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**Thurston County
Solid Waste Management Plan
August 2020**



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Draft Thurston County Solid Waste Management Plan

August 2020

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ACKNOWLEDGMENTS

The Thurston County Department of Public Works, Solid Waste Division acknowledges the valuable contribution of the following organizations for their assistance in the development of this Plan:

Thurston County Solid Waste Advisory Committee Members

Washington State Department of Ecology Staff

Thurston County Public Health and Social Services Staff

Thurston County Public Works, Solid Waste Division Staff

Thurston County residents and businesses also contributed to this Plan through comments provided during public meetings and through various other channels. The Board of County Commissioners and Thurston County Public Works, Solid Waste Division gratefully acknowledge this input.

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Acronyms and Abbreviations

2009 Plan	2009 Thurston County Solid Waste Management Plan
BSE	Bovine Spongiform Encephalopathy
C&D	Construction and Demolition
CEMP	Comprehensive Emergency Management Plan
CFCs	Chlorofluorocarbons
Commerce	Department of Commerce
County	Thurston County, Washington
CPG	Coordinated Prevention Grant
CROP	Contamination Reduction and Outreach Plan
dba	doing business as
DDMP	Disaster Debris Management Plan
Department of Commerce	Washington State Department of Commerce
DES	Washington State Department of Enterprise Systems
Ecology	Washington State Department of Ecology
EIS	Environmental Impact Statement
EOW	Every Other Week
EPA	United States Environmental Protection Agency
ESHB	Engrossed Substitute House Bill
FEMA	Federal Emergency Management Agency
GHG	Greenhouse Gas
GMA	Growth Management Act
H5N1	Highly Pathogenic Asian Avian Influenza A
HB	House Bill
HDPE	High-Density Polyethylene
HDR	HDR Engineering, Inc.
PHSS	Thurston County Public Health and Social Services Department
HHW	Household Hazardous Waste
Infrastructure Management Plan	Solid Waste Facility Condition Assessment and Infrastructure Management Plan
LDPE	Low-Density Polyethylene
LSWFA	Local Solid Waste Financial Assistance
MRW	Moderate Risk Waste
MSW	Municipal Solid Waste
MTCA	Model Toxics Control Act
MW	Megawatts
OFM	Office of Financial Management
PCS	Petroleum Contaminated Soils
PET	Polyethylene Terephthalate
Plan	Solid Waste Management Plan
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
RRL	Roosevelt Regional Landfill

SEPA	State Environmental Policy Act
sf	square foot
SHB	Substitute House Bill
SWAC	Thurston County Solid Waste Advisory Committee
TPY	Tons per Year
TRPC	Thurston Regional Planning Council
UGA	Urban Growth Area
WAC	Washington Administrative Code
WARC	Waste and Recovery Center
WSDA	Washington State Department of Agriculture
WSPWB	Washington State Public Works Board
WUTC	Washington Utilities and Transportation Commission

Executive Summary

This Solid Waste Management Plan (Plan) recommends strategies to manage solid waste generated in Thurston County over the next six- to twenty-years as required by the Revised Code of Washington (RCW) 70.95. This Plan will guide the actions of Thurston County and the participating cities of Bucoda, Lacey, Olympia, Rainier, Tenino, Tumwater and Yelm and Waste Connections that provide curbside collection and processing and municipal solid waste and recyclable materials. It is the collaborative effort of participating cities' and industry representatives, thought leaders and subject matter experts in the solid waste field, and incorporates a balanced approach to solid waste management in Thurston County. The overriding mission statement for the Plan is:

“Thurston County and the participating jurisdictions provide citizens with efficient, reliable, and affordable solid waste collection, handling, recycling and disposal services in order to improve the quality of life while protecting and preserving human health, environmental quality and natural resources.”

To further this mission, the Plan proposes a comprehensive set of recommended strategies for implementation over the six-year planning period. Highlights include:

Facility Upgrades – The Plan recommends upgrades to the Rainier and Rochester Drop-Box Sites for scales, scalehouses and security enhancements. The Plan also recommends upgrades to the Waste and Recovery Center including site security, construction of a new public tipping area with scales and scalehouses, compactor overhaul, and a new administration operations building. Maintenance to the closed Hawks Prairie Landfill flare station, leachate pump system and site settlement differential repairs are also included as recommendations.

Recycling – Waste prevention, reduction and recycling are continuing priorities for this Plan. Promoting a variety of education and outreach initiatives, while dealing with changing recycling markets, will continue to be a priority through harmonization of programs and working cooperatively with jurisdictional and private partners.

System Enhancements – Providing for long-term system operations, maintenance, transport and disposal of waste through the issuance of a Request For Proposal (RFP) is recommended to ensure continuation of solid waste services at the County-owned facilities. The current collaborative system between the County and Cities has provided cost-effective, environmentally responsible waste handling and disposal for over 20 years and is expected to continue with the signing of interlocal agreements and implementation of flow control.

Long-range planning is essential to achieving a cost-effective and environmentally sound integrated solid waste system. To this end, this Plan facilitates a cooperative effort between partners and provides a framework for infrastructure planning, short-term and long-term management of solid waste and recyclables, policy making and funding for the system. This Plan is intended to be a “living document” to be revisited on a regular basis to evaluate progress, reassess initiatives and implementation plans, and consider potential updates to the Plan in response to emerging data and information and future conditions.

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Background

1

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1.0 Background

This section provides general information regarding the Solid Waste Management Plan (Plan), its development, and relationship to other State and Local documents.

1.1 Introduction

This Plan recommends strategies to manage solid waste and moderate risk waste (MRW) generated in Thurston County, Washington (County). Solid waste handling includes management, storage, collection, diversion, transportation, treatment, use, processing, and final disposal. This Plan includes recommendations for municipal solid waste (MSW), diversion, construction and demolition (C&D) debris, and special wastes.

1.2 Purpose

Washington State law assigns primary responsibility for managing MSW and MRW to local governments. Revised Code of Washington (RCW) 70.95 requires local government to maintain current solid waste management plans. RCW 70.105 requires local government to develop plans for managing hazardous waste, to meet this requirement the County has a separate 2014 Thurston County Hazardous Waste Management Plan.

The purpose of this Plan is to develop recommended waste management strategies for the period years 2021 through 2026. The Plan also looks forward to ensure that sufficient processing and disposal options will be available for at least the next twenty years, or through year 2041.

Local plans must be complete and in good standing to receive grant monies from the Washington State Department of Ecology (Ecology) Local Solid Waste Financial Assistance (LSWFA), which is a funding source for non-disposal related programs and activities.

1.3 Goals and Objectives

The mission statement for this Plan is as follows:

Thurston County and the participating jurisdictions provide citizens with efficient, reliable, and affordable solid waste collection, handling, recycling and disposal services in order to improve the quality of life while protecting and preserving human health, environmental quality, and natural resources.

For each element of the Plan, goals were developed. An assessment of existing conditions relative to each element was made and then an identification of needs and opportunities followed. An evaluation of the alternatives was then performed and recommendations for specific programs, policies or actions were selected and adopted.

In summary, the goals for the Plan are as follows:

Infrastructure and System

- Manage wastes in a cost-effective manner that promotes, in order of priority, waste reduction, reuse and recycling.
- Enhance and improve the overall efficiency of waste and recyclables collection and transfer.
- Build the infrastructure needed to provide maximum recycling and waste diversion opportunities.
- Ensure collection infrastructure is flexible and adaptable to changing recycling and waste diversion practices.
- Ensure the County solid waste system is in full compliance with the appropriate rules and regulations.

Sustainability

- Manage waste as a resource to increase local job opportunities and support economic development.
- Consider environmental impacts to climate, air, water and land that are associated with waste generation, transportation, handling, recycling and disposal.
- Ensure County's solid waste system has an equitable and sustainable funding mechanism.
- The County's development community is aware of and invested in less wasteful and more sustainable building and development practices.
- In the County, edible food is eaten and inedible food is composted or processed into other value-added products.

Education

- Encourage people in the County to act on the basis of their understanding of the societal, environmental, health, and financial impacts of their consumption and disposal choices. This includes their impact on climate change.
- Encourage people and businesses to make responsible choices about what they produce and consume, and what they generate as waste.

Outside Influences

- Manage waste in a manner that promotes Washington State's waste management priorities presented in Ecology's Moving Washington Beyond Waste and Toxics document.
- Promote and support life cycle product stewardship and industry advancements in packaging standards that lead to less waste generation.
- Support changes to federal and State regulations and policies that support increased recycling opportunities and waste diversion.
- Incorporate principles of equity of social justice into solid waste system planning.

1.4 Participants in the Planning Process

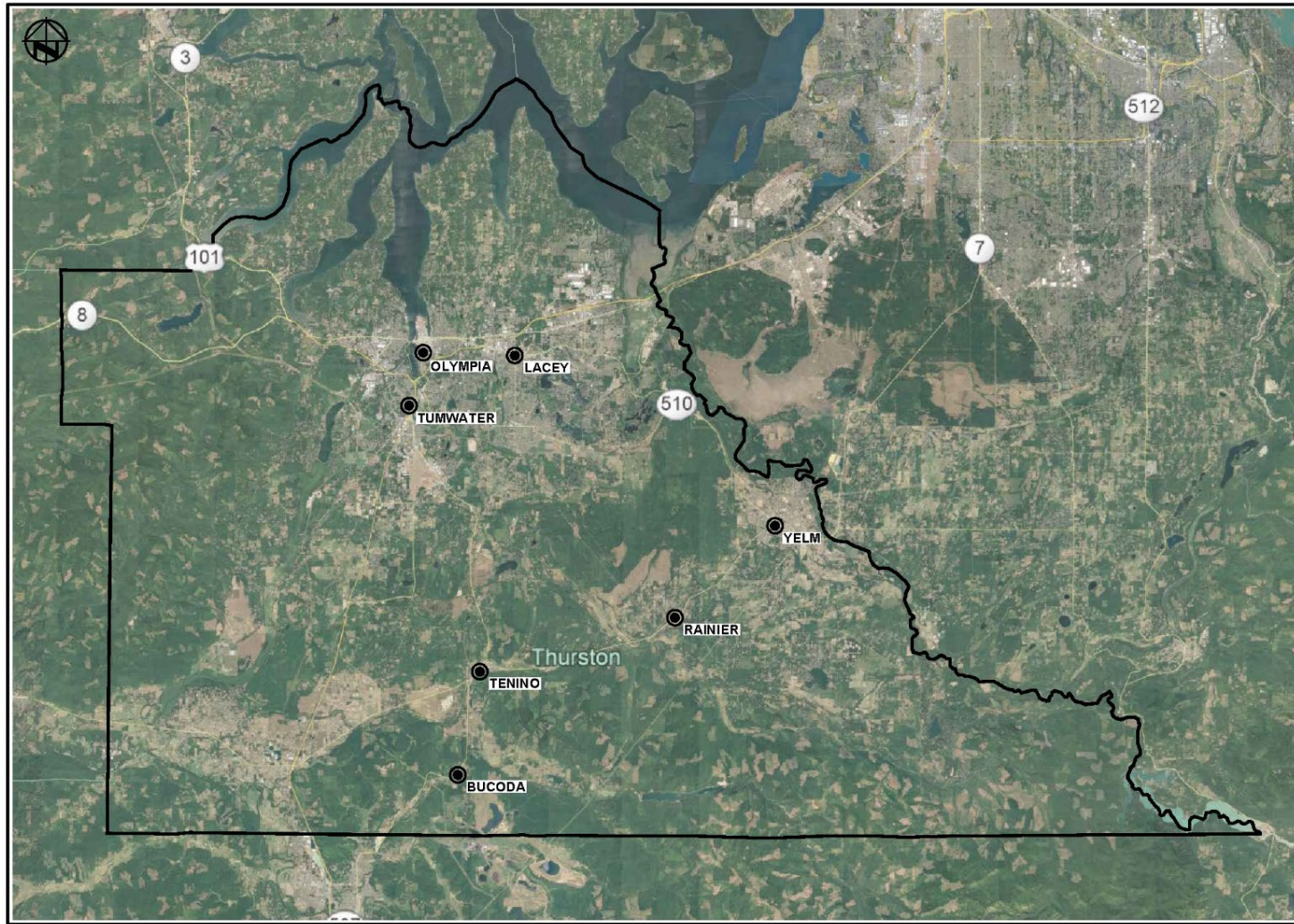
This document was developed with the guidance of the Thurston County Solid Waste Advisory Committee (SWAC) whose participation is gratefully acknowledged. Committee members and their affiliation are shown in Table 1-1.

Member	Affiliation/Title
Michael Steadman	City of Lacey
Jim Cooper, Chair	City of Olympia
Dave Watterson	City of Tenino
Joan Cathey, Vice Chair	City of Tumwater
James Blair	City of Yelm
Greg Schoenbachler	District #1, Citizen/Agricultural Representative
Burton Guttman	District #2, Citizen
Renee Radcliff Sinclair	District #3, Citizen
E.J. Zita	Port of Olympia Commissioner
Chad Sutter	Recycling Industry
Delroy Cox	Refuse Industry
Gary Edwards	Thurston County Commissioner
Vacant	Business Interest
Vacant	Town of Bucoda
Vacant	City of Rainier

1.5 Planning Area

The planning area (see Figure 1-1) includes the incorporated and unincorporated areas of the County. This includes the cities and towns of Bucoda, Lacey, Olympia, Rainier, Tenino, Tumwater and Yelm.

The County-owned and operated solid waste facilities also serve the members of the Confederated Tribes of the Chehalis Reservation and the Nisqually Tribe. The Confederated Tribes of the Chehalis Reservation and the Nisqually Tribe are federally recognized tribes, and as such, their reservations and tribal governments have a sovereign status. In the absence of an agreement stating otherwise, Washington State solid waste regulations do not generally apply on tribal lands, and the tribal governments manage their own solid waste.



THURSTON COUNTY MAP
WASHINGTON SOLID WASTE
MANAGEMENT PLAN

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SCALE | NTS

Figure 1-1. Thurston County Solid Waste Planning Area

1.6 Planning Authority

This Plan is intended to satisfy the participating jurisdictions' responsibilities for maintaining a current solid waste management plan in accordance with RCW 70.95.

Cities and counties share the responsibility for developing and maintaining a local solid waste management plan. RCW 70.95.080 provides cities with three alternatives for satisfying their planning responsibilities:

- Prepare and deliver to the county auditor a city solid waste management plan for integration into the county solid waste plan;
- Enter into an agreement with the county to prepare a joint city-county plan; or
- Authorize the county to prepare a plan for the city for inclusion in the county plan.

The incorporated communities of Bucoda, Lacey, Olympia, Rainier, Tenino, Tumwater and Yelm executed interlocal agreements with the County regarding solid waste management. The agreements authorize the County to prepare a countywide solid waste management plan that includes each of these cities and towns. Participating cities and towns have both the opportunity and responsibility to participate in Plan development, review and comment on the draft Plan, and to adopt the final Plan.

Executed Solid Waste Interlocal Agreements can be found in Appendix A. Resolutions of Adoption for this Plan can be found in Appendix B.

1.7 Plan Development Process

The Plan was developed over a period of approximately six months. The process began in February 2020 with the contract execution for HDR Engineering, Inc. (HDR), as the team that would assist with starting the update process. During the six months, technical research, analysis, and recommendations were prepared by HDR and the County Public Works Solid Waste staff and discussed with the Thurston County Public Health and Social Services Department (PHSS), the SWAC, stakeholders, interested members of the public, and interest groups. This participatory, interactive process was undertaken in order to prepare and build support for the Plan.

The public participation process was largely focused on the SWAC. The Board of County Commissioners appoints SWAC members. Members are selected to represent a balance of interests including citizens, public interest groups, business, the waste management industry, local elected public officials, and the agricultural industry. The SWAC provides guidance to the Thurston County Public Works Department Solid Waste Division in the development of programs and policies concerning solid waste handling and disposal. The SWAC reviews and comments on rules, policies, resolutions, and ordinances before they are proposed for adoption. SWAC meetings are open to the public and meeting notices are published beforehand. For additional information on the SWAC please refer to Appendix C.

The anticipation is the Plan will be adopted by each participating city or town and by the Board of County Commissioners in meetings open to the public.

1.8 Status of Previous Plans

This Plan supersedes previous solid waste management plans including the 2009 Thurston County Solid Waste Management Plan (2009 Plan). The status of the 2009 Plan recommendations can be found in Appendix D.

1.9 Relationship to Other Plans

This section provides information on how this Plan is related to other state and local documents.

1.9.1 The State Solid and Hazardous Waste Plan – Moving Washington Beyond Waste and Toxics

Ecology released a waste and toxics reduction plan in June 2015. Moving Washington Beyond Waste and Toxics focuses on reducing waste and toxics by adopting a sustainable materials management approach, which is also used by the United States Environmental Protection Agency (EPA). This approach looks at the full life cycle of materials from the design and manufacturing, through use, to disposal or recycling. The EPA believes a sustainable materials management approach can help identify more sustainable ways to produce products that are less impactful to the environment.

Moving Washington Beyond Waste and Toxics' vision is as follows: "We can transition to a society where waste is viewed as inefficient, and where most wastes and toxic substances have been eliminated. This will contribute to economic, social and environmental vitality." The following four priorities are included in Moving Washington Beyond Waste and Toxics:

- Increase our focus on manufacturing and use phases, not just on end-of-life issues;
- Reduce toxic threats in products and industrial processes;
- Increase efficiency of recycling (including organic processing) systems, and maximize effectiveness of existing solid and hazardous waste infrastructure; and
- Mitigate climate change through waste reduction, reuse, and recycling.

The State plan can be found at:

<https://fortress.wa.gov/ecy/publications/documents/1504019.pdf>.

1.9.2 Thurston County Planning

RCW 36.70A.040 provides counties with planning requirements as required under the Growth Management Act. The County, in 2019, adopted the Comprehensive Plan under this authority and the Planning Commission Act (RCW 35.63) which provides for the procedures to be followed in guiding and regulating the physical development of the County. The Comprehensive Plan guides the growth of unincorporated Thurston County (areas outside of the cities). It details policies and goals for zoning and development regulations, and addresses requirements of Washington State's Growth Management Act. It includes specific guidelines for the subareas of Grand Mound, Rochester and Nisqually, as well as Joint Plans for the Urban Growth Areas (UGAs) of Lacey,

Olympia, Rainier, Tenino, Tumwater, and Yelm. The Comprehensive Plan can be viewed at: <https://www.thurstoncountywa.gov/planning/Pages/comp-plan.aspx>.

1.9.3 Thurston Regional Planning Council

In 2018, the Thurston Regional Planning Council (TRPC) adopted the Thurston Climate Adaptation Plan which recommends actions to assist the County and the broader South Puget Sound region prepare for and adjust to adverse climate change impacts and bolster resilience. In April 2018, the TRPC, City of Lacey, City of Olympia, City of Tumwater and the County began work on a climate mitigation plan with actions to reduce regional emissions 45 percent below 2015 levels by 2030 and 85 percent below 2015 levels by 2050. This Plan, and future Plans, will consider climate change impacts when planning future programs facilities and operations. At a regional level, the County and its planning participants continue to implement waste reduction and recycling programs that incorporate positive environmental effects with tangible reductions in greenhouse gas emissions, resource conservation and energy savings. The Thurston Climate Adaptation Plan can be viewed at: <https://www.trpc.org/580/Thurston-Climate-Adaptation-Plan>. The TRPC and participating cities and the county are currently in the review process for the Thurston County Climate Mitigation Plan.

1.9.4 City of Olympia Waste ReSources Management Plan (2015) Plan

In June 2006, the Olympia City Council adopted a Zero Waste Resolution that set forth a new direction for the City Waste ReSources Utility and guided the development of the Toward Zero Waste: Olympia's Waste ReSources Plan, 2008-2013, which was a six year strategic and operational plan. In 2015, the City Waste ReSources Utility updated the plan for the period 2015-2020 built around four goals:

- Reduce the quantity of waste generated and disposed in Olympia.
- Increase the quantity of recyclable and compostable materials diverted from the landfill.
- Operate collection services safely and efficiently.
- Manage the Utility's finances responsibly, with fair equitable rates that promote waste reduction and recycling.

The City of Olympia Waste ReSources Management Plan can be viewed at: <https://www.codepublishing.com/WA/Olympia/?wr/OlympiaWRNT.html>.

1.9.5 Thurston County Hazardous Waste Management Plan (2014)

The County and participating jurisdictions adopted the Thurston County Hazardous Waste Management Plan in 2014 which can be viewed at:

<https://www.co.thurston.wa.us/health/ehhw/hwPlan/index.html>. The Hazardous Waste Management Plan is intended to assist the County in achieving its vision of an environment and community free of health concerns stemming from hazardous material production, use and disposal. The Hazardous Waste Management Plan includes the following:

- Describes local conditions and programs for hazardous waste management.

- Presents a comprehensive program for reducing quantities of hazardous materials used by homes and small businesses.
- Describes safe handling and proper disposal methods of hazardous waste.
- Builds on coordination between the County’s Hazardous Waste Program and efforts by other jurisdictions, agencies and local organizations.

1.10 Required Plan Elements

This Plan is intended to meet or exceed applicable requirements set by Washington State. RCW 70.95.090 establishes requirements for local solid waste management plans. Local plans are required to include the following elements:

- An inventory and description of solid waste handling facilities including any deficiencies in meeting current needs;
- The projected 20-year needs for solid waste handling facilities;
- A program for the development of solid waste handling facilities that meets applicable laws and regulations, takes into account the comprehensive land use plans of participating jurisdictions, contains a six-year construction and capital acquisition program and a plan for financing both capital costs and operational expenditures;
- A program for surveillance and control (to avoid or mitigate the negative impacts of improper waste handling);
- An inventory and description of solid waste collection operations and needs within each jurisdiction, including state collection certificate holders and municipal operations;
- A comprehensive waste reduction and recycling element;
- An assessment of the Plan’s impact on the costs of solid waste collection; and
- A review of potential areas that meet state criteria for land disposal facilities.

1.11 Regulatory Overview

The statutes and regulations that govern solid waste handling are briefly summarized below.

1.11.1 Solid Waste Handling Standards

A rule governing solid waste facilities and handling practices, Washington Administrative Code (WAC) 173-350, also known as *Solid Waste Handling Standards* went into effect in 2003. This rule replaced WAC 173-304. WAC 173-350 sets out standards of operation and permitting requirements for solid waste handling facilities for recycling, intermediate handling (i.e., transfer), composting, MRW, and tires (unless exempted by definition or due to beneficial use). The rule regulates landfill disposal of a new category of wastes called “inert” wastes. In 2013, Ecology began the development of a rule update proposal to WAC 173-350. As of June 2017, Ecology is evaluating comments received on the proposed rule update.

WAC 173-350 also places importance on local solid waste management plans (such as this document) by requiring solid waste handling facilities (whether exempt or requiring a permit) to conform to local solid waste plans. WAC 173-350 also states a facility’s

exemption for handling only recyclable materials is contingent on meeting the definition of a recyclable material as designated in a local solid waste management plan.

Landfill disposal of solid waste is regulated under a separate rule, WAC 173-351, *Criteria for Municipal Solid Waste Landfills*. This rule was last revised in October 2015.

1.11.2 Hazardous Waste Management Act

In 1982, Ecology adopted rules that combined the state and federal regulation of hazardous wastes. These rules, as amended several times in the ensuing years, are contained in WAC 173-303 and are the main body of regulations for hazardous wastes in this State. In 1983, the state legislature adopted a hierarchy of hazardous waste management methods in RCW 70.105.150. In descending order of priority for management, the hierarchy is waste reduction; waste recycling; physical, chemical, and biological treatment; incineration; solidification/ stabilization treatment; and landfill.

Amendments to RCW 70.105 in 1985 and 1986 defined MRW and required that local governments (counties) develop plans for the proper management of MRW. As stated in RCW 70.105.007(3), the legislature's intent was "to promote cooperation between state and local governments by assigning responsibilities for planning for hazardous waste to the state and planning for MRW to local government." In 1987, the legislature appropriated funds for grants to counties to assist in their planning efforts and clarified the schedule.

The legislature enacted the Used Oil Recycling Act, RCW 70.95I in 1991. This statute requires local governments to manage used oil in conjunction with their MRW programs and to submit annual reports to Ecology. Local governments were required to adopt used oil recycling amendments to their MRW management plans by July 1, 1993.

New Solid Waste Handling Standards (WAC 173-350) were developed by Ecology and became effective February 10, 2003. These standards address MRW facilities (including construction, record keeping and reports).

The *Dangerous Waste Regulations* (WAC 173-303) have been amended several times to address new issues and to incorporate new provisions of state and federal regulations.

1.12 Summary of Change in Solid Waste Regulation and Policy Since 2009

Several new rules have been adopted since the previous Plan was developed. Important new rules and regulations for consideration in the Plan development are shown below (not in order of priority).

1.12.1 Exemption from Solid Waste Handling Permit Requirements for Anaerobic Digesters

Effective July 1, 2009, a new state law (RCW 70.95.330) allows certain anaerobic digesters an exemption from obtaining a solid waste handling permit provided they meet specified criteria.

1.12.2 Tire Fee Reinstated

In 2009, RCW 70.95 was amended to reinstate the tire fee and to remove the sunset (expiration) date for the fee. The original tire fee, which expired in 1994, was used to clean up tire dumps, fund a special study of tires and conduct other activities. The new fee also intended to clean-up unauthorized tire dumps and to help prevent the future accumulation of tires.

1.12.3 Mercury-Containing Lights Product Stewardship Program

WAC 173-910 requires establishment of a product stewardship program for mercury-containing lights throughout Washington State. Producers of mercury-containing lights sold for residential use must finance and participate in the product stewardship program by doing the following:

- Funding its producer share cost of the standard plan and program operated by the department-contracted stewardship organization or operating, either individually or jointly, an independent plan and program approved by Ecology.
- Pay administrative and operational costs associated with the standard program or the independent program in which they participate, except for the collection costs associated with curbside and mail-back collection programs. For curbside and mail-back programs, a stewardship organization must finance the costs of transporting and processing mercury-containing lights from the point of accumulation. For collection locations, including household hazardous waste (HHW) facilities, charities, retailers, government recycling sites, or other suitable locations, a stewardship organization must finance the costs of collection, transportation, and processing of mercury-containing lights collected at the collection locations.
- Submit market share data to Ecology to determine market share in the event more than one approved product stewardship plan is operating.
- Meet its financial obligations to the plan, which includes Ecology's annual fee.
- Comply with producers' requirements.
- Participate in a fully implemented plan.
- Take actions required to correct violations.

1.12.4 Revenue-Sharing Agreements

An update to RCW 81.77.185 allows waste collection companies to retain up to fifty percent of the revenue paid to the companies for the material if the companies submit a plan to the Washington Utilities and Transportation Commission (WUTC) that is certified by the appropriate local government authority as being consistent with the local government solid waste plan and that demonstrates how the revenues will be used to increase recycling. The remaining revenue shall be passed to residential customers.

1.12.5 County Comprehensive Solid Waste Management Plan

In 2010, RCW 70.95.080 was updated to indicate that when updating a solid waste management plan, after June 10, 2010, each local comprehensive plan must, at a minimum, consider methods that will be used to address the following:

- C&D waste for recycling or reuse;

- Organic material including yard debris, food waste, and food contaminated paper products for composting or anaerobic digestion;
- Metals, glass, and plastics for recycling; and
- Waste reduction strategies.

1.12.6 Develop and Establish Objectives and Strategies for the Reuse and Recycling of Construction Aggregate and Recycled Concrete Materials

Effective January 1, 2016, RCW 70.95.805 requires that local governmental entities with a population of one hundred thousand residents or more must, as part of their contracting process, request and accept bids that include the use of construction aggregate and recycled concrete materials for each transportation, roadway, street, highway, or other transportation infrastructure project. Prior to awarding a contract for a transportation, roadway, street, highway, or other transportation infrastructure project, the local governmental entity must compare the lowest responsible bid proposing to use construction aggregate and recycled concrete materials with the lowest responsible bid not proposing to use construction aggregate and recycled concrete materials, and award the contract to the bidder proposing to use the highest percentage of construction aggregate and recycled concrete materials if that bid is the same as, or less than, a bidder not proposing to use construction aggregate and recycled concrete materials or proposing to use a lower percentage of construction aggregate and recycled concrete materials.

1.12.7 Quarantine – Agricultural Pests

Effective January 1, 2017, the Washington State Department of Agriculture (WSDA) amended WAC 16-470 by adding MSW, yard debris, organic feedstocks, organic materials, and agricultural wastes to the list of commodities regulated under the apple maggot quarantine. Special permits are required for the following:

- Transportation and disposition of MSW from an area under quarantine for disposal at a solid waste landfill or disposal facility in the apple maggot and plum curculio pest-free area.
- Transportation and disposition of yard debris, organic feedstocks, organic materials, and agricultural wastes from the area under quarantine for disposal at a solid waste landfill or treatment at a composting facility in the apple maggot and plum curculio pest-free area.

Refer to Chapter 5 Waste Reduction, Recycling and Organics for additional information regarding how these rules affect solid waste in the County.

1.12.8 Local Solid Waste Financial Assistance

In September 2017, WAC 173-312 was updated to replace the Coordinated Prevention Grant (CPG) program. The purpose of WAC 173-312 is to provide financial assistance for local programs related to hazardous waste planning and implementation, local solid waste planning and implementation, and enforcement of rules and regulations governing solid waste handling. Planning, implementation and enforcement are designed to

prevent, or minimize, environmental contamination resulting from improper management or disposal of waste. WAC 173-312 established a structure for the administration of local solid waste financial assistance.

1.12.9 Secure Drug Take-Back

Washington’s Safe Medication Return program, also known as the Drug Take-Back program was established in 2018 under RCW 69.48. This program will create a unified, statewide, medication return program that will give Washington residents free, convenient, and environmentally responsible options for disposing of unwanted medication. Drug manufacturers will fund the program at no cost to taxpayers. It will be operated by an approved program operator(s). The PHSS will oversee the establishment of the program, monitor on-going operations, manage enforcement when compliance issues arise, and evaluate program effectiveness.

1.12.10 Sustainable Recycling

House Bill (HB) 1543 Sustainable Recycling, was signed by Governor Inslee on April 29, 2019. This act took effect July 1, 2019. This act creates a Recycling Development Center within Ecology. Ecology will work with the Department of Commerce (Commerce) on recycling market research and development. Ecology and Commerce will appoint an advisory board and enter into an interagency agreement. Ecology was directed to create a state recycling Contamination Reduction and Outreach Plan (CROP) by July 1, 2020. Local jurisdictions will need to create their own CROP or adopt the state CROP by July 1, 2021. Counties with populations of fewer than 25,000 are exempt from this requirement. Local governments may use LSWFA Grants and Waste Reduction and Recycling Education Grants to support CROPs.

1.12.11 Food Waste

HB 1114 bill established a goal for the state to reduce by 50 percent the amount of food waste generated annually by 2030. Ecology will work with the Washington State Departments of Agriculture and Health to develop a state wasted-food reduction and diversion plan by October 1, 2020. Ecology will gather feedback from the public and stakeholders. The three agencies will consider recommending changes to state law that will achieve the reduction goal and report to the legislature by December 1, 2020.

1.12.12 Paint Stewardship

Substitute HB (SHB) 1652 requires producers of architectural paint sold in Washington to participate in an approved paint stewardship plan. This bill prohibits a producer or retailer of paint from selling or offering for sale architectural paint unless the producer or brand of paint is participating in a stewardship plan. A paint stewardship organization will implement this bill with Ecology providing oversight.

1.12.13 Product Design Labeling

Engrossed SHB (ESHB) 1569 authorizes the state’s attorney general and local governments to pursue false or misleading environmental claims and “greenwashing” for plastic products claiming to be “compostable” or “biodegradable” when in fact they are

not. The bill also requires clear and easy to understand labeling on compostable products sold for use in Washington.

1.12.14 Plastic Package Stewardship

In 2019, SB 5397 was authorized which would create data reports that could lead to legislation (in 2021) to improve the recycling system in Washington by creating a stewardship program paid for by the plastic packing manufacturers.

1.12.15 Reducing Pollution from Plastic Bags

In 2020, ESHB 5323 was authorized which prohibits a retail establishment from the following:

- Providing to a customer or a person at an event a single-use plastic carryout bag; or a paper carryout bag or reusable carryout bag made of film plastic that does not meet recycled content requirements.
- Using or providing certain polyethylene or other non-compostable plastic bags.
- Authorizes a retail establishment to provide a reusable carryout bag or a recycled content paper carryout bag of any size to a customer at the point of sale.
- Requires a retail establishment to collect a pass-through charge of not less than ten cents for every recycled content paper carryout bag or reusable carryout bag made of film plastic it provides.
- Prohibits a city, town, county, or municipal corporation from implementing a local carryout bag ordinance.

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2 Waste Stream

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2.0 Waste Stream

This section provides information on population, waste generation, and future waste quantities.

2.1 Introduction

The data in this chapter is used in various ways in the following chapters, such as assessing the need for or determining the impact of a proposed new program.

2.2 Waste Stream and Population Projections

This section presents information regarding past, present and future projections as they relate to waste generated in Thurston County.

2.2.1 Population and Waste Generation Rates

POPULATION

Current population levels and future population growth are important factors to consider for solid waste management plans. People create solid waste and in general, the more people there are (now and in the future), the more waste is created.

Table 2-1 provides past, current, and future estimates of the County population. This table uses population figures produced by the Washington State Office of Financial Management (OFM), which OFM based on Census 2010 results and adjustments made through 2019. For future population projections, the OFM produces three different sets of forecasts for population growth: a low, medium, and high series. The medium series figures are used in this Plan.

Table 2-1. Thurston County Population Estimates					
Area	2010 ¹	2019 ¹	2025 ²	2030 ²	2040 ²
Thurston County, Total	252,264	285,800	316,508	335,965	370,699
Unincorporated Areas	135,123	144,035	159,520	169,326	186,832
Incorporated Areas	117,141	141,765	156,988	166,639	183,867
Cities:					
Bucoda	562	580	627	667	736
Lacey	42,393	51,270	56,830	60,323	66,560
Olympia	46,478	52,770	58,400	61,990	68,399
Rainier	1,794	2,110	2,198	2,333	2,574
Tenino	1,695	1,840	2,041	2,166	2,390
Tumwater	17,371	24,060	26,845	28,495	31,441
Yelm	6,848	9,135	10,047	10,665	11,767

¹Data for these years are from the Office of Financial Management's "April 1, 2019 Population of Cities, Towns, and Counties, 2010-2019," <http://www.ofm.wa.gov/pop/april1/default.asp>. (OFM 2019).

²Total population data for the years 2025 through 2040 is from the OFM's "Projections of the Total Resident Population for the Growth Management Act (GMA), Medium Series: 2010 to 2040 by five year intervals," <https://www.ofm.wa.gov/washington-data-research/population-demographics/population-forecasts-and-projections/growth-management-act-county-projections>. Population figures by area and city for the years 2025 through 2040 assume the same breakdown as 2019.

According to the OFM, April 2019 Population Changes and Rank Report, the County is the sixth most populated county in Washington State and incurred a 13% growth in population from April 2010 to April 2019.

WASTE GENERATION RATES

Washington State defines solid waste as “all putrescible and non-putrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, contaminated soils and contaminated dredged material, and recyclable materials” (WAC 173-350-100).

This Plan focuses primarily on MSW, consisting of those wastes generated by residential and commercial sources that are meant to be handled by the County’s solid waste disposal system. Wastes generated by industrial and agricultural sources are generally included to the extent that these are similar to what is disposed through the County’s system and they do not require special handling. Special wastes handled separately by these sources are only addressed briefly in this Plan.

Table 2-2 shows the 2017 solid waste disposed of in the County or taken to other facilities. This table also shows the amount of materials recycled or diverted through various drop-off and collection programs in the County as well as the amounts of C&D debris and other special wastes disposed of in the County or taken to other facilities in 2017. These materials are accounted for in developing a waste generation rate because tonnages may shift from one facility to another in the future due to new programs, changes in rates, or other factors. 2017 data is utilized in the below Table 2-2, as that is the most current data available from Ecology.

Table 2-2. Current Waste Generation Rate (2017)	
Facility and Waste Stream	Annual Amount
MSW Disposed Tonnage at Roosevelt Regional Landfill	196,730
Materials Tonnage to Other Landfills/Facilities	3,503
Total MSW Tonnage Disposed	200,233
Recycling Tonnages	163,103
Additional Diverted Materials Tonnages	1,496
Total Materials Tonnage Recycled/Diverted	164,599
Grand Total Tonnage, All Solid Waste	364,832
Population (2017 Estimate) ¹	276,900

Facility and Waste Stream	Annual Amount
Waste Generation Rate, per person per year	2,635 pounds
Waste Generation Rate, per person per day	7.22 pounds

Notes: MSW and Recycling tonnages are 2017 figures from Ecology records.
¹2017 Population estimate from OFM GMA Projections– Medium Series

In Table 2-3, waste quantities have been projected using the most current (2017) available per capita generation rate multiplied by population forecasts for the County. The current generation rate was calculated by combining the tons disposed in 2017 with the tons recycled, diverted, or sent to special landfills in 2017 and then dividing by the population in 2017. By applying the current per capita rate to future years, the projected figures for 2025 through 2040 assume no change in waste generation or disposal practices, or in the percentage of material recycled and reduced. This approach also assumes no change in the amount of waste migrating to out-of-county facilities and other factors (such as the ratio of annual tourists and migrant workers to the general County population).

