and we have linked to Ecology's summary of legislation. Solid and hazardous waste guidelines are also linked to on page 6. |

Appendix Y – Public Comment and County Responses

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| | <p>help provide some context for what issues and topics are addressed in the Plan.</p> | |
| 20 (ECY 4) | <p>Emerging Issues: Recommend updating sections related to recent state plans, studies, and SW-related legislation: Senate Bill 5022, and the Plastic Bag Ban. Please add information to the Plan describing recently enacted solid waste related-legislation.</p> <p>Senate Bill 5397, RCW 70A.245 Recycling, Waste, and Litter Reduction: You can add the new information about plastic packaging rules and timelines for the bans. Update information on “Plastic Packaging Senate Bill 5397” Senate Bill 5397 precedes Senate Bill 5022 which was codified in 2021 as Chapter70A.245 RCW Recycling, Waste, and Litter Reduction In addition to other regulations, this new law sets the following notable requirements:</p> <ul style="list-style-type: none"> •Minimum Post-Consumer Recycled Content (PCR) Requirements. Minimum PCR content requirements are established for plastic beverage containers, trash bags, and household cleaning and personal care product containers. •Expanded Polystyrene Prohibitions. It is prohibited to sell or distribute in or into Washington three types of expanded polystyrene products: Portable containers designed for cold storage; Food service products; and Void filling packaging products. <p>These restrictions apply beginning June 1, 2023, for void filling packaging products, and June 1, 2024, for cold storage containers and food service products.</p> <ul style="list-style-type: none"> •Food Service Products on Request. Beginning January 1, 2022, food service businesses may only provide single-use utensils, straws, condiment packaging, and beverage cup lids only after affirming that the customer wants the product. •Information on Washington’s single-use plastic bag ban can be found here: https://ecology.wa.gov/Waste-Toxics/Reducing-recycling-waste/Waste-reduction-programs/Plastics/Plastic-bag-ban Note that the statewide bag ban went into effect on October 1st, 2021. | <p>A general overview of state legislation is now provided via the link on page 10.</p> |
| 21 (ECY 5) | <p>A locally defined plan amendment process is needed. I have attached an example from the 2021, Grays Harbor County SHWM plan. Recommend incorporation into the Administration Chapter or an additional appendix.</p> | <p>Amendment process is mentioned on page 6 and included in <i>Appendix X</i>.</p> |

Appendix Y – Public Comment and County Responses

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| 22 (ECY 6) | Regionalization: The County/Tacoma relationship is highlighted throughout the plan and in section 1.2.13. We recommend including more discussion of the opportunities and potential benefits of regional planning between the County and its many other cities and between cities. Some of this is referenced in the CROP. This discussion and possibly new recommendations to explore these opportunities could be included in the Planning Area or Administrative Chapters. | Added more language about cities and towns on page 23 under section 1.2.13. |
| 23 (ECY 7) | Chapter 7 (MRW) specifically section 7.5 (EPR Mercury Containing Lights) The following update is needed: Reference the sun setting of the LightRecycle program in the Plan. The LightRecycle product stewardship law will likely end in July 2026. We recommend including language that address this likely change. Some sample draft language and additional guidance on this topic can be found here. | Sunsetting of program mentioned on page 58. |
| 24 (ECY 8) | <p>Tires: Recommend expanding this section to highlight existing regulated tire storage facilities and current problems with unregulated sites. It is good to highlight L&S Tire recycling; the additional information would help complete the tire section.</p> <p>The additional below applicable laws and web link should also be referenced.</p> <ul style="list-style-type: none"> •RCW 70A.205.400 – RCW 70A.205.460 — Solid Waste Management, Reduction and Recycling statute. Waste Tire Sections. These sections describe the funding for the waste removal account, waste tire storage and carrier requirements and pertinent penalties. •Washington Administrative Code (WAC) 173-350-355 — Solid Waste Handling Standards rule. Waste tire transportation section. This section details waste tire carrier requirements. <p>Ecology’s waste tire page: https://ecology.wa.gov/Waste-Toxics/Business-waste/Manage-your-waste/Waste-tires</p> <p>Tire disposal is a problem across the State and more information would provide a more complete picture of how it is being address in Pierce County The additional RCW and WAC citations provided will provide the regulatory context for this work.</p> | Additional information added on page 70, including link to Ecology's waste tire page. |
| 25 (ECY 9) | Include a list of certified hauler phone numbers in Table 6 (Collection in Varying Jurisidictions...). | Phone numbers are included on page 76. |
| 26 (ECY 10) | Include a periodic Plan check-up in your implementation plan: To ensure the Plan is kept in current condition, we recommend you include an action item in your implementation plan to periodically perform a “Plan check-up” during its implementation period. We suggest this be done annually with your SWAC and that you share the results of your checkup with Ecology. More details on the value of this kind of review and some suggested items to cover during the check-up can be found here. | Mentioned on page 22 in SWAC section under 1.2.6. |