Year	Total Population ¹	Waste Generated TPY ²	Waste Generation Rate	Amount Recycled TPY ³	Amount Diverted TPY ³	MSW Disposed TPY ³
Actual Amounts						
2017	276,900	364,832	7.22	164,174 (45%)	3,648 (1%)	197,010 (54%)
Projected Amounts						
2025	316,508	417,047	7.22	187,671	4,170	225,206
2030	335,965	442,684	7.22	199,208	4,427	239,049
2040	370,699	488,452	7.22	219,803	4,885	263,764

¹ Figures, except the year, population and generation rate, are shown as tons per year (TPY). The waste generation rate is shown as pounds per person per day. Population figures are from Table 2-1.

² Projected waste generation figures for 2020 through 2040 are based on the estimated waste generation rate for 2017 (7.22 pounds per person per day) and population forecasts.

³ The projected amounts of recycling, other diversion, disposed MSW and other wastes assume the same percentage of the total waste generated as in Table 2-2.

Additional information on quantities of MSW handled through the County facilities can be found in Chapter 3.0 Collection, Transfer and Disposal.

2.2.2 Recycling Data

The most recent recycling survey conducted by Ecology suggests that 45% of the County’s MSW was recycled or composted (see Table 2-4). This figure is generally

called a *recycling* rate, and includes composting and reuse as well. For comparison purposes, Ecology reports that the state recycling rate for the same time period is 49%.

Ecology also defines a diversion rate, which includes several additional materials shown in Table 2-4 that are not included in the stricter recycling rate. These diverted materials include specific materials such as agricultural organics and tires, which are still being put to a beneficial use but simply do not count as recycling as defined by Washington State. Diverted materials also include special wastes sent to other facilities. Including these other wastes equates to an overall diversion rate of 45% of the total tons generated.

Table 2-4. Recycled and Diverted Materials (2017)			
Materials	Annual Tons	% of Total Tons of MSW Disposed	% of Total Tons Generated
Recycled			
Aluminum Cans	573	<1%	<1%
Cardboard	16,811	8%	5%
Electronics	339	<1%	<1%
Fluorescent Light Bulbs	29	<1%	<1%
Grease, Other Rendering	894	<1%	<1%
High-Density Polyethylene (HDPE) Plastics	225	<1%	<1%
Low-Density Polyethylene (LDPE) Plastics	269	<1%	<1%
Polyethylene Terephthalate (PET) Plastics	692	<1%	<1%
Metals/White Goods	17,472	9%	5%
Mixed Paper	17,231	9%	5%
Other Plastics/Plastic Film	246	<1%	<1%
Tires	1,015	<1%	<1%
Tin Cans	550	<1%	<1%
Used Motor Oil	980	<1%	<1%
Vehicle Batteries	793	<1%	<1%
Wood Waste/Yard Debris/Food Waste	27,962	14%	8%
Glass	5,904	3%	2%
Ash/Sand/Dust/Asphalt	58,933	29%	16%
Concrete	143	<1%	<1%
Antifreeze	105	<1%	<1%
Household Batteries	8	<1%	<1%
Oil Filters	39	<1%	<1%

Table 2-4. Recycled and Diverted Materials (2017)			
Materials	Annual Tons	% of Total Tons of MSW Disposed	% of Total Tons Generated
C&D/Landclearing Debris	11,890	6%	3%
Tons Recycled/Composted	163,103	-	-
Recovered/Diverted			
Tires (Energy Recovery, Baled, and Reuse)	260	-	-
C&D (Energy Recovery)	1,236	-	-
Tons Diverted	1,496	-	-
Tons Diverted or Recycled/Composted	164,599	-	-
Tons Disposed	200,233	-	-
Total Tons Generated	364,832	-	-
Overall Diversion Rate	45%	-	-

Notes: Data for recycled and diverted materials, and for the amount of “other wastes,” are from the 2017 annual survey conducted by Ecology.

2.2.3 Composition of Disposed Municipal Solid Waste

In 2014, the County conducted a waste composition study for the entire County. Figure 2-1 presents an overview of the 2014 Thurston County Waste Composition Study by material type disposed and percentage of the waste stream.

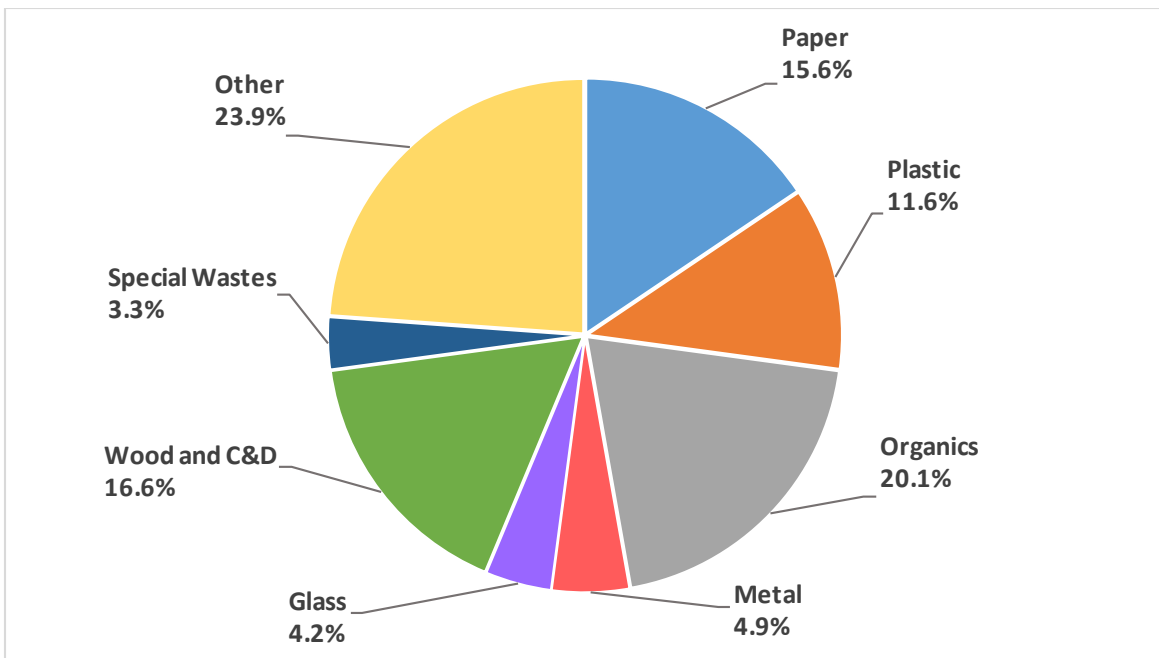


Figure 2-1. 2014 Thurston County Waste Composition Study

Waste composition can be expected to change in the future due to changes in consumption patterns, packaging, disposal habits, tourism and other factors. These changes are difficult to predict in the long term. Furthermore, implementation of this Plan may affect waste composition in the County by changing purchasing and disposal habits. Utilizing the compositional analysis derived from 2014 Thurston County Waste Composition Study and tonnage disposed in 2019, Table 2-5 illustrates composition of the total measured County waste stream.

Table 2-5. Thurston County Waste Stream Composition (2019)		
Materials	Waste Stream	
	Percent by Weight	Tons of Material
Paper	15.6%	31,252
Cardboard	3.3%	6,611
New spaper	0.5%	1,002
Mixed Paper	5.2%	10,417
Compostable Paper	3.8%	7,613
Non-Recoverable Paper	2.4%	4,808
Milk Cartons	0.3%	601
Phone Books	0.1%	200
Plastic	11.6%	23,238
Polyethylene Terephthalate Bottles	0.8%	1,603
HDPE Bottles	0.5%	1,002
Other Plastic	5.8%	11,618
Recyclable Film	4.5%	9,015
Glass	4.2%	8,414
Clear Containers	1.3%	2,604
Brown Containers	1.1%	2,204
Green Containers	0.3%	601
Non-Recyclable Glass	1.5%	3,005
Metals	4.9%	9,816
Aluminum Cans	0.4%	801
Tin Cans	0.7%	1,402
Other Ferrous	1.0%	2,003
Other Non-Ferrous	2.6%	5,209

Table 2-5. Thurston County Waste Stream Composition (2019)		
Materials	Waste Stream	
	Percent by Weight	Tons of Material
Non-Recyclable Metal	0.2%	401
Organics	20.1%	40,267
Food Waste	16.9%	33,856
Yard Debris	3.2%	6,411
Other Materials	27.1%	54,291
Carpeting	4.5%	9,015
Textiles	3.7%	7,412
Furniture	2.3%	4,608
Disposable Diapers	2.8%	5,609
Recoverable Hazardous / Special Wastes	0.3%	601
Other Hazardous / Special Wastes	3.0%	6,010
Other Non-Recoverable Materials	10.5%	21,036
Construction Debris	16.5%	33,055
Clean Wood	9.3%	18,631
Recoverable C&D Debris	7.2%	14,424
Total 2019 Tons Disposed (in tons)		200,333¹

¹2019 tonnage disposed at Roosevelt Regional Landfill.

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3 Collection, Transfer & Disposal

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3.0 Collection, Transfer and Disposal

3.1 Introduction

This chapter discusses existing programs and facilities, identifies relevant planning issues, and develops/evaluates alternative strategies for MSW collection, transfer and disposal.

3.2 Background

This section provides information on the regulations and authorities that govern MSW collection, transfer and disposal.

3.2.1 Collection

Ecology, WUTC, the County and cities and towns, share the legal authority for solid waste collection. RCW 70.95.020 assigns primary responsibility for solid waste handling (management) to local government. Private industry's role in waste management is reflected in the legislative language: "It is the intent of the legislature that local governments are encouraged to use the expertise of private industry and to contract with the same to the fullest extent possible to carry out solid waste recovery and recycling programs" (RCW 70.95.020).

3.2.1.1 Incorporated Areas

Cities and towns have three options for collecting solid waste within their boundaries:

- Municipal collection: Collect waste using municipal employees.
- Contract collection: The municipality conducts a competitive procurement process and selects a private company to provide collection services.
- Permitted Solid Waste Carriers: If a city does not wish to be involved in managing garbage collection within its boundaries, a WUTC certified hauler for the area can provide those services. The city may pass an ordinance requiring that certain services be provided. A city may also require a permitted hauler to secure a license from the city.

3.2.1.2 Unincorporated Areas

Waste collection companies are included as a regulated transportation industry. As such, the WUTC grants exclusive rights to specific haulers, referred to as "Solid Waste Carriers", in unincorporated areas. RCW 81.77.030 allows the WUTC to supervise and regulate waste collection companies by the following:

1. Fixing and altering its rates, charges, classifications, rules and regulations;
2. Regulating the accounts, service, and safety of operations;
3. Requiring the filing of annual and other reports and data;
4. Supervising and regulating such persons or companies in all other matters affecting the relationship between them and the public which they serve;
5. Requiring compliance with local solid waste management plans and related implementation ordinances; and

6. Requiring certificate holders under RCW 81.77 use rate structures and billing systems consistent with the solid waste management priorities set forth under RCW 70.95.010 and the minimum levels of solid waste collection and recycling services pursuant to local comprehensive solid waste management plans.

WAC 480-70 implements RCW 81.77 by establishing standards for public safety; fair practices; just and reasonable charges; nondiscriminatory application of rates; adequate and dependable service; consumer protection; and compliance with statutes, rules and commission orders. At the time of this writing, there is one solid waste carrier with authority to operate in the County, Certificate G-98 as issued to Waste Connections doing business as (dba) Harold Lemay Enterprises, Inc.

3.2.1.3 Local Regulations

The following local regulations govern collection and recycling within the County:

- Thurston County Code, Chapter 8.24 Solid Waste Management, Reduction and Recycling.
- Thurston County Ordinance 13696 defines the minimum levels of service for curbside recycling and yard waste collection within the urban and rural areas of the County.
- Article V – Rules and Regulations of the Thurston County Board of Health govern solid waste handling.
- Olympia Municipal Code, Chapter 13.12, provides the City of Olympia’s public works department with the exclusive authority to collect residential and commercial garbage in the City of Olympia, and establishes mandatory garbage service.

3.2.2 Transfer

The siting, design and operation of transfer facilities are addressed in WAC 173-350-310, which regulates intermediate solid waste handling facilities.

3.2.3 Disposal

The waste disposal system is regulated by RCW 70.95 Solid Waste Management, RCW 36.58 Solid Waste Disposal, WAC 173-350 Solid Waste Handling Standards, and WAC 173-351 Criteria for Municipal Solid Waste Landfills.

3.3 Existing Conditions

The following sections provide information on the existing collection, transfer and disposal operations.

3.3.1 Collection

Collection of MSW and recyclables are conducted by the City of Olympia within its city limits and Waste Connections for other areas, both incorporated and unincorporated within the County. Table 3-1 summarizes the forms of collections service within the County.

Table 3-1. Collection Area Regulatory Oversight			
Municipality	Hauler	Arrangement	Rate Setting
Bucoda	Waste Connections dba Joe's Refuse	Contract	Collection Contract
Lacey	Waste Connections dba Pacific Disposal	WUTC Certificate	WUTC
Olympia	City of Olympia Waste ReSources Utility	Municipal	Ordinance
Rainier	Waste Connections dba Joe's Refuse	Contract	Collection Contract
Tenino	Waste Connections dba Joe's Refuse	Contract	Collection Contract
Tumwater	Waste Connections dba Pacific Disposal	WUTC Certificate	WUTC
Yelm	Waste Connections dba Rural Garbage	WUTC Certificate	WUTC
Unincorporated County	Waste Connections dba Pacific Disposal, Butler's Cove, Joe's Refuse, Rural Garbage	WUTC Certificate	WUTC

Table 3-2 provides contact information and population served for the service providers operating in the County.

Table 3-2. Collection Service Providers		
Company	Address	Population Served ¹
City of Olympia	P.O. Box 1967, Olympia, WA 98507	52,770
Waste Connections	2910 Hogum Bay Road NE, Lacey, WA 98516	233,030
Total		285,800

¹Population from OFM April 1, 2019 Population of Cities, Towns and Counties.

Table 3-3 provides an overview of the rates charged for single-family and commercial garbage and organics noting that single-family garbage collection includes every-other week (EOW) curbside recycling in some instances. Curbside rates vary county-wide by base rate model selected, refuse tax and authorized method of collection implemented.

Table 3-3. Curbside Collection Rates					
Customer Type and Service	Olympia	Bucoda	Rainier	Tenino	Lacey/ Tumwater/ Yelm/ Unincorporated
Single-Family¹					
Weekly Garbage, 20 gallon can	-	-	\$21.28	-	\$18.15

Table 3-3. Curbside Collection Rates					
Customer Type and Service	Olympia	Bucoda	Rainier	Tenino	Lacey/ Tumwater/ Yelm/ Unincorporated
Weekly Garbage, 35 gallon can	-	-	\$25.30	-	\$22.17
Weekly Garbage, 65 gallon can	-	\$39.82	\$32.50	\$36.27	\$29.02
Weekly Garbage, 95 gallon can	-	\$52.69	\$42.08	\$47.72	\$37.15
EOW Garbage, 20 gallon can	\$11.35 ²	-	-	-	-
EOW Garbage, 35 gallon can	\$19.60 ²	-	-	-	-
EOW Garbage, 65 gallon can	\$26.76 ²	\$26.65	-	\$24.79	-
EOW Garbage, 95 gallon can	\$46.37 ²	\$38.77	-	\$40.97	-
Monthly Garbage, 35 gallon can	-	-	-	-	\$15.22
Monthly Garbage, 65 gallon can	-	\$20.57	\$15.43	\$16.90	\$16.55
Monthly Garbage, 95 gallon can	-	\$25.01	\$18.80	\$19.48	\$18.64
Mixed Organics, EOW	-	\$9.80	\$9.65	\$9.65	\$15.20
Commercial³					
Weekly Garbage, 35 gallon can	\$21.66	-	\$13.97	-	\$13.79
Weekly Garbage, 65 gallon can	\$33.02	-	\$26.72	\$28.12	\$21.00
Weekly Garbage, 95 gallon can	\$62.12	-	\$37.76	\$40.39	\$28.10
1 yard, Weekly pickup	\$122.14	\$109.12	\$103.58	\$109.97	\$82.19
2 yard, Weekly pickup	\$200.62	\$215.20	\$181.26	\$199.37	\$137.60
4 yard, Weekly pickup	\$356.88	-	\$311.55	\$319.19	\$237.81
6 yard, Weekly pickup	\$518.20	-	\$417.40	\$520.58	\$324.16
Mixed Organics, 1 yard	\$21.18	-	-	-	-

Notes: Rates effective April 2020. Rates shown for Olympia include the 6% utility tax whereas the Lacey and Tumwater rates do not include the 6% utility tax, and none of the rates shown include the 3.6% State Refuse Tax.

¹ Single-family garbage collection service includes EOW curbside recycling.

² Includes EOW Recycling and Organics service.

³ Commercial service rates shown are for permanent service (i.e., not for temporary container service)

3.3.1.1 City of Olympia

The City of Olympia operates its own solid waste collection services with municipal crews and equipment. Rates are set by the Olympia City Council. Olympia also has its own education and outreach staff which complement the collection operation. Garbage collection is compulsory for Olympia residents and businesses. The City utilizes a combination of collection methods including side-load, front-load, rear-load and roll-off solid waste collection vehicles.

Olympia provides residential, commercial and public place collection services for all waste streams, with the exception of a full-scale cart- and dumpster-based commercial recycling program, although some limited cart/dumpster commercial recycling does occur, and the City does provide commercial recycling with its roll-off container service. A more robust commercial recycling service has been considered and evaluated and could be added in the future.

Commercial recyclables, including mixed organics, Styrofoam, and C&D debris brought to the appropriate processing facilities for composting and recycling, are “open market” materials that can be collected by others as well.

The City also operates a Saturday drop-off site for yard waste, commingled recycling, scrap metal recycling, source separated cardboard and source separated glass. Corrugated cardboard and glass recycling is available 24/7 at the Saturday drop-off location, as well as Yauger Park and Concrete Recyclers. Additional services include collection of garbage, recycle and organics for both permitted and non-permitted events, C&D hauling, and temporary container services to residential and commercial customers for C&D, rubble, yard waste, and garbage. Olympia also owns and manages two shared compactor sites in its downtown core for the purpose of reducing the number of individual dumpsters, and improving sanitation and operational efficiency.

Residential customers receive collection of garbage and commingled recycling on an alternating EOW basis. Garbage cart sizes include 20, 35, 65, and 95 gallons. Recycle carts come in 35, 65, and 95 gallons. Residents set out garbage one week, from Tuesday through Friday, and the following week they set out recycling. Mixed organics collection is conducted on Mondays, with half of the City of Olympia collected each week. Two cart sizes are offered for organics; 35- and 95-gallons at the same cost. The City of Olympia is the only jurisdiction within the state that provides this type of alternating week collection service for all waste streams using the same trucks and drivers, which eliminates redundant vehicles. Other cities (Renton, for example) also provide EOW garbage collection. Many cities offer EOW week recycle collection. In addition to garbage and recycling, residents may subscribe to EOW collection of mixed organics (yard debris and food scraps). About 57 percent of the 15,350 (April, 2020) residential customers subscribe to this service. Improved efficiency in residential collection since 1998 has resulted in a 60 percent decrease in the number of trucks and staff required, despite a nearly 30 percent increase in the number of customers. Olympia has also implemented one-side road collection for about 3,500 of its customers, which furthers collection efficiency.

Commercial and multi-family customers have the option, depending on the amount of waste generated, of receiving either a cart, front or rear load container, or roll-off compactor or drop box for storage and collection of garbage. Collection of commingled recycling is provided to multi-family complexes either on a weekly basis or EOW basis depending on the needs of the customer. Mixed organics is also available to multi-family properties. Commercial organics is available as a separate charge in carts, dumpsters, and customer-owned compactors. Collection can be weekly or twice weekly for carts and dumpsters, and the fee for organics is less than for garbage.

Collection of residential recycling is optional; however, the assessed collection fees are lower for customers that choose to participate in recycling and higher for those with garbage only. Single-family residents also have the option of subscribing to weekly garbage collection (at a significantly higher cost). In 2020 only 9 customers (out of more than 15,000 total customers) were subscribed to this option. These are mostly customers with waste disposal needs that fall outside the typical household generation norm.

Approximately 138 businesses subscribe to the Waste ReSources Utility's commercial organics collection program. The Waste ReSources Utility utilizes 95-gallon carts as well as 1-, 1.5-, and 2-yard containers for storage and collection of organic waste. Customer-owned compactors for mixed organics are also hauled.

3.3.1.2 Waste Connections

Waste Connections (dba Harold LeMay Enterprises, Pacific Disposal, Rural Refuse, Butler's Cover Refuse and Joe's Refuse) collects garbage in all areas of the County and municipalities excluding the City of Olympia. Waste Connections has contracts with four cities and towns, Bucoda, Rainier, Tenino and Yelm. Collection rates are specified in the contracts, except for Rainier and Yelm that utilize the WUTC certificated rates. Bucoda and Rainier require residents and business to subscribe to curbside collection while the rest of the cities and towns and the unincorporated area have a voluntary system for curbside collection.

Residential collection services vary slightly from area to area, but most areas include both weekly and monthly service options for 35-, 65-, and 95-gallon garbage cans or carts. In the County (south of 142nd Street), EOW service is provided due to the tariff filed for Joe's Refuse. A weekly collection service for a 20-gallon mini-can is available in the County. Residential rates are charged for a two-month period and commercial customers are billed monthly.



Figure 3-1. LeMay - Lacey Collection

County Ordinance 13696 requires minimum service levels that collection companies are required to provide to residential customers. Recycling is collected EOW on the same day as garbage collection. Mixed organics collection is provided on an EOW schedule to residents in the Urban Growth Area (UGA) and in major housing developments on a subscription basis.

Commercial garbage collection is provided and customers can select container size and collection frequency based on the amount of waste generated. Commercial customers also have the option to subscribe to recycling and mixed organics collections. Dumpsters and roll-off containers are also available on a temporary basis for C&D debris and other special projects.

3.3.1.3 Other Collection

Residential and non-residential customers visit the WARC and the two rural drop box sites to dispose of waste. Two of these users, the Washington State Department of Enterprise Systems (DES) and Panorama City are large enough to be considered collection services. DES made the choice, as a governmental agency, to provide for their own daily garbage collection service for dumpsters for buildings at the Capitol campus and subscribes for collection of recyclables and organic from these buildings. Panorama City is a large retirement community (over 850 homes on 140 acres) in Lacey that includes single-family homes, apartments and other living arrangements. Panorama City collects solid waste within their community and transports it to the WARC.

3.3.2 Transfer

The transfer system for the County consists of a transfer station facility (Waste and Recovery Center (WARC)), and two rural drop box facilities, the Rainier Drop-Box facility and the Rochester Drop-Box facility. Figure 3-2 presents the locations of the three facilities.

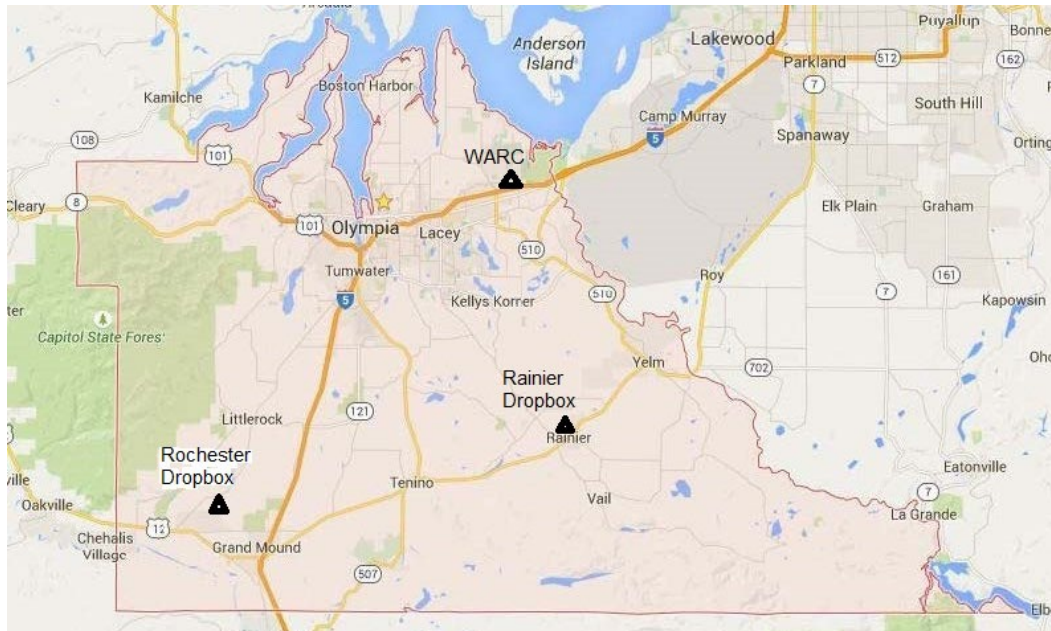


Figure 3-2. County Transfer Facilities

3.3.2.1 Waste and Recovery Center (WARC)

The County owns the WARC site, located at 2420 Hogum Bay Road NE, Lacey, WA 98516, on which the following facilities are located:

- Transfer Station

- HazoHouse
- Hawks Prairie Closed Landfill
- Closed Loop Park
- Off-Leash Dog Park
- Decant Facility

The WARC, which operates as the main transfer station for the County, accepts MSW from municipal, commercial, and self-haul (public) customers. Commercial haulers are directed to the transfer building where waste is placed on a tipping floor for compaction into shipping containers and transported by truck and rail to Roosevelt Regional Landfill (RRL) in Klickitat County for disposal. Self-haulers are directed to a separate disposal area on site, where MSW is placed in drop boxes, hauled to the tipping floor in the transfer building, and compacted with the commercially hauled waste.

The WARC offers opportunities for the public to drop off recyclable materials in an area separate from the disposal area. An area for collection of HHW (HazoHouse) is available in a separate building on site. Organics (green waste) are also processed in a separate area on site where they are ground and transported off-site for composting. Figure 3-3 provides the current WARC facility layout.



Figure 3-3. WARC Facility Layout

The WARC site is located on a 127-acre parcel in the northern portion of the County, adjacent to I-5. The property is zoned Light Industrial with a portion of the western end of the property zoned Limited Development 3-6 and located in the Lacey UGA which provides for single-family residential areas of low density. The Hawks Prairie Park & Ride is also located on an 8-acre portion of the closed landfill which is owned by Thurston County and managed by the Intercity Transit Agency, a municipal corporation that provides public transportation for people in the cities of Olympia, Lacey, Tumwater, and Yelm. The following provides detailed information regarding various facilities located on-site.

3.3.2.2 Transfer Station

The 17,000-square foot (sf) transfer station was constructed in 2000 and consists of a flat tipping floor, an elevated customer disposal wall, a Keith Walking Floor mechanical sort line (currently not operational), one top load chute, one compactor load out chute, one SSI 4500 compactor (installed in 2016), an office, an employee lunch room, and utility services. Exterior to the transfer station is a trailer staging area and stormwater collection system. The operations of the transfer station are currently contracted to Republic Services who subcontracts to Waste Connections. The transfer station operations contract was renewed in 2020 with a three-year renewal through May 2023 and includes the option for an additional two year extension. The operations contract required Waste Connections to deliver all curbside MSW collection in the County to the WARC for the term of the contract. As part of the operations contract, an operations plan is prepared and submitted to the PHSS for approval. The operations plan provides direction on surveillance and control of waste handled at the facility.



Figure 3-4. WARC Transfer Station

3.3.2.3 Scales and Scalehouses

Scales and scalehouses were constructed in 2000 and consist of two 80-foot inbound scales with a scalehouse and unattended kiosk and two 80-foot outbound scales with a scalehouse and unattended kiosk. There is a separate building on site (Green Roof Building) that houses the computer hardware for transmitting of data back to the main Public Works offices on Tilley Road. The scalehouses are staffed by County Solid Waste Division employees.



Figure 3-5. WARC Scale Plaza

3.3.2.4 Public Drop-Off Area

The public drop-off area is an uncovered, 45,000-sf asphalt paved area with below-grade drop boxes for the general public to unload their MSW.

3.3.2.5 Organics Processing Area

The organics processing area is an uncovered, 109,000-sf asphalt paved area for both commercial and the general public to unload yard and food waste. A portable grinder is located in the processing area to grind the received material for reload into trailers for transport to the composting facility. The organics area is currently operated under a separate contract with Waste Connections which expires in May 2023.



Figure 3-6. Organics Processing Area

Additional information regarding organics can be found in Chapter 5, Waste Reduction, Recycling & Organics.

3.3.2.6 HazoHouse

The County opened a fixed facility, HazoHouse, to collect HHW from County residents and small quantity generators. The 2,870 sf facility opened in 2011 and accepts household and business HHW, free of charge. The 2,870-sf facility is in good condition and is currently accessed by a separate ingress and egress from the transfer building. The Hazohouse is operated by County staff. Additional information regarding the HazoHouse and HHW can be found in Chapter 5, Waste Reduction, Recycling & Organics.



Figure 3-7. HazoHouse

3.3.2.7 Recycling Area

The recycling area is an uncovered area for the general public to unload acceptable recyclable materials into drop boxes for transport off-site. The area is currently accessed by a separate ingress and egress from the transfer building. The recycling area is managed under the operations contract between the County and Republic Services.



Figure 3-8. Drop-Off Recycling Area

3.3.2.8 Closed Loop Park

The Closed Loop Park was established in 1994 to educate residents about “closing the loop” on recycling. The Park is approximately two acres in size and is located on a portion of the closed landfill. The Park is maintained by volunteers from the Washington State University Thurston County Master Gardener and Master Recycler Composter Programs and consists of a paved pathway, gazebo, picnic tables, and a compost center.

3.3.2.9 Off-Leash Dog Park

The Off-Leash Dog Park is located within the boundaries of the WARC. The Off-Leash Dog Park features a special area for small dogs, water stations, a sand and gravel area for digging, paths and fencing. There is an associated parking lot inside the gate to the WARC. The Off-Leash Dog Park is maintained by County staff.

3.3.2.10 Decant Facility

The Decant Facility is a 0.7-acre asphalt paved area located within the boundaries of the WARC. It is an uncovered facility that accepts vector truck materials generated from County street sweeping and cleaning of catch basin operations. Liquids, including precipitation, flow through a treatment train that allows suspended solids to settle out in the facility settling bays, drain through sedimentation structures and flow into the permitted pre-treatment aeration pond prior to discharge to the City of Lacey sanitary sewer for final treatment at the LOTT Wastewater Treatment Plant.

3.3.2.11 Drop-Box Facilities

The Rainier and Rochester sites accept MSW from self-haul customers. MSW is currently deposited into 40-cubic yard containers and transported to the WARC transfer station for compaction into shipping containers. These sites offer separate designated areas for drop-off recyclable materials and collection containers for used oil and used vehicle batteries. County staff currently operate the Rainier and Rochester sites with the haul of waste to the WARC managed under the operations contract between Republic Services and the County.

3.3.3 Disposal

This section describes existing MSW waste export, closed landfills and current technologies available for MSW disposal. There are no operational landfill sites located in the County at this time.

3.3.3.1 Waste Export - Roosevelt Regional Landfill

In 1998, the County contracted with Regional Disposal Company (now Republic Services) to export waste to RRL. The Waste Export and Disposal Agreement was executed in 1998 for two initial 10-year terms that began with the start of transfer station operations on May 1, 2000. This agreement was extended beginning in May 2020 through May 2023 with an option to renew for an additional two-year period. Figure 3-9 provides an overview of County annual tonnage disposed at the RRL 2006-2019.

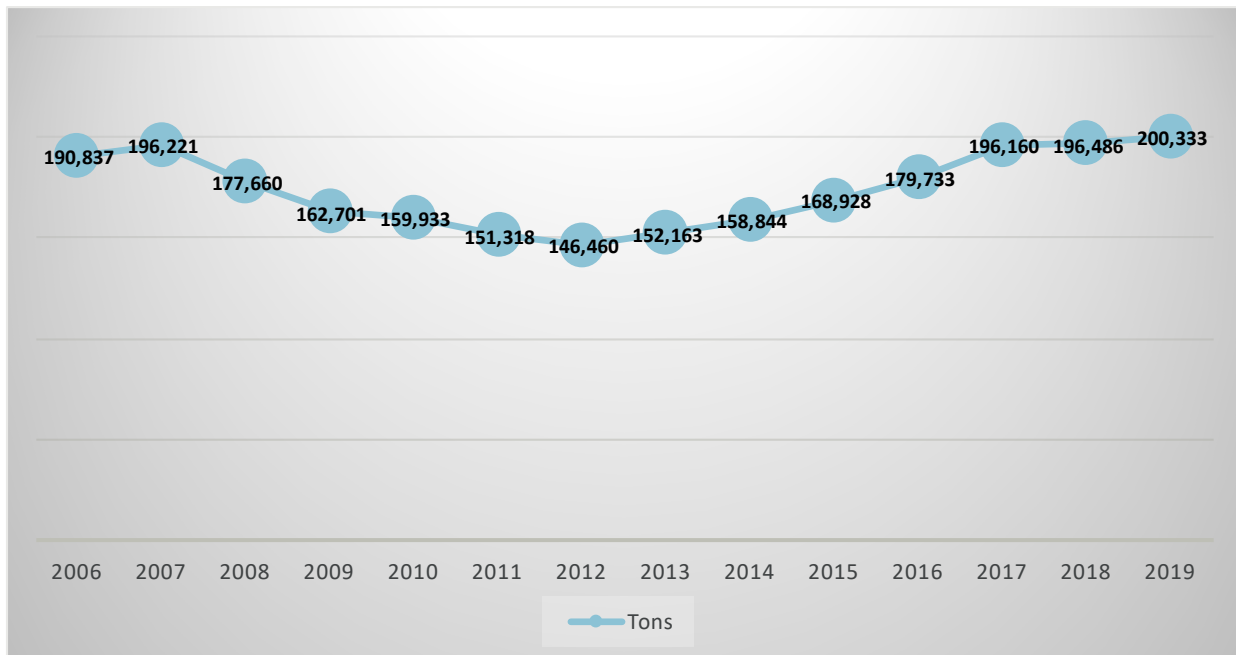
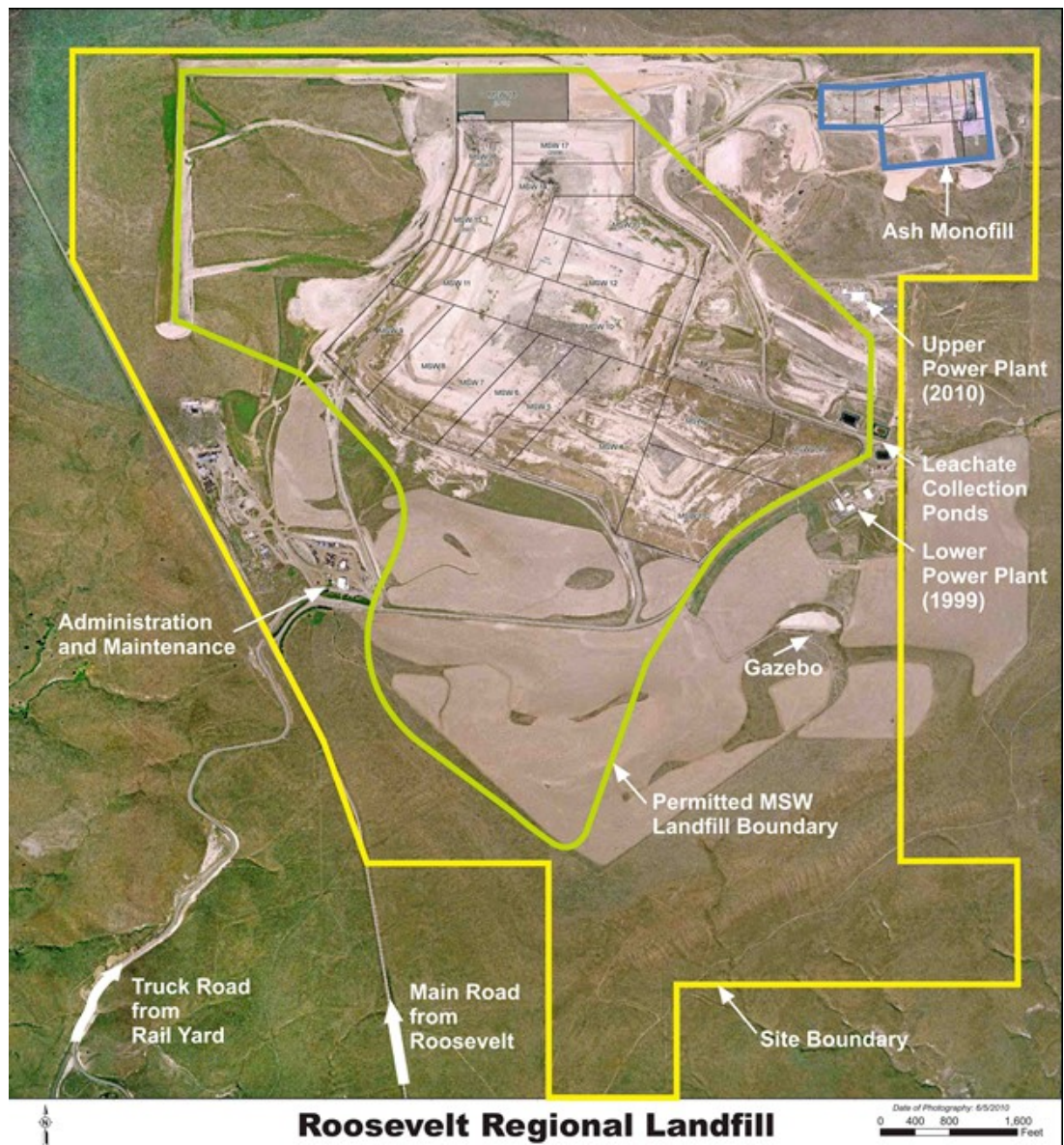


Figure 3-9. Annual Waste Disposed (in tons)

As part of this agreement, an alternate operating plan is required that enables Republic Services to perform its obligations in the event that RRL or the normal transportation system becomes unavailable.

The RRL is located at 500 Roosevelt Grade Road, Roosevelt, Washington, 99356, and is owned and operated by Republic Services. The RRL currently receives waste from many counties in Washington State by the largest waste by rail system in the country, and waste from out of state including British Columbia. Figure 3-10 provides an aerial view of RRL.



The RRL began receiving wastes on November 1, 1990. Since that time, the RRL has been maintained and improved in a number of ways. A site expansion was authorized in 2002, which expanded the total capacity from 180 million cubic yards to 245 million cubic yards and the annual limit from 3 million TPY to 5 million TPY. In 2003, a geosynthetic

clay liner was approved for new cells as an alternative liner to the previously permitted clay liner.

In collaboration, Klickitat Public Utility District and Republic Services, partnered on a power plant that was built in 1998 to convert methane gas generated in the landfill to electrical power. Methane is collected in a network of gas wells and transported through pipes. The H.W. Hill Landfill Gas Project was initially designed with four Waukesha reciprocating engines converted to run on methane. Phase 1 capacity was 8.4 megawatts (MW) with a fifth engine added at the end of the plant's first year of operations boosting capacity to 10.5 MW. Phase II of the H.W. Hill Landfill Gas Project began in 2009 with commercial operation commencing in 2011. Phase II added two 10 MW combustion turbines with an additional capacity of 6 MW through a heat recovery steam generator and steam turbine. Phase 1 was shutdown at this time due to the more modern facility operating at a 26 MW power generation rate.



Figure 3-11. Gas Project

In 2017, the Klickitat Public Utility District authorized contracts to begin the production and selling of renewable natural gas from methane utilized for transportation fuel. Agreements were reached with IGI Resources and its parent company, British Petroleum North America, for a guaranteed, fixed revenue stream for the natural gas sold. The facility is expected to produce more than 22 million gallons of ethanol gallon equivalents annually and is the largest renewable natural gas projects in the United States. Formal dedication of the renewable natural gas plant was in September 2019. In 2020, Puget Sound Energy signed a contract with Klickitat Public Utility District to purchase renewable gas through June 2040.

A separate ash monofill was added to the RRL in 1991 and serves the disposal of incinerator ash received from the City of Spokane. In 2016, Republic Services and Lab USA unveiled an ash metal recovery facility. The facility processes newly delivered ash as well as systematically processing ash previously buried. Recovered metals are recycled, shipped and repurposed to make new metal products. The facility recovers and recycles an estimated 46,200 tons of ferrous metals and 42,900 tons of non-ferrous metals annually.

3.3.3.2 Closed Landfills

Hawks Prairie Landfill is located at the WARC and was owned and operated by the County until closure in 2000. The Hawks Prairie Landfill was closed in compliance with WAC 173-351-350 which requires post-closure monitoring for 30 years (May 1, 2030) at which time the PHSS is expected to make a determination that the landfill meets the



Figure 3-12. Hawks Prairie Closed Landfill

criteria for a stabilized facility and closure care requirements can be terminated.

In addition to the Hawks Prairie Landfill, there are 17 other historical disposal sites that have been identified in the County. The majority of these closed landfill sites (14) were utilized for MSW and ceased operations prior to 1972. Three disposal sites were closed in 1990 that accepted wood waste and/or C&D debris.

3.3.3.3 Waste Processing and Conversion Technologies

Waste processing and conversion technology options can be grouped into the following main technology classes:

- Thermal Technologies
 - Direct Combustion (various forms of traditional waste-to-energy)
 - Gasification
 - Plasma Arc Gasification
 - Pyrolysis
- Biological Technologies
 - Aerobic Composting
 - Anaerobic Digestion with biogas production for electricity or fuel generation
- Chemical Technologies
 - Hydrolysis
 - Catalytic and Thermal Depolymerization
- Mechanical Technologies
 - Autoclave/Steam Classification
 - Advanced Materials Recovery
 - Refused Derived Fuel Production

There are also waste conversion technologies that are a combination of two or more technology classes. For example, Mechanical Biological Treatment technologies combine mechanical separation and treatment with biological processing, while Waste-to-Fuel Technologies combine mechanical pre-processing with thermal and chemical conversion processes.

Conversion technology vendors have proposed various projects to the County, but there is still limited experience applying these technologies to solid waste in the United States. Solid waste is a highly variable mix of materials and is more difficult to process than more homogeneous waste streams such as wood chips, agricultural waste or certain industrial wastes. Conversion technologies have a sparse track record of successful full-scale projects with demonstrated long-term economic feasibility from the sale of energy and/or byproducts in the United States. In addition, conversion technologies need to meet regulatory compliance and environmental protection standards to gain public acceptance. The County is currently well-served by its waste export and disposal program to the RRL. Additional information on the RRL gas to energy projects can be found in Section 3.3.3 Disposal.

3.4 Status of Previous Recommendations

The status of the recommendations made by the 2009 Plan can be found in Appendix D.

3.5 Alternatives and Evaluations

Existing service gaps and other issues connected to the collection, transfer and disposal components of solid waste management are evaluated below.

3.5.1 Collection

3.5.1.1 Solid Waste Collection

Curbside solid waste collection programs appear to be operating satisfactorily in both the urban and suburban areas.

3.5.1.2 Curbside Recycling

Participation and the quantity and quality of materials recycled per household could be increased. The relationship between collection and recycling is addressed in greater detail in Chapter 5 Waste Reduction, Recycling and Organics.

3.5.1.3 General Collection

Options to continue to support the County's overall solid waste system, while promoting proper handling of materials, are described below:

A. Require Waste to be Routed through the County-owned Facilities

Waste collected in the County is currently required to be routed through the WARC as part of the operations and maintenance contract with Republic Services and their subcontractor Waste Connections. As the County proceeds with the issuance of a Request for Proposals for operations and maintenance of solid waste facilities, the County needs to consider the adoption of a flow control ordinance for the unincorporated areas that requires waste to be routed through the WARC in order to ensure continuation of waste transfer and disposal services at an affordable rate for system users.

B. Update County Ordinance No. 13696 - Minimum Levels of Service for Residential Recycling and Yard Waste Collection

In December 2006, the County adopted Ordinance No. 13696 which set minimum levels of service for recycling and yard waste collection in the unincorporated urban and rural areas of the County. The intent of the Ordinance is to complete the following:

- Establish residential recycling programs as an integral component of the collection of solid waste, incorporating the state's goals to make "source separation of waste a fundamental strategy" and to "make recycling at least as affordable and convenient to the ratepayer as mixed waste disposal".
- Increase diversion of recyclables and yard waste from single-family and multi-family residences, mobile home parks, and condominiums in the County.
- Expand residential recycling programs to collect additional types of materials.
- Make recycling easier and more convenient for residents through use of efficient collection systems.
- Retain low-cost strategies to encourage participation.

- Encourage the private sector to develop and operate recycling facilities that are needed to process and market recyclables collected in the County and its cities and towns.
- Establish model residential collection programs suitable for cities and towns to adopt or modify to suit their needs.

A number of changes to recycling have occurred recently, most notably the import ban in China initiated in 2017 on low-grade plastics and unsorted paper. Additional information on this ban is located in Chapter 5, Waste Reduction Recycling and Organics. The County should review and update Ordinance 13696 to reflect current conditions as they relate to curbside recycling in the County.

3.5.2 Transfer

The current contract for WARC operations, between the County and Republic Services, has been extended until May 1, 2023 with the option to extend for an additional two-year period. The County intends to issue a Request for Proposals in 2021 for long-term operations and maintenance of the WARC and haul from the Rainier and Rochester Drop Box Sites to ensure the rate-payers are receiving the most cost-effective operations and maintenance of facilities available for the next twenty years.

3.5.2.1 Update Interlocal Agreements

RCW 35.21.152 recognizes a city's authority over solid waste handling, including the authority to designate disposal sites for solid waste collected within its boundaries and also authorizes a city to enter into contracts with the County for purposes of solid waste handling. It is to the mutual advantage of the County and the Cities and Towns of Bucoda, Rainier, Tenino, Lacey, Olympia, Tumwater and Yelm and their citizens to contract to provide for continued, integrated solid waste management planning and solid waste programs, including the designation of solid waste handling systems and facilities.

The Cities and Towns of Bucoda, Rainier, Tenino, Lacey, Olympia, Tumwater and Yelm and the County are currently cooperatively planning, under interlocal agreements signed in 2013, for solid waste management and handling and considering adopting flow control to designate the County solid waste facilities as disposal sites for MSW collected within their municipal boundaries. Additional information on interlocal agreements can be found in Chapter 7 – Administration, Financing and Enforcement.

3.5.2.2 Adopt Flow Control Ordinance for Unincorporated Area of the County

RCW 36.58 authorizes the County to designate a disposal site or sites for all solid waste generated and collected in the unincorporated areas of the County. In accordance with RCW 70.95, the County also adopts and maintains a Comprehensive Solid Waste Management Plan to regulate the County's system of solid waste handling for the unincorporated areas of the County and the incorporated areas of the cities participating in the Comprehensive Solid Waste Management Plan. The Comprehensive Solid Waste Management Plan, together with the implementing laws and regulations, establishes policies and procedures for managing and funding solid waste handling within the system.

The integrity of the system and the system disposal sites and their effective administration are essential to reduce waste, control pollution and protect and promote the public health, safety and general welfare of the County. Consistent with the Comprehensive Solid Waste Management Plan and state law, the County should designate the system disposal sites as the exclusive disposal sites for all MSW generated and collected within the system area through County ordinance. Additional information on flow control can be found in Chapter 7 – Administration, Financing and Enforcement.

3.5.2.3 Solid Waste Facility Condition Assessment and Infrastructure Management Plan

In 2016, the County contracted with HDR Engineering, Inc. (HDR) to conduct a facility conditions assessment, perform a capital needs analysis of its solid waste facilities and prepare a Solid Waste Facility Condition Assessment and Infrastructure Management Plan (Infrastructure Management Plan). The purpose of the Infrastructure Management Plan was to:

- Describe the general condition of solid waste infrastructure, including structures, grounds and major components; and
- Develop a 20-year strategic, coordinated and fiscally responsible management plan that provides for the timing, estimated cost, and prioritization of recommendations needed to maintain, repair, replace, renovate and construct infrastructure to correct deficiencies and meet operational needs, regulatory requirements and public demand for services into the future.

The Infrastructure Management Plan recommended scheduled implementation of 32 solid waste capital infrastructure maintenance, repair and replacement upgrades to the facilities over the planning horizon to align with the County’s budgeting process. The estimated 20-year Infrastructure Management Plan costs (in 2018 dollars) by project facility are shown in Table 3-5.

Table 3-4. Solid Waste Infrastructure Plan Estimated Costs (in 2018 \$)	
Project Facility	Estimated 20-Year Project Cost
WARC Site	\$18,694,435
Hawks Prairie Closed Landfill	\$3,990,910
Rainier/Rochester Drop Box Sites	\$3,618,980
Total All	\$26,304,325

Recommendations from the Infrastructure Management Plan were adopted in December 2019 for inclusion in the Thurston County Capital Facility Plan 2020-2025 which are updated on an annual basis for approval by the Board of County Commissioners.

3.5.3 Disposal

Given current technology and disposal patterns, landfills are and will remain a necessary and important component of MSW management. For now, the Republic Services owned RRL has capacity well beyond the timeframe addressed by this Plan to handle the County's MSW disposal needs.

The current contract for disposal between the County and Republic Services has been extended until May 1, 2023 with the option to extend for an additional two-year period. The County intends to issue a Request for Proposals in 2021 for long-term disposal of MSW to ensure the rate-payers are receiving the most cost effective disposal service available for the next twenty years.

3.6 Recommended Actions

The following recommendations were selected for implementation:

- CTD1) Continue to require MSW to be routed through the County-owned facilities in future interlocal agreements.
- CTD2) Review and update County Ordinance 13696 related to minimum service levels for residential recycling collection.
- CTD3) The WARC, Rainier Drop Box Site, and Rochester Drop Box Site will comprise the designated disposal system for all MSW generated in the County.
- CTD4) Implement proposed improvements to the WARC, Rainier Drop Box Site and Rochester Drop Box Site, from the County Capital Facility Plan, as appropriate to ensure high-quality service delivery in a fiscally responsible manner.
- CTD5) Issue a Request for Proposals for operations, maintenance, transportation and disposal, that includes sustainability criteria as an evaluation factor as appropriate, to ensure continuation of solid waste services at the County-owned facilities.
- CTD6) Monitor developments and progress in waste processing and conversion technologies utilized at RRL and support the continued use of landfill gas to energy operations at the site.
- CTD7) Proposals for disposal facilities, anaerobic digestion, incinerators and other waste conversion technologies should be evaluated on a case-by-case basis for consistency with the Plan, cost to benefits and environmental compliance.



Education,
Outreach
& CROP

4

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4.0 Education, Outreach and CROP

This chapter discusses existing education and outreach programs related to solid waste management, identifies relevant planning issues, and evaluates alternative education and outreach strategies developed to potentially improve these programs.

4.1 Background

Public education and outreach are important elements for solid waste management systems and understanding who lives in the County, what businesses operate here, and what recoverable materials are currently disposed of as garbage helps identify topics and waste generators who may need additional education and outreach.

The County is facing shifts in the demographics and dynamics of its population. Though still a small part of the population, nine percent of households utilize Spanish as the most common language spoken at home, as estimated by TRPC. In addition, the population is slowly aging, with older residents requiring access to different outreach methods than younger residents.

County residents and businesses need to be informed as to the proper and available methods for waste reduction, recycling and disposal. The education and outreach strategies described in this chapter encourage residents and businesses to take the extra steps to reduce, recycle or properly dispose appropriate waste streams.

In 2019, HB 1543 Sustainable Recycling, was signed which took effect July 1, 2019. The act requires Ecology to create a state recycling CROP by July 1, 2020, with local jurisdictions with a population of greater than 25,000 creating their own CROP or adopting the state CROP by July 1, 2021. This chapter provides information on the County's approach to CROP development.

4.2 Existing Education and Outreach Program Elements

This section provides background information on existing education and outreach programs.

4.2.1 Public Outreach Promotional Resources and Activities

County staff offer resources online and at disposal sites. Resources and outreach materials available on the website, include general information on disposal locations, volunteer opportunities, and youth programs as well as the following:

- The "Where Do I Take My?" online database for accepted recyclables.
- A C&D debris recycling brochure.
- A flyer promoting classroom presentations on recycling and waste reduction for 4th through 8th graders.

Rack cards at disposal sites detail the hours, rates, locations, and prohibited items for the Rainier and Rochester Drop-Box facilities and the WARC.

County staff has also offered two newsletters – “Talkin’ Trash” released every fall and spring for adults and “Trash Talk” for students. Both newsletters cover a range of topics from food rescue to free and safe medicine disposal. The Trash Talk newsletter engages students through mini exercises, including question sets, clue games, and word-scramble exercises that also often incorporate math and grammar lessons. The Talkin’ Trash newsletter was last updated for release in fall 2016 and the Trash Talk in summer 2019.

Externally, County staff promote recycling behavior with videos through its “ThurstonSolidWaste” YouTube channel on topics including food rescue.



Figure 4-1. Talkin' Trash Newsletter

County staff also provide outreach to schools and local events; assist interested event planners planning zero-waste events; and lends recycling bins, signs, and bags for local events.

4.2.2 Waste Reduction and Recycling Education

County staff emphasize educating students of all ages to form recycling and waste reduction habits at a young age. The County offers a library of curriculum guides authored by different organizations and governments agencies on topics such as garbage and litter, HHW, environmental awareness, and composting. The County offers a variety of educational presentations to youth on recycling and reduction strategies.

The Reduce, Reuse, Recycle Patch Program works with youth groups based in the County to complete a set amount of sustainable activities to meet the requirement to receive an honorary patch.

The Master Recycler Composter Program invites adults, including college students, to receive training and volunteer a minimum of 25 hours of service to increase public awareness about recycling, reducing, and composting.

Technical assistance programs serve businesses and multi-family property managers. For businesses, the County offers site visits, hands out tip sheets and bin

signs; coaches' employee green teams; and assists in marketing green efforts to customers. The tip sheets provide information on waste reduction topics focused on specific industries (e.g., agricultural or construction) and settings (e.g., general business, conference, and events). To further motivate businesses, the County grants public recognition of any progress or achievement through the Thurston Green Business Program created in partnership with the Cities of Olympia, Lacey, and Tumwater.

Similarly for multi-family property managers, County staff offer a "Recycling Toolkit for Property Managers," which includes tips on creating an effective recycling program and resources to offer residents who are moving out. County staff offer general recycling brochures in English and Spanish that property managers can distribute to the tenants.

County staff also focus education efforts for reducing specific wastes, including C&D debris and organics. For C&D debris, the County website provides a brochure and links to recycling and reuse locations and self-haul locations, and refers people to Recovery1, a private C&D debris recycler in Tacoma. Regarding organic material management, the Waste Less Program utilizes TV and radio ads, videos, signs and coloring sheets, presentations upon request, volunteering opportunities, quizzes, online workshops, and challenges to measure one's own food waste.

4.2.3 Household Hazardous/Small Quantity Generator Waste Education

Current programs around household hazardous and small quantity generator waste are addressed in the Thurston County 2014 Hazardous Waste Plan and therefore not included in this Plan.

4.2.4 Litter, Illegal Dumping and Secure Load Education

Currently the County participates in statewide litter cleanup programs, such as the Ecology Youth Corps that encourages teen and young adult volunteers to clean up over a million pounds of litter. County staff also include reminders for residents to secure their loads in websites and education resources intended for self-haulers.

In the past, corrections crews from the Thurston County Correction Facility participated in a Litter Control Program. Also, as a separate part of the program, an environmental educator provided community presentations to schools and community groups about the impacts of littering and illegal dumping.

4.2.5 Non-County Outreach and Promotion Programs

In addition to the County's efforts, other government and non-governmental entities conduct outreach and promotion programs that can support, be supported by, or otherwise expand the reach of waste reduction and recycling education. Examples of these activities are described below.

Private solid waste service providers conduct their own outreach in various degrees. LeMay Pacific Disposal, the certificated solid waste collector in the County, offers a curbside recycling guide and a curbside yard and food waste guide. These guides are also available on the County’s website. On its own website, LeMay Pacific Disposal has an online database called the “Waste Wizard” that customers can use to learn how to recycle or dispose of certain items and provides links to state programs, online material exchange sites, e-waste recycling organizations, and the Washington Refuse and Recycling Association.

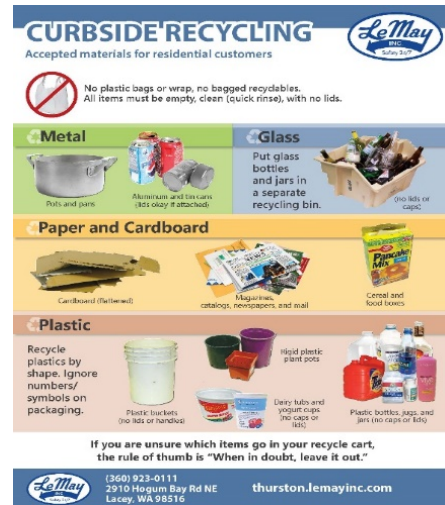


Figure 4-2. LeMay Brochure

Within the County, the City of Olympia conducts several separate outreach efforts, particularly regarding differences in accepted materials. For instance, Olympia no longer accepts glass bottles and jars, poly-coated materials, and aseptic containers. The City uses the Recycle Coach app to provide detailed recycling information and offers posters and promotional materials for commercial organics collection.

Ecology implements numerous educational programs and offers online resources, including the Recycle Right campaign that emphasizes the responsibility of recyclers to reduce contamination by remembering to empty, clean, and dry their recyclables. The campaign comes with a partner toolkit that offers website headers, banners, print materials, and multimedia templates to promote Recycle Right messaging in local communities.

Product stewardship organizations implementing programs to meet requirements of extended producer responsibility laws also provide education and outreach regarding managing materials through their programs.

4.3 Status of 2009 Recommendations

The status of recommended actions from the 2009 Plan can be found in Appendix D.

4.4 Planning Issues and Opportunities

Currently, County staff provide the majority of the promotion, education and outreach programs conducted county-wide. The subsections below address the planning issues associated with each of the existing program categories.

4.4.1 Public Outreach Promotional Resources and Activities

County staff must consider the accessibility of educational materials for certain groups within the population.

- More people access their news and information online, but some groups, including older generations and low-income groups, tend to be digitally isolated.
- Outreach materials provided only in English are not effective for residents, business owners, and employees, who are English-language learners.

4.4.2 Waste Reduction and Recycling Education

Waste reduction and recycling education should address the most impactful topics and be relevant for intended audiences.

- According to Thurston's 2014 Waste Characterization Study, organics made up the greatest portion of waste disposed by most residential and commercial waste generators. Waste characterization studies can inform County staff on which topics of waste reduction and recycling to focus.
- Different industries need technical assistance and education around waste more commonly disposed of in their field. For example, an area of focus can be healthcare plastics for hospitals.

4.4.3 Litter, Illegal Dumping and Secure Load Education

Identifying and educating those responsible for litter and illegal dumping is an ongoing process that requires participation from a number of entities in the County.

- Litterers and illegal dumpers cannot be easily identified, thereby requiring a broad outreach approach.
- Secure-load education will be more effective when it includes information on how to secure loads (avoiding common mistakes) and when it is combined with financial incentives, such as fines for unsecured loads.

4.4.4 Contamination Reduction and Outreach Program

With the adoption of HB 1543, Sustainable Recycling, the County is required to implement a CROP prior to July 1, 2021.

4.5 Alternatives and Evaluations

Potential gaps and improvements to the existing education and outreach programs are presented in this section.

4.5.1 General Education for Residents and Businesses

General education programs for residents and businesses are discussed below.

4.5.1.1 Refresh Educational Materials and Seek to Harmonize Messaging

Education and outreach initiatives have greater impact if messaging is consistent throughout the County. To achieve this, County staff can coordinate between departments and with cities, including the City of Olympia. As mandated by the Thurston County Curbside Recycling Ordinance No. 13696, the County must work with collection

companies to unify their messaging on waste prevention, recycling, private recycling options, and extended producer responsibility options. Harmonization can involve:

- Standardizing a list of accepted materials.
- Setting similar priorities for education objectives in terms of material and content.
- Maintaining consistency in labeling, use of picture-based icons, color coding, and – when applicable – translations for bin decals and signage.
- Communicating across agencies (e.g., with PHSS) to jointly work on overlapping objectives, such as MRW.

Unified messaging includes using one set of materials (e.g., decals, flyers, brochures, pamphlets, mailings), which can be co-branded or individually branded by the agency or collection company distributing them.

County staff can also review and selectively refresh its library of existing materials or newly create materials to reflect priority recycling and composting topics; objectives around waste reduction; and key littering, illegal dumping, and MRW issues. Building on materials and resources, such as for open-source photos for recyclables, from other jurisdictions and organizations can be cost effective. For example, Ecology offers a Recycle Right toolkit and The Recycling Partnership offers free images for signage.

Unified messaging materials can be tailored to specific generator types with relevant resources according to the specific challenges presented to the group, such as food waste prevention, edible food recovery, and composting for grocery and food-service businesses.

When feasible, materials should also have translated versions. Adapting already-translated external resources, with permission, or partnering with nearby cities and counties, such as City of Olympia and King County, could be a cost-effective way of obtaining translated informational material.

4.5.1.2 Distribute Informational Mailings to Households and Businesses

Targeted mailings could be sent to households and businesses, potentially in partnership with the certificated hauler. These mailings should have easy-to-follow general information about what, how, where, and when to recycle and compost. For easy access, the mailings should include a collection calendar with information regarding weeks recycling or composting are collected; highly visual lists of materials accepted for recycling and composting; and links to online resources with additional waste prevention, recycling, and composting information.

Periodically as needed, County staff could also distribute special mailings on specific topics or tailored to specific audiences. Examples include, but are not limited to, the following:

- Preventing food waste and donating edible food.
- Increasing recovery of materials with low capture rates, such as food waste (residents and businesses), mixed paper (residents and businesses), cardboard (businesses and self-haul), clean wood (self-haul), and metals (self-haul).

- Minimizing contamination by keeping specific problematic materials out of recycling and compost containers.
- Minimizing C&D debris through building material reuse, salvaging, and deconstruction and recycling unavoidable C&D debris.
- Properly disposing of and using safer alternatives to hazardous household and moderate risk waste products.
- Minimizing littering and illegal dumping through information about the “Secure Your Load” state regulation and disposal opportunities.

4.5.1.3 Update and Expand on Digital Education

County staff's efforts to reach younger or more digitally inclined groups can include updating existing digital materials and expanding on digital education campaigns through social media, the County's website, and email newsletter subscriptions. At a minimum, the County should refresh its website to remove outdated information, add updated information, make it more visual, and make it easier for different types of users (e.g., single-family residents, multi-family tenants, multi-family property managers, businesses, and self-haulers) to find applicable information related to their needs.

The website should include information on what, where, and how to recycle and compost and on how to reduce waste generation. The County website can add depth and details to briefer informational mailings on recycling, composting, hazardous waste, food waste prevention, C&D, and littering and illegal dumping. For instance, a digital campaign for C&D may emphasize the value of reusing building material and reducing waste. The County website can then include a list of building material reuse options with relevant links, tips on reducing waste during construction from green building organizations, and directories of recycling providers. The website can provide user-friendly databases that inform C&D debris self-haulers on how to separate and prepare specific materials.

Social media campaigns are a low-cost supplement to other education and outreach efforts and can build on free resources provided by organizations such as the social media toolkit from The Recycling Partnership. This toolkit provides a schedule for various content, including text and images to align with season and holidays, throughout the year. Social media campaigns also offer flexibility in topics that can be covered, including promoting upcoming events and addressing seasonal or emerging issues (such as backyard composting in spring or collection schedule changes during weather events).

An important consideration when using social media, newsletters, or blogs is that individual posts and articles about a small subset of products can lead to an overload of unorganized information. If adopted, these digital methods should direct users to resources on the County website, so they are organized and easy to find by residents and businesses.

4.5.1.4 Household Hazardous/Small Quantity Generator Waste Education

Education and outreach alternatives related to household hazardous and small quantity generator waste are detailed in the 2014 Thurston County Hazardous Waste Management Plan and therefore not included in this Plan.

4.5.1.5 Contamination Reduction and Outreach Program

The County needs to create its own CROP or adopt the state CROP by July 1, 2021. The County has opted to evaluate Ecology’s CROP when released, and determine whether to write its own or adopt Ecology’s CROP.

4.5.2 Residential Waste Prevention Education Campaigns

Education programs specific to residents are discussed below.

4.5.2.1 Refresh Residential Food Waste Prevention Campaigns

For both multi-family and single-family residents, food waste organics accounts for 17 percent of their respective total waste streams. County staff can build on the existing food waste reduction program, which was one of the first participants of the EPA’s Food Too Good To Waste campaign. County staff can refresh the campaign with updated tip sheets and additional tools to help residents shop smarter, store better, and use up leftovers. To refresh and expand these resources cost effectively, County staff could draw on campaigns by Pierce County, King County, and the National Resource Defense Council as well as Washington State’s forthcoming food waste prevention plan.

County staff can promote the campaign through its website, online newsletters, social and earned media, mailings, outreach at grocery stores and farmers’ markets, presentations to interested community groups, and booths at community events.

4.5.2.2 Conduct New Waste Prevention Campaigns

County staff could conduct additional waste prevention campaigns on materials such as clothing and reusable cups and food containers.

Clothing waste prevention campaigns can address purchasing (buying less, second-hand, and/or higher quality clothing) as well as caring for and repairing clothing to extend its lifespan. A campaign could also include organizing repair events for clothing as well as other household products. To develop this campaign, County staff could build on resources from King County and the Oregon Department of Environmental Quality.

Many coffee shops allow customers to bring their own cups, and Washington State’s Department of Health is in the process of adopting new provisions allowing customers to bring their own refillable containers for bulk items. A campaign by County staff could include promotions on social media and at participating businesses as well as outreach during business technical assistance on allowing customers to bring their own containers.

4.5.3 Single-Family Residents

Education programs specific to single-family residents are discussed below.

4.5.3.1 Collaborate with the Certificated Hauler to Develop and Implement a Residential Education Program

A Revenue Sharing Agreement (RSA) allows certificated collection companies to retain 50% of recycling commodity revenue, instead of returning all revenue back to the customers, as long as the collection company and the County agree on a plan to use the

retained revenue to further improve recycling and composting. RSAs can be used to fund special research and pilot studies to promote resident recycling education for which funding may not otherwise exist. King County, Pierce County, and Snohomish County have used RSAs to fund multi-family recycling pilots and research, Spanish-language recycling campaigns, improvements to online information about collection, waste-free cooking demonstrations, and school curricula. Working with the County's certificated hauler, Waste Connections, the County can establish residential education programs funded by this revenue source.

4.5.3.2 Partner around Backyard Composting and Grasscycling

County staff can partner with Thurston County Stream Team and City of Olympia to reduce yard waste generation from single family households. Together they can coordinate messaging and share resources on tips for backyard composting and grasscycling (mulch mowing) for single-family residents. County staff can help Stream Team initiatives by including these tips and resources, including information on any related events, in its website resources and mailings.

4.5.4 Multi-family Residents

Education programs specific to multi-family residents are discussed below.

4.5.4.1 Expand the Multi-family Toolkit

County staff can expand the existing toolkit for multi-family property managers with additional details and resources such as the following:

- Printed and downloadable guide with best practices for setting up recycling and composting containers, selecting appropriate capacity, conveniently co-locating them with garbage containers, and using clear signage and color-coding.
- Downloadable signage for waste collection areas.
- Downloadable templates for educational materials that property managers can use with tenants, such as factsheets and emails on what and how to recycle, instructions regarding breaking down boxes when moving in, signage for when collection areas experience issues, and instructions regarding donating items when moving out.
- Downloadable sample language for lease agreements encouraging or requiring tenants to recycle and compost.

4.5.4.2 Provide Multi-family Technical Assistance

The multi-family toolkit will be more effective when delivered through on-site technical assistance and combined with tenant outreach. This alternative can include the following:

- Site visits to assess and make recommendations regarding collection containers, capacity, and conditions in relation to best practices.
- Assistance requesting service-level changes to optimize container capacity and convenience.
- Assistance applying decals, signage, and color-coding in container areas.

- Provision of printed flyers and/or magnets for tenants with recycling information.
- Provision of reusable, washable recycling collection bags printed with recycling instructions that tenants can use to collect recyclables in their units and deliver to collection containers.
- Door-to-door outreach to tenants to provide information on recycling and to deliver recycling collection bags or informational door hangers.

4.5.5 Businesses and Schools

Outreach programs specific to businesses and schools are discussed below.

4.5.5.1 Expand Business Technical Assistance

County staff can refresh and expand its business outreach and technical assistance program with the following:

- Refreshed and reorganized webpages with updated information and resources.
- Hotline and email assistance to answer businesses' questions about waste prevention, recycling, and composting.
- On-site technical assistance including customized recommendations for waste prevention and increasing recycling and composting, support implementing recommendations, and employee trainings.
- Business toolkits and business tip sheets for preventing waste, increasing recycling and composting, and minimizing contamination.

To promote business technical assistance, County staff could focus efforts on:

- Businesses that already participate in environmental programs, such as the Thurston Green Business program, that may be more open to reducing waste.
- Businesses in a specific sector, such as food service or small retail, to create a customized campaign or focus on specific topics such as food waste.

This technical assistance program could coordinate with the PHSS on hazardous waste reduction efforts to identify opportunities for businesses to reduce their use of toxics.

County staff could also join the statewide EnviroStars Green Business Program, which offers member agencies an existing platform on which to build the County business technical assistance program. EnviroStars offers a web portal, business recognition program, and joint marketing program.

4.5.5.2 Offer School Technical Assistance

Schools present important opportunities to prevent waste, especially food waste, and increase recycling. Technical assistance to schools could include the following:

- On-site technical assistance including customized recommendations for prevention waste and increasing recycling and composting.
- Assistance and/or grants to support implementation of waste reduction strategies such as switching to reusable dishes and trays, setting up a sharing table or bin for

students to trade unopened food and drinks and uneaten whole fruit with peels, setting up a school swap day at the end of the school year when students are cleaning out lockers, installing water-bottle filling stations, and donating edible food.

- Assistance implementing recommendations regarding green purchasing, waste collection practices, and waste collection infrastructure.
- Promoting a school's student green team to implement a food waste audit and prevention campaign, an on-site composting demonstration project, or a waste audit and recycling/composting education campaign.

County staff can draw on programs developed by Clark County, Clackamas County (Oregon), King County, and the Washington Green Schools program. The Washington Green Schools also offers recognition for a school's performance in multiple environmental categories.

4.5.6 Self-Haul Waste

Outreach programs specific to self-haul waste are discussed below.

4.5.6.1 Provide Information at Disposal Sites and Disposal Site Websites

County staff could place educational messages on disposal site websites (where self-haul customers look for information about hours, fees, and accepted materials), updated signage near the entrance of disposal sites and in the recycling areas and flyers handed out by customer service staff when self-haulers enter the sites. Topics could include separating materials for recovery, using donation sites that accept reusable household and construction items, properly disposing of hazardous materials, and securing loads to comply with Washington law RCW 46.61.655 and prevent litter. These outreach methods, focused on self-haulers, can reinforce messaging in other methods such as social media or special mailings.

4.5.6.2 Provide Education Materials for C&D Debris Prevention and Diversion

County staff can update its webpage on C&D debris with additional information on reducing waste generation, using deconstruction and salvage techniques, donating or using reused building materials, recycling C&D debris, and other green building topics. Permit counters and a partnership with the Thurston County Building Development Center can provide an opportunity to reach residents and businesses that will be generating C&D debris. The Building Development Center already has a green building webpage that County staff links to.

4.6 Recommended Actions

In addition to continuing current existing public education and outreach activities, the following recommendations are made for additions or adjustments to education and outreach programs:

- EO1) Refresh educational materials and harmonize messaging through digital education, social media, websites, targeted mailings, updated site signage and social media marketing practices.

- EO2) Refresh residential food waste prevention campaigns.
- EO3) Collaborate with the certificated hauler to develop and implement a residential education program funded by a Revenue Sharing Agreement.
- EO4) Enhance the multi-family toolkit and provide targeted technical assistance.
- EO5) Promote business technical assistance through toolkits and targeted messaging and outreach.
- EO6) Continue to support school waste reduction and recycling strategies and develop measurement metrics.
- EO7) Provide education materials online and at the permit counter for reducing C&D debris prevention and diversion.
- EO8) Adopt a CROP by July 1, 2021 and maintain and update the document, as needed, during this Plan cycle.



5 Waste Reduction, Recycling & Organics

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5.0 Waste Reduction, Recycling and Organics

5.1 Introduction

This chapter discusses existing waste reduction, reuse and recycling programs, organics and climate change and identifies relevant planning issues to meet local and state goals, and develops and evaluates alternative strategies.

5.2 Background

This section provides information on the regulations and authorities that govern waste reduction, recycling, organics and climate change programs and issues.

5.2.1 Waste Reduction and Recycling

Chapter 5 provides an update of the County’s methods to divert waste away from landfill disposal and to comply with Washington State requirements regarding waste reduction and recycling opportunities and programs. The State’s requirements are based in the “Waste Not Washington Act” (ESHB 1671), which declared that waste reduction and recycling must become a fundamental strategy for solid waste management in Washington State. This law is reflected in various sections of the RCW and WAC. RCW 70.95 includes the following goals (among others) and requires that solid waste management plans demonstrate how these goals will be met:



Figure 5-1. EPA Waste Hierarchy

- Washington State is to achieve a statewide recycling rate of 50 percent by 2007.
- Source separation of waste (at a minimum, separation into recyclable and non-recyclable fractions) must be a fundamental strategy of solid waste management.
- Steps should be taken to make recycling at least as affordable and convenient to the ratepayer as disposal of mixed solid waste. The County adopted a service level ordinance, Ordinance No. 13696, which sets service level standards for curbside recycling and organics and promotes waste reduction and recycling. This Ordinance is described in more detail in Section 5.2.1.1.

Other applicable State requirements are as follows:

- Develop clear criteria for designating areas as urban or rural for the purpose of providing solid waste and recycling services (RCW 70.95.092).
- Collect recyclables from homes and apartments in urban areas (RCW 70.95.097(7)(b)(i)).

- Monitor the collection of source-separated waste from non-residential sources when there is sufficient density to economically sustain a commercial collection program (RCW 70.95.090).

RCW 70.95.092 also requires that counties develop clear criteria for designating areas as urban or rural for the purpose of providing solid waste and recycling services. RCW 70.95.090(7)(b)(i) requires recyclables to be collected from homes and apartments in urban areas (with some exceptions), whereas drop-off centers and other methods can be used in rural areas.

RCW 70.95.090 requires a monitoring program for collection of source-separated waste from non-residential sources when there is sufficient density to economically sustain a commercial collection program. The County achieves this by working cooperatively with Ecology and using the data Ecology collects through the annual Washington State Recycling Survey.

In summary, the County's existing urban and rural collection programs and the non-residential monitoring program meet or exceed the recycling service requirements in RCW 70.95.

HB 1543, Sustainable Recycling, was signed by Governor Inslee on April 29, 2019. This act took effect July 1, 2019, and creates a Recycling Development Center within Ecology. Ecology is tasked with working with the Washington State Department of Commerce (Department of Commerce) on recycling market research and development. Ecology and the Department of Commerce appointed an advisory board and have entered into an interagency agreement. Ecology is also tasked with creating a state recycling CROP by July 1, 2020 with local jurisdictions creating their own CROP or adopting the state CROP by July 1, 2021. Additional information on the County CROP can be found in Chapter 4 – Education, Outreach and CROP.