Appendix Y – Public Comment and County Responses

| Department of Ecology - Section C: Minor Edits | | |
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| 27 (ECY 10 - repeated) | <ul style="list-style-type: none"> • 7.3.1 first paragraph – SGQ should be SQG • 7.3.2 first paragraph – Grammar – UWRs or The UWR is intended? • 7.6.1 second paragraph – MWRs should be MRWs • 7.6.3 third paragraph first sentence - May want to add - not to exceed the accumulation of 2,200 pounds. • 7.6.3 Pierce County-Purdy second paragraph – First sentence is awkward - The site is owned by Pierce County and managed by LRI collection services were discontinued in 2017 due to limited funding. – Collection services were discontinued in 2017 due to limited funding should either be a new sentence or there should be a coma after LRI. • 7.6.6 Digital Resources and Guidance – last sentence - Grammatical – electronic should be electronics • 7.6.8 Business Technical Assistance – LSWFA - I do not believe that this acronym has been identified yet in this chapter - Local Solid Waste Financial Assistance. May also want to add - this grant is discussed further in 7.6.11 Program Financing. • 7.7 third paragraph – and EPR should be an EPR | All edits completed. |
| 28 (ECY 11) | <ul style="list-style-type: none"> • 10.2.5 end of second sentence –typo – the-ounty • 10.3.2 Scenario 1 first sentence – Is it supposed to be 2040? • 10.4 How can Pierce County and the City of Tacoma continue to meet the system’s solid waste transfer needs as population grows? - It is already in County-owned and is expected – Reword | Necessary edits completed. |
| Cities and Towns | | |
| 29 | City of Lakewood: Consider including Action Items directly addressing both illegal dumping and the need to service refuse produced by homeless encampments. | Addressed in Administration Action 7 about illegal dumping. |
| 30 | City of Lakewood: Action Items related to public outreach campaigns for targeted audiences, such as low-income communities, echo the City’s recent efforts in climate change public outreach in low-income communities. The City has found the process challenging and expensive, with limited outcomes. A collaborative, inter-governmental approach is needed. | Comment noted. This is talked about broadly in <i>Chapter 3: Public Outreach</i> on page 36. |
| 31 | City of Lakewood: As garbage rates increase, the City would like to see what rates look like and how rates are applied to ratepayers, especially if a fee structure is implemented where low-income ratepayers receive a discount. The City has seen a rise in illegal dumping and the use of haulers in violation of current waste contracts due to rate increases over the years. | This will be part of Administration Action 6. |
| 32 | City of Lakewood: The stakeholder roundtable (Administrative Action 3) and the Solid Waste Advisory Committee should convene together, at least twice annually, in order to ensure alignment between the two bodies. | The Introduction addresses this on page 17 under "Stakeholder Roundtable." Results of condition and trends analyses or recommendations resulting from the stakeholder roundtable sessions |

Appendix Y – Public Comment and County Responses

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| | | should be summarized and shared with the Pierce County Solid Waste Advisory Committee (SWAC) and published for community review and education. |
| 33 | City of Lakewood: More details in the future concerning the use of rail to divert refuse from the County landfill, such as logistics, cost, construction of new transfer stations, inter-state agreement terms, and political feasibility. | This is the focus of Transfer and Disposal Action 2. |
| 34 | City of Lakewood: The City recently adopted a climate change comprehensive plan element, which interfaces with the Plan along key dimensions such as waste reduction, recycling, energy efficiency, and education of public on improving the waste stream. There are opportunities for the Plan's Action Items and the City's climate change programs to interact and provide synergy with each other. | Comment noted. |
| 35 | City of Lakewood: Finally, the City acknowledges that solid and hazardous waste management is a multidimensional issue that incorporates political, institutional, social, environmental, and economic aspects. Improving waste management requires significant efforts to raise public awareness, increase funding, build expertise, and invest in infrastructure. To make progress the County will need to work with communities, especially underserved and underrepresented communities, and embrace new systems that are participatory, integrated, complex, and adaptive. The County should prioritize flexibility and agility, as a community's waste management needs are subject to change. Overall, the Plan incorporates these elements, but will require regular review and revisions throughout the 20-year timeframe. | This is one of our core principles - "Resilient." Also, in accordance with RCW.70A.205.075 this plan will be reviewed and revised every five years. |



STATE OF WASHINGTON
DEPARTMENT OF AGRICULTURE
Division of Plant Protection
P.O. Box 42560 • Olympia, Washington 98504-2560 • (360) 902-1800

October 7, 2021

Ryan Dicks
Sustainable Resources Administrator
Pierce County Sustainable Resources Division
2702 S 42nd St, Suite 201
Tacoma, WA 98409-7322

David Pater
Solid Waste Management Program
Ecology SW Regional Office
300 Desmond Drive SE
Lacey, WA 98503

Dear Mr. Dicks and Mr. Pater,

After reviewing the preliminary draft of the *2021 Tacoma-Pierce County Solid and Hazardous Waste Management Plan (Plan)*, our agency does not see any current conflicting compliance issues related to the apple maggot quarantine, as prescribed in chapter 16-470-124 WAC.