5.2.1.1 Local Regulations

In December 2006, the County adopted Ordinance No. 13696 which defined minimum levels of service for curbside recycling and yard waste collection for single-family residences, and multi-family complexes and mobile home parks in the urban and rural areas of the County excluding the City of Olympia and the Town of Rainier.

Effective July 1, 2014, single-use carryout bags were banned from distribution and use at local retail locations in Olympia, Lacey, Tumwater and the unincorporated areas of the County through ordinance adoption. Retail locations are required to charge a minimum five cents for large paper bags. The purpose of the ban is to promote waste reduction through the use of reusable bags in place of disposable bags. In 2020, utilization of single-use carryout bags were required state-wide for sanitary purposes related to the Covid-19 pandemic.

5.2.2 Organics

Effective January 1, 2017, the WSDA amended WAC 16-470 as follows:

- Adding MSW, yard debris, organic feedstocks, organic materials and agricultural wastes to the list of commodities regulated under the apple maggot quarantine;

- Establishing a special permit to allow transportation and disposition of MSW from the areas under quarantine for disposal at a solid waste landfill or disposal facility in the apple maggot and plum curculio pest-free area; and
- Establishing a special permit to allow transportation and disposition of yard debris, organic feedstocks, organic materials and agricultural wastes from the area under quarantine for disposal at a solid waste landfill or treatment at a composting facility in the apple maggot and plum curculio pest-free area.
- The County, as a designated apple quarantine area, is prohibited from the transport of commodities regulated by the WSDA rule to non-quarantined apple growing areas.

RCW 70.95 requires that collection programs for yard debris be addressed in areas where there are adequate markets or capacity for composted yard debris within or near the service area and also includes a statement encouraging yard debris be eliminated from landfills by 2012 in those areas where alternatives exist.

5.2.3 Climate Change

The County, through the Thurston Regional Planning Council (TRPC), adopted the Thurston Climate Adaptation Plan in 2018 which recommended actions to assist the County and the broader South Puget Sound Region prepare for and adjust to adverse climate change impacts. As part of this effort, the County and the planning participants are tasked with continuing to implement waste reduction and recycling programs that incorporate positive environmental effects that can demonstrate reductions in greenhouse gas emissions, resource conservations, and energy savings.

The County and the cities of Lacey, Olympia and Tumwater are working with the TRPC to craft a Climate Mitigation Plan as a strategic roadmap for reducing climate polluting greenhouse gases while maintaining and improving the quality of life within the County. The Climate Mitigation Plan is expected to be complete and approved in the fall of 2020.

5.3 Existing Conditions

The following sections provide background information regarding waste reduction, recycling and organics and discuss the County's existing programs.

5.3.1 Waste Reduction and Reuse

Waste reduction is the highest priority for solid waste management according to RCW 70.95 and is preferred over recycling and composting because the social, environmental, and economic costs are typically lower for avoiding the creation of waste.

Waste collection fees can be used to encourage waste reduction (and recycling) through existing "pay as you throw" rates in which single-family households are charged according to the amount of garbage they discard. Avid recyclers or households that minimize waste can also choose a smaller cart, instead of 95-gallon cart, for a reduced collection cost where available in Thurston County (refer to Chapter 3 – Collection, Transfer and Disposal for additional information). Businesses and multi-family properties are generally already charged according to the amount of garbage disposed.

On-site composting reduces the amount of yard debris disposed of as garbage or composted commercially. The County provides educational materials for on-site

composting and works with several groups (such as the Master Gardeners) to encourage these practices.

Other opportunities for reuse and waste reduction that are available in the County include a non-profit Habitat for Humanity reuse store for building materials, and organizations such as the Salvation Army and Goodwill accepting gently used clothes, furniture, and home goods.

The County and participating jurisdictions have also banned single-use carry out bags at retail locations as a waste reduction strategy through replacement of disposable bags with reusable ones.

5.3.2 Designation of Recyclable Materials

Table 5-1 shows the list of “designated recyclable materials,” required by WAC 173-350, which should be used for guidance as to the materials to be recycled. This list is based on existing conditions (collection programs and markets), so future markets and technologies may warrant changes in this list. Because market conditions for recyclables can change rapidly, the list of designated materials is accompanied by a description of the process for its revision, if needed, before the next major Plan update.

This list is not intended to create a requirement that recycling programs in the County collect every designated material. Instead, the intent is that if materials become feasible for recycling, the County will review the feasibility of collection in respect to markets, ease of collection, size of waste stream, special events or removal of collection limitations and consider programs for collection so that residents and businesses have an opportunity to recycle the designated materials listed through at least one program.

Table 5-1. List of Designated Recyclable Materials	
Priority Level	Material
Tier 1 - Routine Collection: Materials feasible to be collected by curbside collection and/or drop-off programs throughout the County.	1. Aluminum 2. Tin Cans 3. Cardboard 4. High Grade Paper 5. Mixed Paper 6. Newspaper 7. Plastics, #1 and #2 8. Approved compostable products 9. Organics (Yard Waste/Food Waste)

Table 5-1. List of Designated Recyclable Materials	
Priority Level	Material
Tier 2 - Limited Collection: Materials that can be recycled but that have collection or marketing limitations in the County.	10. Electronics covered by E-Cycle Washington
	11. Mercury-Containing Lights covered by LightRecycle Washington
	12. Glass
	13. Textiles
	14. Ferrous Metals
	15. Non-Ferrous Metals
	16. Vehicle Batteries
	17. Wood Waste
	18. Cell Phones
	19. Ink Cartridges
	20. Motor Oil
	21. Antifreeze
22. Tires	
Tier 3 - Potentially Recyclable: Hard to recycle materials that could be recycled if markets are available.	23. Latex Paint
	24. Plastics, #3 through #7
	25. Plastic Containers (Non-Bottle)
	26. Plastic Film
	27. Poly-Coated Paper
	28. Extruded polystyrene foam
	29. Carpet and padding
	30. Mattresses
	31. C&D materials

The following conditions are grounds for additions or deletions to the priority level list of designated materials:

- The market price for an existing material becomes so low that it is no longer feasible to collect, process, or transport it to markets.
- Local markets or brokers expand their list of acceptable items based on new uses for materials or technologies that increase demand.
- New local or regional processing or demand for a particular material develops.
- No market can be found for an existing recyclable material, causing the material to be stockpiled with no apparent solution in the near future.
- The potential for increased amounts of diversion.
- Legislative mandate.
- Other conditions not anticipated at this time.

Due to changes in the marketing of recyclable materials, County Ordinance 13696, which was adopted in 2006, will need to be updated based on the List of Designated Recyclable Materials. Proposed changes to the list of designated materials should be submitted to the Solid Waste Division Manager for review and may be forwarded to the SWAC for concurrence. Unless there are objections from the SWAC, the Public Works Department - Solid Waste Division Manager, can make minor changes in the list. These will be adopted depending on the schedule of SWAC meetings without formally

amending the Plan. Should the Solid Waste Division Manager conclude the proposed change is a “major change” (what constitutes a “major change” is expected to be self-evident at the time, although criteria such as opposition by the SWAC or difficulty in achieving consensus for adoption could be used as indicators of a “major change”), then an amendment to the Plan would be necessary (a process that could take 120 days or longer to complete). In either case, Ecology should be notified of changes made to the List of Designated Recyclable Materials or of the initiation of an amendment process.

5.3.3 Urban and Rural Area Residential Recycling

The City of Olympia and Waste Connections provide curbside recycling collection services in the cities, town and unincorporated areas of the County. These programs collect materials as outlined in County Ordinance 13696 and Tier 1 Materials as outlined in Table 5-1. Table 5-1 is not intended to create a requirement that every recycling program in the County collect every designated material but is intended to offer the opportunity that through a combination of programs, residents and businesses will have the ability to recycle all of the designated materials through at least one program in the County. Tier 1 is meant to be consistent with the County minimum service level Ordinance No. 13696. Additional information on curbside recycling is located in Chapter 3 – Collection, Transfer and Disposal.

5.3.4 Commercial Recycling

Commercial-sector recycling collection is available county-wide. The County offers technical assistance services to businesses on request. The City of Olympia and Waste Connections provide recycling collection service to commercial customers.

5.3.5 Public Event Recycling

To help events comply with Washington State law requiring public event recycling (RCW 70.93.093 adopted in 2007), the County offers recycling bins at no charge for use at such events. The recyclables collected at these events can be delivered to WARC, Rainier and Rochester Drop Box Sites or recycled through the City of Olympia and Waste Connections.

5.3.6 Other Recycling Services

Appliances and tires are also accepted for a fee at the WARC and at a few private locations.

E-Cycle Washington and LightRecycle Washington are two statewide programs that allow residents and some small businesses or agencies to recycle electronics and mercury-containing lights, respectively, for free at collection sites in the County.

A few private facilities specialize in metals recycling, such as Calbag Metals, Regency Technologies, Sutter Metals and South Sound Steel and Recycling. The City of Olympia also offers a Saturday Drop-Off Site from March to November accepting metals and yard waste.

A directory of other businesses and the materials that they will accept for recycling is available at Thurston County's website:

<https://www.co.thurston.wa.us/solidwaste/database/index.asp>

5.3.7 Incentives for Recycling

The County provides recycling bins at its three solid waste sites, WARC and Rainier and Rochester Drop Box Sites as an incentive to its self-haul customers by accepting source-separated recyclables at no cost in advance of weighing vehicles at the scale plazas. Moderate risk waste is also accepted at no cost to residential customers at WARC.

Recycling can enable residents and businesses to reduce their garbage service volumes, and even get paid when recyclable materials such as aluminum or copper are taken to a private recycling facility. Residents and businesses that subscribe to recycling collection services may be able to reduce their garbage service to a smaller size cart and lower their costs for garbage service.

5.3.8 Monitoring and Evaluation

The County relies on Ecology for information on recycled quantities and an estimate of Thurston's countywide recycling rate. Annual figures for recycled tonnages are reported on a voluntary basis by both public- and private-sector entities.

5.3.9 Processing Facilities

The private sector handles the processing of the materials collected for recycling:

- There are private facilities that process specific waste streams, such as Calbag Metals, Regency Technologies, Sutter Metals and South Sound Steel and Recycling, all of which sort and process metals.
- Recyclables collected at the curb and drop box sites are currently taken to Waste Connections and transported to an out-of-county facility for processing and marketing (Pioneer Recycling Services).

5.3.10 Markets

Washington State regulations (RCW 70.95.090.7.c) require "a description of markets for recyclables," which is provided below. This description is intended to be only a brief report of current conditions, and it should be noted that market conditions for recyclables can change drastically and rapidly.

5.3.11 Market Overview

In July 2017, China's government announced that it would ban 24 recyclables, including "unsorted mixed paper" and "mixed plastics," starting in 2018. This ban originates from China's "National Sword" campaign to crackdown on smuggling and contaminated scrap imports.

China applied a strict new contamination standard for other recyclables. Starting in March 2018, scrap materials imported into China may not exceed 0.5 percent contamination. This is below typical processing standards of 3-5 percent at Washington recycling facilities and it risks excluding domestic recyclables from sale in China.

With a few exceptions, China has frozen the approval of scrap paper import permits. As a result, most scrap paper companies cannot import any scrap paper into China, causing a total suspension of imports since September 2017. This has created market uncertainty, even for materials not covered by the restrictions.

In 2018, China's government implemented new restrictions on what recyclables may be imported into the country, significantly impacting Washington's recycling programs. China was a major buyer of Washington's recyclables.

China no longer allows the importation of low-grade plastics and unsorted paper. The regulations aim to increase the quality of recyclables entering China by requiring a low amount of contamination in recyclables it imports.

The import ban is creating a major disruption in Washington and throughout the region. Material recovery facilities in Washington, which receive mixed recyclables and sort them for resale to commodities brokers, have been slowing down their processing of recyclable materials in an attempt to reduce contamination. This slowdown has reduced the amount of material that can be processed. The amount of material collected in Washington currently exceeds the processing capacity at these slower processing rates. In the short term, some materials may not be able to be processed and recyclable materials may need to be disposed of as MSW.

An important factor for marketing of recyclable materials collected in the County is the cost of transporting them to end-markets, some of which are outside of Washington State. The low market value of many recyclable materials limits the number of materials that can be cost-effectively moved to markets. Primary markets for specific materials and comments on factors that affect them are shown in Table 5-2.

In November 2018, Waste Connections implemented commodity pricing adjustments on customer bills, with the approval of the WUTC, due to China import regulations and the increased costs for processing recyclable materials and the decreased market value. A "Recycling Program Adjustment" charge was implemented to cover the cost for collection pickup of recyclables at the curb and haul to the processing facilities. A "Recyclables Value" charge was also implemented due to the stricter quality requirements of recyclable materials from the new domestic markets, sorting facilities having to slow down sorting lines and additional staffing costs. These charges resulted in an approximate five percent increase on customer bills in the County.

Since January 1, 2020, the City of Olympia is no longer accepting glass bottles and jars, poly-coated materials and aseptic containers in their curbside recycling program. Acceptance of these materials from the program occurred due to the recycling changes in China and issues with glass and poly-coated papers handled through the paper pulping process.

Glass continues to be accepted at sites, including WARC, Rainier and Rochester Drop Box Sites, where it is segregated and taken to Concrete Recyclers where it is crushed and utilized for road and construction based materials.

As the markets continue to change, new facilities are being proposed locally to handle commodities. In 2019, Norpac, which is located in Longview, WA pledged to bring in an additional 400,000 tons per year of recycled paper as it shifts one-third of its production

capacity into packaging production. This expansion, when complete, is predicted to have the ability to consume available waste and mixed paper grades in Washington, Oregon and Idaho.

Table 5-2. Markets for Recyclable Materials (as of June 2020)		
Material	Primary Market(s)	Comments
Paper		
Cardboard	Regional paper markets, paper mills and export	The markets for cardboard (used in packaging) have recently been improving and may be stabilizing.
Mixed Waste Paper and Newsprint	Regional paper markets, paper mills and export	The markets are fluctuating due to supply and demand from overseas markets and processors.
Plastics		
Bottles #1 through #7	Regional markets in Western Washington, Oregon, and export	The markets for PET and HDPE bottles are currently weak to non-existent (#1 and #2), and even weaker for bottles #3 through #7.
Other Plastics	Primarily export	Markets are volatile and sometimes unreliable.
Metals		
Aluminum	Regional markets in Western Washington and Oregon; can manufacturing in St. Louis	Aluminum prices were weak in 2019 and are expected to continue to slow in 2020.
Tin cans, appliances, and ferrous and non-ferrous scrap	Regional markets in Western Washington and Oregon	Steel has fluctuated heavily, and the market is currently weak.
Glass		
Clear Glass	Regional markets in Western Washington and Oregon	Prices are poor for clear glass.
Brown and Green Glass	Regional markets in Western Washington and Oregon	Prices for brown and green glass are low or negative (i.e., the glass is recycled for a charge).
Organics		
Wood	Hog fuel, mulch (clean wood only)	Hog fuel prices are fluctuating.
Yard Debris	Compost	Yard Debris is currently composted for a fee.

5.3.12 Organics

The sections below describe existing collection and processing activities for organic materials.

5.3.12.1 Disposed Quantities of Organics

The results of the 2014 Waste Composition Study studied the amount of organics disposed of by specific residential and non-residential sources. Utilizing the 2014 Waste Composition Study and the 200,333 tons of MSW disposed in 2019, Table 5-3 illustrates the organics potentially disposed in 2019. As shown in Table 5-3, disposed organics represents 31.4% of the County wastestream with foodwaste representing 16.9% or 33,856 tons followed by clean wood at 7.8% or 15,626 tons.

Table 5-3. Potential Tonnage of Disposed Organics by Source (2019)						
Source	Organics in Waste Streams By Source, percent by weight					Disposed Organics, tons per year ²
	Yard Debris	Edible & Inedible Food	Compostable Paper	Clean Wood ¹	Total Organics	
Residential:						
Residential Self-Haul	2.1%	11.1%	1.5%	15.8%	30.4%	8,356
Rural Drop-box	3.7%	7.7%	1.3%	12.4%	25.1%	1,393
Single-Family	7.3%	22.9%	4.0%	2.3%	36.5%	21,587
Multi-Family	2.2%	22.4%	3.5%	2.9%	31.0%	3,482
Subtotal	5.1%	19.1%	3.1%	6.4%	33.7%	34,818
Non-Residential:						
Non-Res. Self-Haul	1.1%	0.6%	0.5%	23.1%	25.3%	5,697
Commercial	1.0%	19.0%	5.8%	4.5%	30.3%	22,790
Subtotal	1.0%	14.6%	4.5%	9.0%	29.1%	28,487
Total All Sources	3.1%	16.9%	3.8%	7.8%	31.4%	
Total Annual Tons	6,210	33,856	7,613	15,626		63,305

¹ The figures shown for wood have been adjusted to show only clean wood that could potentially be composted or used for hog fuel and mulch.

² Table utilizes 2019 disposed tonnage of 200,333 and the 2014 Waste Composition Study percentages to determine disposed organics tons per year.

5.3.12.2 Organics Collection Programs

Curbside and commercial collection of yard waste has been available in the County since the 1990s. The City of Olympia began curbside collection of yard waste from residential customers in 1994. Waste Connections began offering yard waste collection in 1997. With the opening of a composting facility in the County in 2008, Silver Springs Organics, food, food-soiled paper and some types of compostable plastics were added to the yard waste collection programs provided by the City of Olympia and Waste Connections. This mixed organics collection service provided opportunities to divert larger quantities of organic materials from landfilling. Additional information on the Silver Springs Organics facility is included in Section 5.3.12.4.



Figure 5-2. Organics Recycling

In most areas of the County, single-family homes, multi-family complexes and commercial customers have access to collection services for mixed organics. Subscription to these services is voluntary. Additional information on organics collection

and costs can be found in Chapter 3 – Collection, Transfer and Disposal. Table 5-4 provides information on the number of organics collection subscribers in 2019.

Table 5-4. Number of Mixed Organics Subscribers (2019)			
Type of Service	City of Olympia	Waste Connections	Totals
Mixed Organics:			
Residential	8,619	21,255	29,874
Multi-Family and Commercial	173	180	353
Total Mixed Organics Subscribers	8,792	21,435	30,227

Since 2008, the County and the City of Olympia staff have provided support to public and private K-12 schools to assist with the development and implementation of mixed organics diversion programs through the County’s Food to Flowers program and the City’s WasteWise school program. These programs have helped participating schools reduce waste, foster environmental stewardship, and save money.

5.3.12.3 Organics Drop-Off Collection Sites

The County has been involved in the collection of organics since the opening of the Compost Center at the WARC in 1993. The Compost Center, which accepted yard and garden waste for shredding and composting on-site, was operated until 2002.

Currently, self-haul customers at the WARC can drop off yard debris and clean wood at a reduced rate in a separate area where the material is ground and transported off-site for composting. Curbside collection trucks unload in a separate area for mixed organics that are collected from both commercial and residential customers. This material is also ground and transported off-site for composting. In 2019, 30,317 tons of organics were accepted at the WARC, 9,859 tons from self-haulers and 20,458 tons from curbside collection.

The City of Olympia has operated a drop-off site for City residents for yard debris since 1988. The Saturday Drop-Off site accepts yard debris and clean lumber for a fee that is dependent on the type and amount of material. The yard debris collected is transported to the WARC for processing. Additional information on the City of Olympia site is included in Chapter 3.0 – Collection, Transfer and Disposal.

5.3.12.4 Organics Processing

In 2009, Waste Connections purchased Silver Springs Organics facility and expanded and upgraded the site. After the new facility opened in 2012, a restriction was placed on the types of materials accepted including food-soiled papers and compostable plastics.

The County currently contracts with Waste Connections to operate the organics drop-off area at the WARC where the collected organics are processed through a grinder, blended and transported to the Silver Springs Organics facility for composting and sale of finished materials or distributed as mulch to customers at the WARC.

5.3.13 Climate Change

The primary role of the County Public Works- Solid Waste Division is to ensure the sound management of MSW produced within the County. To accomplish this, the Solid Waste Division adopts and implements policies and programs that positively affect the environmental health of the region. These policies and programs are based on ecologically sound principles that reflect the values of County residents and that preserve and improve their quality of life.

Greenhouse gases (GHG) produced by human activity contribute to climate change and global warming. Because of the public's concern about the impacts of global warming on environmental and human health, governmental bodies including Thurston County and the State of Washington have adopted policies to reduce their emissions of GHG and reduce their contribution to global warming.

The Solid Waste Division can play a key role in executing the County's policies and programs to reduce GHG emissions and promote sustainability. The Solid Waste Division currently transports MSW to the RRL which has unique resources that create opportunities and partnerships to provide energy while reducing emissions of methane and carbon dioxide into the environment.

The Solid Waste Division continues to develop and offer, new programs that encourage the recovery and reuse of materials and the reduced use of virgin materials. In addition, the Solid Waste Division regularly reviews its operations, programs, and facilities to ensure that its decisions and policies help to reduce GHG emissions and support changing business practices that are cost-effective. This will be accomplished by maintaining and growing current programs as well as establishing new programs and partnerships throughout the County.

5.4 Status of Previous Recommendations

The status of the recommendations made by the 2009 Plan can be found in Appendix D.

5.5 Alternatives and Evaluations

Existing service gaps and other issues connected to waste reduction, recycling, organics and climate change are evaluated below.

5.5.1 Recycling Rates by Material

Overall, the County's waste diversion rate is estimated to be 45 percent. In 2017, a total of 164,599 tons was reported as recycled, composted, or otherwise diverted. Refer to Chapter 2 for data sources.

Recovery rates in the County appear to be highest for yard/food waste, cardboard, mixed paper and metals. Businesses tend to generate and recycle large amounts of cardboard through on-site, source-separated collection. Ferrous metal, non-ferrous metal, and white goods recycling may include vehicles and heavy appliances, increasing the recycled tonnages. Providing residents the opportunity to recycle at the curb in the County has shown to increase recycling rates on collected materials.

Table 5-5 uses data from the most recent Ecology survey (see Table 2-4) and the 2014 waste composition study (as applied to 2019 disposal tonnages, see Table 2-5) to calculate the recovery rates for specific materials. As seen in Table 5-5, recovery rates vary depending on the material. The recovery rates for cardboard and metals are the highest of the materials shown, consistent with the availability of several programs offering on-site collection of these materials, particularly from large commercial generators.

Select Materials	Recycled Tonnages ¹	Disposed Tonnages ²	Recovery Rate ³
Cardboard	16,811	6,611	72%
Other Metals and White Goods	17,472	7,212	71%
Mixed Paper	17,231	19,032	48%
Aluminum Cans	573	801	42%
Glass	5,904	8,414	41%
Yard/Food Waste	27,962	40,267	41%
Electronics	339	601	36%
Tin Cans	550	1,402	28%
#1 and #2 Plastics	692	2,605	21%

¹ See Table 2-4 for recycling data. These are figures for 2017.

² See Table 2-5 for disposed tonnages. These figures were calculated using the County's 2019 total disposed tonnage (200,333 tons) and the percentage breakdown from the 2014 waste composition study.

³ Recovery rates are calculated by dividing the recycled tonnages by the sum of the recycled and disposed tonnages.

Focusing recycling and diversion efforts on those waste streams, such as yard and food waste, glass, and mixed paper, that represent significant tonnage remaining in the waste stream over this planning period, could have positive results to meet the proposed 49 percent recycling and diversion goal.

5.5.2 Sham Recycling

Some facilities may claim they are recycling a material without actually doing so. Others haul mixed garbage they claim constitutes recyclable materials to avoid flow control policies in areas with high transfer station or landfill tip fees. These practices can both be considered “sham recycling.” Though Washington State’s 2005 “Sham Recycling Bill” and the Recyclable Materials Transporter and Facility Requirements (WAC 173-345) limit this practice by requiring recycling haulers to register with Washington State and prohibiting delivery of recyclable materials to transfer stations and landfills, sham recycling may still occur. To date, no sham recycling has been documented in the County.

Sham recycling may affect the County through collectors or haulers who transport waste from within the County with the claim that they will process recyclables and instead

landfill a substantial portion of the materials. The County has an adopted policy of only accepting in-County solid waste at the facilities it owns.

5.5.3 Continue to Conduct Waste Composition Studies

The County conducted a waste composition study in 2014. The County could repeat this study around 2022 to provide an updated assessment of recycling and MRW program performance and provide useful information on waste generation rates by source (residential and non-residential). With the changes in recycling brought about through waste bans in China and residents' consumption patterns, waste composition will have changed since the 2014 study was conducted. With additional funding from signatory cities, a future study could also be designed to assess results separately for individual cities and unincorporated areas, which would be helpful for monitoring the performance of various programs. Such a study is recommended to be conducted over the course of a year to address seasonal variations.

5.5.4 Continue Support for Recycling at Public Events

Washington State law requires public events to provide recycling containers (RCW 70.93.093). To support this requirement, Thurston County Public Services Solid Waste Division operates a program that provides bins and other support for these events. This program is a low-cost public service with high visibility that provides a positive benefit for those involved. Signatory cities could partner with the County to support and increase promotion of this program.

5.5.5 Require New Buildings to Provide Adequate Space and Facilities for Recycling Storage and Collection

The County and signatory cities could develop clear guidelines to help developers and permit review staff comply with WAC 51-50-009, which mandates that local jurisdictions require new buildings to provide adequate space for recycling. The County and signatory cities could also update building codes to require adequate space for recycling infrastructure with minimum specified capacity per residential unit or per square foot of building space and include an assessment of recycling capacity in the permit review process.

5.5.6 Ban Landfill Disposal of Readily Recyclable Materials

The County could ban landfill disposal of readily recyclable materials, such as yard waste, food debris, mixed paper, newspaper, cardboard, clean wood, electronics covered by E-Cycle Washington, plastic bottles, aluminum cans, and tin cans. To enforce the ban, the County could assess a surcharge for loads that contain more than a minimal amount of prohibited materials (such as 5%). As an alternative, the County could implement a surcharge on self-haul loads containing materials that can be recycled at drop-off sites without formally adopting a disposal ban.

Before implementing a ban or charging a surcharge, the County would need to evaluate whether residents and businesses have the option to subscribe to a recycling service and have adequate access to drop-off recycling sites.

5.5.7 Adopt Mandatory Recycling for Readily Recyclable Materials

Signatory cities that contract for or directly provide garbage collection service could adopt a disposal ban requiring residential and commercial customers to recycle readily recyclable materials. Readily recyclable materials may include yard waste, food waste, mixed paper, newspaper, cardboard, plastic bottles, aluminum cans, tin cans, electronics covered by E-Cycle Washington, and clean wood.

Before adopting mandatory recycling policies, signatory cities would need to ensure residents and businesses have the option to subscribe to a recycling service and have adequate access to drop-off recycling sites.

5.5.8 Expand Recycling Drop-off Opportunities

Recycling drop-off sites must be sufficiently available to meet minimum requirements set forth in RCW 70.95.090 (7)(b)(i). The County provides recycling drop boxes at each of its facilities and the City of Olympia provides recycling opportunities on Saturdays at its drop off site, making recycling just as convenient as drop-off garbage disposal for self-haul customers. The County could continue to accept recycling for free to provide an incentive for self-haul customers to recycle.

Signatory cities in the County could provide drop-off recycling opportunities at city facilities to expand the network of available drop-off sites. They could also partner with reuse organizations, private stores, non-profit and community organizations, private waste facilities, or sites already participating in E-Cycle Washington and LightRecycle Washington for these private sites to host recyclables drop-off stations at their existing stores or staffed sites.

5.5.9 Facilitate Business Material Exchanges

The County and signatory cities could promote or financially support forums or other methods to facilitate regional business material exchanges (such as the IMEX program in King County available at www.hazwastehelp.org/imex). Such programs help businesses find and connect to markets for surplus materials and items that might otherwise become waste.

5.5.10 Promote Existing Reuse Programs

The County and signatory cities could promote and support expansion of existing reuse and material exchange opportunities in the County, such as the Habitat for Humanity Store, Salvation Army and Goodwill. Residential options include providing information on reuse organizations or supporting reuse events focused on specific products (such as bike swaps). Promotion could involve maintaining and publishing a resource guide in local newspapers, a stand-alone guide with a map, or a web page listing organizations that promote waste reduction activities such as thrift shops, repair services, and tool rental businesses and other social media and marketing methods.

5.5.11 Food Waste Prevention

The County and signatory cities can continue to promote and support the existing food collection and distribution programs operating within the County through the Thurston

Food Rescue program. This program assists community partners to safely collect surplus edible food for those in need. The County maintains a website for this program at: <https://www.co.thurston.wa.us/solidwaste/wastedfood/recovery/index.html>

5.5.12 Expand Self-Haul Yard Waste Collection Opportunities

The County could consider expanding opportunities at the Rainier and Rochester Drop Box facilities to include a separate area for collection of yard waste, if warranted, upon the completion of a Waste Characterization Study. Once segregated, this material could be transferred either to the WARC for processing or directly to Silver Spring Organics.

5.5.13 Climate Action Response

The County is pursuing several efforts to make the region more sustainable. In 2007, the County adopted a sustainability policy, Resolution No. 13755, that encourages departments to reduce waste, increase recycling, conserve energy and water, use green building techniques and practice environmentally preferable purchasing. As a result of policy, the County is continually looking for ways to reduce workplace hazards and protect environmental and financial resources by reviewing the products we are currently buying, and directing dollars toward more environmentally responsible alternatives.

The Washington State Public Works Board (WSPWB) administers the funding of local county public works projects, and as a state agency required to comply with the mandates in RCW 70.235.070 to meet the statewide GHG emission limits, opted to meet its obligations for taking action by requiring all jurisdictions receiving funding through the WSPWB to adopt their own GHG policies. The TRPC adopted Thurston Climate Adaptation Plan establishes a sustainable report card with a goal related to solid waste to “Plan and act toward zero waste in the region” and has adopted the following targets:

- 15% reduction in per capita landfill waste by 2020.
- 32% reduction in per capita landfill waste by 2035.

5.6 Recommended Actions

The following recommendations are being made for waste reduction and recycling programs:

- WRR1) Adopt the updated list of designated materials and maintain it through periodic review and updates.
- WRR2) Focus recycling and diversion efforts on organics, glass, mixed paper and waste streams that represent significant tonnage disposed.
- WRR3) Conduct a waste composition study to provide data that tracks progress towards waste reduction and diversion program performance, refines existing programs and identifies new program opportunities.
- WRR4) Continue to provide support for recycling at public events.
- WRR5) Expand recycling drop-off opportunities in signatory cities, County sites and private sites.

- WRR6) Support private sector programs, forums or other methods, such as existing reuse and reusable materials exchange programs to facilitate material exchanges.
- WRR7) Increase promotion of existing reuse programs through social media and marketing.
- WRR8) Promote and support food collection and distribution programs in the County.
- WRR9) Support the Thurston Climate Adaptation Plan, and additional climate action plans adopted by local jurisdictions, through programs that target a per capita reduction in landfill waste, reduction in transportation, improved handling methods, and recycling.

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6 Special Wastes

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6.0 Special Wastes

6.1 Introduction

This chapter discusses existing programs, identifies relevant planning issues, and develops and evaluates alternative strategies for the management of special wastes.

6.2 Background

Special wastes have some similarities to “normal” MSW and can be managed in a similar fashion with some additional precautions or special handling procedures. Each type of special waste is governed by slightly different regulations, based on its physical and chemical characteristics and the degree of environmental, health, or safety risk it poses. This Chapter is subdivided into the sections shown in the below table to describe regulations, current programs, and planning issues for each type of special waste.

Section	Special Waste Type
6.3	Agricultural waste
6.4	Animal carcasses
6.5	Appliances
6.6	Asbestos
6.7	Biomedical/infectious waste
6.8	Carpet and Padding
6.9	Construction/Demolition Debris
6.10	Electronic waste
6.11	Litter and Illegal Dumping
6.12	Mattresses
6.13	Petroleum contaminated soils
6.14	Pharmaceuticals
6.15	Street sweepings/vector waste
6.16	Tires
6.17	Disaster Debris Management
6.18	Moderate Risk Waste

6.3 Agricultural Waste

This section addresses disposal of agricultural waste within Thurston County.

6.3.1 Regulations and Guidelines

WAC 173-350-100 defines agricultural wastes as, “wastes on farms resulting from the raising or growing of plants and animals including, but not limited to, crop residue, manure from herbivores and non-herbivores, animal bedding, and carcasses of dead animals.” WAC 173-350-230 addresses land application, the beneficial use of solid waste applied to land for its agronomic value or soil-amending capability.

6.3.2 Current Practice

As defined above, little of the agricultural waste generated is disposed of within Thurston County. Hence, agricultural wastes are not under the purview of this Plan. Agricultural wastes, whether crop residues or animal manures, can be returned to the land where these were generated. Exceptions to this are the disposal of animal carcasses which is addressed below in Section 6.4.

Note that empty pesticide and herbicide containers may be disposed of as MSW at the WARC following triple rinsing.

6.3.3 Planning Issues

Current agricultural waste management and disposal practices are generally adequate and should be maintained.

6.4 Animal Carcasses

This section addresses disposal of animal carcasses within Thurston County.

6.4.1 Regulations and Guidelines

Animal carcass disposal requirements generally differ according to cause of death, as follows:

1. Animals that die of natural causes (but not an infectious disease) can be buried on site (typically on a farm) in accordance with state and local regulations, taken to a rendering facility, or taken to the WARC for disposal.
2. Animals killed by collision with motor vehicles (“road kill”) are also taken to the WARC or disposed through the County Public Works Roads and Transportation Division for disposal.
3. The carcasses of animals that die from an infectious disease must be treated to destroy the disease-causing agent to prevent it from infecting other animals or humans. This involves coordination with the PHSS.

6.4.2 Current Practice

Thurston County’s policy and procedures for disposal of animals can be summarized as follows:

- Animal carcasses are accepted at the WARC.
- Customers are charged the same rate as for garbage disposal.

- Customers wishing to dispose of infectious and/or diseased animals are directed to the PHSS for further instructions.

6.4.3 Planning Issues

Because they can potentially infect humans, two of the most important animal diseases are Bovine Spongiform Encephalopathy (BSE) and avian flu.

BSE-infected cattle must be buried in a lined landfill. In addition, BSE-infected cattle cannot be disposed in a landfill where the leachate goes to a sewage treatment plant, because chlorination also does not deactivate prions. Incineration is also an accepted method of BSE-cow disposal.

Highly Pathogenic Asian Avian Influenza A (H5N1) or “avian flu” is caused by bird influenza viruses. Since 1997, H5N1 has infected and killed humans who had close contact with infected poultry. There is concern the H5N1 virus could mutate and eventually acquire the ability to spread easily from one person to another, without birds as the carrier. On-site composting has been proven to be an effective mass disposal method for dead poultry, as the avian influenza virus is deactivated after 10 days of composting at 60° Celsius (140° Fahrenheit). Single birds may also be accepted as MSW if they are double bagged. In larger quantities, the birds are required to be disposed of at a lined landfill or incinerated.

6.5 Appliances

This section addresses disposal of appliances generated within Thurston County.

6.5.1 Regulations and Guidelines

Major appliances, also known as white goods, are considered to be a special waste because their size make it difficult to handle them in the “normal” garbage collection system, and because some types of appliances contain chlorofluorocarbons (CFCs, or “Freon”) that must be removed prior to disposal. On the federal level, the Clean Air Act prohibits the release of CFCs, and state law (RCW 70.94, the Washington Clean Air Act) also requires that CFCs be handled in a manner that prevents release into the atmosphere. Furthermore, CFCs and hydro chlorofluorocarbons are designated as dangerous wastes under WAC 173-303, although they are exempt from these rules if recycled properly.

6.5.2 Current Practice

Appliances are composed mainly of steel, copper, plastic, and rubber, but are typically recycled as ferrous scrap metal. As a service to customers, some appliance dealers recycle the old appliance when a new one is delivered. Appliances are accepted for a fee at the following:

- WARC, 2420 Hogum Bay Road NE, Lacey.
- Regency Technologies, 7827 Arab Drive SE, Olympia.
- South Sound Steel & Recycling Inc., 9546 Lathrop Drive SW, Tumwater.

All facilities confirm the “Freon” refrigerants from refrigerators, freezers, air conditioners, and similar devices are removed. Various companies haul and recycle the appliances based on price and availability.

6.5.3 Planning Issues

Current appliance management and disposal practices are generally adequate and should be maintained.

6.6 Asbestos

This section addresses asbestos disposal within Thurston County.

6.6.1 Regulations and Guidelines

Asbestos is a naturally occurring crystalline material that breaks down into small particles that float in air, and once inhaled these particles can become lodged in a person’s lungs and cause cancer. Several federal laws address asbestos removal and disposal, including the Toxic Substances Control Act, the Occupational Safety and Health Act, the Clean Air Act, and the Clean Water Act. There are also several state laws that address asbestos through worker training and protection requirements as well as disposal rules under the Dangerous Waste Regulations (WAC 173-303). The Olympic Region Clean Air Agency regulates the removal and disposal of asbestos through regulation WSR 16-15-066.

6.6.2 Current Practice

Customers with asbestos containing materials are referred to the WARC for disposal.

6.6.3 Planning Issues

Current asbestos waste management and disposal practices are generally adequate and should be maintained.

6.7 Biomedical/Infectious Waste

This section addresses disposal of biomedical waste generated within Thurston County.

6.7.1 Regulations and Guidelines

Washington State’s definition of biomedical waste (RCW 70.95K.010) includes the following waste types:

Animal waste: animal carcasses, body parts and bedding of animals that are known to be infected with, or have been inoculated with, pathogenic microorganisms infectious to humans.

Biosafety level 4 disease waste: contaminated with blood, excretions, exudates, or secretions from humans or animals who are isolated to protect others from highly communicable infectious diseases that are identified as pathogenic organisms assigned to biosafety level 4 by the Center for Disease Control and Prevention.

Cultures and stocks: wastes infectious to humans, including specimen cultures, cultures and stocks of etiologic agents, wastes from production of biologicals and serums, discarded live and attenuated vaccines, and laboratory waste that has come into contact with cultures and stocks of etiologic agents or blood specimens. Such waste includes, but is not limited to, culture dishes, blood specimen tubes, and devices used to transfer and inoculate cultures.

Human blood and blood products: discarded waste human blood and blood components, and materials containing free flowing blood and blood products.

Pathological waste: human source biopsy materials, tissues, and anatomical parts that emanate from surgery, obstetrical procedures and autopsy. Does not include teeth, human corpses, remains and anatomical parts that are intended for interment or cremation.

Sharps waste: all hypodermic needles, syringes and intravenous tubing with needles attached, scalpel blades, and lancets that have been removed from the original sterile package.

The WUTC regulates transporters of biomedical wastes. Its regulations also allow regular solid waste haulers to refuse to haul wastes that they observe to contain infectious wastes as defined by the WUTC.

6.7.2 Current Practice

Stericycle, Inc., collects biomedical/infectious wastes in Thurston County. Due to privacy considerations, Stericycle does not provide information about where these wastes are generated.

Sharps, when properly prepared are currently accepted at the WARC for disposal.

6.7.3 Planning Issues

The list of potential generators of biomedical waste includes medical and dental practices, hospitals and clinics, veterinary clinics, farms and ranches, as well as individual residences. Some of these may not always dispose of biomedical wastes properly. There is no definitive estimate of the quantity of syringes and other biomedical wastes that are improperly disposed locally, but haulers in other areas often report seeing syringes sticking out of garbage bags. This problem is expected to increase due to an aging population and additional medications delivered via syringe that have become available for home use (for human immunodeficiency virus, arthritis, osteoporosis, and psoriasis).

In 2020, the Coronavirus pandemic was confirmed in the United States and a Public Health Emergency was declared in Washington State with the Governor issuing a Stay at Home order. It is expected that biomedical and infectious waste disposal will increase due to the pandemic and other waste streams may be affected as well.

6.8 Carpet and Padding

This section addresses carpet and padding disposal within Thurston County.

6.8.1 Regulations and Guidelines

In 2019, the legislature passed HB 1543 concerning sustainable recycling and directing Ecology to create a recycling development center to research, incentivize and develop new markets and expand existing markets for recycled commodities and recycling facilities. One of the materials that can be investigated for potential recycling opportunities is carpet and padding.

6.8.2 Current Practice

Customers with carpet and padding are referred to the WARC for disposal. In addition, Recovery 1, located in Tacoma, provides additional capacity to recycle carpet and padding in the region. The system grinds the backing and face fibers from the polypropylene backing, allowing options for recycling most parts of the carpet. The facility accepts both carpet and carpet padding that is not excessively dirty, worn out or contaminated.

6.8.3 Planning Issues

Current carpet and padding waste management and disposal practices are generally adequate and should be maintained.

6.9 Construction and Demolition Debris

This section addresses disposal of C&D debris within Thurston County.

6.9.1 Regulations and Guidelines

Construction, demolition and land clearing wastes are a solid waste resulting from the construction, renovation, and demolition of buildings, roads and other manmade structures. Construction wastes generally include wood scraps, drywall scraps, and excess concrete, as well as cardboard boxes and other packaging used to hold materials or products prior to installation. Demolition wastes typically contain concrete, brick, wood, drywall and other materials. Land clearing debris (tree stumps, brush and soil) is often included with C&D wastes, but little of this material is actually sent to disposal facilities. Another component of C&D wastes are reusable building materials, which are salvaged materials from construction or demolition that would otherwise be landfilled.

C&D wastes are generated by construction companies, homeowners and others. Large amounts of C&D wastes generated by construction companies and contractors are more likely to be collected separately from normal garbage and brought to special disposal sites. Homeowners are more likely to bring small, mixed loads containing both C&D wastes and garbage to Thurston County disposal facilities.

WAC 173-350-400 allows many types of C&D wastes to be disposed in limited purpose landfills. In addition, state law prohibits the open or unregulated burning of “treated wood, metal and construction debris.”

The Olympic Regional Clean Air Agency also provides guidance on proper handling of C&D waste.

Ecology released an updated waste and toxics reduction plan in September 2015. Moving Washington Beyond Waste and Toxics focuses on reducing C&D waste through design and recycling. Moving Washington Beyond Waste and Toxics Plan provides the following goals pertaining to C&D waste:

- Waste generation will be reduced throughout the system by both businesses and residents (GOAL SWM 4)
 - Advance building salvage and building material reuse to reduce construction and demolition waste by promoting design for deconstruction principles, sharing model contract language that requires salvage, and other related efforts.

The state legislature passed the “Sham Recycling Bill” in 2005, requiring transporters of recyclable materials to register with Washington, and requiring certain recycling facilities to notify the state before commencing operation. A new state rule, the Recyclable Materials Transporter and Facility Requirements (WAC 173-345), was developed in response to this legislation. Although originally directed at C&D recycling issues, the new rule covers all types of recyclable materials (all materials designated as recyclable in this Plan). The new rule prohibits delivery of recyclable materials to transfer stations and landfills. The rule does not apply to several entities, including self-haulers, cities and city contractors, and charities.

6.9.2 Current Practice

There are no operational C&D recycling/processing facilities in Thurston County at this time. C&D debris is currently accepted, for disposal, at the County facilities. Recovery 1, located in Tacoma, accepts C&D materials for recycling from the region.

6.9.3 Planning Issues

Current construction and demolition debris management and disposal practices are generally adequate and should be maintained.

6.10 Electronic Waste

This section addresses disposal of electronic and electronic equipment waste, commonly referred to as “e-waste,” generated within Thurston County.

6.10.1 Regulations and Guidelines

Electronic products contain heavy metals and other chemicals at hazardous levels that make them difficult to dispose of safely. The Electronic Product Recycling law (Chapter 70.95N RCW) requires manufacturers of computers, monitors, laptops and portable computers to provide recycling services throughout the state at no cost to households, small businesses, small local governments, charities and school districts. This law led to the E-Cycle Washington program developed by Ecology. Names and locations of collection sites can be obtained by calling 1-800-RECYCLE or going to www.ecyclewashington.org.

6.10.2 Current Practice

The E-Cycle Washington program allows for the collection and recycling of televisions, desktop computers, laptop computers, tablet computers, e-readers, portable video disc players, and computer monitors. However, peripherals such as keyboards, mice, and printers are not covered by the program. Over 330 collection sites (statewide) have been established since January 2009. In the first five years of its existence, E-Cycle Washington has collected more than 200 million pounds of discarded electronics.

Thurston County currently has seven sites which accept electronic wastes. These sites are identified on the E-Cycle Washington website listed above.

6.10.3 Planning Issues

Based on the E-Cycle statistics of pounds collected through the program, the statewide program is working well.

6.11 Litter and Illegal Dumping

This section addresses litter and illegal dumping within Thurston County.

6.11.1 Regulations and Guidelines

The Waste Reduction, Recycling, and Model Litter Control Act (WRRMLCA), or RCW 70.93, is the primary law that guides and directs litter programs in Washington State. Originally passed by the Washington State legislature in 1971 as the Model Litter Control Act, the law was the first of its kind anywhere. Voters ratified the law in the 1972 general election as an alternative to beverage container deposits. Amendments in 1979 added a youth employment program and public awareness activities concerning recycling.

Concern over the litter problem increased in 1997. The Department of Ecology (Ecology) convened a Litter Task Force to examine the effectiveness of litter control in Washington State. The Task Force made several recommendations for improving the existing system and moving toward a standard of zero litter. These recommendations formed the basis of the 1998 Litter Act (Second Substitute House Bill 3058), amending Chapter 70.93 RCW.

The Act included several changes. Most significantly, it put Ecology in a leadership role overseeing funds from the Waste Reduction, Recycling, and Litter Control Account.

In 2018, the Thurston County Board of Health declared homelessness a public health crisis, pledging action to alleviate the growing crisis. The Thurston County Homeless Crisis Response Plan is a living document that will be updated annually to track progress and consider needs, gaps, or opportunities for flexible and innovative responses to emerging as well as issues as they relate to homelessness and human health crisis. One of the issues faced as the County considers this human health crisis is the availability of grant funding to clean up homeless encampments and dispose of waste appropriately.

6.11.2 Current Practice

6.11.2.1 Litter

Thurston County has had a Community Litter Cleanup Program in place since 1990. The program removes illegal dumping and litter from County and State right-of-way, County recreational trails and County Park's property. The Litter Program has a crew supervisor and utilizes a three-person crew consisting of inmates from the County Jail and sanctions from the DUI Court.

The program is funded by the Public Works Department and grant money from the Department of Ecology. The Department of Ecology funding is received through a dedicated account, the Waste Reduction, Recycling, and Model Litter Control Account (RCW 70.93.180) which is from a tax on industries whose products tend to contribute to the litter problem.

6.11.2.2 Illegal Dumping

The PHSS investigates illegal dumping and nuisances throughout the County. Additional information regarding the PHSS investigation and enforcement program can be found in Chapter 7 – Administration, Financing and Enforcement. The Community Litter Cleanup Program removes illegal dump sites from County and State right-of-way and County property is the offender cannot be identified.

6.11.3 Planning Issues

Funding for the Community Litter Control Program is received the Department of Ecology grant. If the grant funding continues to be reduced, the Community Litter Control Program would have to identify other funding sources or discontinue the program. In addition, funding for the PHSS illegal dumping enforcement program is also received from grant funding from the Department of Ecology. Additional grant funding will also be necessary to assist with homeless encampment cleanup.

6.12 Mattresses

This section addresses mattress disposal within Thurston County.

6.12.1 Regulations and Guidelines

Mattresses represent a small part of the waste stream, but can be problematic due to their bulk and size. The Thurston County Department of Corrections operated a mattress recycling program which was discontinued due to concerns about competition with the private sector.

6.12.2 Current Practice

Customers with mattresses are referred to the WARC for disposal.

6.12.3 Planning Issues

Current mattress waste management and disposal practices are generally adequate and should be maintained. Additional opportunities for recycling of mattresses should be considered if they become available.

6.13 Petroleum Contaminated Soils

This section addresses disposal of petroleum contaminated soils (PCS) within Thurston County.

6.13.1 Regulations and Guidelines

PCS can contain fuel oil, gasoline, diesel, or other volatile hydrocarbons in concentrations below dangerous waste levels, but greater than cleanup levels established by Ecology. Small amounts of PCS may be disposed of as a solid waste in an approved landfill. Depending on the contamination levels, large amounts may need to be treated by a process that removes or destroys the contamination. Treatment processes include aeration, bioremediation, thermal stripping, and incineration.

6.13.2 Current Practice

Thurston County refers PCS to the Roosevelt Regional Landfill for disposal.

6.13.3 Planning Issues

Current management and disposal practices are generally adequate to handle the volume of PCS generated within Thurston County.

6.14 Pharmaceuticals

This section addresses disposal of pharmaceuticals within Thurston County.

6.14.1 Regulations and Guidelines

Generally, two types of pharmaceuticals are of interest to Thurston County waste management: 1) controlled substances (prescription drugs and illegal drugs) and 2) over-the-counter, nonprescription substances (e.g., aspirin, vitamins, other health supplements, cold medicines, etc.). Controlled substances are covered by their own regulations, which do not address disposal other than to prevent their reuse. Over-the-counter substances are not specifically addressed by solid waste regulations.

6.14.2 Current Practice

Disposal of unused or outdated prescription and nonprescription substances occurs in an informal and inconsistent fashion. Historically, people have been told to flush unwanted prescription drugs and other medicines down the toilet. However, some of these compounds are only partially broken down (if at all) in wastewater treatment plants, and eventually show up as contaminants in ground and surface waters. Therefore, Washington State has established temporary drop-off locations while it develops a statewide take-back program. A list of temporary drop-off locations is available online (see www.takebackyourmeds.org).

If a collection program for unwanted medicines is not conveniently available to residents, people are currently being encouraged to dispose of these in their trash after mixing the medicines with an undesirable substance, such as used cat litter or coffee grounds, and putting the mixture into a container with a lid.

Thurston County encourages giving pharmaceutical waste to available community drug take-back programs to provide proper disposal rather than mixing with trash.

6.14.3 Planning Issues

Currently, the EPA lists pharmaceuticals and personal care products as “contaminants of emerging concern.” For household pharmaceuticals, the EPA’s interim recommendation is to not flush medications to the sewer or septic tank. Rather, the EPA recommends that residents double bag medications and place them directly into exterior garbage cans to avoid children or pets accessing them.

Take Back Your Meds is a group of over [270 organizations](#) in Washington State that support creation of a statewide program for the safe return and disposal of unwanted medicines. Resources for this can be found at www.takebackyourmeds.org.

In 2018, ESHB 1047 was passed which requires pharmaceutical manufacturers to establish and implement a drug take-back program in the state. In 2020, the Washington State Department of Health approved the plan from MED-Project to offer convenient secure medicine statewide with the program expected to be operational in by the end of 2020.

Current pharmaceutical waste management and disposal practices are generally adequate.

6.15 Street Sweepings/Vactor Waste

This section addresses disposal of wastes generated from maintaining paved areas within Thurston County.

6.15.1 Regulations and Guidelines

Street sweepings and vactor wastes, which include liquids and solids from stormwater conveyance structures, may be contaminated with a variety of materials, depending on the locale, unauthorized or accidental discharges, and frequency of cleaning. Both street sweepings and vactor waste may contain small amounts of petroleum hydrocarbons from motor oil that leaks from vehicles traveling on public streets. Currently, vactor wastes can be classified as clean fill, solid waste, or dangerous wastes, depending upon the level of contamination.

6.15.2 Current Practice

Currently, the County operates a decant facility at the WARC for acceptance of street sweepings and vactor waste. Additional information on the decant facility can be found in Chapter 3 – Collection, Transfer and Disposal.

6.15.3 Planning Issues

Current waste management and disposal practices for street sweepings and vector waste are generally adequate.

6.16 Tires

This section addresses tire disposal within Thurston County.

6.16.1 Regulations and Guidelines

WAC 173-350-100 defines waste tires as any tires that are no longer suitable for their original intended purpose because of wear, damage or defect. WAC 173-350-350 imposes restrictions on outdoor piles of more than 800 tires.

6.16.2 Current Practice

Many tire shops and auto repair shops recycle the tires they replace (typically for a fee). Waste tires are also accepted at the WARC for a fee.

6.16.3 Planning Issues

Recycling and disposal practices for tires are generally adequate. The areas of primary concern are large tire stockpiles, loads of tires that are illegally dumped on public or private property, and small quantities of tires stored by residents and businesses for disposal at some indeterminate future date.

6.17 Disaster Debris Management

This section addresses management and disposal of wastes generated during disasters within Thurston County.

6.17.1 Regulations and Guidelines

Natural and man-made disasters can result in a surge of unanticipated debris that can inhibit or obstruct emergency services and overwhelm normal Thurston County Department of Public Works capabilities. It is critical to clear debris immediately after a disaster to allow emergency vehicles to respond to life-threatening situations. Once the debris is cleared from the right-of-way and vehicle access is achieved, the removal and disposal of debris are important for the community's recovery from a disaster.

Being prepared with a plan to address the increased quantity and potential types of disaster debris can help to protect the health and safety of the community. Successful implementation of that plan can positively affect speed and cost of recovery, and the ability to obtain financial assistance for the recovery efforts.

Numerous resources that provide guidance for the development of disaster debris management plans (DDMPs) are available. The EPA in March 2008 developed *Planning for Natural Disaster Debris* (EPA 2008) as a tool for local communities to create such a plan. Another guidance tool is the Federal Emergency Management Agency's (FEMA) *Public Assistance Program and Policy Guide, Appendix D: Debris Management Plan Job*

Aid (FEMA 2016). Both of these documents are available online and provide guidance that could assist Thurston County in developing a DDMP.

6.17.2 Current Practice

Thurston County has an Emergency Management Department that has prepared a Comprehensive Emergency Management Plan (CEMP).

Recently, Thurston County has had a number of declared disasters affecting the County:

- Drought Declaration – 2019.
- Storm Damage – 2019.
- Flood – 2020.
- Covid-19 Pandemic – 2020.

Thurston County is historically at risk primarily for storm, flood and fire disasters. Table 6-2 summarizes the types of disasters most likely to occur in or near Thurston County and the types of debris likely to be generated. Evaluation of potential disasters and resultant debris can help prepare for disaster response and recovery.

Debris	Biodisaster/ Epidemic	High Winds	Floods	Wildfires	Winter Storms	Pandemic
C&D Material: concrete, asphalt, metal, wallboard, brick, glass, wood		XX	X	X	X	
Personal Property: appliances, e-waste, MRW, furniture, other personal belongings		XX	X	X		X
Vehicles and vessels		X	X	X		
Vegetative Debris: trees, yard debris, woody debris		X	XX	X	XX	X
Animal carcasses, bedding, manure, contaminated items	XX					
Displaced Sediments: sand, soil, rock, sediment			XX	X		
Mixed other debris		X	X	X		X
MSW and medical waste						XX

Note: X = smaller quantity XX = significant quantity

Planning for debris management would enable Thurston County to consider and evaluate alternative debris management options before a natural disaster occurs. Adequate preparation assists with making disaster debris management more cost-effective and meet community concerns, which typically include:

- Public health and safety.
- Prioritizing response activities to target resources in an appropriate manner.
- Preserving property and the environment.
- Minimal impact or disruption of normal solid waste services.
- Cost.
- Compliance with regulations governing specific waste streams such as asbestos and hazardous waste.
- Availability of facilities permitted to accept specific waste streams.
- Ability to recycle portions of the waste stream.
- Eligibility for cost-recovery funds through FEMA or other government programs.

6.17.3 Planning Issues

In an emergency, timely response, saving lives, and minimizing property damage are the primary goals. Following the initial response, disaster debris handling becomes important. A DDMP can be used to coordinate between emergency responders and Thurston County agencies that provide various services. Following the DDMP during and after an emergency is likely to allow for a speedier response and recovery and assist in reducing the financial impact. The DDMP is a supplement to the CEMP by elaborating on debris clearance and demolition activities. Following are issues the DDMP could address:

- Forecast of type and quantity of debris;
- Types of equipment required to manage debris;
- Description of critical local accessibility routes;
- Plan for public debris collection and removal and debris removal from private property;
- Plan for informing the public regarding debris handling;
- Health and safety requirements for emergency workers;
- List of environmental considerations and regulatory requirements;
- Temporary debris management sites and disposal locations, including any necessary permits or variances;
- Potential resources, such as contractors or Thurston County staff, and their responsibilities; and
- Plan for monitoring debris removal and disposal operations.

6.18 Moderate Risk Waste

This section addresses moderate risk waste disposal within Thurston County.

6.18.1 Regulations and Guidelines

Hazardous waste is defined in RCW 70.105 and are excluded from the definition of solid waste. The County and the participating jurisdictions adopted the 2014 Thurston County Hazardous Waste Plan to address hazardous waste handling needs in the County.

6.18.2 Current Practice

The County owns and operates a fixed facility, HazoHouse, to collect Household Hazardous Waste (HHW) from residents and small quantity generators. This facility offers residents the opportunity to safely dispose of their HHW at no cost and eligible businesses can all dispose of waste for a small fee. The HazoHouse also provides a materials exchange (Swap Shop) area where the general public can obtain still-usable materials, such as paint and household cleaners. Informational handouts on recycling and proper waste disposal are available at the facility. The facility operates seven days per week and in 2019 accepted 190 tons of waste from 19,133 customers. Additional information on the HazoHouse can be found in the Thurston County Hazardous Waste Plan.

6.18.3 Planning Issues

Current moderate risk waste management and disposal practices are generally adequate and should be maintained.

6.19 Status of Previous Recommendations

The status of the recommendations made by the 2009 Solid Waste Management Plan can be found in Appendix D.

6.20 Alternatives and Evaluations

Existing service gaps and other issues connected to the Special Waste component of solid waste management are discussed below.

6.20.1 General Alternatives

Collection programs may be required or desired in the future for materials that cannot be fully anticipated at this time. As these needs arise or are identified, options should be evaluated and feasible cost-effective solutions implemented as necessary. Possible steps that could be taken include the following:

- **Increased education:** additional education for generators who are the sources of the waste stream could be conducted to promote safe handling and disposal practices.
- **Collection programs:** additional or new collection programs could be developed or existing ones expanded to include additional materials or sources.
- **Product stewardship:** new product stewardship programs could be considered or supported to address specific waste materials.

6.20.2 Construction and Demolition Debris Recycling Alternatives

There are currently few opportunities for C&D recycling, although specific types of C&D materials (such as clean wood, cardboard, metals, and reusable building materials) can be diverted to various recovery operations. In general, reuse and recycling options for C&D wastes could include:

- **Salvage for on-site and off-site reuse:** This option generally applies to demolition projects, although a small amount of reusable materials and products are also generated at construction sites. To be effective, salvaging requires pre-demolition removal of reusable materials and hence requires some additional time and steps in a project's schedule. Off-site reuse could be accomplished through a variety of means, including reuse stores and private efforts.
- **On-site crushing and grinding for reuse and recycling:** This generally applies to concrete and asphalt, which could be crushed to serve as road base or replace other basic materials, although in some cases wood and other materials could also be handled on-site.
- **Source-separation for off-site processing:** Source separation at C&D sites could allow recycling of wood, cardboard and other materials.
- **Mixed C&D processing off-site:** This option would require a significant investment in one or more facilities that are properly equipped and operated to process and market C&D waste.
- **Central site for recycling and reuse:** An ideal option could be a facility, or a series of local facilities, that combine reuse and recycling as appropriate for the material. These facilities could sell salvaged products (such as doors, windows, and cabinets), as well as crush or grind other materials (such as concrete and wood) for use as aggregate or hog fuel.
- **Collection depots at disposal facilities:** Collection containers for reusable and/or recyclable C&D materials at solid waste facilities could allow these materials to be transferred to a central processing or salvage facility. Transportation costs can be a significant barrier, however, since the recovered materials typically have only a low monetary value.

Thurston County could partner with the South Puget Sound Habitat for Humanity to salvage and divert recyclable materials received at facilities. Materials that could be recycled and resold through the Habitat for Humanity ReStore could be set aside for pickup or customers could be redirected to the Habitat for Humanity ReStore.

Contractors and homeowners could benefit from more information about the potentially hazardous materials that can be uncovered during demolition activities. Information could include proper handling and disposal, as well as the potential health impacts. Disposers of C&D waste can most easily identify potential hazards if they separate their demolished waste. Others can learn about the hazards they are exposing themselves to with Thurston County-provided brochures. Contractors and homeowners could be given a brochure when they apply for a permit.

6.20.3 Disaster Debris Management Alternatives

Thurston County Solid Waste Division could coordinate with Thurston County Emergency Management and the Thurston PHSS to determine details regarding debris removal and disposal activities that could provide better guidance for disaster debris management activities and preparedness. A portion of the details should be describing critical lines of communication related to debris removal and disposal. This would facilitate a quicker response and reduce the number of decisions that need to be made during a disaster while the extent of damage and possible options for addressing them

were being assessed. Any revisions to the CEMP would best be done on the normal schedule for updating this document.

The Thurston County Solid Waste Division can develop a separate DDMP. In this case, both the CEMP and a DDMP together would be used for guidance in the event of a disaster. The DDMP could either be a separate plan or added as an appendix to the CEMP. The DDMP could provide the detail for critical lines of communication specific to debris management activities, identify disasters that would most likely impact the solid waste system, the type of debris that would be generated from each one, address the need for temporary staging areas including potential locations, contain forms and brochures that could be easily modified for use in such an event, and have identified reuse/recycle activities that would minimize disposal at landfills. The level of detail for this plan could range from simple plans consisting largely of checklists and an outline of procedures to more complex plans that would be reviewed and approved by FEMA.

Thurston County Public Works completed a Debris Management Plan in March of 2019. On October 8, 2019 a table top exercise was held involving Thurston County Emergency Management and the Public Works Divisions of Solid Waste, Road Operations and Engineering. The scope of the exercise was to familiarize participants with the Debris Management Plan and provide discussion on how debris operations would be carried out for a regional flooding incident. An After Action Report Improvement Plan was subsequently developed in December 2019 and is actively being worked on to address the identified areas for improvement.

6.20.4 Evaluation of Alternative Strategies

For the most part, management practices for special wastes in Thurston County are adequate. Emerging regulations and guidance regarding pharmaceutical waste may require future action.

6.21 Recommended Actions

The following options were selected by the SWAC for recommended implementation:

- SW1) Continue to dispose special wastes through a cooperative effort with the PHSS, Thurston County Public Works Solid Waste Division and Ecology.
- SW2) Monitor EPA and Washington State guidance regarding pharmaceutical waste and implement changes as needed to comply with statewide medicine take-back program.
- SW3) Promote proper reuse, recycling and disposal of C&D.
- SW4) Implement the After Action Report – Improvement Plan developed in December 2019 as a result of a table top exercise as part of the Thurston County Debris Management Plan.

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Administration,
Financing &
Enforcement

7

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7.0 Administration, Financing and Enforcement

7.1 Introduction

This chapter addresses the administrative, financing and enforcement activities related to solid waste.

7.2 Background

The County, cities, towns and several other organizations and agencies are responsible for providing enforcement of federal, state, and local laws and regulations that guide the planning, operation, and maintenance of the region's solid waste management system. This local enforcement authority ensures the County system meets applicable standards for the protection of human health and environmental quality in the region.

7.3 Existing Conditions

Administrative responsibility for solid waste handling systems in the County is currently divided among several agencies and jurisdictions in local, county, and state government. Each organization involved in the County solid waste management system is described below.

7.3.1 Thurston County Public Works Department - Solid Waste Division

The Washington State Solid Waste Management Act, Chapter 70.95 RCW assigns local government the primary responsibility for managing solid waste. Solid waste handling, as defined in Chapter 70.95 RCW, includes the "management, storage, collection, transportation, treatment, utilization, processing, and final disposal of solid wastes, including the recovery and recycling of materials from solid wastes, the recovery of energy resources from solid wastes or the conversion of the energy in solid wastes to more useful forms or combinations thereof."

Chapter 36.58 RCW authorizes the County to develop, own, and operate solid waste handling facilities in unincorporated areas, or to accomplish these activities by contracting with private firms. The County also has the authority and responsibility to prepare a comprehensive solid waste management plan for unincorporated areas and for jurisdictions that agree to participate with the County in the planning process.

The County has entered into interlocal agreements with incorporated cities and towns prior to starting the Plan review, update and adoption process. These agreements address the Plan participation.

The County exercises its solid waste responsibilities through the Public Works Department - Solid Waste Division. The specific administrative functions performed include the following:

- Administering, staffing and operating the Rainier and Rochester Drop Box Sites, the HazoHouse, the WARC scales and scalehouse and managing the closed Hawks Prairie Landfill.

- Administering and staffing public education programs for waste reduction and recycling.
- Administering contracts.
- Maintaining the Plan as adopted relating to public health, safety, and sanitation, and providing regulations to govern the storage, collection, transfer, transportation, processing, use, and final disposal of solid waste by all persons in the County.
- Providing staff support for the SWAC.

Figure 7-1 illustrates the County Public Works Department - Solid Waste Division organizational structure. The County Public Works - Solid Waste Division is staffed by 29 employees who handle administration, operations, coordination, education and outreach activities.

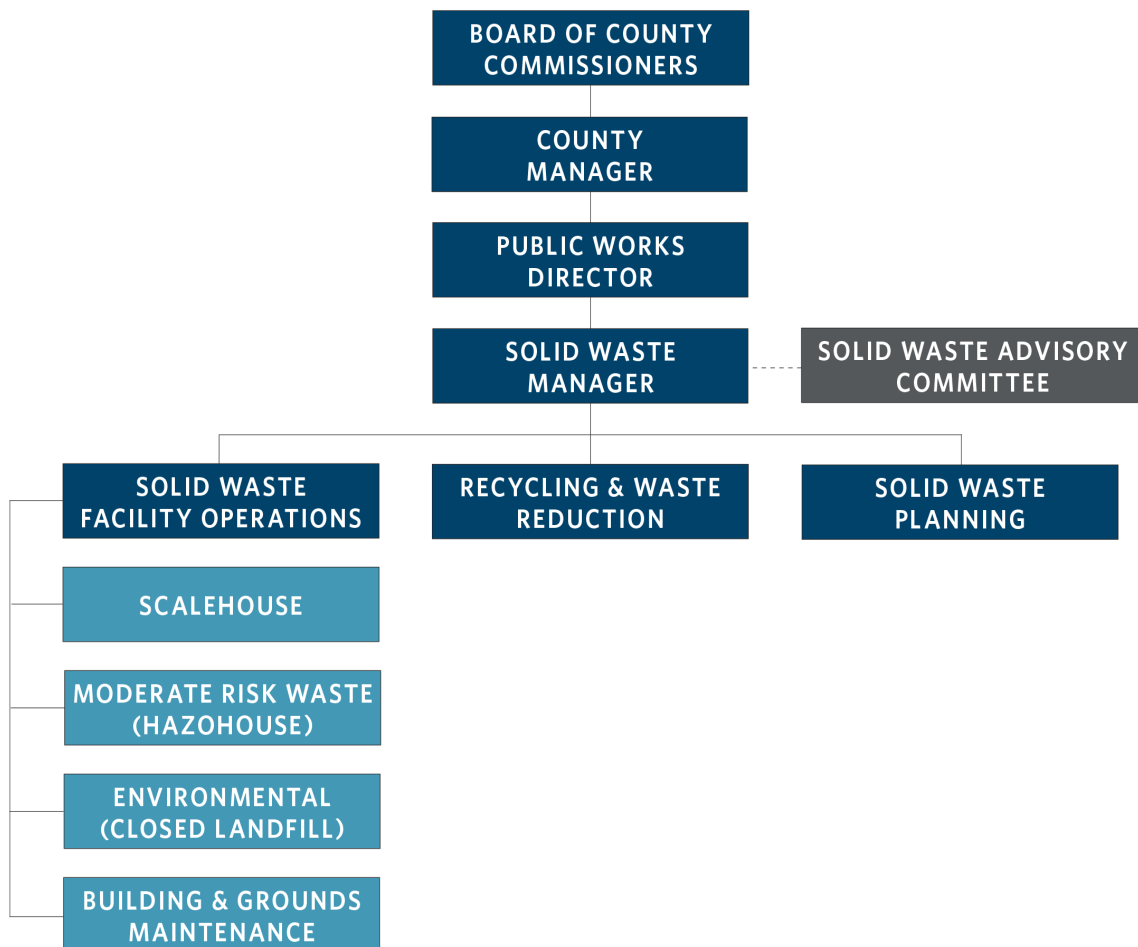


Figure 7-1. Thurston County Public Works Department - Solid Waste Division Organizational Structure

The County Public Works - Solid Waste Division is funded by the fees collected at the scalehouses located at the WARC, and the Rainier and Rochester Drop Box sites. The County also receives grant monies from Ecology for solid waste management planning activities, litter clean up and pilot projects. Table 7-1 shows the actual expenses for 2018 and 2019 and current budget (2020) for the County Solid Waste Division.

Table 7-1. Thurston County Solid Waste Financial Information			
	2018 Actual	2019 Actual	2020 Budgeted
Revenues			
Solid Waste Fees	\$25,158,655	\$25,970,549	\$25,923,000
Miscellaneous	\$3,390	\$135,137	\$11,400
Grant Revenues	\$91,710	\$58,858	\$51,000
From Other Funds	\$88,033	\$40,370	\$3,040,499
Total Revenues	\$25,341,788	\$26,204,914	\$29,025,899
Expenses			
Personnel	\$2,824,767	\$2,591,133	\$3,458,733
Internal Services	\$1,556,459	\$2,020,372	\$2,115,443
Professional Services	\$16,192,630	\$17,144,365	\$17,696,292
Operating Costs	\$923,490	\$887,946	\$1,314,851
Capital Expenses	-	\$18,770	\$2,620,757
Transfer To Other Funds	\$1,440,440	\$1,455,340	\$1,436,196
Total Expenses	\$22,937,786	\$24,147,926	\$28,642,272
Total Balance/(Deficiency)	\$2,404,002	\$2,056,988	\$383,627
Solid Waste Reserve Fund	\$9,220,328	\$10,399,146	\$8,554,106
Fund Balance	\$32,550,355	\$35,789,161	\$34,324,748

7.3.2 Thurston County Solid Waste Advisory Committee

Per RCW 70.95.165, the Board of County Commissioners has appointed the SWAC to help develop solid waste handling programs and policies. The SWAC has adopted bylaws that can be amended by the SWAC at any time, subject to approval by the Board of County Commissioners. The term of the SWAC members is three years and members can be re-appointed by the Board of County Commissioners to serve consecutive terms. The SWAC consists of a minimum of nine members each with one vote and membership is outlined in the bylaws to include: citizens, public interest groups, business, the waste management industry, agriculture and local elected officials. Additional information regarding the SWAC by-laws can be found in Appendix C.

7.3.3 Incorporated Cities

RCW 35.21.152 empowers cities to develop, own, and operate solid waste handling systems and to provide for solid waste collection services within their jurisdictions. There are seven incorporated cities and towns in Thurston County.

One municipality (City of Olympia) operates their own collection program with one private hauler (Waste Connections) operating within the County boundary. The City of Olympia collection program is operated within the city boundaries, as adjusted periodically by

annexations. Waste Connections operates in the unincorporated areas and in the other municipalities. Fees charged for the service cover the expenses of the system, although some cities also charge a “utility tax” that assists in funding other city functions. Detailed information about collection in individual cities is included in Chapter 3 Collection, Transfer and Disposal.

7.3.4 Thurston County Public Health and Social Services Department

The County PHSS works with the public, cities, County, and state agencies to develop and implement plans for the safe storage, collection, transportation, and final disposal of solid waste. The PHSS works to assure compliance with Chapter 70.95 RCW and WAC 173-304 - Minimum Functional Standards for Solid Waste Facilities. The PHSS is responsible for the following:

- Permitting solid waste facilities operating in the County.
- Assuring that permits are consistent with the Plan, local ordinances and appropriate Washington State and Federal regulations.
- Providing oversight of existing permitted facilities.
- Responding to complaints regarding improper storage and disposal of solid waste.
- Investigating illegal dumping and non-permitted dump sites.

The PHSS works cooperatively with other County agencies to receive and investigate illegal dumping and nuisances’ county-wide and establishes and maintains a surveillance and control program.

Solid waste facility permits are required in accordance with Chapters 173-303, 173-350, and 173-351 of the WAC. Facilities are required to obtain solid waste handling permits from the PHSS.

The State Environmental Policy Act (SEPA), Chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. In order to determine if an EIS is necessary, an environmental checklist must be completed.

7.3.5 Washington State Department of Ecology

Chapter 70.95 RCW provides for a comprehensive, statewide solid waste management program and assigns primary responsibility for solid waste handling to local governments. This regulation gives each county, in cooperation with its cities, the task of setting up a coordinated solid waste management plan that places an emphasis on waste reduction and recycling programs. Enforcement and regulatory responsibilities are assigned to cities, counties, or jurisdictional PHSSs (like the County PHSS), depending on the specific activity and local preferences, but Ecology issues permits for land application of biosolids.

Ecology has promulgated Chapter 173-350 WAC, Solid Waste Handling Standards, which addresses the operational and other requirements for recycling and composting facilities as well as inert and special purpose landfills. Chapter 173-351 WAC, Criteria for Municipal Solid Waste Landfills, contains the current standards for MSW landfills.

The Model Litter Control and Recycling Act (RCW 70.93.060) prohibits depositing garbage on any property not properly designated as a disposal site. There is also a “litter fund” that has been created through a tax levied on wholesale and retail businesses, and the monies from this fund are being used for education, increased litter cleanup efforts, and contracts to eligible county entities for illegal dump cleanup activities.

Under the Model Toxics Control Act (MTCA) (RCW 70.105D), grants are available to local governments for solid waste management plans and programs, hazardous waste management plans and programs, and remedial actions to clean up existing hazardous waste sites. Solid and hazardous waste planning and programs are funded through the Local Solid Waste Financial Assistance Grants program administered by Ecology’s Solid Waste and Financial Assurance Program. The state rule that governs this program is Chapter 173-312 WAC – Local Solid Waste Financial Assistance.

7.3.6 Washington Utilities and Transportation Commission

The WUTC regulates privately owned utilities that provide public services such as electric power, telephone, natural gas, private water, transportation, and refuse collection. WUTC’s authority over solid waste collection is established in Chapter 81.77 RCW. This authority does not extend to companies operating under contract with any city or town, or to any city or town that undertakes solid waste collection. WUTC regulates solid waste collection companies by granting “certificates of convenience and necessity” that permit collection companies to operate in specified service areas. WUTC also regulates solid waste collection, under authority of RCW 81.77.030, by performing the following functions:

- Fixing collection rates, charges, classifications, rules, and regulations.
- Regulating accounts, service, and safety of operations.
- Requiring annual reports and other reports and data.
- Supervising collection companies in matters affecting their relationship to their customers.
- Requiring collection companies to use rate structures consistent with Washington State waste management priorities.

The WUTC requires certificate holders to provide the minimum levels of solid waste collection and recycling services established by a local solid waste management plan and enacted through an ordinance. Solid waste companies operating in the unincorporated areas of a county must comply with the local solid waste management plan (RCW 81.77.040).