Thank you for providing our agency with the opportunity to comment on the Tacoma-Pierce County Plan. RCW 70A.205.060 requires the Washington State Department of Agriculture to review preliminary draft solid waste management plans for any increased risks of introducing a quarantine plant pest or disease into a pest free area.

Regards,

A handwritten signature in cursive script, appearing to read "Amy Clow".

Amy Clow
Quarantine and Rules Coordinator
WSDA Plant Protection Division

cc:
Greg Haubrich, WSDA Pest Program Manager
Peter Guttchen, Department of Ecology
Peter Lyon, Department of Ecology

Service Date: October 28, 2021



STATE OF WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

621 Woodland Square Loop S.E. • Lacey, Washington 98503

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(360) 664-1160 • TTY 1-800-833-6384 or 711

October 28, 2021

Ryan Dicks
 Pierce County Sustainable Resources Administrator
 2702 S 42nd St, Suite 201
 Tacoma, WA 98409

**RE: Tacoma-Pierce County Solid Waste Management Plan Cost Assessment Questionnaire
 TG-210724**

Dear Ryan Dicks:

The Washington Utilities and Transportation Commission (Commission) has completed its review of the revised cost assessment questionnaire for the preliminary draft of the Tacoma-Pierce County Solid Waste Management Plan (Plan) submitted on September 14, 2021.

The cost assessment questionnaire in the 2021-2026 Plan proposes changes to tip fees at the transfer stations located in Tacoma-Pierce County. As a result, there will be rate impacts to ratepayers served by regulated solid waste collection companies in Tacoma-Pierce County the impacts are shown in the table below.

| | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | Total |
|---|----------|----------|----------|----------|----------|----------|--------|
| Projected Disposal Fees | | | | | | | |
| Per Ton Disposal Cost | \$168.51 | \$170.34 | \$171.64 | \$171.22 | \$172.82 | \$174.71 | |
| Per Ton Increase | | \$1.83 | \$1.30 | \$-0.42 | \$1.60 | \$1.89 | \$6.20 |
| Projected Rate Increases | | | | | | | |
| <i>Residential</i> | | | | | | | |
| Monthly rate for one 32-gallon can per week service | | \$0.13 | \$0.10 | \$0.00 | \$-0.03 | \$0.14 | \$0.47 |
| <i>Commercial</i> | | | | | | | |
| Monthly rate for one-yard per pick up service | | \$0.69 | \$0.49 | \$0.00 | \$-0.16 | \$0.72 | \$2.44 |

Existing collection services are solid waste, curbside recycling, and compostable waste (yard waste). Single stream recycling is in place throughout the county, but glass is now only collected at the county recycling drop off locations (the county has 32 such locations) and is no longer part of the curbside collection. The glass that is collected by the county is taken to a processor who

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Letter to Ryan Dicks
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Page 2

uses it to produce new glass products. Pierce County Code Chapter 8.29.030 specifies the minimum levels of curbside service within the County and requires cardboard, metal cans, mixed-waste paper, newspaper, plastic bottles, and jars are to be collected in curbside recycling within the County.

Tacoma-Pierce County has produced a Contamination Reduction and Outreach Plan. This plan identifies issues within the recycling stream so that cities and the county can address these items. Since 2015, the County has focused on creating a uniform messaging of recycled materials, having similar coloring of collection containers, so it is easy to identify what items should be placed in the collection container. There has also been targeted outreach to multi-family residences as the study found multi-family residences throw away twice as many recyclables as a single-family household and that on average 20 percent of multifamily solid waste could be recycled. In the City of Tacoma a “three strikes and you’re out” policy where the first major contamination offense results in a cart tag, the second offense results in a cart tag and a call from the route supervisor, and the third offense results in a cart tag and another call from the route supervisor who at this point has the right to remove the cart, and the resident has to pay a setup fee to get it back.

While this plan does have a cost impact on customers, Tacoma-Pierce County is taking steps to improve its waste stream by studying what contamination is in the stream and where it is coming from so that the County can find ways to address it. This should help preserve the County’s solid waste infrastructure.

Commission staff has no further comment on the cost assessment questionnaire. Please direct questions or comments to Scott Sevall at (360) 664-1230 or by email at ssevall@utc.wa.gov.

Sincerely,

AMANDA MAXWELL
Executive Director and Secretary

cc: David Pater, Department of Ecology, Solid Waste Planner