At its option, the County may notify the WUTC of its intention to have the G-certificate holder bid on the collection of source-separated recyclable materials from residences in unincorporated areas. Commercial recycling is also regulated by the WUTC, under laws that apply in general to motor freight carriers (Chapter 81.80 RCW), although their oversight is limited to requiring a permit and also to require companies to carry insurance, conduct drug testing of employees, and conduct a few other activities.

This Plan contains a cost assessment (see Appendix F) prepared according to the *WUTC Cost Assessment Guidelines for Local Solid Waste Management Planning*

(WUTC October 2019). RCW 70.95.096 grants the WUTC 45 days to review the Plan’s impact on solid waste collection rates charged by solid waste collection companies regulated under Chapter 81.77 RCW, and to advise the County and Ecology of the probable effects of the Plan’s recommendations on those rates.

7.3.7 United States Environmental Protection Agency

At the Federal level, the Resource Conservation and Recovery Act (RCRA) of 1976, as amended by the Solid Waste Disposal Act Amendments of 1980 (42 United States Code 6901-6987), is the primary body of legislation addressing solid waste. Subtitle D of RCRA deals with non-hazardous solid waste disposal and requires the development of a state comprehensive solid waste management program that outlines the authorities of local, state and regional agencies. Subtitle D requires the state program prohibit “open dumps” and provides that solid waste is handled in an environmentally sound manner.

7.4 Status of Previous Recommendations

The status of the recommendations made by the 2009 Plan can be found in Appendix D.

7.5 Alternatives and Evaluations

Existing service gaps and other issues connected to Administration, Financing and Enforcement components of solid waste management are discussed below.

7.5.1 Long-Term Funding Needs

Financial resources are necessary to provide for the continuation of recycling and hazardous waste diversion and education programs, for repairs, maintenance and construction of solid waste facilities and for complying with new and more stringent rules and regulations governing solid waste management. These resources may be provided by taxes, solid waste tipping fees, grants, or any combination of these sources.

Solid waste funding for recycling and educational programs in the County are currently reliant on the tipping fees assessed at the solid waste facilities and on occasion LSWFA grant funding. Additional funding options (grouped by category) and the associated implementation entity are provided in Table 7-2.

Table 7-2. Potential Funding Methods for Solid Waste Management				
Possible Funding Methods	Potential Implementation Entity			
	Cities/Towns	County	State	Private Sector
User Fees, Rates, Surcharges				
1. Cost-of-Service-Based Rates	X	X		X
2. Other Volume-Based Rates	X			
3. Fixed Per-Customer Service Rates	X			X
4. Collection Rate Surcharges	X			

Table 7-2. Potential Funding Methods for Solid Waste Management				
Possible Funding Methods	Potential Implementation Entity			
	Cities/Towns	County	State	Private Sector
5. Planning Fees		X		
6. Weight or Volume-Based Disposal Fees	X	X		X
7. Fixed Per-Customer Disposal Fees	X	X		X
8. Disposal Surcharges	X	X		
Taxes				
9. MTCA Funds, Hazardous Substance Tax		(x)	X	
10. State Litter Tax		(x)	X	
11. Disposal Department Excise Tax		X		
12. Mandatory Collection		X		
13. Franchise Fees	X		X	
Other				
16. Enforcement Fines/Penalties		X		
17. Sales of Recyclable Materials	X	X		X
18. Recycling Fees/Charges	X	X		X
19. Sales of Recovered Energy		X		X
20. Utility Tax	X			
21. General Fund Revenues	X	X		
22. Bond Financing		X		(x)
23. Public Works Assistance Account ¹	X	X		

Note: X = Implementing authority, (x) = potentially benefits from funding method but cannot implement it.

¹ Public Works Assistance Account, commonly known as the Public Works Trust Fund, was established by WAC 43.155 to be used by the Public Works Board to finance local government infrastructure loans.

7.5.2 Collection and Disposal Districts

Chapter 36.58 RCW, Solid Waste Disposal, establishes counties' rights and responsibilities regarding solid waste management, including the authority to establish solid waste disposal districts. The authority to establish solid waste collection districts is provided in Chapter 36.58A. Either district can include the incorporated areas of a city or town only with the city's consent. A solid waste district (for collection or disposal) could centralize functions that are now handled by a variety of county and city agencies, but it may be difficult to develop a consensus on the formation and jurisdiction of either type of district. Either type of district may be able to alleviate illegal dumping and other problems

through the institution of mandatory garbage collection (for a collection district only) and different financing structures.

The establishment of a solid waste collection district that can act in a similar capacity is allowed by RCW 36.58A. A collection district can be created following the adoption of a SWMP; however a collection district does not appear to possess taxing authority. According to RCW 36.58A.040, the revenue-generating authority of a collection district is limited.

A solid waste disposal district is a quasi-municipal corporation with taxing authority set up to provide and fund solid waste disposal services. A disposal district has the usual powers of a corporation for public purposes, but it does not have the power of eminent domain. A county legislative authority (i.e., the Board of County Commissioners) would be the governing body of the solid waste disposal district.

RCW 36.58.130 allows the creation of a disposal district to provide for all aspects of solid waste disposal. This includes processing and converting waste into useful products, but specifically does not allow the collection of residential or commercial garbage. A disposal district may enter into contracts with private or public agencies for the operation of disposal facilities, and then levy taxes or issue bonds to cover the disposal costs. Thus, a disposal district established in the County could assess each resident or business (in incorporated areas only with the city's approval) a pro rata share of the cost of disposal. This could help to discourage illegal dumping by covering at least part of the disposal cost through mandatory payments, so that the additional expense for proper disposal would be lower than it is currently. In other words, the assessment by the disposal district would be paid regardless of where the resident or business dumped the waste or whether it was self-hauled or transported by a commercial hauler, and the latter two options would be less expensive by the amount of disposal costs already paid.

RCW 36.58.140 states that a disposal district may “collect an excise tax on the privilege of living in or operating a business in the solid waste disposal taxing district, provided that any property which is producing commercial garbage shall be exempt if the owner is providing regular collection and disposal.” The district has a powerful taxing authority, since it may attach a lien to each parcel of property in the district for delinquent taxes and penalties, and these liens are superior to all other liens and encumbrances except property taxes.

The funds obtained by a disposal district tax may be used “for all aspects of disposing of solid wastes...exclusively for district purposes” (RCW 36.58.130). Potential uses include:

- Cleanup of roadside litter and solid wastes illegally disposed of on unoccupied properties within the district.
- Public information and education about waste reduction and recycling.
- Defraying a portion of the cost of disposal.
- Subsidizing waste reduction/recycling activities.
- Subsidizing the HazoHouse and collection events.
- Closure and post-closure costs for the old landfill and for other solid waste facilities.
- Solid waste planning.

7.5.3 Flow Control

Solid waste flow control is the legal provision that allows local government to designate the places where MSW is taken for processing, treatment or disposal.

In recent years, there have been two landmark flow control legal decisions. The first was the Supreme Court's 1994 decision in *C&A Carbone Inc. v. Oneida-Herkimer Solid Waste Management Authority*, in which the court found that a municipality could not force a private waste hauler to dispose of waste at a disposal facility of the municipality's choosing, which essentially made flow control unconstitutional.

However, in 2007, the Supreme Court ruled in *United Haulers Association v. Oneida-Herkimer Solid Waste Management Authority*, by a 6-3 decision, that municipalities, specifically those in Oneida and Herkimer counties, were within their rights to force haulers to direct waste to municipality-controlled disposal sites. This ruling re-opened the door to flow control mandates all over the country.

In the County, flow control is currently managed through the Transfer Station Development and Service Agreement with Republic Services. The current contract for operations, which expires in May 2023, requires Waste Connections, as a subcontractor to Republic Services, to deliver all waste collected within the County to the WARC facility. MSW flow control through the contract would cease at the termination of the Transfer Station Development and Service Agreement.

RCW 36.58.040 allows a county, by ordinance, to provide for the establishment of a system of solid waste handling for all unincorporated areas of the county, allowing for the designation of disposal sites for all solid waste collected in the unincorporated areas in accordance with the provisions in an adopted solid waste management plan. Solid waste flow control ordinances allow governments to require private waste haulers to deliver curbside garbage to a specific disposal facility, such as a county-owned transfer station, to ensure a steady stream of revenue in the form of tipping fees.

RCW 39.34 permits a local government to enter into interlocal agreements with other public agencies in the interest of cooperatively sharing resources for their mutual benefit. In Washington State, solid waste interlocal agreements are utilized to cooperatively manage MSW, maintain and periodically update the Comprehensive Solid Waste Management Plan, support goals of Waste Prevention and Recycling and designate facilities for disposal of MSW and other waste streams such as organics and household hazardous waste. Solid Waste Interlocal Agreements are an accepted practice between counties and cities to guarantee waste streams into facilities from municipalities that have the option to direct waste by regulation.

7.5.4 Data Tracking and Rate Study

Data tracking and reporting will be an important consideration as tonnages of waste and recyclables change. A solid waste data tracking dashboard, that is accessible through the County website, and maintained by staff, would provide an opportunity to centralize data as it relates to per capita waste generation rates, tonnage disposed, tonnage recycled and other pertinent information could be made available to the public.

Adequate funding should be provided to maintain services, facilities and programs for the primary responsibility for solid waste management in the County. The last rate study was completed in 2010 with the last rate increase implemented in 2012. A rate study provides the opportunity for decision-makers to review rates by commodity and adjust as necessary.

7.6 Recommended Actions

The following options were selected by the SWAC for recommended implementation:

- AE1) Consider pursuing some of the additional funding strategies listed in Table 7-2 that can be implemented by the County directly and independently from other alternatives.
- AE2) Adopt a county-wide flow control ordinance for MSW to promote consistent service and funding levels for management of the solid waste facilities.
- AE3) Adopt interlocal agreements between the County and the Cities and Towns to provide for flow control of MSW to promote consistent service and funding levels for management of the solid waste facilities.
- AE4) Develop a dashboard report to centralize solid waste data and make it accessible to the public.
- AE5) Conduct a rate study to ensure rates are covering system costs at an adequate level.



Implementation Plan

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8.0 Implementation Plan

This chapter of the Plan provides information about the cost and schedule for implementing the recommendations made in this Plan. Information is also provided on monitoring progress and maintaining the Plan.

8.1 Recommended Strategies, Implementation Schedule and Budget

The recommendations made in previous chapters of this Plan are repeated below for convenient reference. Table 8-1 provides the approximate budget for Plan recommendations that incur additional costs above and beyond current status quo costs and programs, proposed implementation schedule and primary responsibility. More details about specific recommendations can be found in the respective chapters.

Table 8-1. Summary of Recommendations, Implementation Schedule and Budget			
Recommendation	Implementation Responsibility	Projected Additional Cost	Implementation Schedule
3. Collection, Transfer and Disposal			
CTD1) Continue to require MSW to be routed through the County-owned facilities in future interlocal agreements.	Thurston County, Cities and Towns	\$0	Ongoing
CTD2) Review and update County Ordinance 13696 related to minimum service levels for residential recycling collection.	Thurston County	\$0	Ongoing
CTD3) The WARC, Rainier Drop Box Site, and Rochester Drop Box Site will comprise the designated disposal system for all MSW generated in the County.	Thurston County	\$0	Ongoing
CTD4) Implement proposed improvements to the WARC, Rainier Drop Box Site and Rochester Drop Box Site from the County Capital Facility Plan, as appropriate to ensure high-quality service delivery in a fiscally responsible manner.	Thurston County		
Rainier and Rochester Drop Box Site Improvements		\$3,400,000 ¹	2021-2026
WARC Site Security		\$600,000 ¹	2021-2026
WARC Site Improvements		\$20,500,000 ¹	2021-2026
CTD5) Issue a Request for Proposals for operations, maintenance, transportation and disposal, that includes sustainability criteria as an evaluation factor as appropriate, to ensure continuation of solid waste services at the County owned facilities.	Thurston County	\$20,000 ²	2021

Table 8-1. Summary of Recommendations, Implementation Schedule and Budget			
Recommendation	Implementation Responsibility	Projected Additional Cost	Implementation Schedule
CTD6) Monitor developments and progress in waste processing and conversion technologies utilized at RRL and support the continued use of landfill gas to energy operations at the site.	Thurston County	\$0	Ongoing
CTD7) Proposals for disposal facilities, anaerobic digestion, incinerators and other waste conversion technologies should be evaluated on a case-by-case basis for consistency with the Plan, cost to benefits and environmental compliance.	Thurston County	\$0	Ongoing
4. Education, Outreach and CROP			
EO1) Refresh educational materials and harmonize messaging through digital education, social media, websites, targeted mailings, updated site signage and social media marketing practices.	Thurston County	\$0	Ongoing
EO2) Refresh residential food waste prevention campaigns.	Thurston County	\$0	Ongoing
EO3) Collaborate with the certificated hauler to develop and implement a residential education program funded by a Revenue Sharing Agreement.	Thurston County	\$0	Ongoing
EO4) Enhance the multi-family toolkit and provide targeted technical assistance.	Thurston County, Waste Connections	\$0	Ongoing
EO5) Promote business technical assistance through toolkits and targeted messaging and outreach.	Thurston County	\$0	Ongoing
EO6) Continue to support school waste reduction and recycling strategies and develop measurement metrics for success of programs.	Thurston County	\$0	Ongoing
EO7) Provide education materials online and at the permit counter for reducing C&D debris prevention and diversion.	Thurston County, Cities and Towns	\$0	Ongoing
EO8) Adopt a CROP by July 1, 2021 and maintain and update the document, as needed, during this Plan cycle.	Thurston County	\$0	2021
5. Waste Reduction, Recycling and Organics			
WRR1) Adopt the updated list of designated materials and maintain it through periodic review and updates.	Thurston County	\$0	Ongoing
WRR2) Focus recycling and diversion efforts on organics, glass, mixed paper and waste streams that represent significant tonnage disposed.	Thurston County, Cities and Towns	\$0	Ongoing

Table 8-1. Summary of Recommendations, Implementation Schedule and Budget

Recommendation	Implementation Responsibility	Projected Additional Cost	Implementation Schedule
WRR3) Conduct a waste composition study to provide data that tracks progress towards waste reduction and diversion program performance, refines existing programs and identifies new program opportunities.	Thurston County, Cities and Towns	\$100,000 ²	2022
WRR4) Continue to provide support for recycling at public events.	Thurston County City of Olympia	\$0	Ongoing
WRR5) Expand recycling drop-off opportunities in signatory cities, County sites and private sites.	Thurston County, Cities and Towns	\$20,000 ²	2024
WRR6) Support private sector programs, forums or other methods, such as existing reuse and reusable materials exchange programs to facilitate material exchanges.	Thurston County, Cities, Towns and Private Sector	\$0	Ongoing
WRR7) Increase promotion of existing reuse programs through social media and marketing.	Thurston County, Cities and Towns	\$0	Ongoing
WRR8) Promote and support food collection and distribution programs in the County.	Thurston County	\$0	Ongoing
WRR9) Support the Thurston Climate Adaptation Plan, and additional climate action plans adopted by local jurisdictions, through programs that target a per capita reduction in landfill waste, reduction in transportation, improved handling methods and recycling.	Thurston County, Cities and Towns	\$0	Ongoing
6. Special Wastes			
SW1) Continue to dispose special wastes through a cooperative effort with the PHSS, Thurston County Public Works Solid Waste Division and Ecology.	Thurston County	\$0	Ongoing
SW2) Monitor EPA and Washington State guidance regarding pharmaceutical waste and implement changes as needed to comply with statewide medicine take-back program.	Thurston County	\$0	Ongoing
SW3) Promote proper reuse, recycling and disposal of C&D.	Thurston County	\$0	Ongoing
SW4) Implement the After Action Report – Improvement Plan developed in December 2019 as a result of a table top exercise as part of the Thurston County Debris Management Plan.	Thurston County	\$5,000 ²	2021
7. Administration, Financing and Enforcement			
AE1) Consider pursuing some of the additional funding strategies listed in Table 7-2 that can be implemented by the County directly and independently from other alternatives.	Thurston County	\$0	Ongoing

Table 8-1. Summary of Recommendations, Implementation Schedule and Budget

Recommendation	Implementation Responsibility	Projected Additional Cost	Implementation Schedule
AE2) Adopt a County-wide flow control ordinance for MSW to promote consistent service and funding levels for management of the solid waste facilities.	Thurston County	\$0	Ongoing
AE3) Adopt interlocal agreements between the County and the Cities and Towns to provide for flow control of MSW to promote consistent service and funding levels for management of the solid waste facilities.	Thurston County, Cities and Towns	\$0	Ongoing
AE4) Develop a dashboard report to centralize solid waste data and make it accessible to the public.	Thurston County	\$0	Ongoing
AE5) Conduct a rate study to ensure rates are covering system costs at an adequate level	Thurston County	\$60,000 ²	2021-2026
Total		\$24,705,000	

¹ Funding from Solid Waste Division Reserves.

² Funding from Solid Waste Division Tip Fees.

Capital construction projects anticipated during this six-year planning process are provided in Appendix H – Capital Projects.

8.2 State Environmental Policy Act

Ecology requires the potential impacts of this Plan be evaluated according to the SEPA process. The checklist has been prepared to fulfill that requirement and is included as Appendix E. The SEPA checklist is a “non-project proposal” intended to address new programs recommended by the Plan. As a non-project proposal SEPA checklist, it is unable to fully address the potential impacts of facilities proposed in this Plan. Any new facility will need to undergo its own SEPA review process.

Thurston County issued a determination of non-significance that the recommendations in the Plan will not have a probable significant adverse impact on the environment. A copy of this determination is included in Appendix E.

8.3 Twenty-Year Implementation Program

Solid waste management in Thurston County will continue to evolve based on changes in population, demographics, the local, state, and national economy, regulations, and advancements in waste handling and recycling. Fortunately, Thurston County’s current solid waste management system is functioning effectively.

The current process of solid waste rate reviews and adjustments provides adequate funding for solid waste programs and facilities. If in the future it becomes advisable to

seek additional sources of funding, Chapter 7 provides a list of potential funding sources. Potential capital projects anticipated beyond this 6-year planning period are included in Appendix H – Capital Projects.

8.4 Draft Plan Review

Thurston County provided the draft 2020 Plan for review to stakeholders. Comments were received from Ecology, WSDA, and WUTC. Comments received and responses to comments by the County are included as Appendix G.

8.5 Procedures for Amending the Plan

The Solid Waste Management-Reduction and Recycling Act (Chapter 70.95 RCW) requires local governments to maintain their solid waste plans in current condition. Plans must be reviewed and revised, if necessary, at least every five years. This Plan should be reviewed in 2025. Before that time, the Plan can be kept in current condition through amendments. An “amendment” is defined as a simpler process than a revision. If there is a significant change in the solid waste system, however, a revision may be necessary before the five-year period is done.

Changes in the Plan may be initiated by the County, working with the SWAC to develop and review proposed changes, or by outside parties. For the latter, individuals or organizations wishing to propose plan amendments before the scheduled review must petition the County’s Solid Waste Manager in writing. The petition should describe the proposed amendment, its specific objectives, and explain why immediate action is needed prior to the next scheduled review. The Solid Waste Manager will investigate the basis for the petition and prepare a recommendation for the Director of the Public Works Department.

If the Public Works Director determines the petition warrants further consideration, the petition will be referred to the SWAC for review and recommendation. The Solid Waste Manager will draft the proposed amendment together with the SWAC. Whether the proposed amendment has been initiated by the County or an outside party, the proposed amendment must be submitted to the legislative bodies of all participating jurisdictions and Ecology for review and comment. Adoption of the proposed amendment will require the concurrence of all affected jurisdictions.

The Public Works Director may develop reasonable rules for submitting and processing proposed plan amendments, and may establish reasonable fees to investigate and process petitions. All administrative rulings of the Public Works Director may be appealed to the Board of County Commissioners.

Minor changes may occur in the solid waste management system, whether due to internal decisions or external factors. These can be adopted without going through a formal amendment process. If there is uncertainty about whether or not a change is “minor,” it should be discussed by the SWAC and a decision made based on the consensus of that committee.

Implicit in the development and adoption of this Plan is the understanding that in the future, the County may need to take emergency action for various reasons, and that these actions can be undertaken without the need to amend this Plan beforehand. In that case, the Solid Waste Manager will endeavor to inform the SWAC and other key stakeholders as soon as feasibly possible, but not necessarily before new actions are implemented. If the emergency results in permanent and significant changes to the solid waste system, an amendment to this Plan will be prepared in a timely fashion. If, however, the emergency actions are only undertaken on a temporary or short-term basis, an amendment may not be considered necessary. Any questions about what actions may be considered “temporary” or “significant” should be brought to the SWAC for their advice.

Similar to the allowance for emergency action discussed above, the County will need to make operational decisions and expenditures to comply with future regulatory changes and update permit requirements as applicable. Plan update and coordination with the SWAC will not be required or initiated for these future actions, as they are considered operational activities.



Appendices

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Appendix A – Interlocal Agreements

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APPENDIX A: INTERLOCAL AGREEMENTS

Introduction

The current interlocal agreements between Thurston County and the seven cities and towns are shown in the following pages.

Discussion

The interlocal agreements shown in the following pages were adopted by the municipalities in 2013. The duration of these agreements is intended to continue until replaced by another such agreement. The primary intent of these agreements is to guide the involvement of the cities, towns and counties in preparing a solid waste management plan and to address implementation activities. These agreements also address the financing of the system, through an enterprise fund managed by Thurston County.

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INTERGOVERNMENTAL AGREEMENT FOR THE
THURSTON COUNTY
SOLID WASTE MANAGEMENT PLAN AND THE HAZARDOUS
WASTE PLAN UPDATES

THIS AGREEMENT, made and entered into this 11th day of December 2012 by and between Thurston County, Washington, and the incorporated municipality of Bucoda which is organized under the laws of the State of Washington and are herein collectively referred to as the "Participating Municipality;"

WHEREAS, the Participating Municipality agreed, pursuant to the Solid Waste Management Act, Chapter 70.95 RCW, and the Hazardous Waste Management Act, Chapter 70.105 RCW, to participate in preparing the 2013 Thurston County Comprehensive Solid Waste Management Plan and the Local Hazardous Waste Plan, hereinafter referred to as the "Plans;" and

WHEREAS, it is to the mutual advantage of the Participating Municipality and their citizens to contract pursuant to Chapter 39.34 RCW for the purpose of providing joint county-municipality integrated solid waste and hazardous waste management programs; and

WHEREAS, that Intergovernmental Agreement and the plans identify that the Plans shall be reviewed and revised by the Participating Municipality once every five (5) years; and

WHEREAS, the Participating Municipality have the opportunity to reaffirm their inclusion in the joint Plans;

NOW THEREFORE, for and in consideration of the mutual promises and covenants contained herein, it is agreed by the Participating Municipality hereto as follows:

1. PURPOSE OF AGREEMENT

The purpose of this Agreement is to allow the county and the participating municipality to jointly prepare and ultimately adopt an update to the joint Comprehensive Solid Waste Management Plan, pursuant to Chapter 70.95 RCW, for waste reduction, recycling, collection, transfer and disposal of solid waste generated within the boundaries of the Participating Municipality and Thurston County. This agreement also includes ultimately adopting an update to the Hazardous Waste Plan for Thurston County.

2. SOLID WASTE and HAZARDOUS WASTE MANAGEMENT

After adoption of the Plans by Participating Municipality, Thurston County will be the designated agent for the Participating Municipality for the administration of the Plans within Thurston County and shall have full authority to implement solid and hazardous waste management programs and services consistent with the Plans, for the Participating Municipality and the residents within the boundaries of the Participating Municipality, excluding the manner of collection and transfer of solid waste refuse within the corporate limits of those cities and towns which are the Participating Municipality. Such management shall be conducted in conformance with all state and federal laws and regulations. Included with such management shall be the carrying of public liability insurance with limits in accordance with standard practice. Thurston County shall indemnify and hold harmless the other Participating Municipalities and shall defend against any claims for personal injury or property damage arising out of Thurston County's management and operations of the solid waste programs set out under the Plan. Thurston County shall not indemnify, hold harmless, or defend any claims arising out of the actions of a Participating Municipality or any activities under a Participating Municipality's control.

Plans administration and government processes shall be set forth in more detail in the Plans as adopted.

3. FINANCING, FUNDS AND BUDGET

a. The costs of the Plans administration and implementation shall be administered through the County Solid Waste Fund. The fund shall be established and maintained through user fees, grants, gifts, loans and other lawful funding sources as outlined in the Plans and agreed upon between the Participating Municipality.

b. Thurston County shall continue to maintain a Solid Waste Fund as a dedicated enterprise fund within the County budget. All revenues and expenditures in connection with the Plans subject to this Agreement shall be budgeted and accounted for through this fund.

4. ACCOUNTING

Thurston County shall maintain accounts for the solid waste management program and the hazardous waste program in accordance with the requirements of the Washington State Auditor. Authorized representatives of any party hereto shall have the right to inspect the accounting concerning the solid and hazardous waste management programs at any reasonable time.

5. PROPERTY RIGHTS

Title to all property acquired with funds from the Solid Waste Fund shall vest in Thurston County. In the event of sale of any property acquired using the Solid Waste Fund, the proceeds from the sale shall be deposited in the Solid Waste Fund unless otherwise required by law, regulation, grant or contract.

6. ADMISSION OF NEW PARTIES

Additional municipal entities may be added to this Agreement upon such terms and conditions as the Participating Municipalities and the new party agree upon in writing.

7. EFFECT ON PRECEDING CONTRACT

This Agreement, upon its execution by all parties, supersedes prior Intergovernmental Agreement for the Thurston County Comprehensive Solid Waste Management Plan.

8. DURATION

This Agreement shall remain in effect for five (5) years from the effective date; or until replaced by a new intergovernmental agreement.

9. PLAN ADOPTION

The final Plan shall be adopted through Resolution of the Participating Municipality and the County. The Plan shall be reviewed and revised by the Plan Participants at least once every five (5) years following approval of the Plan by the Washington State Department of Ecology (Ecology). Any necessary revisions or amendments to the Plan will be accomplished through a process defined in the Plan.

10. EFFECTIVE DATE

This Agreement shall be effective following its execution by the Board of Thurston County Commissioners after execution by the Participating Municipality; and following the recording of this Agreement with the Thurston County Auditor, as required by RCW 39.34.

11. TERMINATION

After the Plan has been prepared and submitted to Ecology for final review, any Participating Municipality may terminate its involvement in this Agreement within 30 days following the 45 day final review period by Ecology. Should any Participating Municipality not agree to adoption of the Plan, the Participating Municipality will not adopt the Plan and shall immediately begin preparing its own Municipal Solid Waste Management Plan for approval by Ecology in full accordance with all Plan regulations and guidelines.


This Agreement has been executed by each party on the date set forth below.

THURSTON COUNTY


Chairman, Board of County Commissioners

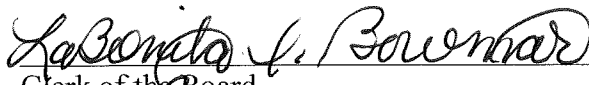
Date: April 9, 2013

CITY OF Bucoda

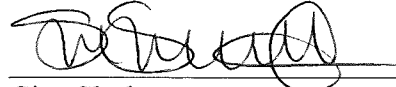

Mayor, Alan Carr

Date: 12/11/2012

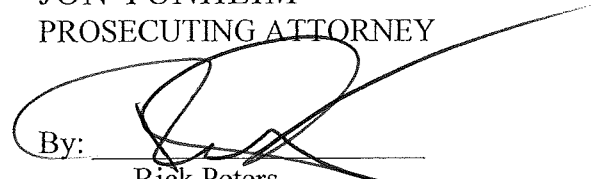
ATTEST:


Clerk of the Board

ATTEST:


City Clerk

APPROVED AS TO FORM:
JON TUNHEIM
PROSECUTING ATTORNEY

By: 
Rick Peters
Deputy Prosecuting Attorney

INTERGOVERNMENTAL AGREEMENT FOR THE
THURSTON COUNTY
SOLID WASTE MANAGEMENT PLAN AND THE HAZARDOUS
WASTE PLAN UPDATES

THIS AGREEMENT, made and entered into this 16TH day of NOVEMBER, 2012 by and between Thurston County, Washington, and the incorporated municipality of the City of Lacey which is organized under the laws of the State of Washington and are herein collectively referred to as the "Participating Municipality;"

WHEREAS, the Participating Municipality agreed, pursuant to the Solid Waste Management Act, Chapter 70.95 RCW, and the Hazardous Waste Management Act, Chapter 70.105 RCW, to participate in preparing the 2013 Thurston County Comprehensive Solid Waste Management Plan and the Local Hazardous Waste Plan, hereinafter referred to as the "Plans;" and

WHEREAS, it is to the mutual advantage of the Participating Municipality and their citizens to contract pursuant to Chapter 39.34 RCW for the purpose of providing joint county-municipality integrated solid waste and hazardous waste management programs; and

WHEREAS, that Intergovernmental Agreement and the plans identify that the Plans shall be reviewed and revised by the Participating Municipality once every five (5) years; and

WHEREAS, the Participating Municipality have the opportunity to reaffirm their inclusion in the joint Plans;

NOW THEREFORE, for and in consideration of the mutual promises and covenants contained herein, it is agreed by the Participating Municipality hereto as follows:

1. PURPOSE OF AGREEMENT

The purpose of this Agreement is to allow the county and the participating municipality to jointly prepare and ultimately adopt an update to the joint Comprehensive Solid Waste Management Plan, pursuant to Chapter 70.95 RCW, for waste reduction, recycling, collection, transfer and disposal of solid waste generated within the boundaries of the Participating Municipality and Thurston County. This agreement also includes ultimately adopting an update to the Hazardous Waste Plan for Thurston County.

2. SOLID WASTE and HAZARDOUS WASTE MANAGEMENT

After adoption of the Plans by Participating Municipality, Thurston County will be the designated agent for the Participating Municipality for the administration of the Plans

within Thurston County and shall have full authority to implement solid and hazardous waste management programs and services consistent with the Plans, for the Participating Municipality and the residents within the boundaries of the Participating Municipality, excluding the manner of collection and transfer of solid waste refuse within the corporate limits of those cities and towns which are the Participating Municipality. Such management shall be conducted in conformance with all state and federal laws and regulations. Included with such management shall be the carrying of public liability insurance with limits in accordance with standard practice. Thurston County shall indemnify and hold harmless the other Participating Municipalities and shall defend against any claims for personal injury or property damage arising out of Thurston County's management and operations of the solid waste programs set out under the Plan. Thurston County shall not indemnify, hold harmless, or defend any claims arising out of the actions of a Participating Municipality or any activities under a Participating Municipality's control.

Plans administration and government processes shall be set forth in more detail in the Plans as adopted.

3. FINANCING, FUNDS AND BUDGET

a. The costs of the Plans administration and implementation shall be administered through the County Solid Waste Fund. The fund shall be established and maintained through user fees, grants, gifts, loans and other lawful funding sources as outlined in the Plans and agreed upon between the Participating Municipality.

b. Thurston County shall continue to maintain a Solid Waste Fund as a dedicated enterprise fund within the County budget. All revenues and expenditures in connection with the Plans subject to this Agreement shall be budgeted and accounted for through this fund.

4. ACCOUNTING

Thurston County shall maintain accounts for the solid waste management program and the hazardous waste program in accordance with the requirements of the Washington State Auditor. Authorized representatives of any party hereto shall have the right to inspect the accounting concerning the solid and hazardous waste management programs at any reasonable time.

5. PROPERTY RIGHTS

Title to all property acquired with funds from the Solid Waste Fund shall vest in Thurston County. In the event of sale of any property acquired using the Solid Waste Fund, the proceeds from the sale shall be deposited in the Solid Waste Fund unless otherwise required by law, regulation, grant or contract.

6. ADMISSION OF NEW PARTIES

Additional municipal entities may be added to this Agreement upon such terms and conditions as the Participating Municipalities and the new party agree upon in writing.

7. EFFECT ON PRECEDING CONTRACT

This Agreement, upon its execution by all parties, supersedes prior Intergovernmental Agreement for the Thurston County Comprehensive Solid Waste Management Plan.

8. DURATION

This Agreement shall remain in effect for five (5) years from the effective date; or until replaced by a new intergovernmental agreement.

9. PLAN ADOPTION

The final Plan shall be adopted through Resolution of the Participating Municipality and the County. The Plan shall be reviewed and revised by the Plan Participants at least once every five (5) years following approval of the Plan by the Washington State Department of Ecology (Ecology). Any necessary revisions or amendments to the Plan will be accomplished through a process defined in the Plan.

10. EFFECTIVE DATE

This Agreement shall be effective following its execution by the Board of Thurston County Commissioners after execution by the Participating Municipality; and following the recording of this Agreement with the Thurston County Auditor, as required by RCW 39.34.

11. TERMINATION

After the Plan has been prepared and submitted to Ecology for final review, any Participating Municipality may terminate its involvement in this Agreement within 30 days following the 45 day final review period by Ecology. Should any Participating Municipality not agree to adoption of the Plan, the Participating Municipality will not adopt the Plan and shall immediately begin preparing its own Municipal Solid Waste Management Plan for approval by Ecology in full accordance with all Plan regulations and guidelines.

This Agreement has been executed by each party on the date set forth below.

THURSTON COUNTY

Andrea Romero
Chairman, Board of County Commissioners

Date: *April 9, 2013*

ATTEST:

LaBerto J. Bowman
Clerk of the Board

APPROVED AS TO FORM:
JON TUNHEIM
PROSECUTING ATTORNEY

By: *[Signature]*
Rick Peters
Deputy Prosecuting Attorney

CITY OF LACEY

By: *[Signature]*
Scott Spence, City Manager

Date: _____

ATTEST:

Carol Little
City Clerk

APPROVED AS TO FORM:

[Signature]
City Attorney

INTERGOVERNMENTAL AGREEMENT FOR THE
THURSTON COUNTY
SOLID WASTE MANAGEMENT PLAN AND THE HAZARDOUS
WASTE PLAN UPDATES

THIS AGREEMENT, made and entered into this 11th day of December 2012 by and between Thurston County, Washington, and the incorporated municipality of Olympia which is organized under the laws of the State of Washington and are herein collectively referred to as the "Participating Municipality;"

WHEREAS, the Participating Municipality agreed, pursuant to the Solid Waste Management Act, Chapter 70.95 RCW, and the Hazardous Waste Management Act, Chapter 70.105 RCW, to participate in preparing the 2013 Thurston County Comprehensive Solid Waste Management Plan and the Local Hazardous Waste Plan, hereinafter referred to as the "Plans;" and

WHEREAS, it is to the mutual advantage of the Participating Municipality and their citizens to contract pursuant to Chapter 39.34 RCW for the purpose of providing joint county-municipality integrated solid waste and hazardous waste management programs; and

WHEREAS, that Intergovernmental Agreement and the plans identify that the Plans shall be reviewed and revised by the Participating Municipality once every five (5) years; and

WHEREAS, the Participating Municipality have the opportunity to reaffirm their inclusion in the joint Plans;

NOW THEREFORE, for and in consideration of the mutual promises and covenants contained herein, it is agreed by the Participating Municipality hereto as follows:

1. PURPOSE OF AGREEMENT

The purpose of this Agreement is to allow the county and the participating municipality to jointly prepare and ultimately adopt an update to the joint Comprehensive Solid Waste Management Plan, pursuant to Chapter 70.95 RCW, for waste reduction, recycling, collection, transfer and disposal of solid waste generated within the boundaries of the Participating Municipality and Thurston County. This agreement also includes ultimately adopting an update to the Hazardous Waste Plan for Thurston County.

2. SOLID WASTE and HAZARDOUS WASTE MANAGEMENT

After adoption of the Plans by Participating Municipality, Thurston County will be the designated agent for the Participating Municipality for the administration of the Plans within Thurston County and shall have full authority to implement solid and hazardous waste management programs and services consistent with the Plans, for the Participating Municipality and the residents within the boundaries of the Participating Municipality, excluding the manner of collection and transfer of solid waste refuse within the corporate limits of those cities and towns which are the Participating Municipality. Such management shall be conducted in conformance with all state and federal laws and regulations. Included with such management shall be the carrying of public liability insurance with limits in accordance with standard practice. Thurston County shall indemnify and hold harmless the other Participating Municipalities and shall defend against any claims for personal injury or property damage arising out of Thurston County's management and operations of the solid waste programs set out under the Plan. Thurston County shall not indemnify, hold harmless, or defend any claims arising out of the actions of a Participating Municipality or any activities under a Participating Municipality's control.

Plans administration and government processes shall be set forth in more detail in the Plans as adopted.

3. FINANCING, FUNDS AND BUDGET

a. The costs of the Plans administration and implementation shall be administered through the County Solid Waste Fund. The fund shall be established and maintained through user fees, grants, gifts, loans and other lawful funding sources as outlined in the Plans and agreed upon between the Participating Municipality.

b. Thurston County shall continue to maintain a Solid Waste Fund as a dedicated enterprise fund within the County budget. All revenues and expenditures in connection with the Plans subject to this Agreement shall be budgeted and accounted for through this fund.

4. ACCOUNTING

Thurston County shall maintain accounts for the solid waste management program and the hazardous waste program in accordance with the requirements of the Washington State Auditor. Authorized representatives of any party hereto shall have the right to inspect the accounting concerning the solid and hazardous waste management programs at any reasonable time.

5. PROPERTY RIGHTS

Title to all property acquired with funds from the Solid Waste Fund shall vest in Thurston County. In the event of sale of any property acquired using the Solid Waste Fund, the proceeds from the sale shall be deposited in the Solid Waste Fund unless otherwise required by law, regulation, grant or contract.

6. ADMISSION OF NEW PARTIES

Additional municipal entities may be added to this Agreement upon such terms and conditions as the Participating Municipalities and the new party agree upon in writing.

7. EFFECT ON PRECEDING CONTRACT

This Agreement, upon its execution by all parties, supersedes prior Intergovernmental Agreement for the Thurston County Comprehensive Solid Waste Management Plan.

8. DURATION

This Agreement shall remain in effect for five (5) years from the effective date; or until replaced by a new intergovernmental agreement.

9. PLAN ADOPTION

The final Plan shall be adopted through Resolution of the Participating Municipality and the County. The Plan shall be reviewed and revised by the Plan Participants at least once every five (5) years following approval of the Plan by the Washington State Department of Ecology (Ecology). Any necessary revisions or amendments to the Plan will be accomplished through a process defined in the Plan.

10. EFFECTIVE DATE

This Agreement shall be effective following its execution by the Board of Thurston County Commissioners after execution by the Participating Municipality; and following the recording of this Agreement with the Thurston County Auditor, as required by RCW 39.34.

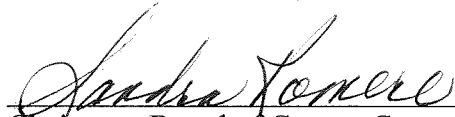
11. TERMINATION

After the Plan has been prepared and submitted to Ecology for final review, any Participating Municipality may terminate its involvement in this Agreement within 30 days following the 45 day final review period by Ecology. Should any Participating Municipality not agree to adoption of the Plan, the Participating Municipality will not adopt the Plan and shall immediately begin preparing its own Municipal Solid Waste Management Plan for approval by Ecology in full accordance with all Plan regulations and guidelines.

This Agreement has been executed by each party on the date set forth below.

THURSTON COUNTY.

CITY OF OLYMPIA


Chairman, Board of County Commissioners

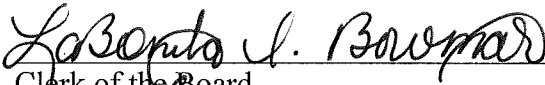

Mayor

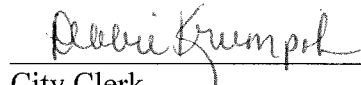
Date: April 9, 2013

Date: 12-11-12

ATTEST:


ATTEST:

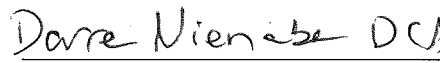

Clerk of the Board


City Clerk

APPROVED AS TO FORM:
JON TUNHEIM
PROSECUTING ATTORNEY

APPROVED AS TO FORM:

By: 
Rick Peters
Deputy Prosecuting Attorney


City Attorney

INTERGOVERNMENTAL AGREEMENT FOR THE
THURSTON COUNTY
SOLID WASTE MANAGEMENT PLAN AND THE HAZARDOUS
WASTE PLAN UPDATES

THIS AGREEMENT, made and entered into this 25th day of September by and between Thurston County, Washington, and the incorporated municipality of Rainier which is organized under the laws of the State of Washington and are herein collectively referred to as the "Participating Municipality;"

WHEREAS, the Participating Municipality agreed, pursuant to the Solid Waste Management Act, Chapter 70.95 RCW, and the Hazardous Waste Management Act, Chapter 70.105 RCW, to participate in preparing the 2013 Thurston County Comprehensive Solid Waste Management Plan and the Local Hazardous Waste Plan, hereinafter referred to as the "Plans;" and

WHEREAS, it is to the mutual advantage of the Participating Municipality and their citizens to contract pursuant to Chapter 39.34 RCW for the purpose of providing joint county-municipality integrated solid waste and hazardous waste management programs; and

WHEREAS, that Intergovernmental Agreement and the plans identify that the Plans shall be reviewed and revised by the Participating Municipality once every five (5) years; and

WHEREAS, the Participating Municipality have the opportunity to reaffirm their inclusion in the joint Plans;

NOW THEREFORE, for and in consideration of the mutual promises and covenants contained herein, it is agreed by the Participating Municipality hereto as follows:

1. PURPOSE OF AGREEMENT

The purpose of this Agreement is to allow the county and the participating municipality to jointly prepare and ultimately adopt an update to the joint Comprehensive Solid Waste Management Plan, pursuant to Chapter 70.95 RCW, for waste reduction, recycling, collection, transfer and disposal of solid waste generated within the boundaries of the Participating Municipality and Thurston County. This agreement also includes ultimately adopting an update to the Hazardous Waste Plan for Thurston County.

2. SOLID WASTE and HAZARDOUS WASTE MANAGEMENT

After adoption of the Plans by Participating Municipality, Thurston County will be the designated agent for the Participating Municipality for the administration of the Plans within Thurston County and shall have full authority to implement solid and hazardous waste

management programs and services consistent with the Plans, for the Participating Municipality and the residents within the boundaries of the Participating Municipality, excluding the manner of collection and transfer of solid waste refuse within the corporate limits of those cities and towns which are the Participating Municipality. Such management shall be conducted in conformance with all state and federal laws and regulations. Included with such management shall be the carrying of public liability insurance with limits in accordance with standard practice. Thurston County shall indemnify and hold harmless the other Participating Municipalities and shall defend against any claims for personal injury or property damage arising out of Thurston County's management and operations of the solid waste programs set out under the Plan. Thurston County shall not indemnify, hold harmless, or defend any claims arising out of the actions of a Participating Municipality or any activities under a Participating Municipality's control.

Plans administration and government processes shall be set forth in more detail in the Plans as adopted.

3. FINANCING, FUNDS AND BUDGET

a. The costs of the Plans administration and implementation shall be administered through the County Solid Waste Fund. The fund shall be established and maintained through user fees, grants, gifts, loans and other lawful funding sources as outlined in the Plans and agreed upon between the Participating Municipality.

b. Thurston County shall continue to maintain a Solid Waste Fund as a dedicated enterprise fund within the County budget. All revenues and expenditures in connection with the Plans subject to this Agreement shall be budgeted and accounted for through this fund.

4. ACCOUNTING

Thurston County shall maintain accounts for the solid waste management program and the hazardous waste program in accordance with the requirements of the Washington State Auditor. Authorized representatives of any party hereto shall have the right to inspect the accounting concerning the solid and hazardous waste management programs at any reasonable time.

5. PROPERTY RIGHTS

Title to all property acquired with funds from the Solid Waste Fund shall vest in Thurston County. In the event of sale of any property acquired using the Solid Waste Fund, the proceeds from the sale shall be deposited in the Solid Waste Fund unless otherwise required by law, regulation, grant or contract.

6. ADMISSION OF NEW PARTIES

Additional municipal entities may be added to this Agreement upon such terms and conditions as the Participating Municipalities and the new party agree upon in writing.

7. EFFECT ON PRECEDING CONTRACT

This Agreement, upon its execution by all parties, supersedes prior Intergovernmental Agreement for the Thurston County Comprehensive Solid Waste Management Plan.

8. DURATION

This Agreement shall remain in effect for five (5) years from the effective date; or until replaced by a new intergovernmental agreement.

9. PLAN ADOPTION

The final Plan shall be adopted through Resolution of the Participating Municipality and the County. The Plan shall be reviewed and revised by the Plan Participants at least once every five (5) years following approval of the Plan by the Washington State Department of Ecology (Ecology). Any necessary revisions or amendments to the Plan will be accomplished through a process defined in the Plan.

10. EFFECTIVE DATE

This Agreement shall be effective following its execution by the Board of Thurston County Commissioners after execution by the Participating Municipality; and following the recording of this Agreement with the Thurston County Auditor, as required by RCW 39.34.

11. TERMINATION

After the Plan has been prepared and submitted to Ecology for final review, any Participating Municipality may terminate its involvement in this Agreement within 30 days following the 45 day final review period by Ecology. Should any Participating Municipality not agree to adoption of the Plan, the Participating Municipality will not adopt the Plan and shall immediately begin preparing its own Municipal Solid Waste Management Plan for approval by Ecology in full accordance with all Plan regulations and guidelines.

This Agreement has been executed by each party on the date set forth below.

THURSTON COUNTY

Andrés Romero
Chairman, Board of County Commissioners

Date: April 9, 2013

ATTEST:

LaBrenda L. Brown
Clerk of the Board

APPROVED AS TO FORM:
JON TUNHEIM
PROSECUTING ATTORNEY

By: [Signature]
Rick Peters
Deputy Prosecuting Attorney

CITY OF Rainier

[Signature]
Mayor

Date: 9-25-2012

ATTEST:

Charmayne L. Garrison
City Clerk

INTERGOVERNMENTAL AGREEMENT FOR THE
THURSTON COUNTY
SOLID WASTE MANAGEMENT PLAN AND THE HAZARDOUS
WASTE PLAN UPDATES

THIS AGREEMENT, made and entered into this 27 day of November by and between Thurston County, Washington, and the incorporated municipality of Temino which is organized under the laws of the State of Washington and are herein collectively referred to as the "Participating Municipality;"

WHEREAS, the Participating Municipality agreed, pursuant to the Solid Waste Management Act, Chapter 70.95 RCW, and the Hazardous Waste Management Act, Chapter 70.105 RCW, to participate in preparing the 2013 Thurston County Comprehensive Solid Waste Management Plan and the Local Hazardous Waste Plan, hereinafter referred to as the "Plans;" and

WHEREAS, it is to the mutual advantage of the Participating Municipality and their citizens to contract pursuant to Chapter 39.34 RCW for the purpose of providing joint county-municipality integrated solid waste and hazardous waste management programs; and

WHEREAS, that Intergovernmental Agreement and the plans identify that the Plans shall be reviewed and revised by the Participating Municipality once every five (5) years; and

WHEREAS, the Participating Municipality have the opportunity to reaffirm their inclusion in the joint Plans;

NOW THEREFORE, for and in consideration of the mutual promises and covenants contained herein, it is agreed by the Participating Municipality hereto as follows:

1. PURPOSE OF AGREEMENT

The purpose of this Agreement is to allow the county and the participating municipality to jointly prepare and ultimately adopt an update to the joint Comprehensive Solid Waste Management Plan, pursuant to Chapter 70.95 RCW, for waste reduction, recycling, collection, transfer and disposal of solid waste generated within the boundaries of the Participating Municipality and Thurston County. This agreement also includes ultimately adopting an update to the Hazardous Waste Plan for Thurston County.

2. SOLID WASTE and HAZARDOUS WASTE MANAGEMENT

After adoption of the Plans by Participating Municipality, Thurston County will be the designated agent for the Participating Municipality for the administration of the Plans within Thurston County and shall have full authority to implement solid and hazardous waste management programs and services consistent with the Plans, for the Participating Municipality and the residents within the boundaries of the Participating Municipality, excluding the manner of collection and transfer of solid waste refuse within the corporate limits of those cities and towns which are the Participating Municipality. Such management shall be conducted in conformance with all state and federal laws and regulations. Included with such management shall be the carrying of public liability insurance with limits in accordance with standard practice. Thurston County shall indemnify and hold harmless the other Participating Municipalities and shall defend against any claims for personal injury or property damage arising out of Thurston County's management and operations of the solid waste programs set out under the Plan. Thurston County shall not indemnify, hold harmless, or defend any claims arising out of the actions of a Participating Municipality or any activities under a Participating Municipality's control.

Plans administration and government processes shall be set forth in more detail in the Plans as adopted.

3. FINANCING, FUNDS AND BUDGET

a. The costs of the Plans administration and implementation shall be administered through the County Solid Waste Fund. The fund shall be established and maintained through user fees, grants, gifts, loans and other lawful funding sources as outlined in the Plans and agreed upon between the Participating Municipality.

b. Thurston County shall continue to maintain a Solid Waste Fund as a dedicated enterprise fund within the County budget. All revenues and expenditures in connection with the Plans subject to this Agreement shall be budgeted and accounted for through this fund.

4. ACCOUNTING

Thurston County shall maintain accounts for the solid waste management program and the hazardous waste program in accordance with the requirements of the Washington State Auditor. Authorized representatives of any party hereto shall have the right to inspect the accounting concerning the solid and hazardous waste management programs at any reasonable time.

5. PROPERTY RIGHTS

Title to all property acquired with funds from the Solid Waste Fund shall vest in Thurston County. In the event of sale of any property acquired using the Solid Waste Fund, the proceeds from the sale shall be deposited in the Solid Waste Fund unless otherwise required by law, regulation, grant or contract.

6. ADMISSION OF NEW PARTIES

Additional municipal entities may be added to this Agreement upon such terms and conditions as the Participating Municipalities and the new party agree upon in writing.

7. EFFECT ON PRECEDING CONTRACT

This Agreement, upon its execution by all parties, supersedes prior Intergovernmental Agreement for the Thurston County Comprehensive Solid Waste Management Plan.

8. DURATION

This Agreement shall remain in effect for five (5) years from the effective date; or until replaced by a new intergovernmental agreement.

9. PLAN ADOPTION

The final Plan shall be adopted through Resolution of the Participating Municipality and the County. The Plan shall be reviewed and revised by the Plan Participants at least once every five (5) years following approval of the Plan by the Washington State Department of Ecology (Ecology). Any necessary revisions or amendments to the Plan will be accomplished through a process defined in the Plan.

10. EFFECTIVE DATE

This Agreement shall be effective following its execution by the Board of Thurston County Commissioners after execution by the Participating Municipality; and following the recording of this Agreement with the Thurston County Auditor, as required by RCW 39.34.

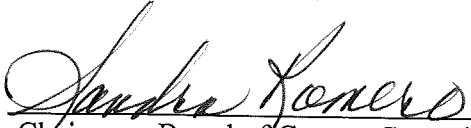
11. TERMINATION

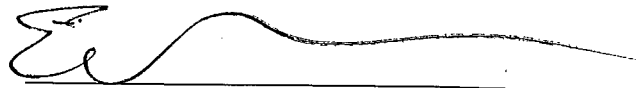
After the Plan has been prepared and submitted to Ecology for final review, any Participating Municipality may terminate its involvement in this Agreement within 30 days following the 45 day final review period by Ecology. Should any Participating Municipality not agree to adoption of the Plan, the Participating Municipality will not adopt the Plan and shall immediately begin preparing its own Municipal Solid Waste Management Plan for approval by Ecology in full accordance with all Plan regulations and guidelines.

This Agreement has been executed by each party on the date set forth below.

THURSTON COUNTY

CITY OF Tenino


Chairman, Board of County Commissioners

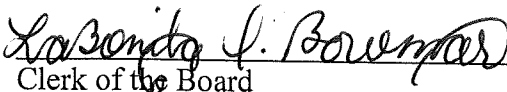

Mayor


Date: April 9, 2013

Date: Nov. 27, 2012

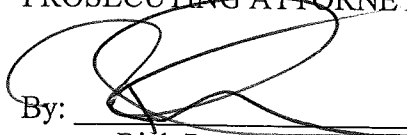
ATTEST:

ATTEST:


Clerk of the Board


City Clerk

APPROVED AS TO FORM:
JON TUNHEIM
PROSECUTING ATTORNEY

By: 
Rick Peters
Deputy Prosecuting Attorney

INTERGOVERNMENTAL AGREEMENT BETWEEN THE
CITY OF TUMWATER AND THURSTON COUNTY
FOR THE THURSTON COUNTY
SOLID WASTE MANAGEMENT PLAN AND THE HAZARDOUS
WASTE PLAN UPDATES

THIS AGREEMENT made and entered into this 16th day of October 2012 by and between Thurston County, a municipal corporation, hereinafter referred to as "COUNTY" and the City of Tumwater, a municipal corporation, hereinafter referred to as "CITY".

WHEREAS, the COUNTY and CITY agreed, pursuant to the Solid Waste Management Act, Chapter 70.95 RCW, and the Hazardous Waste Management Act, Chapter 70.105 RCW, to participate in preparing the 2013 Thurston County Comprehensive Solid Waste Management Plan and the Local Hazardous Waste Plan, hereinafter referred to as the "Plans;" and

WHEREAS, it is to the mutual advantage of the COUNTY and CITY and their citizens to contract pursuant to Chapter 39.34 RCW for the purpose of providing joint county-municipality integrated solid waste and hazardous waste management programs; and

WHEREAS, that Intergovernmental Agreement and the plans identify that the Plans shall be reviewed and revised by the COUNTY and CITY once every five (5) years; and

WHEREAS, the COUNTY and CITY have the opportunity to reaffirm their inclusion in the joint Plans;

NOW THEREFORE, for and in consideration of the mutual promises and covenants contained herein, it is agreed by the COUNTY and CITY hereto as follows:

1. PURPOSE OF AGREEMENT

The purpose of this Agreement is to allow the COUNTY and CITY to jointly prepare and ultimately adopt an update to the joint Comprehensive Solid Waste Management Plan, pursuant to Chapter 70.95 RCW, for waste reduction, recycling, collection, transfer and disposal of solid waste generated within the boundaries of the COUNTY and CITY. This agreement also includes ultimately adopting an update to the Hazardous Waste Plan for Thurston County.

2. SOLID WASTE and HAZARDOUS WASTE MANAGEMENT

After adoption of the Plans by the CITY, Thurston County will be the designated agent for the CITY for the administration of the Plans within Thurston County and shall have full authority to implement solid and hazardous waste management programs and

services consistent with the Plans, for the CITY and the residents within the boundaries of the CITY, excluding the manner of collection and transfer of solid waste refuse within the corporate limits of the CITY. Such management shall be conducted in conformance with all state and federal laws and regulations. Included with such management shall be the carrying of public liability insurance with limits in accordance with standard practice. Thurston County shall indemnify and hold harmless the CITY and shall defend against any claims for personal injury or property damage arising out of COUNTY's management and operations of the solid waste programs set out under the Plan. COUNTY shall not indemnify, hold harmless, or defend any claims arising out of the actions of the CITY or any activities under the CITY's control.

Plans administration and government processes shall be set forth in more detail in the Plans as adopted.

3. FINANCING, FUNDS AND BUDGET

a. The costs of the Plans administration and implementation shall be administered through the County Solid Waste Fund. The fund shall be established and maintained through user fees, grants, gifts, loans and other lawful funding sources as outlined in the Plans and agreed upon between the COUNTY and CITY.

b. COUNTY shall continue to maintain a Solid Waste Fund as a dedicated enterprise fund within the County budget. All revenues and expenditures in connection with the Plans subject to this Agreement shall be budgeted and accounted for through this fund.

4. ACCOUNTING

COUNTY shall maintain accounts for the solid waste management program and the hazardous waste program in accordance with the requirements of the Washington State Auditor. Authorized representatives of any party hereto shall have the right to inspect the accounting concerning the solid and hazardous waste management programs at any reasonable time.

5. PROPERTY RIGHTS

Title to all property acquired with funds from the Solid Waste Fund shall vest in COUNTY. In the event of sale of any property acquired using the Solid Waste Fund, the proceeds from the sale shall be deposited in the Solid Waste Fund unless otherwise required by law, regulation, grant or contract.

6. ADMISSION OF NEW PARTIES

Additional municipal entities may be added to this Agreement upon such terms and conditions as the COUNTY and CITY and the new party agree upon in writing.

7. EFFECT ON PRECEDING CONTRACT

This Agreement, upon its execution by all parties, supersedes the prior Intergovernmental Agreement for the Thurston County Comprehensive Solid Waste Management Plan.

8. DURATION

This Agreement shall remain in effect for five (5) years from the effective date; or until replaced by a new intergovernmental agreement.

9. PLAN ADOPTION

The final Plan shall be adopted through Resolution of the CITY and the COUNTY. The Plan shall be reviewed and revised by the Plan Participants at least once every five (5) years following approval of the Plan by the Washington State Department of Ecology (Ecology). Any necessary revisions or amendments to the Plan will be accomplished through a process defined in the Plan.

10. EFFECTIVE DATE

This Agreement shall be effective following its execution by the Board of Thurston County Commissioners after execution by the CITY; and following the recording of this Agreement with the Thurston County Auditor, as required by RCW 39.34.

11. TERMINATION

After the Plan has been prepared and submitted to Ecology for final review, either party may terminate its involvement in this Agreement within 30 days following the 45 day final review period by Ecology. Should either party not agree to adoption of the Plan, the CITY shall immediately begin preparing its own Municipal Solid Waste Management Plan for approval by Ecology in full accordance with all Plan regulations and guidelines.

This Agreement between Thurston County and the City of Tumwater for the Thurston County Solid Waste Management Plan and the Hazardous Waste Plan Updates has been executed by each party on the date set forth below.


THURSTON COUNTY



Chairman, Board of County Commissioners

Date: April 9, 2013

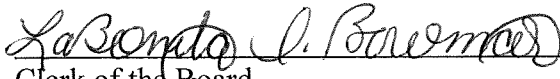
CITY OF TUMWATER



Pete Kmet, Mayor


Date: 10/16/2012

ATTEST:




Clerk of the Board

ATTEST:

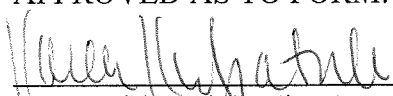


Melody Valiant, City Clerk

APPROVED AS TO FORM:
JON TUNHEIM
PROSECUTING ATTORNEY

By: 

Rick Peters
Deputy Prosecuting Attorney

APPROVED AS TO FORM:


Karen Kirkpatrick, City Attorney

**INTERGOVERNMENTAL AGREEMENT FOR THE
THURSTON COUNTY
SOLID WASTE MANAGEMENT PLAN AND THE HAZARDOUS
WASTE PLAN UPDATES**

THIS AGREEMENT, made and entered into this 11th day of December by and between Thurston County, Washington, and the incorporated municipality of City of Yelm which is organized under the laws of the State of Washington and are herein collectively referred to as the "Participating Municipality;"

WHEREAS, the Participating Municipality agreed, pursuant to the Solid Waste Management Act, Chapter 70.95 RCW, and the Hazardous Waste Management Act, Chapter 70.105 RCW, to participate in preparing the 2013 Thurston County Comprehensive Solid Waste Management Plan and the Local Hazardous Waste Plan, hereinafter referred to as the "Plans;" and

WHEREAS, it is to the mutual advantage of the Participating Municipality and their citizens to contract pursuant to Chapter 39.34 RCW for the purpose of providing joint county-municipality integrated solid waste and hazardous waste management programs; and

WHEREAS, that Intergovernmental Agreement and the plans identify that the Plans shall be reviewed and revised by the Participating Municipality once every five (5) years; and

WHEREAS, the Participating Municipality have the opportunity to reaffirm their inclusion in the joint Plans;

NOW THEREFORE, for and in consideration of the mutual promises and covenants contained herein, it is agreed by the Participating Municipality hereto as follows:

1. **PURPOSE OF AGREEMENT**

The purpose of this Agreement is to allow the county and the participating municipality to jointly prepare and ultimately adopt an update to the joint Comprehensive Solid Waste Management Plan, pursuant to Chapter 70.95 RCW, for waste reduction, recycling, collection, transfer and disposal of solid waste generated within the boundaries of the Participating Municipality and Thurston County. This agreement also includes ultimately adopting an update to the Hazardous Waste Plan for Thurston County.

2. SOLID WASTE and HAZARDOUS WASTE MANAGEMENT

After adoption of the Plans by Participating Municipality, Thurston County will be the designated agent for the Participating Municipality for the administration of the Plans within Thurston County and shall have full authority to implement solid and hazardous waste management programs and services consistent with the Plans, for the Participating Municipality and the residents within the boundaries of the Participating Municipality, excluding the manner of collection and transfer of solid waste refuse within the corporate limits of those cities and towns which are the Participating Municipality. Such management shall be conducted in conformance with all state and federal laws and regulations. Included with such management shall be the carrying of public liability insurance with limits in accordance with standard practice. Thurston County shall indemnify and hold harmless the other Participating Municipalities and shall defend against any claims for personal injury or property damage arising out of Thurston County's management and operations of the solid waste programs set out under the Plan. Thurston County shall not indemnify, hold harmless, or defend any claims arising out of the actions of a Participating Municipality or any activities under a Participating Municipality's control.

Plans administration and government processes shall be set forth in more detail in the Plans as adopted.

3. FINANCING, FUNDS AND BUDGET

a. The costs of the Plans administration and implementation shall be administered through the County Solid Waste Fund. The fund shall be established and maintained through user fees, grants, gifts, loans and other lawful funding sources as outlined in the Plans and agreed upon between the Participating Municipality.

b. Thurston County shall continue to maintain a Solid Waste Fund as a dedicated enterprise fund within the County budget. All revenues and expenditures in connection with the Plans subject to this Agreement shall be budgeted and accounted for through this fund.

4. ACCOUNTING

Thurston County shall maintain accounts for the solid waste management program and the hazardous waste program in accordance with the requirements of the Washington State Auditor. Authorized representatives of any party hereto shall have the right to inspect the accounting concerning the solid and hazardous waste management programs at any reasonable time.

5. PROPERTY RIGHTS

Title to all property acquired with funds from the Solid Waste Fund shall vest in Thurston County. In the event of sale of any property acquired using the Solid Waste Fund, the proceeds from the sale shall be deposited in the Solid Waste Fund unless otherwise required by law, regulation, grant or contract.

6. ADMISSION OF NEW PARTIES

Additional municipal entities may be added to this Agreement upon such terms and conditions as the Participating Municipalities and the new party agree upon in writing.

7. EFFECT ON PRECEDING CONTRACT

This Agreement, upon its execution by all parties, supersedes prior Intergovernmental Agreement for the Thurston County Comprehensive Solid Waste Management Plan.

8. DURATION

This Agreement shall remain in effect for five (5) years from the effective date; or until replaced by a new intergovernmental agreement.

9. PLAN ADOPTION

The final Plan shall be adopted through Resolution of the Participating Municipality and the County. The Plan shall be reviewed and revised by the Plan Participants at least once every five (5) years following approval of the Plan by the Washington State Department of Ecology (Ecology). Any necessary revisions or amendments to the Plan will be accomplished through a process defined in the Plan.

10. EFFECTIVE DATE

This Agreement shall be effective following its execution by the Board of Thurston County Commissioners after execution by the Participating Municipality; and following the recording of this Agreement with the Thurston County Auditor, as required by RCW 39.34.

11. TERMINATION

After the Plan has been prepared and submitted to Ecology for final review, any Participating Municipality may terminate its involvement in this Agreement within 30 days following the 45 day final review period by Ecology. Should any participating Municipality not agree to adoption of the Plan, the Participating Municipality will not adopt the Plan and shall immediately begin preparing its own Municipal Solid Waste Management Plan for approval by Ecology in full accordance with all Plan regulations and guidelines.

This Agreement has been executed by each party on the date set forth below.

THURSTON COUNTY


Chairman, Board of County Commissioners

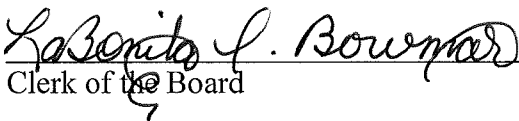
Date: April 9, 2013

CITY OF Yelm


Mayor

Date: 12/11/12

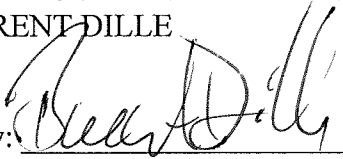
ATTEST:


Clerk of the Board

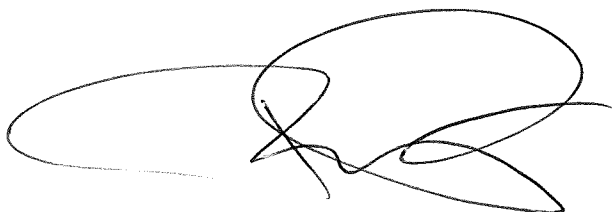
ATTEST:


City Clerk

APPROVED AS TO FORM:
BRENT DILLE


By: _____
Attorney

Approved: December 11, 2012
Effective Date: December 26, 2012


Thurston County
Prosecuting Attorney

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Appendix B – Resolutions of Adoption

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Appendix C – SWAC By-Laws

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Thurston County Solid Waste Advisory Committee By-laws

1. Statement of Purpose

The Thurston County Solid Waste Advisory Committee (SWAC) has been appointed by the Board of County Commissioners (BoCC) in accordance with Chapter 70.95.165 RCW. The statute requires the SWAC to assist the BoCC in the development of solid waste handling and disposal, and review and comment on proposed rules, policies or ordinances prior to their adoption. The scope and charge of the Thurston County Solid Waste Advisory Committee shall be:

- a. To advise, actively assist and participate in the update or revision of the County Solid Waste Management Plan;
- b. To assist Thurston County in the development of programs and policies concerning solid waste handling and disposal; and
- c. To review and comment on proposed solid waste management rules, policies and/or ordinances prior to their adoption.

2. Composition

- A. **Members** – The SWAC shall be composed of a minimum of nine members, each having one vote, representing a balance of interest among the following groups: citizens, public interest groups, business, the waste management industry, recycling industry and local government.
- B. **Appointment** – Members shall be appointed by the Board of County Commissioners.
- C. **Terms** – Members shall serve a term of three years commencing from their appointment date. Members may be reappointed to serve consecutive terms. Reappointment shall be subject to confirmation by the Board of County Commissioners.
- D. **Officers** – The officers of the Committee shall include a Chair and vice-chair who shall be elected by the voting membership of the committee. Elections shall be held at the first regularly scheduled meeting after January 1st of each year. The term of office for the Chair and Vice-Chair shall be one year. Chair and Vice-Chair may serve more than one term, but no more than two years consecutively. The Chair shall preside over all meetings. The Vice-Chair assumes the responsibilities of the Chair in his/her absence or disability. In the event the Chair and Vice-Chair are absent, the meeting shall either be presided over by an acting Chair elected by the members present, or be postponed. In the event of a vacancy in the office of Chair, the Vice-Chair automatically succeeds to the position of Chair. A vacancy occurring in the office of Vice-Chair for any reason, including succession is filled by election of the voting Committee membership for replacement to serve the unexpired portion of the term.
- E. **Secretary** – The County Solid Waste Manager or designate shall act as secretary to the Committee.

- F. **Attendance** – A Committee member who accrues three consecutive, unexcused absences from regular meetings may be removed from the Committee by the BOCC with the concurrence of a two-thirds majority of the SWAC.
- G. **Rules of Order** – The SWAC will conduct business by consensus whenever possible. Robert’s Rule of Order may be used for formal motions, and should be used when a consensus is not achievable. Proxy votes are not permitted.
- H. **Conflicts of Interest** – SWAC members shall abstain from any decisions that may directly or indirectly benefit themselves. However, this does not prohibit a SWAC member from using his/her general expertise to educate the SWAC or provide general information to the SWAC on a decision item.
- I. **Public Representation** – Only the SWAC Chairperson or his/her designee may make statements or commitments, written or verbal, on behalf of the SWAC. Statements and commitments made on behalf of the SWAC will reflect policies and positions agreed upon in advance by the SWAC and Board of County Commissioners.

3. Meetings

- A. **Regular Meetings** – Meetings of the SWAC shall be called when necessary by the Chair. It is anticipated that meetings will be held monthly during active review of Solid Waste Management Plan Updates and at a minimum not less than quarterly during off-planning years. At least ten days prior notice shall be given.
- B. **Minutes/Agendas** – Minutes of all meetings shall be kept by the secretary and distributed to the members within three weeks after the meeting. Agendas shall be prepared by staff with input and verbal approval by the Chair and distributed to the members at least seven days in advance of any regularly scheduled meeting.
- C. **Public Access** – All regular meetings of the Committee shall be held in a place that is open and easily accessible to the public. Provisions shall be made for public comment at each meeting. Approved meeting minutes shall be available to the public upon request. The committee is subject to, and will conform to the provisions of RCW 42.30, Open Public Meetings Act.
- D. **Quorum** – A quorum is required to be present before an official, regular meeting of the Committee can take place. A simple majority of the voting members of the Committee shall constitute a quorum.

E. Conduct of Meetings –

1. Call to Order.
2. Roll call and determination of quorum.
3. Introduction of guest.
4. Approval of Agenda/Minutes.
5. Public comment period.
6. Old Business.
7. New business.
8. Roundtable discussion.
9. Announcements:
 - a. Agenda for next meeting.
 - b. Time, place of next meeting.
 - c. Other announcements.

4. Recommendations

The SWAC shall advise and make recommendations to the Board of County Commissioners on matters within their scope and charge as provided for in SWAC By-laws. Written reports, recommendations and correspondence submitted to the Board of County Commissioners shall be forwarded on behalf of a majority of the members over the signature of the Chair. Minority reports, if any, shall be attached to, and forwarded with such reports, recommendations or correspondence without comment by the Chair.

5. Waiver of the Rules

Any of the above rules or procedures may be waived by a majority vote provided further that the reason therefore be included in each motion for waiver.

6. Amendments

Any of these By-laws may be amended or repealed, and new By-laws may be adopted, by two thirds majority vote of the quorum and approval by the BoCC. Prior notice of thirty days shall be given to the SWAC before undertaking amendatory action.

Appendix D – Status of 2009 Recommendations

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Appendix D - Status of Recommendations - 2009 Thurston County Solid Waste Management Plan	
Administration/Data Management	
A1. Track Data in Order to Evaluate Programs, Policies, and Actions	
A1.a. Maintain and report landfilled per capita data; create a baseline for 2005.	Accomplished
A1.b. Monitor annual system disposal for facility planning purposes and maintaining system capacity.	Accomplished and ongoing
A1.c. Continue to collect and monitor curbside, WARC, waste sort, and Ecology data for disposal/recycling of all commodities to track trends.	Ongoing – much improved
A1.d. Work with haulers to establish disposal/recycling tracking for commercial accounts.	Accomplished
A1.e. Conduct waste sort in 2009 and 2013 to quantify types of materials being disposed of and to inform SWMP implementation updates.	Accomplished
A2. Maintain Balance Between Program Responsibilities and Funding	
A2.a. Evaluate rates relative to solid waste, programs, staffing levels, and capital improvements to ensure achievement of goals within this plan.	Done annually – rates raised significantly
Solid Waste and Recycling Facilities	
B1. Provide Adequate System Capacity as Needed	
B1.a. Complete facility needs analysis (capital, O&M).	Done annually
B1.b. Explore feasibility of IGA for use of the Centralia Transfer Station or jointly site a new facility to provide additional waste/recycling capacity.	Determined not feasible
B 2. Restructuring the WARC to Decrease Self-Hauler Traffic Congestion and Stimulate Reduction, Reuse, and Recovery	
B2.a. Separate commercial haulers and self-hauler systems.	Determined not needed
B2.c. Create signage and literature for WARC users.	Accomplished
B2.d. Establish a transaction fee to cover administration costs.	Accomplished
B2.e. Increase minimum weight for the transaction basis.	Accomplished
B2.f. Accept credit and debit payment.	Accomplished
B2.g. Round transaction charges up to the nearest \$1.	Accomplished
B3. Increase Diversion at WARC by Operator	
B3.a. Amend operation and disposal contracts for increased diversion.	Not accomplished
B4. Increase Recycling by Expanding Rochester and Rainier Drop-Box Service	
B4.a. Add yard waste to drop-box sites and charge accordingly.	Determined not cost-effective
B4.b. Add bulk recycling (appliances, electronics, large metal, C&D) at drop-box sites.	Determined not cost-effective
General Waste Reduction	
C1. Increase Community Education and Program Development	
C1.a. Expand general education and outreach for residential, commercial, and multi-family sectors.	Ongoing - many improvements
C1.b. Increase number of school presentations.	Increased more than 125%
C1.c. Increase assistance to schools with development, start-up, and maintenance of waste diversion programs.	Accomplished and ongoing

Appendix D - Status of Recommendations - 2009 Thurston County Solid Waste Management Plan	
C2. Increase Reuse and Recycling Partnership Opportunities	
C2.a. Promote private recycling/reuse locations and develop private sector/government partnerships for sites/programs.	Many partnerships forged
C3. Increase Commercial Recycling Participation	
C3.a. Form and facilitate a Business Recycling Focus Group.	Accomplished, ongoing
C3.b. Work with hauler to provide material commingling in the same manner as the residential mix where applicable.	Accomplished
C3.c. Implement a business assistance program.	Accomplished, ongoing
C3.d. Consider mandatory commercial recycling if the recycling goal of a 15% increase is not met.	Reached 21%
C4. Increase Consistency For Recyclables Collection County-Wide	
C4.a. Work with haulers and City of Olympia to achieve consistency for recyclables collection.	Accomplished and ongoing
C5. Increase Effectiveness of E-waste Recycling Programs	
C5.a. Evaluate and implement additional recycling drop-offs for e-waste.	Accomplished, ongoing
C6. Increase Advocacy to Improve Waste Reduction and Recycling	
C6.a. Promote product stewardship policies.	Ongoing
C6.b. Collaborate with Building Departments to encourage and promote green building standards and the use of C&D recycling plans.	Some progress – work ongoing
C6.c. Consider mandatory C&D recycling deposits if the recycling goal of a 15% increase is not met.	Recycling increased to 29%
C7. Increase Information for Reduction, Reuse, and Recycling and for Buying Recycled within Thurston County Government	
C7.a. Serve as an example by implementing Thurston County’s Sustainability Policy.	Accomplished and ongoing
C7.b. Provide web-based resources and implementation strategies for local jurisdictions and businesses to use as a template.	Some progress, and ongoing
C8. Increase Residential Curbside Participation and Recycling	
C8.a. Evaluate mandatory residential curbside trash and recycling collection if the number of self-haulers does not decrease by 5%.	Reduced 19%
General Waste Reduction: Organics Recycling	
D1. Increase Opportunities for Organics Recycling	
D1.a. Establish use of WARC as food waste transfer site.	Accomplished
D1.b. Add food waste to yard debris collection for residents.	Accomplished
D1.c. Implement food waste collection program at schools and businesses.	Accomplished
General Waste Reduction: C&D Recovery and Recycling	
E1. Increase C&D Recovery	
E1.a. Evaluate potential locations and partnerships for a regional C&D facility.	Determined not cost-effective
E1.b. Establish C&D rates at the WARC to encourage mixed and source-separated C&D recycling.	Determined not cost-effective
E1.c. Increase recovery reimbursement to facility operator.	Under consideration

Appendix D - Status of Recommendations - 2009 Thurston County Solid Waste Management Plan	
E2. Increase Waste Reduction, Reuse, and Recycling for New Buildings and Remodels	
E2.a. Promote available reuse opportunities and resources to the building community.	Ongoing – promotion increased

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Appendix E – SEPA Checklist

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From: [Trevin Taylor](#)
To: [Amanda Romero](#)
Cc: [Mark McElroy](#); [Mifflin, Wendy](#)
Subject: RE: SEPA Statement
Date: Monday, June 1, 2020 9:56:59 AM

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

The SEPA file # 17-109688 X A, Project #2017104027 is still valid. The SEPA does not document results only that a Solid Waste Management Plan (SWMP) report will be written. No further SEPA processing required. No further expenditure for SEPA is required. Please file this reply for your records.

From: Amanda Romero <amanda.romero@co.thurston.wa.us>
Sent: Monday, June 1, 2020 9:43 AM
To: Trevin Taylor <trevin.taylor@co.thurston.wa.us>
Cc: Mark McElroy <mark.mcelroy@co.thurston.wa.us>; Wendy.Mifflin@hdrinc.com
Subject: SEPA Statement

Hi Trevin,

Our HDR Consultant Wendy has requested a written statement from you, as the author of our Solid Waste Management Plan SEPA, that the SEPA is still applicable and doesn't need to be redone. Let me know if you have any questions.

Thank you!

Amanda Romero (she/her)

Solid Waste Planner

Thurston County Public Works

Solid Waste Division

9605 Tilley Rd. S.

Olympia, WA 98512

Office: 360.867.2282

Cell: 360.490.8765

DETERMINATION OF NONSIGNIFICANCE

Applicant: Trevin Taylor
Thurston County Public Works Department
9605 Tilley Road SW
Olympia, WA 98512-9140

Point of Contact: Trevin Taylor
Thurston County Public Works Department
9605 Tilley Road SW
Olympia, WA 98512-9140

Phone (360)867-2328

Description of Proposal: Thurston County has written a Solid Waste Management Plan (SWMP). This document was developed in response to the Solid Waste Management Act, State Law (RCW 70.95.094).

This SEPA application is for the review of a long-range solid waste management and disposal plan/written report. This SEPA process is part of the SWMP Report's formal public outreach and notification.

Because the report is not for a specific project, the report will be reviewed as a Non-project Action. This Non-project Action review is in accordance with the State Environmental Policy Act (SEPA).

Location of Proposal: Thurston County Solid Waste Facilities

Threshold Determination: The lead agency for this proposal has determined that it does not have a probable significant adverse impact upon the environment. An Environmental Impact Statement is not required under RCW 43.21C.030 (2) (C). This decision was made after review by the Lead Agency of a completed Environmental Checklist and other information on file with the Lead Agency. This information is available to the public on the Thurston County website or upon request.

Jurisdiction: Thurston County

Lead Agency: Thurston County Public Works

Responsible Official: Scott Lindblom, Interim Public Works Director

**Responsible Official:
Signature:**

 date 8/28/17
Scott Lindblom, Thurston County Interim Public Works Director

Address: Thurston County Public Works Department
9605 Tilley Road SW
Olympia, WA 98512-9140

Date of Issue: August 29, 2017

Appeal Deadline: September 11, 2017

There is a 14-day comment period for this Determination of Non-Significance (DNS). The lead agency and other agencies with jurisdiction over the proposal may issue or continue processing necessary approvals.

Appeals: Threshold determinations may be appealed pursuant to TCC 17.09.160 if: (1) a written notice of appeal, meeting the requirements of TCC 17.09.160(4), and the appropriate appeal fee is received by the Thurston County Resources Stewardship Department within fourteen calendar days of the date of the issuance of the threshold determination.

Note: The issuance of this Determination of Nonsignificance does not constitute project approval. The applicant must comply with all applicable requirements of Thurston County Departments and/or the Hearing Examiner prior to receiving permits.

Title: Thurston County Solid Waste Management Plan (SWMP).

Case Number: 17-109688 XA

Project No.: 2017104027

This Determination of Nonsignificance is based on analysis of information contained in the following documents:

- Environmental Checklist, received July 27, 2017
- The SWMP Plan dated June 2017
- Letter from the Nisqually Tribe dated August 1, 2017

cc: Department of Ecology, Washington Department of Fish and Wildlife, Nisqually Tribe, Squaxin Island Indian Tribe, Chehalis Tribe, Bud Blake BOCC, Gary Edwards BOCC, John Hutchins BOCC, Ramiro Chavez ORCAA

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of proposed project, if applicable:

Thurston County Solid Waste Management Plan (SWMP).

2. Name of applicant:

Thurston County.

3. Address and phone number of applicant and contact person:

**Monica Gorman
Solid Waste Manager
Thurston County Public Works
9605 Tilley Road S., Olympia, WA 98512
Phone: 360-867-2278**

4. Date checklist prepared:

May 30, 2017.

5. Agency requesting checklist:

Thurston County Public Works Department.

6. Proposed timing or schedule (including phasing, if applicable):

This checklist is for a non-project proposal intended to update Thurston County's long-range plan for solid waste management and disposal. The proposed Solid Waste Management Plan is undergoing public review and comment. A final copy of the Solid Waste Management Plan is expected to be approved by Ecology in 2018.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Ecology's guidelines require solid waste management plans to be reviewed and, if necessary, updated periodically.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

Does not apply.

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, this SEPA Checklist is intended to address only the programs and activities specifically recommended in the SWMP, and it is assumed that any new private or public facilities will need to undergo a separate SEPA review as appropriate.

10. List any government approvals or permits that will be needed for your proposal, if known.

State Law (RCW 70.95.094) and guidelines issued by the Department of Ecology (Guidelines for Development of Local Comprehensive Solid Waste Management Plans and Plan Revisions) require a public review period for this plan for a minimum of 30 days, require that the plan be reviewed by the Washington Utilities and Transportation Commission and the Department of Agriculture, and require Ecology to examine and comment on the preliminary draft of the plan. The Board of County Commissioners and the cities and towns must also adopt the final draft of the plan. After adoption by the County and cities, Ecology must approve of the plan before it becomes effective.

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.)

Thurston County is required by State law to maintain a solid waste management plan in a "current and applicable condition." The existing solid waste management plan was completed in 2009 and is outdated in several areas. In addition to updating the discussion of current facilities and programs, the new proposed solid waste management plan contains a number of recommendations. Most of these recommendations represent refinements to existing policies and programs, based on the goal of decreasing reliance on landfills (by increasing waste reduction, recycling and composting) and reducing environmental impacts caused by existing activities. The recommendations proposed in the SWMP can be found in the Executive Summary and in Chapter 10.

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.

The Solid Waste Management Plan addresses activities and programs that occur throughout Thurston County. A few facilities or activities outside of the county are also involved (such as the current use of a landfill in Klickitat County for Thurston County's waste).

B. ENVIRONMENTAL ELEMENTS

1. Earth

- a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____

The facilities and programs addressed by the SWMP's recommendations are the occupied areas in the County, which are generally flat or rolling.

- b. What is the steepest slope on the site (approximate percent slope)?

Does not apply, there is no specific site being addressed by this plan.

- 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.

Does not apply, there is no specific site being addressed by this plan.

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

Does not apply, there is no specific site being addressed by this plan.

- 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.

Does not apply, there is no specific site being addressed by this plan.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Does not apply, there is no specific site being addressed by this plan.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Does not apply, there is no specific site being addressed by this plan.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Does not apply, there is no specific site being addressed by this plan.

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.

No significant emissions are anticipated as a result of the recommendations made by the SWMP.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

Does not apply, there is no specific site being addressed by this plan.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Does not apply, there is no specific site being addressed by this plan.

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.

Does not apply, there is no specific site being addressed by this plan.

- 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.

Does not apply, there is no specific site being addressed by this plan.

- 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.

Does not apply, there is no specific site being addressed by this plan.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

Does not apply, there is no specific site being addressed by this plan.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

Does not apply, there is no specific site being addressed by this plan.

- 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.

Does not apply, there is no specific site being addressed by this plan.

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.

Does not apply, there is no specific site being addressed by this plan.

- 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.

Does not apply, there is no specific site being addressed by this plan.

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.

Does not apply, there is no specific site being addressed by this plan.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

Does not apply, there is no specific site being addressed by this plan.

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

Does not apply, there is no specific site being addressed by this plan.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Does not apply, there is no specific site being addressed by this plan.

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

All of these types of vegetation can be found in Thurston County.

- b. What kind and amount of vegetation will be removed or altered?
Does not apply, there is no specific site being addressed by this plan.
- c. List threatened and endangered species known to be on or near the site.
Does not apply, there is no specific site being addressed by this plan.
- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
Does not apply, there is no specific site being addressed by this plan.
- e. List all noxious weeds and invasive species known to be on or near the site.
Does not apply, there is no specific site being addressed by this plan.

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 _____

All of these types of animals can be found in Thurston County.

- b. List any threatened and endangered species known to be on or near the site.
Does not apply, there is no specific site being addressed by this plan.
- c. Is the site part of a migration route? If so, explain.
Does not apply, there is no specific site being addressed by this plan.

d. Proposed measures to preserve or enhance wildlife, if any:
Does not apply, there is no specific site being addressed by this plan.

e. List any invasive animal species known to be on or near the site.
Does not apply, there is no specific site being addressed by this plan.

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.

Several of the activities recommended in the SWMP will require small additional amounts of electrical power to support normal, everyday activities.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

Does not apply, there is no specific site being addressed by this plan.

c. 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:

Does not apply, there is no specific site being addressed by this plan.

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.

No, although the SWMP recommends continuing or expanding technical assistance to business generators of hazardous wastes and increased publicity for the household hazardous waste collection facility, which should help prevent these types of problem in the future, see Section 8.8 for more details.

1) Describe any known or possible contamination at the site from present or past uses.

Does not apply, there is no specific site being addressed by this plan.

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.

Does not apply, there is no specific site being addressed by this plan.

- 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.

Does not apply, there is no specific site being addressed by this plan.

- 4) Describe special emergency services that might be required.

Does not apply, there is no specific site being addressed by this plan.

- 5) Proposed measures to reduce or control environmental health hazards, if any:

Does not apply, there is no specific site being addressed by this plan.

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Does not apply, there is no specific site being addressed by this plan.

- 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.

Does not apply, there is no specific site being addressed by this plan.

- 3) Proposed measures to reduce or control noise impacts, if any:

Does not apply, there is no specific site being addressed by this plan.

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.

Does not apply, there is no specific site being addressed by this plan.

- 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?

Does not apply, there is no specific site being addressed by this plan.

- 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:

Does not apply, there is no specific site being addressed by this plan.

- c. Describe any structures on the site.

Does not apply, there is no specific site being addressed by this plan.

- d. Will any structures be demolished? If so, what?

Does not apply, there is no specific site being addressed by this plan.

- e. What is the current zoning classification of the site?

Does not apply, there is no specific site being addressed by this plan.

- f. What is the current comprehensive plan designation of the site?

Does not apply, there is no specific site being addressed by this plan.

- g. If applicable, what is the current shoreline master program designation of the site?

Does not apply, there is no specific site being addressed by this plan.

- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Does not apply, there is no specific site being addressed by this plan.

- i. Approximately how many people would reside or work in the completed project?

Does not apply, there is no specific site being addressed by this plan.

- j. Approximately how many people would the completed project displace?

Does not apply, there is no specific site being addressed by this plan.

- k. Proposed measures to avoid or reduce displacement impacts, if any:

Does not apply, there is no specific site being addressed by this plan.

- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Does not apply, there is no specific site being addressed by this plan.

- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

Does not apply, there is no specific site being addressed by this plan.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

Does not apply.

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Does not apply.

- c. Proposed measures to reduce or control housing impacts, if any:

Does not apply.

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?

Does not apply.

- b. What views in the immediate vicinity would be altered or obstructed?

Does not apply.

- c. Proposed measures to reduce or control aesthetic impacts, if any:

Does not apply.

11. Light and glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Does not apply, there is no specific site being addressed by this plan.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

Does not apply, there is no specific site being addressed by this plan.

- c. What existing off-site sources of light or glare may affect your proposal?

Does not apply, there is no specific site being addressed by this plan.

- d. Proposed measures to reduce or control light and glare impacts, if any:

Does not apply, there is no specific site being addressed by this plan.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

Does not apply, there is no specific site being addressed by this plan.

- b. Would the proposed project displace any existing recreational uses? If so, describe.

Does not apply, there is no specific site being addressed by this plan.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

Does not apply, there is no specific site being addressed by this plan.

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 located on or near the site? If so, specifically describe.

Does not apply, there is no specific site being addressed by this plan.

- 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.

Does not apply, there is no specific site being addressed by this plan.

- 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.

Does not apply, there is no specific site being addressed by this plan.

- 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.

Does not apply, there is no specific site being addressed by this plan.

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.

Does not apply, there is no specific site being addressed by this plan.

- 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?

Does not apply, there is no specific site being addressed by this plan.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

Does not apply, there is no specific site being addressed by this plan.

- 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).

Does not apply, there is no specific site being addressed by this plan.

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

Does not apply, there is no specific site being addressed by this plan.

- 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 nonpassenger vehicles). What data or transportation models were used to make these estimates?

Does not apply, there is no specific site being addressed by this plan.

- 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.

Does not apply, there is no specific site being addressed by this plan.

- h. Proposed measures to reduce or control transportation impacts, if any:

Does not apply, there is no specific site being addressed by this plan.

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.

Does not apply.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

Does not apply, there is no specific site being addressed by this plan.

16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

Does not apply, there is no specific site being addressed by this plan.

- 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.

Does not apply, there is no specific site being addressed by this plan.

C. SIGNATURE

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

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?

By providing for secure disposal of solid wastes and increased recycling activities, the SWMP is expected to decrease impacts and discharges to water and air, and to provide for more secure handling of toxic or hazardous substances that may be part of the solid waste stream. No substantial increases or decreases in noise levels are expected as a result of the SWMP's recommendations.

Proposed measures to avoid or reduce such increases are:

Does not apply.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

No significant impacts to plant, animal, fish, or marine life are expected.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

Does not apply.

3. How would the proposal be likely to deplete energy or natural resources?

A small amount of energy and materials will be needed to implement the recommendations in the SWMP, but this is expected to be more than offset by the energy and resources conserved as the result of increased waste prevention, recycling and composting recommended by the plan.

Proposed measures to protect or conserve energy and natural resources are:

Does not apply.

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?

No substantial impacts, either positive or negative, to environmentally sensitive or other protected areas are expected to result from the recommendations in the SWMP.

Proposed measures to protect such resources or to avoid or reduce impacts are:

Does not apply.

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?

No substantial impacts, either positive or negative, to land and shoreline use are expected to result from the recommendations in the SWMP.

Proposed measures to avoid or reduce shoreline and land use impacts are:

Does not apply.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

Minor changes are proposed for public services and to several aspects of the waste collection system.

Proposed measures to reduce or respond to such demand(s) are:

None.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

The SWMP was prepared in response to a State requirement for the proper management of solid waste, and it is intended to comply with all applicable local, state and federal laws and requirements regarding protection of the environment.

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Appendix F – WUTC Cost Assessment

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APPENDIX F - WUTC COST ASSESSMENT QUESTIONNAIRE

INTRODUCTION

By state law (RCW 70.95.090), solid waste management plans are required to include:

“...an assessment of the plan’s impact on the costs of solid waste collection. The assessment shall be prepared in conformance with guidelines established by the Utilities and Transportation Commission (WUTC or Commission). The Commission shall cooperate with the Washington state association of counties and the association of Washington cities in establishing such guidelines.”

The following WUTC Cost Assessment Questionnaire (Questionnaire) has been prepared in accordance with the guidelines prepared by the WUTC (WUTC October 2019). The purpose of this Questionnaire is not only to allow an assessment of the impact of proposed activities on current garbage collection and disposal rates, but to allow projections of future rate impacts as well. The WUTC requests this information in order to review the plan’s impacts to the waste haulers that it regulates. For these haulers, WUTC is responsible for setting collection rates and approving proposed rate changes. Hence, WUTC will review the following cost assessment to determine if it provides adequate information for rate-setting purposes, and will advise Thurston County (County) as to the probable collection rate impacts of proposed programs. Consistent with this purpose, the cost assessment focuses primarily on those programs (either implemented or recommended) with potential rate impacts.

Thurston County Cost Assessment Questionnaire

Prepared By: Josiah Close, HDR

Telephone: (425) 450-6245

Email: Josiah.Close@hdrinc.com

Date: June 2, 2020

Definitions: The Solid Waste Management Plan (Plan) is a long-term strategy that includes management, storage, collection, diversion, transportation, use, processing, and final disposal of the County’s solid waste. The Plan covers a twenty year span and the Questionnaire has defined the period of review for the cost assessment in the Table 1 below.

Table 1. Period of Review	
Year	Plan Year
1	2021
2	2022
3	2023
4	2024
5	2025
6	2026

Thurston County's fiscal year is the same as the calendar year (CY) - that is - January through December. The County worked in conjunction with local governments and citizens as well as HDR to develop a county wide comprehensive plan. No other jurisdictions have developed a plan exclusive of Thurston County.

Demographics

The data source for population projections used in the development of the plan is the Washington State Office of Financial Management (OFM). In order to maintain a conservative yet accurate approach, the projections utilize the “medium” case figures. The base year (estimated 2019) and the associated populations are detailed in the table below as well as the assumed percentage increases from the plan years one through six. The 2019 population of 285,800 was taken from Table 2-1 of the Plan and is utilized as the starting point. This figure was then projected for 2021 through 2026 by extrapolating the projected population growth with the help of addition projection data from OFM for 2025. The table below shows the population projection by year.

Year	Plan Year	Thurston County Population	Percentage Change
1	2021	295,600	1.7%
2	2022	300,625	1.7%
3	2023	305,736	1.7%
4	2024	310,933	1.7%
5	2025	316,508	1.8%
6	2026	321,889	1.7%

Note 1: based on the population change from 2019

Waste Stream Generation

The following table details the estimated waste generation and recycling tonnage for Thurston County. Waste generation is estimated at 7.22 pounds per person per day, based on Table 2-2 in the Plan.

Year	Plan Year	Waste Generation (Tons)	MSW Disposed (Tons)	Recycled & Diverted (Tons)	Other Waste (Tons)
1	2021	389,497	213,630	174,105	1,762
2	2022	396,119	217,262	177,065	1,792
3	2023	402,853	220,955	180,075	1,822
4	2024	409,701	224,711	183,136	1,853
5	2025	417,047	228,740	186,420	1,887
6	2026	424,137	232,629	189,589	1,919

It is important to note that the recycling rate is assumed at 44.7% which is an unrounded version of the figure from the Plan of 45%. This was done in order to maintain the appropriate relationships in the projection of solid waste tonnages, specifically for the non-recyclables or other waste.

Waste Generation Assumptions:

- Figures, except the year, are shown as tons per year (TPY). Projected waste generation figures for 2021 through 2026 are based on the waste generation rate for

2017 (7.22 pounds per person per day) which is based on Ecology tonnage records in conjunction with the population forecasts from the Washington State Office of Financial Management.

- The projected amounts of recycling and diversion, disposed municipal solid waste (MSW), and other wastes assume the same percentage of the total waste generated as in 2017
- MSW Disposed per person per day is 3.96 pounds or 1,445 pounds per year
- Other wastes include construction, demolition, and land clearing wastes disposed at limited purpose landfills and special wastes

System Program Component Costs

System costs reported in this questionnaire are funded by County revenues and through nominal grants.

Waste Reduction Programs

Existing education and outreach waste reduction programs implemented by Thurston County:

- “Pay-as-you-throw” rates
- Public education and outreach
- Curbside recycling services
- Drop box sites
- Public event recycling

The costs of providing the waste reduction programs are included within Thurston County’s overall Solid Waste Division budget and are funded through County revenues.

Solid Waste Collection Programs

Curbside collection of MSW and recyclables are conducted by the City of Olympia within its city limits and Waste Connections (Certificate G-98) for other areas, both incorporated and unincorporated within the County. The following table details information about the WUTC-regulated collection in Thurston County that operate within the area. Shown below is a summary of the waste collection by entity and includes the entity responsible for collection.

Table 4. MSW and Recycling Collection within Thurston County							
Collection Entity		2021	2022	2023	2024	2025	2026
City of Olympia	Pop	54,579	55,507	56,451	57,411	58,440	59,433
	Tons	71,917	73,139	74,383	75,647	77,003	78,312
Waste Connections	Pop	241,020	245,118	249,285	253,523	258,068	262,455
	Tons	317,580	322,979	328,470	334,054	340,043	345,824
Total Population		295,600	300,625	305,736	310,933	316,508	321,889
Total Tons		389,497	396,119	402,853	409,701	417,047	424,137

* Projected 2021 through 2026 data based on assumed waste generation rates and population growth rates applied to 2019 population estimate and 2017 Ecology tonnage data

The County also has a transfer system consisting of a transfer station facility (Waste and Recovery Center (WARC)), and two rural drop box facilities, the Rainier Drop-Box facility and the Rochester Drop-Box facility.

Organics Collection Programs

Curbside and commercial collection of yard waste has been available in the County since the 1990's. The City of Olympia began curbside collection of yard waste from residential customers in 1994. Waste Connections began offering yard waste collection in 1997. With the opening of a composting facility in the County in 2008, Silver Springs Organics, food, food-soiled paper, and some types of compostable plastics were added to the yard waste collection programs provided by the City of Olympia and Waste Connections. This mixed organics collection service provided opportunities to divert larger quantities of organic materials from landfilling. Subscription to these services is voluntary and the table below provides information on the number of organics collection subscribers in 2019.

Table 5. Organics Collection Subscribers (2019)			
	City of Olympia	Waste Connections	Totals
Residential	8,619	21,255	29,874
Multi-Family & Com	<u>173</u>	<u>180</u>	<u>353</u>
Total	8,792	21,435	30,227

Currently, self-haul customers at the WARC can also drop off yard debris and clean wood at a reduced rate in a separate area where the material is ground and transported off-site for composting. Curbside collection trucks unload in a separate area for mixed organics that are collected from both commercial and residential customers. This material is also ground and transported off-site for composting. In 2019, 30,317 tons of organics were accepted at the WARC; 9,859 tons from self-haulers and 20,458 tons from curbside collection. Shown below is a table with the projected tons of organics collected as part of the MSW. The 2014 Waste Composition Study was used as the basis for the projection and concluded that approximately 31.4% of the MSW collected was organics based on

section 5.3.12.1 of the SWMP on page 5-9. There is currently no revenues to offset the expenses so it is assumed that the program is funded through the tip fee revenues. The costs for the organics program were based on the 2019 value and escalated to calculate the projected costs for 2021 through 2026.

Year	Plan Year	Organics (Tons)	Program Costs	Funding
1	2021	67,080	\$1,351,730	Tip Fee
2	2022	68,220	1,392,282	Tip Fee
3	2023	69,380	1,439,619	Tip Fee
4	2024	70,559	1,482,808	Tip Fee
5	2025	71,824	1,527,292	Tip Fee
6	2026	73,045	1,573,111	Tip Fee

Recycling Programs

Currently, the City of Olympia and Waste Connections provide curbside recycling collection services in the cities, town and unincorporated areas of the County. Commercial-sector recycling collection is also available County-wide. The County offers technical assistance services to businesses on request. The City of Olympia and Waste Connections provide recycling collection service to commercial customers. Additionally, in order to comply with State law requiring public recycling events, the County offers recycling bins at no charge for use at such events. The recyclables collected at these events can be delivered to WARC, Rainier and Rochester Drop Box Sites or recycled through the City of Olympia and Waste Connections. The County further incentivizes recycling by providing recycling bins at its three solid waste sites, WARC and Rainier and Rochester Drop Box Sites for its self-haul customers by accepting source-separated recyclables at no cost in advance of weighing vehicles at the scale plazas. The table below shows the market and financial performance by recyclable material which was based on Table 5-2 in the Plan. In total, the County provided information indicating that the revenues from recycling did not cover the expenses completely which is unfortunately, a typical finding in the current market for recycled materials. It is assumed that any shortfall is funded through the tipping fee.

Table 7. Recyclable Markets		
Material	Primary Market(s)	Revenues > Processing Costs
Paper		
Cardboard	Regional paper markets, paper mills and export	Yes
Mixed Waste Paper and Newspaper	Regional paper markets, paper mills and export	No
Plastics		
Bottles #1 through #7	Regional markets in W. Washington, Oregon, and export	No
Other Plastics	Primarily export	No
Metals		
Aluminum	Regional markets in W. Washington Oregon, and St. Louis	Yes
Tin cans, appliances, and ferrous and non-ferrous scrap	Regional markets in W. Washington and Oregon	Yes
Glass		
Clear Glass	Regional markets in W. Washington and Oregon	No
Brown and Green Glass	Regional markets in W. Washington and Oregon	No
Organics		
Wood	Hog fuel, mulch (clean wood only)	No
Yard Debris	Compost	No

The assumed recycling rate is 44.7% of the total waste collected and this rate was used to project the future amount of recycling tons. It is important to note that this rate is an unrounded version of the figure from the Plan of 45%. This was done in order to maintain the appropriate relationships in the projection of solid waste tonnages, specifically for the non-recyclables or other waste. The table below shows a projection of recycling and non-recyclable tons based on the 2019 data from Table 2-2 in the Plan and the 2019 costs escalated for 2021 through 2026.

Table 8. Recycling Projection of Tons and Costs					
Year	Plan Year	Recycling (Tons)	Program Costs	Funding	Other Non-Recyclables (Tons)
1	2021	174,105	\$173,390	Recycling Revenues & Tip Fee	1,762
2	2022	177,065	178,592	Recycling Revenues & Tip Fee	1,792
3	2023	180,075	184,664	Recycling Revenues & Tip Fee	1,822
4	2024	183,136	190,204	Recycling Revenues & Tip Fee	1,853
5	2025	186,420	195,910	Recycling Revenues & Tip Fee	1,887
6	2026	189,589	201,788	Recycling Revenues & Tip Fee	1,919

Energy Recovery & Incineration (ER&I) Programs

Solid waste from Thurston County is disposed at Roosevelt Regional Landfill (RRL) located in Klickitat County. The RRL recovers energy through direct combustion of collected landfill gas to electric and through conversion of landfill gas to pipeline quality compressed natural gas.

Land Disposal Program

In 1998, the County contracted with Regional Disposal Company (now Republic Services) to export waste to RRL. The Waste Export and Disposal Agreement was executed in 1998 for an initial 10-year terms that began with the start of transfer station operations on May 1, 2000. This agreement was extended beginning in May 2020 through May 2023 with an option to renew for an additional two-year period. The following tables detail the total projected amount of MSW tons.

Table 9. Total Solid Waste Disposal

	2021	2022	2023	2024	2025	2026
Total MSW Tons	213,630	217,262	220,955	224,711	228,740	232,629

Expenses

The project expenses (2021 – 2026) for the County are shown below are based on cost figures escalated from the 2020 budget by assumed inflationary factors.

Table 10. Projected Expenses

	2021	2022	2023	2024	2025	2026
Total Expenses (\$000s)	\$25,340	\$26,118	\$27,202	\$28,331	\$29,201	\$30,098
MSW Tons	213,630	217,262	220,955	224,711	228,740	232,629
Cost per MSW Ton	\$118.62	\$120.22	\$123.11	\$126.08	\$127.66	\$129.38

Funding Mechanisms

System costs reported in this questionnaire - such as recycling programs, waste reduction efforts, organics collection, etc. - are funded by fees collected by the County. Thurston County also receives grant monies for solid waste management planning activities such as the Countywide Litter Control Project. Provided in the table below is a summary of the revenues received by the County based on the 2020 Budget.

Table 11. 2020 Budgeted Revenues

System Funding Source	2020 Budget	Funding Percentage
Administrative Fees	\$25,923,000	99.8%
Grants	51,000	0.2%
Other – Reimburse Contracts	<u>11,400</u>	0.0%
Total Funding Sources	\$25,985,400	

The County Solid Waste Division is funded by the fees collected at the scale houses located at the WARC and the Rainier and Rochester Drop Box sites.

The following assumptions were used to project revenues and expenses:

- **Revenues**
 - Customer Growth – 1.0%
 - Misc. Revenue – 1.0%
- **Expenses**
 - Personnel – 3.5%
 - Internal Services – 3.0%
 - Professional Services – 3.0-5.0%
 - Operating Costs – 3.0%
 - Miscellaneous – 2.5%
 - Flat – 0.0%
 - General Inflation – 3.0-3.4%

Table 12. Thurston County Projected Budget 2021 to 2026 (\$000s)						
Costs	2021	2022	2023	2024	2025	2026
Revenues						
Service Revenue	\$26,182	\$26,444	\$26,708	\$26,976	\$27,245	\$27,518
Rev from Rate Adj.	789	1,617	2,487	3,252	3,898	4,568
Other Misc. Revenue	<u>113</u>	<u>114</u>	<u>115</u>	<u>116</u>	<u>118</u>	<u>119</u>
Total Revenue	\$27,084	\$28,176	\$29,311	\$30,344	\$31,261	\$32,205
Expenses						
Expenses	\$25,340	\$26,118	\$27,296	\$28,134	\$28,998	\$29,888
Reserves & Taxes	1,294	1,557	1,490	1,660	1,688	1,717
Closure / Post Closure	0	0	0	0	0	0
Capital	<u>450</u>	<u>500</u>	<u>525</u>	<u>550</u>	<u>575</u>	<u>600</u>
Total Expenses	\$27,084	\$28,176	\$29,311	\$30,344	\$31,261	\$32,205
<i>Bal. / (Def.) of Funds</i>	\$0	\$0	\$0	\$0	\$0	\$0

The table above utilizes the County’s 2020 budgeted revenues and expenses. Those are then inflated by the escalation factors that were shown previously. As can be seen, over time - as expenses increase - the revenues are not sufficient to fully fund the utility. One important component of the County’s expenses is the costs related to operations which is contracted out. The current agreement runs through May of 2023. This line item increases annually at 3.0% through 2022. However, given the unknown impacts of future negotiations, the analysis has increased these costs by 5.0% in 2023 in anticipation of any additional changes to operations costs as part of the agreement. Therefore, given the deficiency of funds in 2021 through 2026 based on the projected 2020 budget, it is recommended that the County should address this by either a future revenue adjustment or expense reduction. Additionally, as it is projected that the population – and therefore solid waste tonnage – will increase in the next five years the County should strategize about how this transition should happen as some costs may not increase proportionally with the service population while maintaining the same, high level of service from the County.

Appendix G – Agency Comments and County Responses

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Appendix H – Capital Projects

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Table 6-6
Public Works - Solid Waste
2021 - 2026

REVENUES FOR PROJECTS					2021	2022	2023	2024	2025	2026	6-Yr. Total
Fund Source											
1	Solid Waste Tipping Fees, Rates and Charges				\$4,933,454	\$650,000	\$4,120,000	\$7,310,000	\$5,350,000	\$1,100,000	\$23,463,454
2	TOTALS				\$4,933,454	\$650,000	\$4,120,000	\$7,310,000	\$5,350,000	\$1,100,000	\$23,463,454
EXPENDITURES FOR PROJECTS					2021	2022	2023	2024	2025	2025	6-Yr. Total
3	Project Name	Fund Source	Urban Growth Area	Project Phase							
4	Sump/Vault Access Hatch and Well Cover Replacement/Retrofit	SWF	City of Lacey	C	\$10,000						\$10,000
5	Flare Station	SWF	City of Lacey	C	\$455,000						\$455,000
6	SCADA System Replacement	SWF	City of Lacey	C	\$522,000						\$522,000
7	Rochester - Renovation, Security and Utility Upgrades, and Scale Installation	SWF	Rural Thurston County	Eng/C	\$1,698,227						\$1,698,227
8	Rainier - Renovation, Security and Utility Upgrades, and Scale Installation	SWF	City of Rainier	Eng/C	\$1,698,227						\$1,698,227
9	Pump Systems Upgrades and Improvements	SWF	City of Lacey				\$3,000,000				\$3,000,000
10	Security, Technology and Site Improvements	SWF	City of Lacey	Eng/C	\$100,000	\$500,000					\$600,000
11	Transfer Station Operations Facilities Upgrades and Improvements	SWF	City of Lacey	Eng/C	\$50,000	\$50,000		\$210,000			\$310,000
12	Transfer Station Sort Line Removal	SWF	City of Lacey				\$160,000				\$160,000
13	Transfer Station Compactor Overhaul and Maintenance	SWF	City of Lacey				\$960,000				\$960,000
14	Public Tipping Area With New Scales and Scalehouses	SWF	City of Lacey	Eng/C	\$300,000			\$7,000,000			\$7,300,000
15	New Administrative Operations Facilities	SWF	City of Lacey						\$5,250,000		\$5,250,000
16	Site Differential Settlement Repairs	SWF	City of Lacey							\$1,000,000	\$1,000,000
17	General Facilities Renovations and Upgrades Program '21-'22	SWF	City of Lacey / Rural	Eng/C	\$100,000	\$100,000					\$200,000
18	General Facilities Renovations and Upgrades Program '23-'26	SWF	City of Lacey / Rural				\$100,000	\$100,000	\$100,000	\$100,000	\$300,000
19	TOTALS				\$4,933,454	\$650,000	\$4,120,000	\$7,310,000	\$5,350,000	\$1,100,000	\$23,463,454

Legend:

SWF - Solid Waste Tipping Fees, Rates and Charges

Light grey shading, normal font - closeout project

Medium grey shading, bold font - construction project

Black shading, white font - engineering project

Dropped Projects:

Closed Landfill - Completion of Landfill Cover on Southern Slope of 70-Acre Cell

General Stormwater Maintenance & Improvements (included in M&O Fund)

Rainier/Rochester Drop Box Maintenance Program (included in M&O Fund)

Revised Project Timing:

Differential Settlement Repair

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**Public Works - Solid Waste
2021 - 2040**

REVENUES FOR PROJECTS										
Fund Source		2021	2022	2023	2024	2025	2026-2030	2031-2035	2036-2040	20-Yr. Total
Solid Waste Tipping Fees, Rates and Charges		\$4,933,454	\$650,000	\$4,120,000	\$7,310,000	\$5,350,000	\$6,558,000	\$4,651,400	\$1,320,000	\$34,892,854
TOTALS		\$4,933,454	\$650,000	\$4,120,000	\$7,310,000	\$5,350,000	\$6,558,000	\$4,651,400	\$1,320,000	\$34,892,854
EXPENDITURES FOR PROJECTS										
Project Name	Urban Growth Area	2021	2022	2023	2024	2025	2026-2030	2031-2035	2036-2040	20-Yr. Total
Sump/Vault Access Hatch and Well Cover Replacement/Retrofit	City of Lacey	\$10,000					\$0	\$0	\$0	\$10,000
Flare Station	City of Lacey	\$455,000					\$50,000	\$0	\$0	\$505,000
SCADA System Replacement & Improvements	City of Lacey	\$522,000					\$50,000	\$75,000	\$0	\$647,000
Rochester - Renovation, Security and Utility Upgrades, and Scale Installation	Rural Thurston County	\$1,698,227					\$24,000	\$0	\$0	\$1,722,227
Rainier - Renovation, Security and Utility Upgrades, and Scale Installation	City of Rainier	\$1,698,227					\$3,024,000	\$0	\$0	\$4,722,227
Drop Box Upgrades and Improvements	City of Lacey						\$0	\$96,000	\$0	\$96,000
Pump Systems Upgrades and Improvements	City of Lacey			\$3,000,000			\$0	\$1,500,000	\$0	\$4,500,000
Security, Technology and Site Improvements	City of Lacey	\$100,000	\$500,000				\$1,500,000	\$0	\$200,000	\$2,300,000
Transfer Station Operations Facilities Upgrades and Improvements	City of Lacey	\$50,000	\$50,000		\$210,000		\$90,000	\$1,710,000	\$130,000	\$2,240,000
Transfer Station Sort Line Removal	City of Lacey			\$160,000			\$0	\$0	\$0	\$160,000
Transfer Station Compactor Overhaul and Maintenance	City of Lacey			\$960,000			\$0	\$0	\$0	\$960,000
Public Tipping Area With New Scales and Scalehouses	City of Lacey	\$300,000			\$7,000,000		\$0	\$0	\$0	\$7,300,000
New Administrative Operations Facilities	City of Lacey					\$5,250,000	\$150,000	\$0	\$200,000	\$5,600,000
Site Differential Settlement Repairs	City of Lacey						\$1,150,000	\$470,400	\$250,000	\$1,870,400
Closed Landfill Upgrades and Improvements	City of Lacey						\$20,000	\$60,000	\$40,000	\$120,000
Covered Equipment Repair Area	City of Lacey						\$0	\$240,000	\$0	\$240,000
General Facilities Renovations and Upgrades Program '21-'22	City of Lacey / Rural	\$100,000	\$100,000				\$0	\$0	\$0	\$200,000
General Facilities Renovations and Upgrades Program '23-'26	City of Lacey / Rural				\$100,000	\$100,000	\$500,000	\$500,000	\$500,000	\$1,700,000
TOTALS		\$4,933,454	\$650,000	\$4,120,000	\$7,310,000	\$5,350,000	\$6,558,000	\$4,651,400	\$1,320,000	\$34,892,854

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